

The 15th International Symposium on Bilingualism (ISB15)

– The different faces of bilingualism –



INTERNATIONAL SYMPOSIUM ON **BILINGUALISM**

SAN SEBASTIAN · SPAIN · JUNE 9TH - 13TH · 2025

June 9th – 13th, 2025
Donostia-San Sebastián
Basque Country, Spain

Organizer



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Welcome

We are delighted to welcome you to the **15th International Symposium on Bilingualism**, held in the beautiful city of Donostia–San Sebastián.

Since its inaugural meeting in 1997 at Newcastle University, the International Symposium on Bilingualism (ISB) has grown into the most significant international forum for research on bi- and multilingualism. Held biennially, the symposium brings together scholars from a wide range of disciplines, including linguistics, psychology, neuroscience, education, and sociology. ISB is dedicated to advancing both theoretical and applied research in bi-/multilingualism and to supporting multilingual practices in communities worldwide.

The theme of ISB15 is **“The Different Faces of Bilingualism”**. This broad theme reflects ISB’s mission to bring together researchers with diverse interests, methodologies, and perspectives. It also highlights the multidisciplinary nature of the organizing committee, based at a center of excellence for language and neuroscience. Finally, our theme honors the unique context of the Spanish Basque Country—one of the few regions in the world that has successfully revitalized its bilingual heritage across all aspects of society.

This year’s program reflects the rich diversity of the ISB community: nearly 1,000 contributions have been included across 12 scientific areas by researchers from all over the world. We hope the intellectually stimulating environment of ISB15 offers many opportunities to exchange ideas, explore emerging research, and build lasting collaborations.

We are honored to host a number of the world’s leading scientists as keynote speakers, and we thank them for sharing their unique perspectives on bilingualism. We are also deeply grateful to our symposium, talk, and poster presenters for their valuable contributions, as well as to all attendees, workshop chairs, reviewers, and sponsors. Your collective participation is what makes ISB15 a vibrant and successful conference.

Organizing a conference of this scale would not have been possible without the dedication and support of many people. We would like to extend our heartfelt thanks to the BCBL administrative staff, especially **Leire Arietaleanizbeascoa** and **Oihana Vadillo**, for their invaluable assistance. Our deepest gratitude also goes to the **ISB15 area chairs**, who played a central role in shaping the program and ensuring its quality.

We hope you enjoy the conference and your time in Donostia–San Sebastián.

Antje Stoehr & Clara Martin
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Pharmacies are called *farmacia* (Spanish) and *botika* (Basque). They are easily recognized by a green cross and are widely available across the city. The closest pharmacy to the Kursaal is Farmacia Arrazola, located at Calle Peña y Goñi, 2, just a short walk from the venue.

National Emergency Number

112 (Police, Fire, Ambulance)

Tourist Information

A tourist information desk is available in the reception area throughout the conference. Staff can assist with sightseeing, local attractions, dining recommendations, and more.

Getting around

Getting around San Sebastián is simple and convenient. The city is very walkable, and most major attractions are within easy walking distance of the Kursaal conference venue. For longer distances, local buses operated by Dbus provide reliable public transportation; tickets can be purchased onboard using cash or a credit/debit card. Visitors can also download the Dbus app or visit www.dbus.eus for up-to-date route maps and schedules. Taxis are readily available at designated taxi ranks throughout the city and can also be booked using local apps such as Taxi Donosti or PideTaxi. Additionally, bikes and electric scooters are available for rent across San Sebastián, offering a flexible and enjoyable way to explore the city.

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Keynote Abstracts

Neurocognitive signatures of accented speech processing

Janet van Hell¹

¹Department of Psychology and Center for Language Science, The Pennsylvania State University

Most late second language (L2) learners, even those with high L2 proficiency, have a noticeable accent in their L2. Nonnative-accented speech can pose comprehension challenges, as listeners must reconcile incoming deviating acoustic signals with their existing L1-based phonological representations. These challenges can be exacerbated when the nonnative-accented speech is embedded in noise, as may happen when you listen to your friend in a noisy restaurant or to your colleague during the conference coffee break. How do listeners process the speech produced by nonnative-accented speakers? I will discuss recent behavioral and electrophysiological (EEG/ERP) evidence on how listeners process semantic and syntactic information in sentences spoken by nonnative- and native-accented speakers. More specifically, I will discuss studies that examined how nonnative- and native-accented sentence processing is affected by listeners' own language experience, information about the speaker's identity, and noisy vs. quiet environments. Together these findings highlight the importance of integrating the impact of socio-indexical cues, listener experience, and environmental features in theoretical models on how listeners process speech produced by nonnative-accented speakers.

Monday, June 9, 9:00

The social role of bilinguals in building cross-cultural trust

Anthony Pym¹

¹Universitat Rovira i Virgili

The COVID years saw a shift in multilingual communication policies in many countries, including Australia, where the work of professional translators was supplemented with funding for community-based mediation practices. Bilinguals are clearly engaged in both kinds of communication, but the relation between the two is not without tension and in some cases gives rise to open debate.

One way to understand the different roles is to analyze the implicit appeals made to the trustworthiness of the bilingual translator or mediator. On the one hand, the professional translator claims accuracy to the text based on their own institutional qualifications and language skills. This seeks 'thin trust', since the trustee is known only as a professional translator. On the other, the community-based mediator claims to convey a personally understood truth and seeks to be trusted as a community member, as has traditionally happened when one generation of immigrants prepares the way for the following one. They seek various kinds of 'thick trust', based on multifaceted social relations. Shadowing both these roles, one also finds active distrust in translators and mediators, which in turn can be thick or thin.

These distinctions help explain the different discursive practices we identified through extensive interview studies of the way healthcare messaging was received in different ethno-specific communities in Melbourne. Different kinds of trust and distrust come to the fore in different language communities, often in accordance with variable trust in institutional authority in the different home countries. In terms of multilingual communication policy, this can lead to problematic role confusion unless policies pay careful attention to consultation and co-design in the funding of mediation activities.

Our research shows that the apparent opposition between professional translators and non-professional community-based mediators is in many respects superficial. Its more contentious aspects can be mitigated by providing untrained mediators with short-term training in translation ethics and situation management, to complement the basic language skills that come with heritage bilingualism.

Monday, June 9, 18:00

Early bilingualism in close-language contexts: commonalities and specificities

Laura Bosch¹

¹Faculty of Psychology, University of Barcelona

Bilingualism is a broad construct covering a range of dual language learning contexts present in different socio-educational environments. A quick overview of the bilingual language acquisition literature reveals an evolution from the initial research, which focused on language differentiation issues, to more recent studies where a more nuanced approach on factors likely to modulate dual language learning is gradually being adopted. In consequence, general conclusions from the first studies have given way to more specific views on the learner and the learning contexts. Factors such as age of acquisition, quantity/quality of exposure and interactive situations, cognitive skills and strategies by the learner, as well as language properties and status, to mention but a few, have gained focus in research. At the same time, bilingual samples under study tend to be more precisely identified, avoiding data from heterogeneous groups that might make interpretation difficult. In this talk I will review studies based on infants and children exposed to Catalan and Spanish, a pair of languages that are similar from a geographic, rhythmic, phonological, lexical and grammatical perspective; and I will contrast these studies with data obtained from populations exposed to languages that are less similar. I will selectively structure the talk in two separate but interconnected areas: 1) early language differentiation, and 2) the building of dual phonological systems. This overview will help identify research topics and questions that remain open to future studies on early bilingualism.

Tuesday, June 10, 9:00

Bridging morphemes, bridging languages: a study of bilingual creativity in southern Africa

Rajend Mesthrie¹

¹University of Cape Town

Code-switching (which I use as a cover term for a range of overlapping phenomena and terms, some better motivated than others) continues to be an area of study that keeps on giving. Sociolinguistics has been enriched by approaches stressing discourse and conversation (e.g. Gumperz 1972), pragmatic effects (e.g. Myers-Scotton 1993a), multilingual identity (e.g. Gardener-Chloros 1991, Zentella 1997), psycholinguistic and structural integration (Muysken 2000, Myers-Scotton 1993b), speaker variation (Poplack 1980), creativity (Blackledge & Creese 2017, Sebba 2009) and potential in education (Williams 1994, Canagarajah 2011, Makalela 2016). Approaches from a generative persuasion (Pfaff 1979, De Swann 2009) take a less enthusiastic view in hypothesising “no separate grammar for code-switching”, positing no special syntactic mechanisms – in contrast to the novelty (and apparent bricolage) emphasised by sociolinguists. Yet attention to psycholinguistics and structure need not be incompatible with sociolinguistic appreciation and analysis of creativity.

This keynote talk will focus on bridging phenomena in code switching – structural elements that facilitate a transition from one language to the other. These differ from the trigger or polyvalent (ambi-valent?) words identified by early analysts (e.g. Clyne 1967, Woolard 1999) which are chiefly lexical items that may be said to belong to both languages. Among the strategies included under bridging is the occurrence of doubling, when a structural morpheme is repeated from the “other” language to facilitate integration into the code-switching syntax. A more central type of bridging is elaborated in this paper building on the work of Mesthrie & Mojapelo (2024), on “multilingual Xhosa” in Gauteng province, South Africa. Xhosa (or isiXhosa) speakers engage with English in higher education and beyond as an unavoidable and much-embraced language, while valuing Xhosa as a language of intimacy, community and heritage. As a consequence, highly educated multilingual speakers appear to have evolved a third space showing not just convergence (McCormick 2003, Sebba 2009) but the active analysis of English words (lexemes) while using Xhosa syntax. At the same time new bridging morphemes like -isha for English verbs and ubu- for English adjectives appear (or are co-opted) to activate this third space.

Wednesday, June 11, 9:00

Multilingualism, minority languages and translanguaging

Jasone Cenoz¹

¹University of the Basque Country

This keynote presentation, which has the different faces of bi/multilingualism as its point of departure, focuses on the intersection of multilingualism, minority languages and translanguaging in education. After discussing some key concepts, the characteristics of regional minority languages and their importance in the study of multilingualism will be highlighted. Specific attention will be paid to the Basque language as a minority language, its historical context, and the language policy to promote its knowledge and use in society.

The second part of the presentation relates the situation of regional minority languages to translanguaging in education and will reflect on issues such as the survival of minority languages, minority language speakers' language identity and the potential advantages and risks of translanguaging for the survival of languages such as Basque. Furthermore, this presentation will look at the challenges that Basque faces nowadays in a globalized digitalized world. The presentation will call attention to the need to achieve a balance between the use of multilingual pedagogies, and the need for "breathing spaces" for minority languages, that is, spaces where the minority languages can be used freely and are not threatened by other languages. It will be shown how this balance can be achieved by implementing pedagogical translanguaging. This approach is understood as the use of different planned strategies and is based on activating students' resources from their whole linguistic repertoire so that they learn more efficiently, both in language and in content classes. Pedagogical translanguaging is sustainable and aims at the development of multilingual skills for both majority and minority language speakers.

The teaching of minority languages or academic content through the medium of minority languages is challenging because it has some specific characteristics, but the body of experience on different minority languages can inform other contexts of language learning in education and in the wider society.

Wednesday, June 11, 18:00

Unpacking Developmental Language Disorder: Assessment in Bilingual Contexts

Elizabeth D. Peña¹

¹School of Education, University of California, Irvine

The last 20 years have seen an increased interest in bilingual assessment for identification of DLD. While we have an increased understanding of bilingual development, many myths persist that affect identification of DLD. A focus on markers across different languages has moved us forward in better understanding how to construct measures to identify DLD in bilingual populations. This shift has resulted in development of better measures with good classification accuracy when children are tested in both languages and their patterns of performance are considered in an integrated way. But, bilingual assessment is not always possible. We have an emerging profile of how DLD presents in English language learners. It may be possible to leverage this profile develop measures that are better tailored to assess individual children in their L2 based on their language experience.

Thursday, June 12, 9:00

Language revitalisation after historical trauma: Is language shift inevitable?

Pia Lane¹

¹Department of Linguistics and Scandinavian Studies, University of Oslo

Indigenous peoples around the world have a history of marginalisation, oppression and even displacement, contributing to language shift as adults stop using their mother tongue with the next generation. Linguists have been concerned with this loss of languages since Hale et al.'s call for action (1992), and there is a substantial amount of research on the negative effects of language shift on social and individual well-being (Hinton, Huss & Roche 2018). Even when institutionalised oppression has been abandoned, effects of the past may still linger in the form of silencing, shame, and alienation (Lane 2023). Loss of language and culture practices may be an unresolved grief or historical trauma which is transmitted between generations (McKenzie 2022) and may (re)surface in revitalisation processes.

Language shift may come about through silencing by the nation state through oppressive educational policies and efforts to limit use of Indigenous languages. Somewhat paradoxically, language revitalisation may contribute to other forms of silencing, such as silencing by community members and self-silencing because of fear of speaking (Lane 2023). A reason might be that emotional aspects of language learning in Indigenous contexts seem to be particularly complex because of the identity politics and social control as to who has the right to claim the role of an authentic speaker.

I will primarily draw on data from interviews and biographical methods during ongoing fieldwork in Sámi communities in Norway at a moment in time when young Sámis attempt to reclaim a language that once was spoken in their family. The analysis will be supplemented with findings from other contexts. I conclude by highlighting how Indigenous peoples despite attempts to erase their linguistic and cultural practices have shown remarkable tenacity and resilience. This reminds us that human beings have a capacity to hope and strive for better futures for ourselves and our communities.

Friday, June 13, 9:00

Is bilingual lexical access really language non-selective?

Robert Hartsuiker¹

¹Ghent University

There is consensus in the field that bilinguals routinely activate both of their languages, even when in a one-language context. This theory is supported by a plethora of evidence, including effects of cognate/interlingual homograph status and interlingual neighborhood size on reaction times. Further support comes from spurious eye-movements to objects with irrelevant language names that match the auditory input and ERP-responses to word pairs with form-overlap in their translations. In this talk, I will question this consensus and propose an alternative. I will argue that in one-language contexts there is usually no activation of the language(s) not in use. Effects that appear to support online activation can be explained by two mechanisms: (a) such effects are obtained in a two-language context, for instance in lexical decision tasks that mix words from both languages; (b) such effects are the result of a learning mechanism. For instance, cognates can be learned more easily than non-cognates. I will review several strands of research that seemingly support the online activation account in light of these mechanisms and propose an account of bilingual language processing in which other-language activation is regulated by language control processes.

Friday, June 13, 17:50

ECR Keynote Abstracts

Diversifying articulatory phonetics through a bilingual and migrant lens: A look towards the future

Ander Beristain¹

¹Saint Louis University

The overarching goal of this talk is to examine whether articulatory accommodation is possible at the physiological level in bilingual and migrant environments to further comprehend the evolution of dialectal features over time in relation to language contact. While phonetics and phonology studies have predominantly implemented acoustic approaches, articulatory research constitutes a minority, often using small sample sizes and targeting first language production in laboratory settings. This narrow perspective overlooks the influence of bilingualism and ‘non-traditional’ speakers on articulatory theories. This presentation will bridge this gap by presenting cutting-edge aerodynamic studies on nasalization, particularly in bilingual and migration contexts in North America and Europe. Furthermore, methodological recommendations for engaging with underserved populations will be proposed, thus contextualizing academic work within culturally responsive practices and putting forward a framework for future research.

The first study investigates coarticulatory vowel nasalization in heritage, early, and late Spanish/English bilingual speakers in the United States, including data from 42 participants. The second study presents novel data on the nasalization of the glottal fricative [h] consonant in Spanish, based on 30 participants consisting of long-term migrants from Extremadura (Spain) in the Basque Country, as well as two subsequent generations and control groups. Results suggest that early language exposure facilitates the differentiation and production of language-specific articulatory patterns. Prolonged linguistic contact leads to articulatory accommodation, with long-term migrants exhibiting production patterns that are intermediate between the non-migrant control groups. Nasalization decreases considerably in later, more bilingual generations established in the Basque Country. In conclusion, physiological adjustment is achievable in early and prolonged bilingual settings, paving the way for new research avenues in second and heritage language sound articulation.

Monday, June 9, 14:45

Navigating Multilingual Complexities in the Asylum Context: Disparities, Practices, and Research Reflections

Marie Jacobs^{1,2}

¹Department of Languages and Literatures, Université Libre de Bruxelles

²Department of Translation, Interpreting and Communication, Ghent University

Applying for asylum is not merely a legal procedure—it is fundamentally a multilingual and discursive process. My research starts from the observation that communication in the asylum process is marked by a profound disparity in linguistic resources. Asylum seekers possess diverse language repertoires shaped by their biographical trajectories, while professionals who work in the asylum context, such as asylum officers and legal representatives, primarily operate in the host country's dominant languages. This linguistic asymmetry necessitates multilingual strategies to facilitate asylum interaction: encounters are often mediated by (in)formal interpreters or conducted in a lingua franca.

This talk examines how managing the multilingual complexity of asylum interactions entails significant challenges for asylum officials, who decide who is granted asylum based on oral testimonies, for lawyers who navigate multilingual counsel, and for language scholars who study communication in the asylum procedure. To address this, I triangulate findings from three research projects in the Belgian context: an institutional discourse analysis of migration law and asylum decisions, a linguistic ethnography of lawyer-client interaction in immigration law firms, and methodological reflections on researching multilingually. Through the integration of these studies, I reveal the diverging multilingual strategies employed in the asylum process and how they constrain asylum seekers' opportunities to have their voices heard. Reflecting on my own experiences of conducting research in a multilingual context, I conclude that this linguistic inequality is the product of institutional limitations and context-bound ideologies rather than professional ignorance. In light of this finding, I propose two key methodological recommendations for the future of bilingualism studies.

Wednesday, June 11, 14:45

Navigating Bilingualism: Power, Identity, and Imagined Futures

Jean Kaya¹

¹ University of Windsor

In this keynote address, Dr. Jean Kaya will delve into the sociocultural dynamics of bilingualism and the responsibility that language educators bear in shaping the future of bilingual or multilingual communities. Drawing on his work from different contexts, including the United States of America, the Republic of Congo, Colombia, and Canada, Dr. Kaya will unpack how bilingualism is intertwined with the dynamics of power, identity construction, and imagined futures. For many individuals, speaking more than one language (i.e., bilingualism or multilingualism) can transform their future significantly. For example, it can create a wider range of opportunities regarding personal or professional connections, career, and intercultural learning and understandings. From this lens, bilingualism plays a critical role in shaping not only communication but also sociocultural dynamics. By addressing these dynamics, Dr. Kaya's keynote address is aligned with the conference theme of The Different Faces of Bilingualism. He will emphasize the cultural component of bilingualism and related challenges and opportunities. Dr. Kaya will also talk about monolingualism as one of the faces of bilingualism. After discussing the urgent need for decolonizing bilingual education, especially in contexts where historical and linguistic inequalities persist, Dr. Kaya's keynote will focus on the importance of viewing bilingualism as a vital tool for personal and collective growth in multicultural communities, despite the unequal distribution of power which is often embedded within the politics of bilingualism. The talk will conclude with the role of educators in fostering inclusive spaces that celebrate linguistic diversity, as bilingual learners can construct their identities and imagine new futures and possibilities based on their bilingualism or their languages as resources. In the concluding remarks, Dr. Kaya will share strategies for promoting bilingualism in ways that support linguistic pride, linguistic diversity, and empowerment of bilingual individuals.

Friday, June 13, 14:35

Symposium Abstracts

From Biology to Language in bilingualism: Advancements in Neurodegenerative diseases

Chair: Marco Calabria, mcalabria@uoc.edu

Speaking two or more languages has been shown to influence biological markers that shape the clinical presentation of neurodegenerative diseases. While the bilingualism effect remains a topic of debate, recent studies on both typical and pathological cognitive aging are providing new perspectives and advancement on this. Notably, bilingualism is becoming relevant as a clinically important variable in predicting the expected trajectory of cognitive decline, as it may serve as a cognitive protective factor.

The first two talks in this symposium will address this issue, presenting data on plasma neurofilaments in bilinguals with Alzheimer's disease and related dementias, as well as cortical thickness in individuals who are cognitively unimpaired, have Mild Cognitive Impairment, or Alzheimer's disease.

Also, language is emerging as a key marker for characterizing the clinical features of neurodegenerative diseases, particularly in populations primarily affected by speech disorders. The third talk will explore how connected speech can be used to differentiate between variants of Primary Progressive Aphasia (PPA), utilizing Natural Language Processing and machine learning techniques. Finally, the last talk will focus on characterizing the underlying deficits in lexical retrieval in neurodegenerative patients within dual-language naming contexts. Dissociations in language switching will be discussed in terms of cognitive deficits linked to different types of neurodegeneration, as well as the role of memory in distinguishing between PPA variants.

Both types of markers will be discussed with the goal of offering new insights into bilingualism and neurodegenerative diseases, providing valuable information not only for research but also for clinicians working with bilingual individuals.

The talks will be presented by a multidisciplinary team of researchers who are experts in bilingualism, aging, and neurodegenerative diseases, and active members of international collaborative networks focused on studying bilingualism in clinical populations (INCLUDE Network and the Special Interest Group in 'Bilingualism, Languages, and Literacy' of the International Society to Advance Alzheimer's Research and Treatment - ISTAART).

Cortical thickness is modulated by bilingual language dominance in typical and pathological cognitive aging

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Bilingualism can significantly alter gray matter structure in typical and pathological aging populations (e.g., DeLuca et al., 2020; Torres et al., 2022). However, the extent and interpretation of these changes are currently challenged by the diversity of metrics that can be used to define and quantify individual differences in bilingual experience. One important limitation of prior clinical work in this regard is the use of underspecified descriptions of bilingualism that diminish our ability to understand the relationship between fine-grained linguistic variables, such as language dominance, and regional cortical thickness (CT). In the present study, we leveraged a large cohort of bilingual and monolingual populations to elucidate the relationship between language-dominance and structural gray matter changes in typical and pathological aging populations.

We analyzed cross-sectional differences in CT (longitudinal patterns of neurodegeneration are underway) in an ethnically diverse sample (N = 890 Mexican American, N = 813 non-Hispanic White) of bilingual and monolingual older adults collected from the Health and Aging Brain Study: Health Disparities cohort (N = 1,703; O'Bryant et al., 2021). Linear-mixed effects analyses were conducted to assess the effects of language dominance (balanced, Spanish-dominant and English-dominant bilinguals, and English and Spanish monolinguals) on regional CT across three levels of diagnostic phase: cognitively unimpaired (CU), mild cognitive impairment (MCI), and Alzheimer's dementia (AD). Statistical covariates were used to control for individual differences in relevant demographic variables such as age, sex and education.

In the CU group, English-dominant bilinguals revealed greater CT than Spanish-dominant bilinguals in regions-of-interest (ROIs) related to auditory processing (Heschl's gyrus), semantic processing (temporal pole), and executive function (frontal pole). Spanish-dominant bilinguals conveyed greater CT than English-dominant bilinguals in two ROIs supporting motor function (precentral gyrus) and spatial memory (entorhinal cortex). Language group differences attenuated in the MCI group, where English-dominant bilinguals exhibited greater CT than Spanish-dominant bilinguals in the frontal pole and anterior cingulate cortex. Spanish-dominant bilinguals, on the other hand, demonstrated greater CT in temporal pole and entorhinal cortex. In the AD group, Spanish-dominant bilinguals

demonstrated greater CT than English-dominant bilinguals in Alzheimer's disease-related ROIs (parahippocampal and entorhinal). Notably, in this same group, balanced bilinguals exhibited greater CT than English monolinguals in Alzheimer's disease-related ROIs.

These findings indicate that the effects of language dominance on regional CT are modulated by the diagnostic phase. English-dominant bilinguals demonstrated greater regional CT relative to Spanish-dominant bilinguals in the CU and MCI phases in brain regions associated with semantic and executive processing. In contrast, Spanish-dominant and simultaneous bilinguals had greater CT than English-dominant bilinguals and English monolinguals (respectively) in brain regions that are more vulnerable to pathological changes in AD.

The effect of bilingualism in the differential diagnosis of nonfluent/agrammatic and logopenic variant primary progressive aphasia. Evidence from an automated analysis of connected speech

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Primary progressive aphasia (PPA) is a neurodegenerative disorder characterized by progressive worsening of speech and/or language. Knowledge of how bilingual testing affects this process in bilingual patients is lacking. Clinicians often report difficulty differentiating between the logopenic (lv) and nonfluent/agrammatic (nfv) subtypes, as both variants present with disruptions to “fluency” yet for different underlying reasons. This differentiation is even harder for bilingual speakers, who present with different patterns of fluency in speech production. Additionally, differentiation often involves assessments that can take hours to complete, leading to fatigue and potentially impacting the assessment's validity and reliability. In response to these challenges, an alternative approach that has emerged is using Natural Language Processing (NLP) to derive acoustic and linguistic features from connected speech, followed by feeding these features into Machine Learning (ML) classification algorithms for differentiation. Several studies have evaluated this approach in English speakers and have demonstrated high classification accuracy in PPA (e.g., Themistocleous et al., 2021). To our knowledge, this approach has not been evaluated in other languages nor in the context of bilingualism. Therefore, the aim of the current study was to evaluate ML-based differentiation of nfv from lv in Spanish-Catalan bilinguals from participants' description of the picnic scene from the (Western Aphasia Battery (Kertesz, 2022)).

Twenty-four Spanish-Catalan bilingual patients (lv=15, nfv=9) were asked to describe a picture (WAB Picnic Scene) in both their dominant and non-dominant language. From the participant's recorded response, acoustic and linguistic features were derived with the Natural LanguageProcessing (NLP) tools SpaCy and CLAN. A similarity score between the image and the patient's transcription was derived with the Vision-Language model CLIP. These feature sets were separately fed into ML classification algorithms for differentiating nfv from lv in participants' dominant and non-dominant samples.

The acoustic-based classifiers achieved classification accuracy (F1 score) of 59% in the dominant and 86% in the non-dominant language, respectively. The linguistic-based classifiers achieved F1 scores of 73% in the dominant and 77% in the non-dominant language, respectively. The CLIP-based classifier achieved F1 scores of 82% in the dominant and 82% in the non-dominant language, respectively. The acoustic and linguistic classifiers performed 25% ($p=0.08$) and 4% ($p=0.18$) better given only non-dominant samples compared to only dominant samples. All classifiers vastly outperformed stratified random sampling and uniform random sampling baselines.

Taking advantage of recent advances in multilingual NLP, we achieved promising and effective differentiation of nonfluent from logopenic PPA in Spanish-Catalan bilingual speakers using a largely automated pipeline. Interestingly, our acoustic and linguistic-based classifiers performed better-given responses from an individual's non-dominant language, and the acoustic feature set was more accurate in discriminating between variants compared to the linguistic model. These results speak to the relevance of considering multilingual capacities when performing clinical diagnosis in patients with primary progressive aphasia.

Are language switching deficits dissociable in bilinguals with neurodegenerative diseases?

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Speech production deficits in bilinguals can be explored under dual-language conditions, where participants switch between their two languages. Given that language switching is a multi-component process, different task types, and experimental manipulations have been employed to evaluate the integrity of underlying mechanisms in bilingual patients with neurodegenerative diseases (Calabria, 2023).

In this talk, I compare three neurodegenerative conditions: Parkinson's disease (PD), Mild Cognitive Impairment (MCI), and Primary Progressive Aphasia (PPA).

The comparison between PD and MCI patients sheds light on cognitive processes like interference suppression and language engagement/disengagement while comparing subtypes of PPA emphasizes the role of working memory in language. Studies on PD and MCI have demonstrated that both clinical conditions impair switching abilities in cued language switching tasks, with patients showing higher switching costs than healthy controls. This suggests a key role for reactive control processes, which is defined as transient and bottom-up control. However, further studies that we have conducted with these two clinical populations have shown that the nature of these deficits differs slightly between the two groups. PD patients seem to be impaired primarily by engaging a new language schema, whereas MCI patients may face difficulties in cross-language interference suppression.

Recently, we explored the role of working memory in PPA patients. Although lexical retrieval deficits are central to the language impairments in the logopenic variant (lvPPA) and semantic variant (svPPA), little is known about how these deficits manifest in dual-language naming conditions. We designed two task versions to assess the role of working memory,

impaired in lvPPA, and lexical retrieval, the hallmark deficit in svPPA. In the cued language switching task, participants named pictures and alternated languages every three trials in response to a cue. In the memory-based task, participants switched languages every three trials without external cues.

Results showed that lvPPA patients exhibited larger switch costs and made more errors than svPPA patients, especially in the memory-based task. Additionally, lvPPA patients produced more errors when switching between languages, particularly in tasks requiring working memory, while svPPA patients demonstrated similar lexical retrieval deficits across both tasks. These preliminary findings suggest that lvPPA patients are more affected by switching, particularly in memory-based tasks, likely due to more pronounced working memory deficits compared to other PPA variants, as seen in previous monolingual studies.

The contributions of different clinical populations will be discussed within a broader theoretical framework of cognition and bilingual language production.

Discussion

Marco Calabria¹

¹Faculty of Health Sciences, Universitat Oberta de Catalunya, Barcelona, Spain

The speakers at this symposium will explore current challenges in understanding the links between multilingualism, cognition, and biological markers in the clinical presentation of neurodegenerative diseases. They will also discuss future research strategies in the field, with a focus on international networks and special interest groups.

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Investigating the Impact of Bimodal Bilingualism on Language and Cognition

Chairs: Brendan Costello, b.costello@bcbl.eu

Chiara L. Rivolta, c.rivolta@bcbl.eu

Bimodal bilinguals perceive and produce two languages through different sensory-motor systems, for example sign language and spoken language. Bimodal bilingualism presents a unique opportunity to test models and theories of bilingual language processing. This symposium brings together researchers investigating how knowing or learning a sign language impacts language representations, broader cognitive abilities and the brain. In line with ISB 2024's theme of inclusivity, bimodal bilingualism is a different—and understudied—face of bilingualism.

One of the most striking features of bimodal bilingualism is that the two languages can be **perceived and produced at the same time**. The simultaneous co-articulation of sign and speech is referred to as *code-blending* (as opposed to *code-switching* typically found in unimodal bilinguals). Bimodal bilinguals show a strong preference for code-blending over code-switching, suggesting that sign and spoken language are simultaneously activated until a relatively late stage of language production and that language inhibition might be more costly than keeping both languages active (Emmorey et al., 2020). Further evidence for **cross-modal cross-language activation** comes from studies showing that perceived signs and words activate their translation equivalents, which in turn can activate the phonology of the unheard/unseen language (Villameriel et al., 2022). These findings challenge the central role of phonological competition in models of cross-language activation in unimodal bilinguals. The **modality-driven properties** of a visual language (such as indexicality or temporal structure) not only influence the dynamics of activation during production and comprehension, but also impact the existing language representations (Gimeno-Martínez, Gutierrez-Sigut & Baus, submitted). Furthermore, experience with sign language affects the development of **cognitive skills beyond the linguistic domain**, such as visual attention (Stone & Bosworth, 2019). At the **neural level**, bimodal bilinguals represent sign and spoken language in largely overlapping networks, but structural and functional differences between unimodal and bimodal bilinguals reflect different processing demands (Emmorey, 2021). Bimodal bilingualism expands the possibilities of bilingualism; researching this different face of bilingualism allows us to explore our ability to learn and use languages that neither look nor sound alike.

A Language's Modality Impacts its Temporal Structure and Processing

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Hearing bimodal bilinguals navigate two languages expressed in two different modalities (visual-gestural modality for sign language and auditory modality for spoken language), which not only impacts the structure of the language, but also language processing. In particular, spoken languages are characterized by a sequential temporal structure, whereas sign languages convey linguistic information simultaneously. In this talk we explore how modality differences shape bimodal bilingual language processing. We will discuss two studies that examined the impact of temporal structure of signed vs spoken languages on lexical co-activation and cortical tracking, respectively.

The first study (Villameriel et al., 2022) employs eye-tracking combined with a visual world paradigm to investigate the temporal course of cross-language cross-modal coactivation in hearing bimodal bilinguals. Results show that this process involves the combination of cross-language semantic activation (activation of the translation equivalent of the perceived item) and phonological within-language activation. That is, bimodal bilinguals presented with an LSE sign will activate its Spanish word translation, but also other phonologically-related Spanish words. Co-activation of sub-lexical units of sign does not reflect the temporal structure of signs. Instead, we found evidence that the distributional properties of the sub-lexical features impact their co-activation dynamics.

The second study (Rivolta, 2023) uses MEG to investigate cortical tracking of spoken and sign language in hearing bimodal bilinguals. Cortical tracking of spoken language is a well known mechanism for scaffolding language processing and comprehension. Results show that tracking does occur during sign language processing, but accommodates specific features of the visual signal: cortical tracking is restricted to the delta frequency band, in line with slower periodicity of sign language movements, and localized over right parietal areas. Interestingly, we also found stronger cortical tracking to audio-visual speech in bimodal bilinguals compared to hearing non-signers, suggesting that sign language knowledge aids tracking of visual linguistic information even in multimodal speech.

Overall these findings highlight the profound impact that modality has on language structure and processing in bimodal bilinguals. Both cross-language activation and cortical tracking are common mechanisms in spoken language processing; we show that they extend also to sign language but adapt to its specific structural features. These findings also highlight the adaptability of the bimodal bilingual brain in managing and integrating multiple linguistic systems.

Becoming Bimodal Bilingual: Learning a Sign Language as a Second Language

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When we think about adult second language learning, we often consider learners whose first and second languages are both spoken (i.e., unimodal bilinguals). However, learners whose first language is spoken and who are acquiring a sign language (i.e., bimodal bilinguals or M2L2 learners) are often overlooked in the bilingual and second language literature. As a result, questions about how the modality in which a second language is perceived and produced affects language learning have been sparsely explored. This is surprising given the growing number of people learning sign languages as a second language. For example, in 2021, American Sign Language (ASL) was the third most frequently taught second language in higher education institutions. Given this rising interest in learning sign languages, it is important to understand how language learning occurs in a new modality.

For hearing individuals who do not know sign language, learning a sign language represents a unique case of L2 learning because it involves acquiring a new vocabulary in a different modality (second modality-second language — M2L2 — learners). The perceptual and articulatory channels used in spoken languages (whether written or spoken; auditory-vocal) differ significantly from those used in sign languages (visual-manual). Consequently, learning new sign vocabulary requires encoding unique linguistic features such as hand shape, position, orientation relative to the body, movement, and possible non-manual movements (e.g., facial expressions or body postures) that accompany the sign. Although these features of signs do not directly correspond to features of words in spoken languages, research shows that there are cross-linguistic interactions between the signed and spoken lexicon for proficient bimodal bilinguals.

In my talk, I will focus on the neural mechanisms underlying sign language learning, particularly the acquisition of L2 sign vocabulary, to understand 1) how new lexical entries are incorporated into the lexicon and interact with existing entries from another modality, 2) which linguistic and indexical properties influence the learning process.

First, I will present a series of studies examining the neural changes associated with the lexico-semantic integration of L2 signs into the lexicon. Results from longitudinal experiments indicate that signs are integrated into the lexicon after only a few exposures. Additionally, I will explore how newly acquired signs interact with L1 words in the lexicon. Through both lexical production and comprehension paradigms, we provide evidence of

cross-linguistic interactions at the initial stages of sign language learning.

Second, I will present studies on how the linguistic and indexical properties of the sign modality influence the acquisition of new L2 signed vocabulary.

Mutual Exclusivity as a Word Learning Constraint in Bimodal Bilinguals

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Children acquiring one language robustly use mutual exclusivity—the assumption that objects have only one label—as a constraint to word learning. This appears as early as 17 months (Jaswal & Hansen, 2006; Markman & Wachtel, 1988; Merriman & Bowman, 1989). Multilingual learners are less likely to use this assumption and instead accept multiple labels for the same object (Davidson & Tell, 2005; Byers-Heinlein & Werker, 2009). It is unknown if the same is true for bimodal bilingual children who are acquiring one sign language and one spoken language. While these children may pattern like other multilinguals because each object has two labels, those labels are separated by modality. Bimodal bilinguals could utilize a within-modality mutual exclusivity constraint (each object can have only one sign and one spoken language), or objects could have multiple labels regardless of their modality. In the current study, we test these competing possibilities in a sample of monolingual and bimodal bilingual children acquiring American Sign Language (ASL).

Forty-two deaf children (19-60 months) acquiring ASL only ($n = 28$) or both spoken language and ASL ($n = 14$) participated in a behavioral two-alternative forced-choice paradigm modeled after Jaswal (2010). In each trial, children were presented with two toys on a tray (one familiar, one novel) and asked in ASL to give the experimenter one of them. The experimenter requested the object in one of three ways: (1) gaze only: experimenter looked at the familiar object, (2) mutual exclusivity: experimenter used a novel sign, (3) both-cues: experimenter looked at the familiar object, then looked back at the child and used a novel sign. The both-cues condition was used to determine the relative weighting of gaze as a word learning constraint relative to mutual exclusivity. Participants saw three trials of each type in a pseudorandom order.

We conducted a mixed-effects logistic regression predicting likelihood of choosing the target object using age, condition, and language group (monolingual vs. bimodal bilingual) as fixed factors and participant as a random factor. Findings showed only a main effect of age, with older children more likely to select the target object than younger children ($p = .029$). However, when comparing each language group's performance to chance, the monolingual group performed above chance in both the gaze and mutual exclusivity conditions, but the bimodal bilingual group performed at chance for both. Neither group performed above chance in the both-cues condition.

Current findings suggest that like learners of multiple spoken languages, bimodal bilingual children do not use mutual exclusivity to constrain their word learning space. This further

suggests that bimodal bilingual children are, at least initially, amodal in their word representations. However, we interpret these findings with caution. The bimodal bilingual children in our sample were also not above chance in the gaze condition, which suggests they may have been confused by the task or delayed in social communication. We will discuss this heterogeneity, along with findings from ongoing data collection from bimodal bilingual hearing children with deaf parents (CODAs), in the final presentation.

The Bimodal Bilingual Brain

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Bimodal bilinguals (people who are fluent in a signed and a spoken language) use separate perceptual and motoric systems for each language. In contrast, when a bilingual's languages are both spoken (unimodal bilingualism), the two languages rely on the same perceptual and motoric systems for comprehension and production. The separation of systems for bimodal bilinguals has significant implications for the structural and functional neural differences that accompany bilingualism. To investigate structural changes associated with bimodal bilingualism, we used whole-brain surface-based morphometry measures (cortical thickness, surface area, and local gyrification) and compared hearing bilinguals (N = 30) fluent in English and American Sign Language (ASL), hearing English monolinguals (N = 30), and deaf ASL-English bilinguals (N = 30). Both groups of bilinguals were exposed to ASL from birth. The results revealed increased cortical thickness in the left occipital gyrus for both deaf and hearing bilinguals, compared to monolinguals (non-signers). We suggest that top-down linguistic processing drives surface expansion in visual regions for life-long signers. In addition, we found increased surface area in the anterior temporal lobes (ATLs) for both bilingual groups, compared to monolinguals. A previous study found ATL surface area differences for both unimodal and bimodal bilinguals that were linked to cognitive reserve with aging, suggesting that the structural expansion in the ATLs is an amodal effect of bilingualism (perhaps due to maintaining lexical-semantic systems in two languages). We also conducted a functional neuroimaging study of hearing bimodal bilinguals (native signers) that compared the comprehension of ASL signs, English words (presented audio-visually), and ASL-English code-blends (the simultaneous perception of words and signs). The results revealed greater activation in visual (occipital) regions for ASL than English and greater activation in auditory (superior temporal) regions for English than ASL, reflecting modality-specific differences in language processing. Code-blend comprehension was associated with reduced activity (reflecting greater neural efficiency) in both visual and auditory regions, indicating a facilitatory effect of code-blending. Perception of code-blends did not engage cognitive control regions, indicating that simultaneous language perception does not require cognitive control. In sum, the bimodal bilingual brain differs from the unimodal bilingual brain with respect to structural changes and functional demands associated with the distinct perceptual systems required to process their two languages. Further, the neural response to code-blends, a language mixing phenomenon unique to bimodal bilinguals, reveals that English words and ASL signs do not compete for recognition, but rather facilitate lexical recognition in each language. Overall, the study of bimodal

bilingualism can provide unique insights into how the brain is organized to control, process, and represent two languages.

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New approaches to transfer processes in heritage languages

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Research on heritage language grammars mainly concentrates on the development of morphological and syntactic features as a result of simplification, restructuring or transference (see Montrul & Polinsky, 2021 for an overview). In this context, a common practice in heritage speakers, namely the transfer of multi-word units and frame-and-slot patterns, has gained little attention. From a constructional grammar perspective (Ungerer & Hartmann 2023), this term refers to linguistic structures where a “frame” provides a template, and specific “slots” to be filled with contextually appropriate elements. In language contact situations, speakers copy these patterns template from language A and replicate them it with elements from language B, a process typically referred to as “loan translation” (Backus & Dorleijn, 2009) or “pivot matching” (Matras, 2020). Examples include light-verb constructions, schematic idioms and idiomatic phrases (Riehl, 2024). Alternatively, an open slot in language B may be filled with a word or word combinations of language A. In all these contexts, we deal with the creation of new form-meaning pairs through contact-induced processes (Backus, 2020).

In this symposium, we want to explore different types of new form-meaning pair formation in heritage languages and their possible explanations. We will discuss the conceptual and methodological problems that arise in the empirical investigation and try to explain the underlying mechanisms of these transference processes.

The following questions are addressed:

- What factors (e.g., frequency, similarity, psycholinguistic language dominance, transparency) determine transference of specific frame-and-slot patterns?
- Are there specific structural criteria that favor the formation of new form-meaning pairs?
- In what way does intra- and interspeaker variation relate to language awareness?
- How can we measure the pervasiveness of these transference patterns?

The papers in this panel approach these aspects from different angles and with focus on Germanic languages as heritage languages in various constellations. While the first paper deals with the emergence of mixed frame-and-slot patterns in early acquisition and its frequency effects based on language dominance, the second addresses construction copying in adult heritage speakers focusing on similarity effects, interspeaker variation and language awareness. The third contribution refers to construction copying in heritage communities and includes frequency effects, variation, contextual aspects and language processing. In the final contribution we will wrap up the various factors by proposing a model of language

contact based on based on usage-based and cognitive models of grammar and psycholinguistic explanations.

Wrinkelig, cleanen, and feete: Mixed frame-and-slot patterns in early bilingual acquisition

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Mixing languages is one of the more salient phenomena that result from bilingualism. From a usage-based perspective, children's mixed utterances are often based on productive lexicogrammatical constructions in which open slots in a frame-and-slot pattern are filled with items from the other language (Koch et al., 2022). In many cases, these patterns predominantly come from one of the languages, creating the asymmetry often found in adult code-mixing known as the 'matrix language effect' (Myers-Scotton, 1997; see Wasserscheidt, 2020 for a critical discussion). We propose a usage-based approach to explain this phenomenon which suggests that children acquire morphology starting with unanalyzed forms before generalizing common patterns such as, e.g., VERB-en patterns for German infinitives or NOUN-s patterns for English regular plural forms. As children are exposed to more instances of these patterns, they start to abstract these regularities into productive morphological rules which also find their way into morphological mixes, such as *jumpen* 'jump + German infinitive marker', *wrinkelig* 'wrinkle + German adjective marker', and *feete* 'feet + German plural marker'.

In this study, we investigate morphological mixes drawing on the naturalistic speech of three German-English bilingual children, "Fion", "Silvie", and "Lily", between the ages of 2–3 (N=109,815 utterances). Importantly, the overall language use of the three children differs in various ways, e.g. regarding the proportion of the two languages, which makes a comparison all the more interesting. Our main research question is which types of morphological mixes can be found in the children's data, and how they relate to the children's overall use of the two languages, as well as to the distribution of the two languages in the linguistic input they receive. We extracted all mixed utterances (N=10,040) and checked whether they contained a morphological mix, e.g. an English verb with a German inflectional marker or vice versa. In doing so, we investigate which factors, e.g. frequency, similarity, language dominance influence the transfer of frame-and-slot patterns and if there are specific structural criteria that favor transference processes.

Preliminary results for the first five months of the recordings show that nouns, verbs, and adjectives served as templates onto which morphological endings were mixed (N=241). Regarding verbs for example Fion and Silvie, who are both German-dominant, mainly produced mixed verbs with an English template plus German infinitive or tense marking, e.g. *fighten* 'fight + German infinitive marker'. Lily, on the other hand, who's languages are quite balanced also produces German roots with an English inflectional marker. The results indicate that the so-called 'matrix language effect' (Myers-Scotton, 1997) is primarily driven by the selection of the most entrenched, frame-and-slot patterns that mirrors the children's language dominance.

Similarity and Transfer – Linguistic Measures and Speaker Perceptions

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Language transfer is common among bilingual speakers, particularly so if they are fluent speakers of typologically closely related languages (Barking et al., 2022). For example, our research on Dutch-German language contact showed that many German heritage speakers living in the Netherlands exhibit extensive transfer from their second language Dutch to their native language German. This includes changes in frequency of existing, similar words and constructions, but also the emergence of new form-meaning pairs (Backus, 2020), i.e. overt transfer, such as **Hintername* ‘behind name’ instead of *Nachname* ‘last name’ based on Dutch *achternaam* ‘last name’, or **Wecker setzen* ‘to set an alarm’ instead of *Wecker stellen* ‘to put an alarm’ based on Dutch *wekker zetten*. In our presentation, we zoom in on these new form-meaning pairs, particularly in regard to what they can tell us about the effects of similarity, and present two complementary case studies: (1) an experimental production study in which German speakers in the Netherlands completed various German noun-verb-combinations (N=60, plus a control group of 60 native German speakers not in contact with Dutch) and (2) a focus group study in which they reflected on the effects of similarity on their language use (N=19, divided over six focus group sessions).

The results of the two studies show that similarity can be meaningfully analyzed based on linguistic measures and based on the perceptions by the multilingual speakers. On the one hand, the results of our experimental production study showed that native German speakers in the Netherlands are more likely to use new form-meaning pairs when the nouns in the German and Dutch combinations are cognates or when the verbs tend to be used in similar pairs across the two languages, showing that different linguistic measures of similarity can indeed predict language transfer. On the other hand, our focus group discussions revealed that speakers are also often aware of these similarity effects. This is particularly the case for speakers who hold negative attitudes towards transfer and therefore want to avoid it. These speakers might decide to avoid anything that is similar to Dutch and thus potentially transferred – counteracting any accelerating effects of similarity on language transfer. At the same time, this avoidance strategy also leads to the phenomenon of hypercorrection (i.e., a marked frequency decrease of a construction compared to German speakers without Dutch contact), as avoiding anything that is similar to Dutch automatically also means avoiding constructions that are perfectly fine to use in standard German.

Based on these findings, the results of our projects demonstrate the benefits of using a multi-method approach – combining both quantitative and qualitative research – in studying the effects of similarity. Such an approach shows similarity to be a complicated, multi-faceted concept, both consisting of various layers – such as surface similarity in the case of

cognates or similarity in terms of usage contexts – and with various, sometimes contradictory contact effects.

Contact-Induced Language Variation in Pomerano: The case of Existential Constructions

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The study of language contact settings necessitates a focus on the individual multilingual speaker's usage, as highlighted by recent theoretical approaches (Backus, 2020). Contemporary studies (e.g., Barking et al., 2022; Riehl, 2024) aim not only to describe the emergence of linguistic contact phenomena, but also to explain why certain linguistic structures manifest in multilingual communities while others do not. In this context, the concept of entrenchment, as described by Backus (2020: 123), provides a framework for understanding how certain linguistic forms become established: "What is activated gets used, what is used gets stored, and what is stored well stands a good chance of getting activated again."

Against this background, this paper will explore the socio-cognitive processes involved in multilingual language processing and production, focusing on factors such as similarity, frequency, and cognitive load. These factors are examined using original corpus data from speakers of Pomerano, a Low German variety spoken by approximately 300,000 descendants of 19th-century settlers from Hinterpommern who migrated to Brazil. The corpus consists of eight hours of semi-structured interviews with 18 informants from Santa Catarina, Rio Grande do Sul, and Espírito Santo.

The presentation will provide evidence of contact-induced variation in Pomerano existential constructions, primarily influenced by Brazilian Portuguese (Hansen, 2023). These constructions typically express "existence" (generic or situation bound) or an ingressive status of "coming into existence" and in common Low German (LG) are rendered by the construction *dat giff* + NP ('there is/are'; lit. 'it gives'). In Pomerano, we additionally find constructions using the verbs *hewwen/haben* ('to have'), which in this study are described as contact-induced variants likely influenced by the *ter/haver* ('to have') construction in Brazilian Portuguese (BP):

- (1) **hett** *jaue lü* *un hett* *ok schlecht lü*
 has.3SG.PRS ADJ N.PL.Acc has.3SG.PRS ADJ N.PL.Acc

BP: tem gente boa e tem gente ruim também

LG: dat giff gaude lü un dat giff ok schlichte lü

'There are good people and there are also bad people'

However, it becomes evident that there is a lot of inter- and intraspeaker variation. Here, we will discuss factors such as frequency of the construction (less conventionalized vs. conventionalized multi-word units), type of the construction (semantic characteristics of the NP), contextual-pragmatic characteristics and the cognitive load of language processing in individual speakers. Furthermore, we will highlight the conceptual challenges and sociolinguistic diversity within the multilingual Pomerano-speaking communities in Brazil.

Towards a cognitive model of language contact

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This paper takes up the findings presented in the previous contributions and adds examples of construction copying from German heritage speakers in a variety of different language constellations in contact with Germanic, Romance and Slavonian languages (cf. Riehl, 2024). Examples include idiomatic phrases such as *are you warm?* (Matras, 2020), schematic idioms such as constructions indicating age, rendered as *I have X years* by German heritage speakers (Centner, 2024) and light verb constructions (Barking et al., 2022). Based on this material we will discuss factors such as similarity and frequency effects, language dominance, interspeaker variation and provide a psycholinguistic interpretation based on interactive activation of constructions in speech processing.

We will present a typology of transfer that moves away from the traditional categorization of transfer according to structural criteria (lexical, phonological, morphological, semantic, etc.) and replaces it with a usage-based construction grammar explanation. However, in contrast to traditional construction grammar approaches (Boas & Höder, 2021) in which each linguistic unit is typically treated as a construction, we distinguish between different types of mental representations: declarative-conceptual schemas having a phonological form and a referential function (lexical units); procedural-conceptual schemas, which represent form-meaning pairs consisting of phonological forms and structural slots (frame-and-slot-patterns), and structural-relational schemas, which have a form and a specific function but no phonological representation (e.g., word order patterns). According to this model, there are three different types of transfer: Full transfer, i.e., the form-meaning unit of language A is fully inserted into the language B paradigm; Meaning transfer, i.e., a form element of language B takes over the meaning or function of an equivalent element or construction in language A; and transfer of form, when an abstract structure (e.g. word order) is transferred from language A to language B. In this typology, the possibility of coining new form-meaning pairs in language A after the model of language B plays a prominent role. Finally, we discuss how this model may be used to explain certain developments in heritage languages.

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The Analysis of Brain Oscillations as a Window into Bilingual Neurocognition

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The analysis of time-frequency representations (TFRs) of electroencephalography (EEG) data has been a valuable tool in cognitive neuroscience since the early days of EEG, following its discovery by Hans Berger. While this approach has been well established in cognitive neuroscience, its application to the cognitive neuroscience of language—and bilingualism in particular— has only recently begun to gain momentum. The TFR analysis method capitalizes on the frequency domain of EEG data, allowing for a fine-grained examination of neural synchronization and desynchronization across distinct frequencies, and brain regions across time. This approach not only complements event related potentials (ERP) analysis - a more commonly used technique in our field - by affording greater dimensionality but also serves as the primary analytical method for addressing questions that cannot be answered by using ERPs alone.

Given the established links between specific cognitive functions and frequency bands across different brain regions, applying TFR analysis enables us to investigate the temporal dynamics of the coordination of various processes that work together to support language processing—such as attention, working memory, interference suppression, etc

In this symposium, we aim to highlight how this method can deepen our understanding of bilingual language processing and the potential bilingualism-induced neurocognitive adaptations. The symposium will present four talks showcasing recent research that employs TFR analysis to explore key issues in bilingualism. The first talk will explore how the analysis of neural oscillations can be applied to the EEG data acquired during a language processing task and what it can tell us above and beyond a more traditional ERP approach. The remaining talks will explore the neurocognitive adaptations of bilingualism, each building upon the previous, while approaching this general topic from different perspectives. Talk #2 will explore how multilingual engagement modulates resting-state oscillatory activity across the lifespan, while talk #3 will expand on this by examining multilingualism's effects on attentional control during a cognitive control task. Expanding on the work presented in the other talks and contributing independent evidence to the topic of neurocognitive adaptations, the final talk will present a separate study conducted by an independent research group. This study examines how bilingualism influences oscillatory activity related to attentional processes, both at rest and during a proactive interference task.

By examining both task-related and resting-state neural oscillations, we aim to shed light on how bilingual experience influences language processing and broader cognitive functions. Furthermore, the symposium will emphasize the importance of individual differences in both bilingual language processing and neurocognitive adaptations to bilingualism, which are

increasingly recognized as critical to understanding bilingualism as a cognitive phenomenon both shaped by and contributing to brain plasticity.

The impact of working memory constraints on language processing: evidence from time-frequency representations

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Recent results revealed that while L2 learners and native speakers exhibit similar oscillatory neural dynamic patterns (i.e., TFR) during language processing, they differ in the duration of these effects—potentially due to limited working memory (WM) resources during L2 processing (Rossi & Prystauka, 2020). Building on these findings, and under an Executive Attention theory of WM Capacity (Engle, 2018), the present study examines how WM resources (i.e., allocation of storage and processing demands) affect language processing, particularly during the "reverberation phase"—a hypothesized period when neural assemblies continue to process linguistic information (e.g., Hebb, 1949; Pulvermüller, 1996; Strijkers, 2016; Rossi & Prystauka, 2020). To test this hypothesis, in a first study, we use a dual-task paradigm to impose WM constraints in monolingual English speakers, to create a "taxed WM environment." Participants performed an EEG Sentence Judgment Task (SJT) under either single-task or dual-task conditions, where the latter required simultaneous memorization of a word sequence, word monitoring, and word recall. Results indicate that participants under the dual-task condition exhibited less alpha desynchronization compared to those in the single-task condition. These findings align with ERP results from the same study, which show a diminished P600 effect for syntactic violations under the dual-task condition but no differences in the N400 component for semantic violations, suggesting that under WM constraints, indicating less efficient neurophysiological processing signatures of syntactic processing (Nakamura & Rossi, under review). To extend these findings and to test if and which aspect of WM resources are most affected by processing linguistic information in the L2, we are currently collecting data from Chinese-English bilinguals who perform the same paradigm in their L2, English. Altogether, these studies will add important data to furthering our understanding of what neurocognitive mechanisms underlying language processing in both monolingual and bilingual contexts.

Degree of multilingual engagement modulates resting state oscillatory activity across the lifespan

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Bilingualism has been demonstrated to lead to a more favorable trajectory of neurocognitive aging, yet our understanding of its effects on neurocognition across the lifespan remains limited. Here, we collected resting state EEG recordings from a sample of bi-/multilingual individuals across a wide age range. Additionally, we obtained data on participant language background and bilingual language use patterns. Language experience was operationalized via a modified multilingual diversity (MLD) score, an entropy-based continuous measure of multilingualism. Generalized additive modeling was employed to examine the effects and interactions of age and MLD on resting state oscillatory power and coherence. We report a modulatory effect of bilingualism on age-related decline in whole brain resting state power across alpha and theta bands, and an interaction between age and MLD on resting state coherence across alpha, theta, and low beta frequency bands. These results provide evidence of bilingual engagement as a factor that modulates age-related decline in resting state EEG power and reinforces the interpretation of bilingualism as a protective factor in neurocognitive aging. Future research on multilingualism and cognitive aging should expand on the groundwork laid by the present study by employing longitudinal designs and thus more directly testing the correlations revealed herein and multilingual experience as an experiential neurocognitive protective factor more broadly.

Multilingual effects on attentional control across the lifespan: triangulating behavior, power, and resting-state EEG analyses

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This study investigates how individual multilingual engagement modulates brain oscillatory activity and cognitive control across the lifespan, using both resting-state and task-based EEG with a Flanker task. We assessed whether degree of multilingual engagement moderates age-related changes in alpha and theta power and examined how these changes impact both task-specific neural dynamics and behavioral performance.

Multilingual language diversity mitigated age-related decline in resting-state alpha and theta power, potentially indicating enhanced cognitive reserve. Our analyses of task-based data revealed that older participants with higher multilingual engagement exhibited a smaller Flanker congruency effect (CE) and less reliance on alpha suppression. These patterns indicate more efficient inhibitory control in this group. In contrast, older adults with lower multilingual engagement demonstrated larger CE and greater alpha suppression, reflecting less efficient neural processing during cognitive control.

Notably, our findings indicate that the protective effects of high multilingual engagement extend beyond resting-state dynamics, directly influencing task-related neural recruitment and behavioral outcomes. Interestingly, the hypothesized link between resting-state and task-based power was not observed, suggesting a more complex nature of the mechanisms underlying the relationship between baseline and task-specific activity.

By bridging resting-state and task-based activity, this study reinforces the accumulating evidence on multilingualism as a lifestyle factor that can significantly contribute to neurocognitive reserves. Thus, these findings offer insights into how multilingual engagement can potentially promote healthier cognitive aging through neurocognitive adaptations.

Bilingualism shapes oscillatory activity associated with attentional processes at rest and during a proactive interference task

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A major focus in bilingualism research is understanding the cognitive processes that enable individuals to speak and manage both their first (L1) and second (L2) languages. One key theory relevant to understanding bilingual cognition is that of the neural efficiency hypothesis which posits that the brains of people with higher attentional functioning are more efficient by consuming less energy (Schneider & Shiffrin, 1977; Calvo et al., 2023). Here, I present findings showing how bilingualism might influence attentional control (Bialystok and Craik, 2022) by measuring neural activity both at rest and during a proactive interference task. Using a combination of EEG measures of frequency, power, reactivity, coherence and ERPs, I show that bilinguals have a more efficient brain for attentional mechanisms than monolinguals both at rest and when performing an interference task with both verbal and non-verbal conditions. At rest, bilinguals show less alpha reactivity across the whole scalp, but more focused activation expressed as more coherence in posterior electrodes, particularly when eyes are opened to direct attention. During the proactive interference task, bilinguals show a more efficient attentional processing by responding faster to the behavioural task and showing less interference. Moreover, results for the nonverbal condition indicated beta activity for interference trials in bilinguals, while verbal condition showed this pattern in theta and gamma frequency bands as well, revealing more extensive brain activation in the verbal domain for bilinguals. For monolinguals, frequency power in beta, gamma, and theta were related to facilitation trials. These results extend the results from the previous study and suggest different strategies for allocating attention by monolingual and bilingual young adults. Future research should explore the complexity and variation among different bilingual experiences in relation to neural efficiency and their effects on attention, given that bilingualism and attention are complex constructs.

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Breaking boundaries: Exploring multilingual writing development and cross-linguistic transfer at secondary school

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While higher-order language competencies have long been proposed as transferable across languages, robust empirical studies supporting Cummins' (2016) linguistic interdependence hypothesis in literacy education remain scarce. This symposium brings together four presentations by educational scholars from two different European countries, exploring multilingual writing in secondary education from diverse perspectives. All contributions aim to foster language proficiency in multiple languages across Europe, including foreign, heritage, and minority languages.

Three studies use cross-sectional data to examine secondary students' multilingual writing development. The first shows positive relationships between multilingual writing in the majority language (German), foreign language (English), and heritage languages like Russian or Turkish and will further explore the link between strategy use and writing competence. The second study shows that, despite different starting points, multilingual learners' writing trajectories in Basque, Spanish, and English exhibit similar development patterns and positive transfer, especially in cohesion-related measures. The third study also explores writing in Basque, Spanish, and English but focuses on the use of connectives, showing they predict writing quality across languages. The final study, an intervention, investigates transfer effects by implementing writing support. The randomized-controlled experiment demonstrates that rubric-based feedback supports writing, and fostering writing in English benefits the regular language of instruction (German). However, transfer effects were relatively small, possibly due to a lack of explicit transfer stimulation.

Together, these studies address the gap in research on multilingual writing development and cross-linguistic transfer. The symposium responds to recent calls for more research on conditions and strategies that facilitate or hinder transfer (Busse et al. in press) and researchers will discuss how teachers can create synergy to support writing across languages in secondary education. Lastly, a leading multilingual researcher will discuss future research avenues for fostering multilingual writing and the role of translanguaging activities in that respect.

Exploring the role of multilingual strategies in writing for the development of multilingual writing competence

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The growing body of research on multilingual writing provides evidence for the positive interrelation of multilingual writing skills based on cross-sectional data gathered in different national contexts (e.g., Arias-Hermoso & Agirre, 2023). Furthermore, there is evidence for positive reciprocal effects in multilingual writing development based on a longitudinal study with large-scale samples (e.g., Schoor & Usanova, 2022). We assume that this interrelation is based on a language-overarching multilingual writing competence that allows students to draw on their available resources in different languages (Usanova & Schnoor, 2022). These resources entail writing strategies that may be transferred across different languages (Victori, 1999). However, thus far it is not clear, whether and, if so, in what way multilingual writing competence is related to the use of multilingual writing strategies.

A valuable body of theoretical approaches to multilingual writing shows that an integrated model is needed which accounts for literacy skills and their interrelation in complex multilingual repertoires (Canagarajah, 2015; Cenoz & Gorter, 2011). In the current study, we aim to explore the relationship between the use of strategies in writing, writing skills within specific languages, and the overall multilingual writing competence within an integrated theoretical model.

We use the cross-sectional data from the German panel study “Multilingual Development: A Longitudinal Perspective” (MEZ; Gogolin et al., 2022). For our analyses, we draw on writing competence data of 965 bilingual secondary students (364 German–Russian and 601 German–Turkish) in the majority language German (ML), heritage languages Russian or Turkish (HL), and the first foreign language English (FL). As a statistical method, we used second-order higher-order confirmatory factor analysis (CFA) to translate the theory on multilingual writing into an integrated measurement model.

The construct of multilingual writing competence shows substantial relationships with ML (.79), FL (.73), and HL (.54) writing proficiencies, indicating that every skill component represents an integral part of the construct. The amount of variance of the three writing proficiencies explained by the construct of multilingual writing competence is 62.2%, 52.9%, and 29.1% for the ML, FL, and HL, respectively. A further analysis will address the integration of writing strategies to this construct and test its explanatory power. The model should contribute to clarifying the challenges and opportunities associated with effectively developing multilingual writing competence by implementing innovative pedagogical approaches.

Unveiling developmental trajectories in disciplinary multilingual writing: a crosslinguistic and cross-disciplinary analysis of a trilingual corpus

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The main objective of this study is to explore the writing development trajectories of multilingual secondary education learners in disciplinary writing, exploring their curriculum languages (Basque, Spanish and English) and two disciplines (Science and History). The development of writing skills has been a topic of interest for researchers especially in L2 (Durrant et al., 2021), with other languages (home languages or L3s) being often underexplored. Consequently, the study of learners' multilingual writing skills requires crosslinguistic approaches, as academic language skills acquired in one language are likely transferred to the learner's other languages (Cummins, 1980a). Considering the fundamental role of acquiring discipline-specific language skills in the languages of schooling, this study is guided by the following research question: *To what extent is there parallel development in students' writing across three languages and two disciplines?*

The corpus of this cross-sectional study is composed of 594 argumentative source-based texts written by 99 secondary education Basque-Spanish bilingual students. Learners ranging from Year 7 to Year 10 (ages between 12 and 16) composed a total of six texts about Science and History in Basque, Spanish and English. The corpus was processed and analysed with MultiAzterTest (Bengoetxea et al., 2020), a multilingual corpus analysis tool. For this study, a set of 36 measures common to the three languages capturing the texts' syntactic complexity, lexical complexity, fluency and cohesion were retrieved for each text. Linear mixed models were used to explore potential differences related to age, language and discipline.

Results showed similar trajectories in the development of writing measures across languages in both disciplines. A positive tendency could be observed towards more developed writing, as most measures increased at some point from Y7 to Y10, especially in science essays, with significant changes often occurring between Y7 and Y8, followed by stabilisation between Y8 and Y10. English writing showed the steepest development, which had the lowest starting point but often converged with the other two languages at Y10. Cohesion-related measures (i.e., connective counts and incidences) and lexical complexity measures changed the most. Interestingly, although similar patterns could be seen in both disciplines, fewer differences were found in History essays in Spanish and Basque than in English. Findings from this study have important implications for multilingual education and language acquisition, supporting positive crosslinguistic transfers across one's languages in writing development.

Can feedback on English argumentative writing also improve writing in German? An exploration of cross-linguistic transfer

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Argumentative writing is crucial for students' academic development but is often difficult to master, making it crucial to support students with feedback. Higher-order competencies, such as argumentative reasoning, may also be transferable across languages, according to Cummins' (1980b) linguistic interdependence hypothesis. Empirical evidence indeed suggests correlations between L1 and foreign language (FL) argumentative writing (e.g., Van Weijen et al., 2019), however, there is a scarcity of writing and feedback interventions investigating cross-linguistic transfer. Our study addresses this gap and investigates the effect formative feedback on English argumentative writing and cross-linguistic transfer to German (see Peltzer et al., 2024).

We conducted a randomized controlled intervention study with 294 secondary school students and compared three types of formative feedback (EG1: rubric and exemplar feedback; EG2: in-text comments; EG3: and a combination of both) to two control groups (CG1: no additional feedback; CG2: no intervention). We holistically assessed writing quality using the software Comproved for comparative judgment (pre-, post-, and follow-up tests: 1122 essays in English; pre- and post-tests: 588 essays in German). We conducted repeated measures ANOVAs and regression analyses to investigate feedback and cross-linguistic transfer effects. Results show significant improvements in English writing quality for all feedback groups, with EG1 achieving the greatest gains. Additionally, learning progress in English was a significant yet small predictor of writing quality in German at post-test. Our results indicate that feedback based on rubrics and exemplars, which can easily be implemented in larger classes, promotes writing. The intervention also stimulated cross-linguistic transfer. We are currently conducting additional analytic ratings of the same essays to further explore transfer effects regarding deep-level features (e.g., structure and coherence). We will discuss pedagogical implications, particularly focusing on the potential for creating synergy effects in writing instruction that connects different languages and helps learners link knowledge and competencies (see also Cenoz & Gorter, 2011).

Exploring Multilingual Writing Proficiency. The Use of Connectives across Basque, Spanish, and English

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Analytical writing is emphasized across the secondary school curriculum, particularly in nonlinguistic subject areas. However, there is limited understanding of how young adolescents develop the advanced language and literacy skills necessary for such complex tasks. Uccelli (2023) introduced the construct of Core Analytical Language Skills (CALS) to address the literacy demands of schooling. CALS refer to a set of language resources essential for both understanding and producing analytical texts across various content areas. Notably, CALS scores have been found to predict overall persuasive writing quality (Andreev & Uccelli, 2024). Emerging research underscores the importance of connectives in school-relevant writing, especially in supporting the organization and coherence of texts (Taylor et al., 2019).

The current study investigates Basque multilingual students' use of connectives as predictors of overall writing quality in Basque, Spanish and English, taking into account their receptive language skills and sociodemographic factors. Participants were secondary school students (N = 134) from two trilingual public schools, where Basque serves as the primary language of instruction. The sample consisted of 47.4% female and 52.6% male students, with 15.9% identifying Basque, 61.1% Spanish, and 23% both as their first language. Students completed three writing tasks, one in each language, in a multimodal format, integrating images and text. A total of 402 written texts were analyzed. Writing quality was assessed holistically using by Polio (2014). For the analysis of Basque and Spanish connectives, we utilized Hyland's (2005) classification system, further adapted by Andreev and Uccelli (2024), to create a unified framework for categorizing connectives across Basque, Spanish, and English.

We performed correlational and multiple regression analyses to explore how connective frequency and diversity contributed to writing quality in Basque, Spanish, and English, while controlling for sociodemographic characteristics. The findings revealed that participants' receptive academic language skills were positively associated with both the frequency and diversity of basic and analytical connectives used in their writing. Additionally, these connective features were predictive of overall writing quality, highlighting the role of language resources in multilingual writing contexts.

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Collaborations for multiliteracies: in and out of school partnerships to foster literacy in multiple languages across ages, languages and settings

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Traditional definition of literacy refers mainly to the ability to decode and understand using printed and written material in varying contexts (UNESCO, 2024). Overcoming the limitations of education focused on print-based texts, the concept of *multiliteracies* refers to an evolving framework that recognizes the diverse ways in which multilingual individuals communicate and make meaning in a rapidly changing world. *Multiliteracies* encompass a variety of communicative modes, including visual, auditory, and digital forms, thus expanding the definition of literacy to include multimodal and multilingual communication practices (Kulju et al. 2018). By embracing a *multiliteracies* approach, educators can create inclusive learning environments that value all forms of multilingual communication and representation, thereby preparing students for a complex and interconnected world (Atsani, & Damayanti, 2022). Together with educators, researchers and practitioners can turn the focus towards *multiliteracies* with the aim of fostering literacy, and thus, the learning process, in multiple languages and settings. In this symposium, we aim at presenting and discussing the role of collaboration with different partners in and out of school to foster literacy across ages, languages and settings. For that, different scholars and researchers from various European contexts share findings on the importance of collaboration to foster literacy across languages, age groups and settings. All the studies contribute to the fourth goal of the United Nations' Sustainable Development Goals (SDGs) which aims at ensuring inclusive and equitable quality education and promotes lifelong learning opportunities for all (United Nations, 2015).

The first paper exposes the collaboration among researchers and practitioners to promote early literacy in Ireland, the Netherlands and Spain where regional minority languages coexist within the increasingly multilingual classrooms. Two other papers present the collaboration among researchers and teachers to design and implement didactic units using *multiliteracies* to foster literacy among primary and secondary school students in the Netherlands and in Spain. The fourth paper shares the importance of collaboration among pre-service and in-service teachers and parents and families to support teenagers' multilingualism in Norway.

The symposium will end with a discussion on the importance of collaboration among all stakeholders in and out of school and the possible ways collaboration can be encouraged and carried out to foster literacy across ages, languages and settings.

Research-teacher partnerships to foster early literacy development in minority and migrant languages – examples from the Read with MEE project

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Given the increasing linguistic diversity in education and the associated pressure to reduce unequal opportunities for pupils from different backgrounds, more attention is being given to the importance of linguistically and culturally responsive teaching (Lucas & Villegas, 2013). Teachers often still feel unprepared to teach classrooms that are linguistically and culturally diverse (Forghani-Arani & Bannon, 2019). Consequently, also in early childhood education and care (ECEC), children with different language backgrounds experience different opportunities to use their home language for learning, resulting in unequal learning opportunities (Rickert, 2024).

Researcher-practitioner collaborations may contribute to the development of educators' knowledge and skills by bridging the gap between theory and practice. Research Practice Partnerships (RPPs) between researchers and practitioners (including teachers and teacher educators and other professionals in the field) can function as a bottom-up approach to stimulate evidence-informed practices (Coburn & Penuel, 2016). This paper will focus on the question how RPPs can contribute to practices that stimulate early literacy skills in pupils' multiple languages (children aged 2 to 6).

The data originates from the international project Read with Multilingual Early Education, in which researchers work together with ECEC professionals. The project aim of collaborating in RPPs is to gather and develop good practices stimulating early literacy development among multilingual children aged 2 to 6. We collected video- and audio-recordings of RPP meetings during the first half of the project. Based on discourse and thematic analysis of the interactions during RPP meetings, we present how professionals' needs in this area are collected, and how the collaboration between researchers and practitioners resulted in the implementation of new practices that stimulate young children's multiliteracy development. We discuss to what extent the development of the interactions relate to different activities during our RPP meetings in comparison to prior research (Babichenko, Lefstein & Asterhan, 2024). Consequently, the main principles for developing RPPs in early childhood education aimed at stimulating multiliteracies are discussed.

Engaging in a research-practice partnership to investigate translanguaging routines in primary newcomer education

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As classrooms become increasingly diverse, there is a growing interest in adopting more inclusive educational approaches, such as translanguaging and broader multiliteracies strategies. Despite this interest and teachers' efforts to implement these inclusive practices, various challenges often prevent widespread adoption of such strategies (Ticheloven et al., 2019; Makarova et al., 2023). This highlights the need for actionable knowledge—practical know-how combined with scientific theory that makes instructional innovations feasible (Bereiter, 2013; Janssen et al., 2015). To create actionable knowledge, close collaboration between educators and researchers is essential.

In this presentation, we will discuss a research-practice partnership (RPP) between an experienced teacher specializing in newcomer education and a researcher (the first presenter). This study is part of a larger project, Multilingual Voices in STEM Education, which involves collaborative research with teachers, museum professionals, and parents and makes use of a Design-Based Implementation Research (DBIR) approach. Our presentation aims to achieve two objectives: 1) to offer insights into the collaborative process and how we have sustained the partnership, and 2) to present actionable knowledge that supports the promotion and implementation of translanguaging, thereby potentially enhancing students' literacy in multiple languages.

Our study took place in the Netherlands within the context of newcomer education. Typically, the teacher primarily used Dutch while students were still acquiring the language. The teacher skillfully balanced Dutch language instruction with content teaching, utilizing students' home languages for both purposes, without speaking these home languages herself. Over the course of one year, we collected data through weekly audio-recorded discussions between the teacher and researcher, addressing the teacher's challenges with multilingual teaching strategies. Additionally, we conducted monthly observations and took notes. The weekly discussions involved the teacher reflecting on her strategies, their rationales, and the challenges encountered. Together, the teacher and researcher co-designed a series of translanguaging activities.

Regarding our first objective, we will discuss which key factors contributed to the success of the RPP, among which regular communication, member checks, and joint conference contributions. For our second objective, we will present the outcomes of the RPP, including

lesson plans for teachers, insights into practical challenges, and a framework for integrating translanguaging strategies into teaching routines.

Home-School partnership to foster multilingualism among teenagers: An investigation into home linguistic environment and language teachers' perspectives

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While both schools and the home linguistic environment play important roles in developing multilingualism among teenagers, most research has focused on either school or home environments in studying multilingualism. This study from the Norwegian context, however, explored language learning and multilingual development in both settings. First, data from families were collected through an adapted version of the Ungspråk questionnaire (Haukås et al., 2021) from teenagers and interviews with parents. The findings from the thematic analysis (Braun & Clarke, 2006) suggest that home linguistic environment and parental active involvement in teenagers' language learning process have a direct impact on teenagers' language learning experience and views on multilingualism (Hosseini & Haukås, 2024, In press).

Recognizing the significance of bridging the gap between schools and families, the focus of the second part of the study shifted to investigate the perspectives of pre- and in-service language teachers on the role of families in students' language learning. A total of 17 participants, four in-service teachers and 13 pre-service teachers, took part in the study. Participatory interviews were conducted with four language teachers teaching Norwegian, English, Spanish, and French, where they shared their perspectives about the role of families in language learning and then were invited to reflect on the findings from the first part of the study with families. The pre-service teachers participated in Focus Group Discussions (FGD) after being presented with the data from the families.

Thematic analysis (Braun & Clarke, 2006) was used to analyze data from both groups of teachers. Initially, the language teachers did not consider families as primary contributors to teenagers' multilingualism. However, after engaging with the study findings, discussing implications, and reflecting on the potential ways to facilitate collaboration, they recommended strategies such as maintaining clear communication through accessible platforms, mapping students' language backgrounds, distributing informative language learning materials to parents, and conducting language workshops during parent-teacher meetings. Pre-service teachers were more willing to collaborate with families than the in-service teachers. They suggested additional strategies, including 'language evenings with parents' and language teachers' collaboration with class teachers to provide comprehensive reports on students' language learning progress to families.

The findings of this study highlight 1) the importance of families in enhancing teenagers' multilingualism, and 2) the need for both in- and pre-service teachers to recognize the importance of home-school collaboration. Rather than merely stating the necessity of family-school collaboration in official documents, such as the Norwegian core curriculum, this awareness could be effectively cultivated through incorporation into teacher education programs.

Collaboration among researchers and schools to promote literacy in primary and secondary schools

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This paper presents an educational research project conducted in the Basque Country aimed at developing multiliteracy in primary and secondary education. The project intersects with recent studies on multilingualism in education, which advocate for blurring the boundaries between languages, and with research on content and language integrated learning. We explore pedagogical translanguaging as a strategy to address the challenges of fostering students' multilingual competence while also facilitating content learning in a second or additional language (Cenoz & Gorter, 2022).

In this context, where the primary language of instruction is Basque, a significant portion of students acquires curricular content through a second or even third language, which is also a minority language. Basque educational law mandates that all students develop language competences in both co-official languages (Basque and Spanish) and at least one foreign language (English).

In order to enhance the students' literacy in the three school languages, a pedagogical intervention was designed, implemented, and later on, the results were analysed. The creation and evaluation of the didactic materials used during the intervention resulted from a collaboration between three researchers from the University of the Basque Country and 33 teachers from both language and content areas across ten public primary and secondary schools. We employed a mixed-methods design with multiple phases to design, implement, and evaluate didactic strategies that integrate a translanguaging approach. From this perspective, the materials utilized not only multiple languages but also various registers and semiotic resources to help students deconstruct the complex language found in school texts.

The collaboration spanned three intervention studies. First, we conducted a pilot study to gather information for refining instruments and materials. Second, we carried out an intervention study across three language subjects to identify effective didactic strategies for enhancing students' academic competence. Finally, the identified strategies were integrated into an interdisciplinary pedagogical project involving both language and science subjects. The collaboration between researchers and teachers occurred at several key stages throughout the three studies. Initial contact was made to assess the pedagogical needs of the teachers and to align the project objectives with these needs. Subsequent brainstorming sessions facilitated the exchange of ideas and the co-creation of teaching materials tailored to each subject. Existing school resources were also analysed to ensure that the new materials were coherently integrated with current pedagogical practices. Throughout the

development of the materials, regular reviews were conducted to adjust and improve the resources based on their classroom effectiveness and to address emerging needs.

Data for the current study were collected through group and individual interviews of all teachers and classroom observations. The data were audio recorded and later triangulated with field notes. We found that this collaborative process was crucial in maintaining the relevance and effectiveness of the interventions. This feedback process was essential not only for the success of the interventions but also for identifying critical aspects for the future development of multilingual policies and resources.

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Different Perspectives of (Pre)Literacy Assessment and Development in Multilingual Contexts

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The EU Education Area (EEA) emphasizes that multilingual children “generally perform worse in attaining basic skills than their peers”, and “schools need to adapt their teaching methods to engage with children's linguistic and cultural backgrounds in a positive manner”. Although multilingual classes have become the norm in many major immigration countries, the societal majority language typically serves as the sole medium of education, even for assessment. This results in unfair assessment and an incomplete picture of children’s competencies.

The present symposium gathers longitudinal and cross-sectional data from 3 continents to explore various perspectives of (pre)literacy assessment and development in different multilingual contexts.

Studies 1 and 2 focus on the European educational environment for children with various heritage languages. Study 1 monitors the longitudinal development of Italian (pre)literacy skills from kindergarten to second grade. It identifies two cross-sectional measures that can assess (meta)phonology in kindergarten and predict subsequent literacy development in both monolingual and bilingual learners, regardless of language dominance.

Study 2 examines 4th- and 5th-graders receiving Italian education. A didactic intervention targeting complex syntactic structures involving anaphora resolution, which often pose challenges for L2 children, positively affected core oral and writing production skills. However, this study highlights the need for tailored instructional strategies for bilinguals to succeed in text comprehension.

Study 3 analyzes matched samples of English monolingual, Spanish-English bilingual, and Chinese-English bilingual children aged 5–9 in an American school setting, utilizing a new assessment tool for derivational and compound morphological awareness. The results indicate cross-linguistic differences and bidirectional associations between literacy skills across typologically distinct orthographies, suggesting implications for English literacy development across diverse learners.

Study 4 investigates minority primary-school children in India, for whom the challenges of the English medium of instruction add to existing marginalizing socioeconomic factors. Building on recent findings from a multilingually-resourced intervention programme for reading comprehension, the study presents the essentials for a promising combination of multilingual teaching, learning, and assessment tools designed for multilingual learners.

Recognizing the difficulty of achieving the Quality of Education (UN Sustainable Development Goal n. 4) in heterogeneous linguistic contexts through univocal solutions, the symposium suggests four different perspectives based, respectively, on cross-linguistic assessment, structural intervention, bilingual-biliteracy assessment, and code-mixing, on which building to develop distinct and possibly complementary approaches.

Cross-linguistic Predictors of Literacy in Monolingual and Heritage Bilingual Children. Longitudinal Evidence from a Shallow-Orthography Language

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Multilingual classrooms including a high presence of heritage speakers, where the societal majority language is the sole medium of instruction, pose a hard challenge for children's evaluation. Given the impossibility of testing each child in all their languages, due to the lack of adequate tools and multilingual professionals, children are, in fact, generally tested only in the societal majority language. This results in an incomplete picture of their language competence in both educational and clinical contexts, potentially leading to assessment problems and, in cases of language and reading difficulties, to over- or under-diagnosis.

The present study addresses this issue by exploring whether it is feasible to assess certain preliteracy skills that can effectively predict Italian reading and writing, regardless of children's language dominance.

To this aim, a comprehensive longitudinal analysis of preliteracy (language, phonological awareness, visual and verbal working memory, and Rapid Automatized Naming (RAN)) and literacy skills (word and text reading and writing) was conducted for the first time in Italian, a shallow-orthography language. A total of 172 children (76 mono-literate bilingual speakers of different heritage languages + 96 Italian monolingual children within the same educational setting, matched for age/grade, sex, and socio-economic status) were assessed with standardized tools through five testing sessions (Figure 1) during the most sensitive period of (pre)literacy development, i.e., from the last year of kindergarten to the 2nd grade of primary school.

Analyses of generalized mixed models for repeated measures revealed a three-step (pre)literacy acquisitional pattern: (1)an initial overload of working memory at the beginning of 1st grade, which was progressively relieved as (2)automaticity skills (RAN) and phonemic awareness were acquired and refined (end of 1st grade). (3)By the middle of 2nd grade, language (vocabulary and morpho-syntactic skills) and complex phonological manipulation skills (spoonerisms) were the main literacy predictors.

This developmental pattern was consistent for both bilinguals and monolinguals, although bilinguals initially showed a significant disadvantage in tasks involving language skills, which also impacted their verbal working memory. This disadvantage was attributed to the lower exposure to Italian input for bilinguals, who typically use their heritage languages outside of school, in contrast to Italian monolinguals, who communicate exclusively in Italian. It was confirmed by the fact that bilinguals reached monolinguals in all types of metaphonological and RAN tests by the end of the 1st grade (Figures 2-3). However, since kindergarten,

bilinguals performed at a level comparable to monolinguals in pseudoword repetition and syllabic segmentation. These skills were also identified as longitudinal predictors of, respectively, reading fluency and word writing in 1st grade for both groups.

These findings suggest that pseudoword repetition and syllabic segmentation can be utilized in kindergarten to assess phonology and meta-phonology, and to predict 1st-grade reading and writing development among monolingual and bilingual children, regardless of their L1s. Given the cross-linguistic key role that these two (meta)phonological skills have been assuming in predicting developmental language disorders, these data promise to impact the scientific, clinical, and educational communities engaged in reading testing and intervention in Italian and similar shallow-orthography languages.

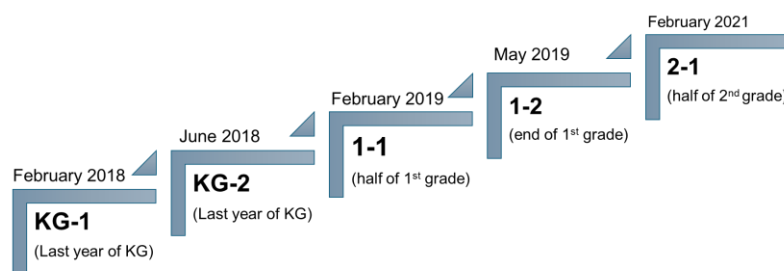
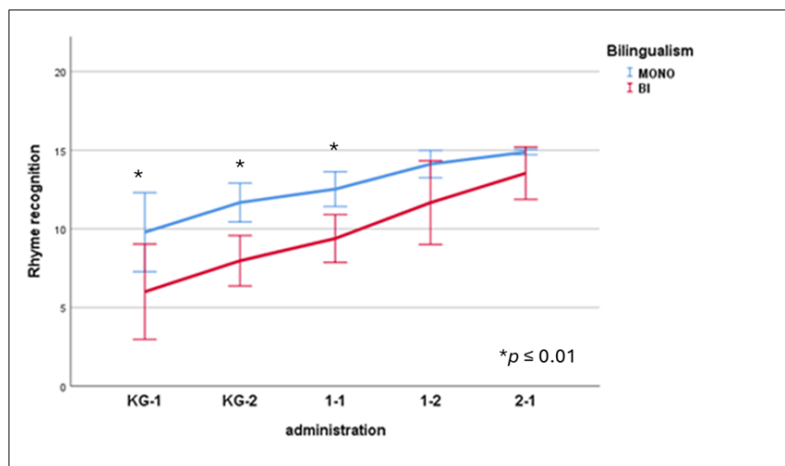
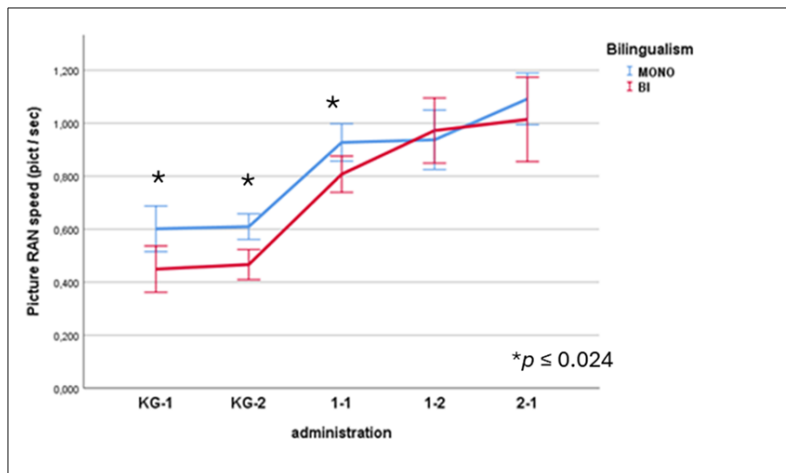


Figure 1. Longitudinal testing design from Kindergarten (KG) to 2nd grade.





Figures 2 - 3. After initial difficulties in Kindergarten (KG), bilingual children reach the same level as monolinguals in all phonological awareness (see rhyme recognition in Figure 2) and RAN (see picture RAN in Figure 3) tests yet by the end of the 1st grade (1-2).

Comprehension and Production of Referential Expressions. A Didactic Intervention for L1 and L2 Italian Primary School Children

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The ability to comprehend and produce anaphoric and referential expressions is fundamental for both spoken and written communication and thus constitutes a critical skill for literacy development. However, it often poses challenges for linguistically vulnerable individuals (Sorace & Filiaci, 2006; Sorace et al., 2009; Contemori et al., 2019). This study has the twofold aim of *(i)* further exploring the comprehension and production of anaphoric expressions in monolingual and bilingual primary school children in Italian, and *(ii)* assessing the effectiveness of a targeted intervention designed to enhance these essential literacy skills.

A total of 176 4th- and 5th-grade students participated in this study, consisting of 101 monolingual Italian children and 75 bilingual children with Italian as a second language and different family languages spoken at home. Half of the children (M = 51; B = 46) were involved in a 10-hour didactic intervention aimed to enhance their comprehension and production of referential expressions and pronouns. During the pre-intervention assessment, we collected precise information about the children's background and literacy skills, including reading, text comprehension, and working memory, as well as their comprehension and production of anaphoric expressions. Specifically, we administered an anaphora resolution test and a written and oral production task, whereby participants were asked to narrate a story based on a black and white storyboard, first in written form and then in oral form.

Pre- and post-intervention comparisons revealed that the training had a significant impact on the children's production of anaphoric expressions in both oral and written narrative tasks. After the intervention, all children of the experimental group demonstrated significant improvement in the use of appropriate referential expressions. Specifically, both monolinguals and bilinguals showed increased use of synonyms ($p < .05$) and pragmatically appropriate full pronouns in written tasks ($p < .001$), while bilinguals also exhibited a notable reduction in repetitive anaphoric expressions in writing compared to pre-test levels ($p < .01$), thus pointing to a positive impact of the training on their linguistic and literacy development. As for comprehension, instead, the intervention resulted as particularly effective for monolingual children, who showed significant improvement in anaphora resolution tasks compared to the control group ($p < .01$). Bilingual students, instead, who initially demonstrated poor performance, continued to struggle with assigning the correct referent

to zero and full pronouns, suggesting that additional, tailored instructional strategies may be necessary for this group.

These results will be discussed underscoring the important role that specific training in anaphoric expressions can play in developing core literacy skills for both monolingual and bilingual children.

Assessing Morphological Awareness and Cross-Linguistic Transfer in Bilingual Readers

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Words' morphemic structure and their orthographic representations vary across languages. How do bilingual experiences with structurally distinct languages influence children's morphological processes for word reading? To answer this question, we investigated English bilinguals in the United States with two contrasting home languages: Spanish, which has highly productive derivational morphology, and Chinese, in which the majority of words are lexical compounds. This talk reviews two novel measures designed to assess English morphological awareness and bilingual cross-linguistic transfer in dual first-language learners.

In Study 1, we used the novel Early Lexical Morphology Measure (ELMM) to assess sensitivity to derivational (friend-li-est) and compound (girl-friend) morphology in matched samples of English monolingual, Spanish-English bilingual, and Chinese-English bilingual children, ages 5–9. In Study 2, we designed a parallel measure of Spanish morphological awareness (ELMM-S) to examine the associations between morphological awareness and literacy outcomes, both within and between languages.

Study 1 asked: how does bilingual experience with distinct morphological structures, such as derivational morphology in Spanish, or lexical compounding in Chinese, influence the role of morphological awareness in English reading? We hypothesized that dual-language proficiency in Spanish or Chinese would have a contrasting, language-specific impact on children's reading processes in English. We tested this hypothesis with samples of 69 monolingual English, 69 Spanish-English bilingual, and 69 Chinese English bilingual children ages 5-9, all with matched English oral language and reading proficiency. Indeed, Study 1 revealed a cross-linguistic interaction between language group and type of morphological awareness (Figure 4). Specifically, bilinguals' proficiency with morphology less characteristic of their home language (i.e., derivation in Chinese) explained greater variance in English literacy. These findings highlight the powerful effects of bilingualism on word reading, advancing theoretical perspectives on literacy among diverse learners.

Study 2 aimed to clarify the relations between morphological awareness and literacy outcomes in both Spanish and English in simultaneous bilingual learners (N = 90, M age = 8.1). Children completed parallel assessments of language and literacy (i.e., phonological

awareness, vocabulary, word reading, reading comprehension, and the ELMM and ELMM-S). First, we observed cross-linguistic differences in the within-language associations between morphology and reading. In English, morphological awareness was directly related to word reading and reading comprehension, whereas in Spanish, the association with reading comprehension was fully mediated by vocabulary and single-word reading. Second, we observed cross-linguistic associations from English word reading to Spanish reading comprehension, and from Spanish reading comprehension to English reading comprehension (Figure 5). Our findings inform bilingual literacy theory by revealing both cross-linguistic differences and bidirectional associations between literacy skills across typologically distinct orthographies. Together, these studies inform the role of bilingualism in literacy development, showing both cross-linguistic interaction and bidirectional transfer in bilingual children’s morphological awareness and early literacy skills.

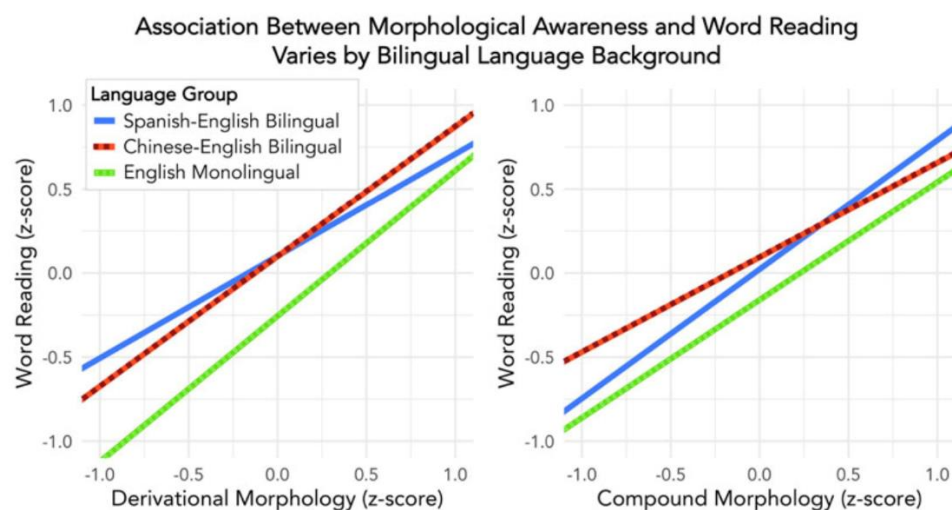


Figure 4. Interaction between home language background and type of English morphology

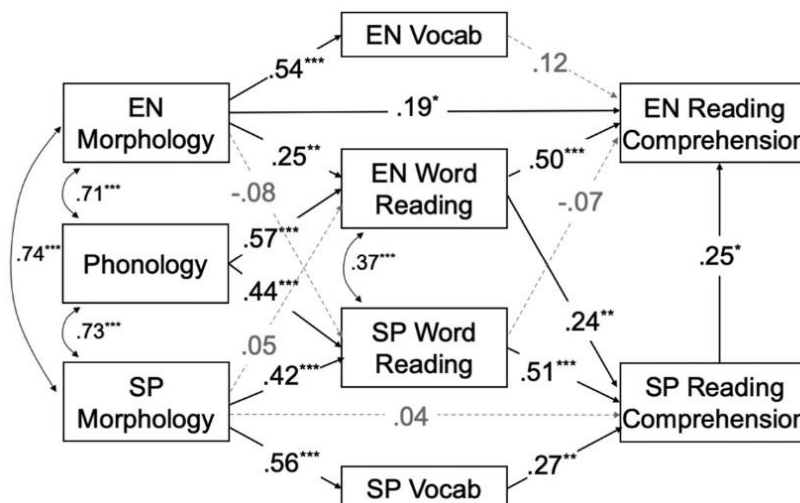


Figure 5. Structural equations modeling results revealing within- and between-language associations between Spanish and English literacy skills

A Multilingual and Multimodal Approach to Teaching, Learning and Assessment of Literacy Skills: a Study of Underprivileged Primary School Children in India.

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Learning in school years inevitably requires language skills across subjects in the curriculum. Language of education is thus at the heart of accessibility of knowledge, skills, and learning outcomes, particularly for young learners. Multilingual learners in linguistically diverse societies such as India can comprehend and acquire school subject content in languages they know, while learning new language and content simultaneously can unduly aggravate the process of learning particularly for learners growing up in underprivileged contexts with little home literacy support and low school resources.

The study begins with the significant challenges primary school children (Grades 4 and 5) in India face when reading and, to a lesser extent, when listening for comprehension, and how language of education is the main factor at stake. Disadvantages for minority and marginalized learners are evident, while English medium of instruction schools add to the difficulties that socioeconomic factors have already created for both teachers and learners.

Building on recent findings from a multilingually-resourced intervention programme for improving reading comprehension skills in government school learners in Hyderabad, the essentials for a promising combination of multilingual teaching, learning, and assessment tools designed for multilingual learners will be presented.

It will be argued that although multilingual education seems to be the way forward, its implementation needs to endorse the naturalness and ecological validity of oral language switching (code-mixing) in societies where multilingualism is the norm. Flexibility in language usage during lesson delivery and assessment is key not only for improved learning outcomes but, perhaps more importantly, for the mental health and well-being of teachers and learners in the educational context.

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Engaging the Public with Bilingualism Research: Challenges and Best Practices

Chair: Sharon Unsworth, sharon.unsworth@ru.nl

Academics are often expected to engage the ‘general public’ with their research. This is sometimes part of their job description, but often something done on the side, outside of regular working hours and with limited recognition or reward. ‘Public engagement’ is a broad term, used in different ways across different fields and in different countries (Culum, 2020), and defined variously in terms of its objectives, audiences and/or activities (Weingart et al., 2021). The goal of this symposium is to bring together bilingualism researchers who (want to) engage the public to share best practices and lessons learned in the hope that this will not only serve as inspiration but also kick-start a broader discussion about public engagement and science communication in the ISB community more widely.

Of the many and varied topics in the language sciences, bilingualism and language learning is one which is both tangible and relevant to people of all ages, from various walks of life, and across many parts of the world. As such, researchers working on this topic are regularly asked to provide scientifically sound input and advice to parents and professionals, organisations and institutions, policy makers and press. Indeed, there are many examples from around the world of bilingualism researchers engaging with non-academic audiences at the local, national and international levels (e.g., the Bilingualism Matters network). At the same time, despite this interest and researchers’ endeavours, many myths about bilingualism and language more generally persist (Wagner et al., 2023), and language science remains relatively unknown (Wagner et al., 2022).

This symposium includes talks by three (groups of) researchers from different fields of bilingualism (psycholinguistics, sociolinguistics, child language development) who each have extensive experience engaging the public with bilingualism research. Here, we adopt a broad definition of public engagement, with dissemination and education at one end of the participatory ladder of science communication, and collaboration and co-creation at the other (Figure 1).



Figure 1. The participatory ladder of science communication (taken from Gascoigne et al., 2022, *Lusophone Journal of Cultural Studies*).

Each talk follows the same format: after briefly presenting one or more of their public engagement projects, each speaker considers the opportunities and challenges each of these projects have afforded them.

Taking Language Science on the Road: Collecting Research Data during Public Engagement Activities and Festivals

Thomas Tienkamp¹ & Hedwig Sekeres¹

¹University of Groningen, The Netherlands

Our first presentation centres around a public engagement initiative focusing on the promotion and documentation of regional language variation, primarily at music festivals (e.g. Zwarte Cross and Lowlands, two of the largest music festivals in the Netherlands) and regional events using a mobile laboratory (Figure 2). One goal is to improve people's attitudes towards regional languages and to promote their use through a recently developed board game (Figure 2). Achieving this goal is important because the use of regional languages is in decline, and people often harbour negative attitudes towards (speakers of) regional languages (Buurke et al., 2024; Hilton & Gooskens, 2013). The boardgame, which plays like a cross between Risk and Trivia, invites people to learn more about linguistics in general, and the rich linguistic diversity in the Netherlands in particular, by answering questions and engaging in linguistic 'battles'.



Figure 2. Left: The mobile laboratory during an outreach event. Right: The boardgame

A second goal is to collect data from speakers of regional languages in order to document regional language change and improve speech technology's inclusivity. Current systems often underperform for these speakers, as models are trained on 'standard' language variants (Feng et al., 2024). Through short game-like experiments, we invite people to see if: 1) our developed AI system can predict their origin based on their speech, and 2) whether

people or machines are better at recognising Dutch accents. By taking an experimental setting (i.e., a sound-dampened booth) to festivals using our mobile laboratory, we have been able to collect high-quality data despite the adverse recording conditions.

The best practices that emerge from our activities are, first, the importance of keeping experiments short (i.e., maximum 5-10 minutes). Short experiments allow individuals to participate between other festival activities and allow the researcher to collect data from a large and diverse sample ($n = 600+$ for our latest experiment). Second, visitors are more likely to engage if there is a game-like aspect present, or if a result is shared with them at the end. In our case, participants are presented with the AI's prediction of where they are from. Anecdotally, this has resulted in much discussion between participants about how their upbringing has shaped the way they speak.

While there remains a form of self-selection as to who visits these events, they nevertheless allow us to recruit a more diverse group of participants than would have been possible staying on campus. This presentation will show that the promotion of regional languages at festivals may go hand-in-hand with the creation of large speech corpora that are used in scientific research. In other words, it is perfectly possible to combine public engagement and research.

Engaging Children from Diverse Backgrounds with Language Science: Evidence from *Kletsoppen* ('Chatterboxes') Child Language Festival

Sharon Unsworth¹

¹Radboud University, Nijmegen, The Netherlands

Language scientists will no doubt find it hard to imagine, but not everyone can get as excited about language as we do. Indeed, children often find language boring and difficult (van Asseldonk & Coppen, 2021). Furthermore, bilingual children are often left feeling insecure and sometimes even ashamed of their heritage language skills, especially in languages undervalued by the local community (Agirdag, 2019). As for children's perceptions of science, these are almost exclusively shaped by the 'hard' sciences and the idea that language can be the object of scientific inquiry remains an alien concept (Wagner et al., 2022). In short, the position and perception of language by children (and wider society) faces several challenges. The second presentation in the symposium presents a public engagement initiative which aims to address these challenges by organising activities (festivals and lessons) for children from diverse backgrounds to help them discover the science behind language. Our goals are to increase children's enjoyment of language, broaden their view of science, and help them better appreciate their own (multilingual) knowledge.

A number of best practices emerge. First, to reach diverse audiences, go to the people rather than expecting them to come to you. For example, whilst our flagship festival in the city's central library has the largest audience (on average 1000 visitors), replicating this event on a smaller scale in district libraries in less wealthy parts of town has enabled us to reach more diverse audiences. Second, it is essential to check assumptions about what your audience finds interesting and enjoys. This can be achieved in a playful manner, e.g., by having children act as 'festival inspectors' (Figure 3). Third, measuring audience engagement forces you to think more carefully about your goals and in doing so, improves the quality of your activity (see Figure 4 for examples). Finally, involving students in public engagement activities can provide learning experiences often unavailable elsewhere in their study programme, with personal, academic and career benefits (Patson & Wagner, 2024).



Figure 3. Festival inspectors



Figure 4. Examples of impact measurements. Clockwise, starting from top left: visitor survey, ‘help the language scientist’ game, postcards used to measure children’s attitudes to multilingualism before and after their festival visit, children anonymously expressing their opinion using a physical Likert scale as part of a focus group.

Challenges we have faced include finding sustainable funding and ensuring researchers are compensated for their time. Data from impact measurements and visibility have helped overcome these challenges, for example, by being able to demonstrate with impact data (Figure 4) that after attending one of our festivals, children considered being multilingual more important than they did beforehand. More generally, this presentation provides concrete examples of how to engage children with bilingualism research and what the impact of this engagement involves.

From the Lab into the World: Bringing Bilingualism Research to a Public Audience

Viorica Marian¹

¹Northwestern University

Our third and final presentation takes a broader perspective to dissemination of research by focusing on engaging with a broader general audience through popular science articles, OpEds, interviews, and traditional and social media. Bringing empirical research to a popular audience not only increases the visibility of research findings, but also ensures that bilinguals and multilinguals see themselves represented in the social discourse. Increasing the visibility and understanding of bilingualism and multilingualism in the general population can also help decrease bias and discrimination against linguistically diverse populations.

Specific initiatives, like the OpEd Project, will be presented. Possible resources available at your institutions or in your communities will be discussed. Suggestions on how to get started on writing popular science articles, engaging with a general audience, and best practices when giving media interviews will be considered, along with the risks and benefits involved.

One of the challenges to public engagement is that the time and effort devoted to it is typically not compensated and is in addition to the formal job requirements placed by employers. Even more challenging, perhaps, is that it can be scary to speak up in a public forum, to write publicly, and to talk in front of a large and non-academic audience, due to the criticism, negativity, and partisanship that can ensue. But for every person who does not make their voice heard, someone else has the floor. And when voices that are more measured, more thoughtful, more informed, or from a different walk of life do not participate in public discourse, what is lost is an accurate representation of society. If the informed and measured voices opt out of public discourse, the narrative becomes skewed in favour of those less knowledgeable and more extreme. Which is why it is so important to include the voices of bilinguals, multilinguals, and the researchers who study them and can provide accurate information based on facts and science. If the alternative to saying something is saying nothing, then the alternative to consequences is to be inconsequential.

Discussion

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We conclude our symposium with a general discussion (with input from the audience) of more general issues relating to science communication in academia such as areas of tension relating to institutional embedding, support and training (Rose et al., 2020), and seeking support from colleagues in the 'research-adjacent space' (<https://sarahmclusky.com/research-adjacent-podcast>) rather than (re)inventing the wheel.

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Immersion programs in minority languages and migration languages: confronting the other faces of bilingualism in Ireland, Wales and the Basque Country

Chair: Saioa Larraza, saioa.larraza@ehu.eus

This symposium analyzes a double educational challenge for the promotion and maintenance of linguistic diversity in the European territory: the access of students of migrant origin to immersion models in minority languages and the development of their home languages.

One of the pedagogical principles that has characterized minority language immersion systems is the consideration of the home language to achieve bilingual/plurilingual competence (Idiazabal & Dolz, 2013). Today, in contrast, the linguistic diversity in educational contexts makes this goal more challenging, as not enough resources have been developed for this purpose (Connaughton-Crean & Ó Duibhir, 2017). Moreover, the current linguistic diversity has not brought equal rights for all language communities.

Even so, minority languages continue to be a factor of inclusion in several European contexts (Ní Diorbain et al., 2023; Diaz-de-Gereñu & Idiazabal, 2024), since socialization always takes place in sociocultural contexts in which minority languages can have significant identity, integrative or instrumental values (Roman et al., 2024). However, certain difficulties are observed in the incorporation of migrant background students into minority language immersion systems, which do not favour social cohesion. The educational success of the migrant population is established as one of the priorities, and its accomplishment depends, to a large extent, on the socio-educational conditions under which it is received (Perez-Izagirre et al., 2024).

We consider it necessary to examine the different contexts with European minority languages (e.g., Welsh, Irish or Basque), in order to know how bilingual/multilingual schools with minority language immersion are acting in the schooling of migrant background students, and what challenges are identified.

Why we need to promote the benefits of Irish immersion education for families from linguistically & culturally diverse backgrounds

Aisling Ní Dhiorbháin¹, Sinéad Nic Aindriu¹ & Pádraig Ó Duibhir¹

¹Dublin City University

As with many other developed countries, Ireland has witnessed a significant increase in inward migration since the early years of this century leading to increased linguistic and cultural diversity. The population of the Republic of Ireland increased to over 5 million in the period 2016-2020 (CSO, 2023), with over 190,000 people coming from abroad. As a result, Ireland is an increasingly multilingual and multicultural society with over 200 languages spoken daily. The predominant model of schooling at primary level is English-medium where 92% of children attend these schools and the remaining 8% attend Irish immersion schools. Data from Department of Education (2022) shows that 10.4% of children attending primary school have a nationality other than Irish, this applies to only 1% of children attending Irish-medium schools. It is clear that children from linguistically and culturally diverse backgrounds are underrepresented in Irish-medium education.

Parents may choose immersion education due to intrinsic or extrinsic motivational factors (Davis et al., 2021). Immersion education can be viewed as a way to acquire linguistic, cultural, social and economic capital (Dagenais, 2003). Studies in Ireland (Mhic Mhathúna & Nic Fhionnlaoich, 2021; Ní Thuairisg & Ó Duibhir, 2016) and elsewhere (Davis et al., 2021) have shown high levels of parental satisfaction with immersion education.

The focus of this presentation is on the experiences of the parents and children who speak a home language that is different from Irish or English and attend Irish immersion primary schools. Semi-structured interviews were conducted with parents (n=18) and focus groups with children (n=16). We report parents' reasons for choosing Irish immersion education, their perceptions of Irish immersion education and the Irish language.

Based on the findings, we make recommendations on how Irish immersion education might be viewed from a plurilingual rather than a bilingual perspective where all languages and cultures together with linguistic and cultural diversity are affirmed. The conclusions will be of interest to other immersion settings where children from linguistically and culturally diverse backgrounds are underrepresented.

Teachers' Perceptions of Learners with Migrant Backgrounds in the Context of Basque Learning: A Socio-Educational Analysis

Gorka Roman¹

¹University of the Basque Country

This work explores Basque teachers' perceptions of pupils with a migrant background and their attitudes towards learning Basque within the Basque public educational system. In the context of increasing global migration and the hybridization of sociocultural and linguistic realities (Bauman & Haugaard, 2008; Hall, 2006), we examine how these pupils integrate into a multilingual environment where Basque immersion programs are offered.

Basque has historically been endangered due to political, social, and economic pressures (Roman, 2015). In recent decades, revitalization efforts have significantly increased the presence of Basque in the educational system. Basque immersion programs promote proficiency in Basque, Spanish, and English, creating a demanding linguistic environment for all students, including pupils with a migrant background. Based on concepts of ethnolinguistic identity, we investigated teachers' views on the linguistic challenges and cultural dynamics that these pupils face in immersion programs. The inclusion of students with diverse linguistic backgrounds presents a significant challenge in classrooms where Basque is a vehicle for instruction. The ability of pupils to adapt to this linguistic requirement is often influenced by factors such as their prior exposure to plurilingual education, their native language, and the social support they find both in school and within the community and families.

A quantitative survey, distributed to 216 teachers in the Basque Autonomous Community and Navarre, reveals significant variations in perceptions based on gender, teaching experience, and educational level of the surveyed teachers. Teachers report that external influences, including family and societal language preferences, heavily impact students' willingness to learn Basque (Roman et al., 2020). While some learners embrace the opportunity to learn Basque as part of their inclusion into Basque society, others express opposition or resistance, particularly when their home environments prioritize other languages (Pérez-Izaguirre & Roman, 2020).

This research highlights the tensions that exist between the region's goals of linguistic preservation and the ethnolinguistic realities of increasingly multicultural classrooms. Teachers note that the linguistic barriers experienced by learners with migrant backgrounds can often lead to feelings of exclusion, particularly when Basque is used as the primary language of instruction. The findings underline the importance of teacher support and interventions in fostering linguistic inclusion. In particular, strategies such as differentiated instruction, the development of intercultural competencies among teachers, and

collaboration with families are essential in creating an inclusive environment that facilitates language acquisition.

Rethinking the Basque immersion program: How to revitalize the local minority language while developing the home languages of children of migrant origin?

Leire Diaz-de-Gereñu¹ & Saioa Larraza¹

¹University of the Basque Country

In this presentation we review in depth the achievements and challenges of the Basque linguistic immersion program. Studies show that it is total immersion in Basque that offers more possibilities for children of migrant origin to achieve better results in both Basque and Spanish and to develop Basque-Spanish bilingualism (Berasategi et al., 2019), which is also a good basis for their social inclusion.

We have interviewed 38 teachers of Pre-school and Primary Education in public immersion schools in the Basque Autonomous Community, located in areas with low knowledge and use of Basque, and at the same time, a high migrant population. The Pre-school stage constitutes a decisive moment in families, as they decide which language they will speak with their children, while the Primary stage is considered decisive in the creation of a favourable attitude towards Basque (Arrue Project, 2013).

The results obtained show differences between the two stages in the treatment of home languages, being more explicit and systematic during the first -non-compulsory- stage. Pre-school teachers declare a willingness to influence Family Language Policy in order to preserve the home languages, with the aim of promoting the integral development of all children, something that is not so central in Primary Education.

Even so, we observe that the principles and practices that have guided bilingual immersion education in Basque are also valid in both educational stages for the new linguistic profiles presented by children (Larraza & Diaz-de-Gereñu, 2024; Diaz-de-Gereñu & Idiazabal, 2024). Consequently, the immersion teacher who works in diversity can be shown within the school community to be the strongest agent in the search for a multilingualism that takes the minority language as its axis (Garaio, 2024).

Finally, our studies converge on the urgent need declared by teachers to shape and systematize the guidelines for the reception and development of languages in a joint educational reflection.

Discussion

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In the last part of the symposium, we will delve into the main challenges that currently exist in multilingual educational environments with minority languages in terms of linguistic diversity. To do so, together with the European minority languages, we will pay special attention to the treatment that migration languages receive in the different educational systems. What does the presence of these languages mean for the development of plurilingual competence? How are they treated depending on the educational stage of the students?

A relevant aspect to discuss is the linguistic competence that students acquire through immersion programs in minority languages. What is the degree of knowledge they obtain in the curricular languages? What learning processes do plurilingual students follow? What urgent measures should be adopted to guarantee efficient teaching of the minority language to all students, regardless of their linguistic origin?

Furthermore, it seems necessary to examine the factors that intervene in the case of allophone families when choosing the linguistic models of their children. Do they show different linguistic preferences than local families? What linguistic hierarchies arise from the linguistic ideologies of the different types of families?

Finally, we will reflect on what the data presented suggest in terms of linguistic well-being. Can we speak of harmonious bi/multilingual processes or, on the contrary, would they be more frustrating or conflictive (De Houwer, 2015)? Is the multilingual objective still conditioned by a power relationship between languages that makes it even more difficult to value languages that do not belong to nation-states?

In summary, we will analyze in detail the current sociolinguistic situation of Irish and Basque as minority languages, comparing them with other languages in Europe in a similar situation (Welsh, for example). Among others, we will discuss and compare the explicit and implicit language policies of each territory, the Family Language Policies, the current status of each language within the revitalization process, etc.

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Multilingualism(s), translanguaging and transknowledging: How far have we come, how far do we need to travel to reach equality in learning and assessment?

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Introduction

ISB 9 in 2013 in Singapore hosted the first (as far as we know) panel discussion on multilingualism and assessment, *Equity and Innovation in Bilingual and Multilingual Assessment*. This conference was also a moment when Franceschini (2013) reminded sociolinguists that multilingualism had been a societal feature of human mobility from China to Europe and back for millennia. It was a moment when Aronin, Fishman, Singleton and O'Laoire (2013) drew attention to what they called 'multilingualism as the new linguistic dispensation', and May (2013) announced 'the multilingual turn'. It was also at ISB 9 that a special interest group came together to discuss the possibility of a 'Southern multilingualisms and diversities consortium' intended to draw attention to and share scholarship in multilingualism and education in postcolonial settings (including Africa and the Asia-Pacific) with more widely published northern-facing colleagues.

Twelve years later, however, assessment in mainstream classrooms continues to be conceptualized from a monolingual and individual orientation, rather than reflecting students' dynamic language use to mediate meaning and engage in communication, in activity. Against this backdrop, this symposium aims to:

1. Explore or report on progress, from different educational contexts, of multilingual approaches to the relationship among teaching, learning and assessment;
2. Explore how translanguaging, transknowledging, and translation (including machine translation) together approach equality of access and opportunity for all students; and,
3. Identify what we might be able to learn through convivial exchanges in conversations of multilingualism in assessment.

Comprising four papers, each followed by short discussion and response, the symposium brings together contributors who have been exploring multilingualism across informal, non-formal and formal (school and higher education) in Africa, Australia, Canada, and Europe for some time. The first two papers focus on education with multilingual and Indigenous

students learning in English. The following two papers focus on immigrant learners' learning of and in official language(s). In their different 'southern' and 'northern' contexts, the contributors have been searching for greater pedagogical, theoretical and ideological alignments among teaching and learning practices and assessment regimes which default to monolingual perceptions of students' epistemic and linguistic capabilities. Such limitation is often compounded by the invisibilisation of students' deep ontological footings that go beyond conventional discourses and explorations of multiculturalism or interculturalism.

The contexts in which we work are both schools and HE institutions located in metropolitan, regional and remote spaces. The greater the proximity to the panopticon, the greater the likelihood that the reins of monolingual assessment regimes tighten. The greater the distance from the metropole, the more likely we observe opportunities for two-way / both-ways epistemic, ontological, and linguistic collaborations among teachers and students (Armitage & Buddy, 24; Cenoz & Gorter, 2017; Osborne, 2021). Drawing on insights from empirical studies in situated local contexts, the symposium addresses these issues and challenges, including: how tensions between monolingual regimes and multilingual realities bring opportunities for multilingual approaches and pedagogy to teaching, learning and assessment (both formative and summative), how multilingual diagnostic reporting on assessment can contribute to teacher education, and how 'washback' from multilingual assessment may influence curriculum, pedagogy, and even theory of multilingualism.

Each paper is followed by a short discussion and response led by Constant Leung, Kings College, London.

Linguistic Diversity in South African Higher Education: Advancing Multilingualism through Assessment Practices

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Efforts to transform South Africa's education system aim to redress the legacy of colonialism and apartheid, particularly the dominance of English as the language of teaching, learning, and assessment. Despite the country's linguistic diversity, English continues to dominate over African languages in higher education. This marginalisation has fuelled calls for promoting linguistic diversity, inclusivity, and equitable access to education by elevating African languages. The post-apartheid era has seen numerous legislative frameworks and reports advocating for multilingualism in education, such as the 2020 Language Policy Framework for Public Higher Education Institutions and the 2015 Ministerial Report on the Use of African Languages as Mediums of Instruction in Higher Education. These policies encourage universities to create multilingual environments that remove language barriers to student access and success.

However, while many universities have embraced multilingualism in theory, institutional policies often still favour English, particularly in assessments. Although multilingual pedagogies are promoted, English monolingualism has persisted as the dominant language for assessments. This practice restricts the advancement of decolonisation efforts, which seek to challenge the dominance of English, embrace diverse epistemologies, and promote social justice for speakers of marginalised African languages, who are often the majority in South African classrooms.

Notwithstanding those constraints, there has been an ongoing effort to promote multilingual assessments through innovative initiatives, most of which are driven by the agency of academics. Such practices seem to be inspiring new policy directions.

This paper reports on such initiatives at two historically English-dominant institutions, namely Nelson Mandela University and Rhodes University.

Nelson Mandela University is one institution that has actively embraced multilingual assessments as part of its transformation agenda. The university's strategic priorities, including the Revitalisation of the Humanities and Linguistic Diversity, underscore its commitment to inclusivity and social justice. The Faculties of Humanities and Education at Mandela have led initiatives that integrate Afrikaans, isiXhosa, and English into assessments.

These multilingual practices aim to reflect the university's diverse student body and promote linguistic equality.

Similarly, Rhodes University has seen some progress in integrating African languages into assessments, despite its language policy not explicitly addressing multilingual assessment. Some lecturers at Rhodes have begun translating assignment and tutorial questions into isiXhosa, the most spoken language in the region. This allows students to comprehend questions more easily, even if they choose to answer in English. These practices are rapidly evolving, with some academics now translating exam papers and allowing students to complete assessment tasks in their primary languages. Collaborative efforts between students and lecturers, such as self or peer marking, have helped drive these initiatives forward.

In reporting these innovative multilingual assessment practices at Mandela and Rhodes, this paper highlights the challenges lecturers face, the strategies they employ, and the collaborations with students that facilitate these efforts. It also discusses how these initiatives could be embedded in institutional policies to ensure that multilingual assessments become a standard practice in South African higher education, advancing both linguistic diversity and educational equity.

Shadow languages in remote schools in Central Australia?

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In very remote South Australia, Pitjantjatjara speaking Aboriginal people, who self-identify as Anangu, have experienced various models of government schooling from the 1930s to current times: Pitjantjatjara Medium of Instruction, bilingual education, English-only, and now, English Medium of Instruction. Increasing levels of standardised testing in English at state and national levels result in a continued deficit view of Anangu children where classrooms risk being a 'highly colonised space that inevitably reinforces the unequal understanding of Indigenous and non-Indigenous peoples within the western education frame' (Osborne, 2015:3) and where Anangu linguistic and cultural knowledge is eclipsed. Lack of professional training and pathways to formal teaching qualifications and ambiguous educational policies about use of home languages in English-only schooling (Devlin et al, 2017; Ober & Bell, 2012; Wigglesworth et al, 2018) result in keeping Anangu Educators in professionally vulnerable roles of little status.

This paper celebrates the work of Anangu Educators and non-Indigenous teachers who resist an imposed 'lingua nullius' (Arnold, 2016) and pushback against 'monolingual practices and deficit views of students' multilingualism' (Lopez-Gopar et al, 2021:1098). Teaching partnerships develop to counteract recolonisation of learning and bring Anangu forms of knowledge and languages into classrooms as well as incorporating Learning on Country (LoC) approaches. These approaches are driven by Anangu Educators, community members and families who build upon generations of expertise, creating opportunities to challenge the presumed universality of the Australian Curriculum and maintain the teaching of Pitjantjatjara in formal classrooms and on Country. Non-Indigenous teachers join Anangu colleagues in creative approaches to identifying students' learning in both formal and local knowledge domains.

Transknowledging, the reciprocal exchange and translation of knowledge, as a theoretical and pedagogical lens is illustrated here in a conversation that includes 'transperipheral knowledge exchange' (Windle et al., 2020). This is a process in which actors in postcolonial, marginalised and Southern contexts reflect and combine voices to acknowledge collective acts of resistance to restrictions of northern epistemological frames and reciprocally inform each other of relevant and creative approaches to Southern concerns.

Addressing multilingual realities in Canadian education - Teaching through learning-oriented assessment

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Despite trans/plural approaches to language and content instruction that invite students' multilingualism into learning official languages of instruction (LOI) in Canadian classrooms, languages are taught in compartmentalized ways with emphasis on achieving native-like proficiencies in single languages. Assessment continues to adhere to English- and individual-centric view of language with fixed norms. This traditional linguistic-cognitive model of language assessment does not reflect students' multilingualism, flexible language use, and agentive assemblage of digital and multimodal resources for communication and learning (Ou & Malmström, 2023). Within language assessment and education literature, researchers have called for attention to fluid and dynamic language practices, such as the integration of multilingualism and multimodality in test design and in learners' responses (e.g., Heugh et al. 2017; Schissel et al., 2019), but understandings of how to develop and implement such approaches remains few.

Grounded in classroom inquiry and dialogic engagement with teachers and students in two Canadian provinces, this paper shares insights from situated research with students and teachers into language practice, learning, and assessment. Elaborating research-practice partnership in two contexts, one in Ontario with students from immigrant and refugee backgrounds learning in English and the other in Quebec with students learning French as second language, we explore how educators are incorporating multilingualism, multimodality and multi-sensory resources for learning-oriented assessment (Shohamy & Pennycook, 2019). Centering learning in integrated instruction and assessment activities, teachers engaged students' linguistic, cultural and conceptual abilities, particularly pragmatic, sociolinguistic capabilities for interactive and academic purposes (Leung, 2022). Illustrated with classroom artifacts and student and teacher interviews, we show how students engaged with multilingual and multimodal resources for meaning co-construction and demonstration of understanding. The multilingual assessment approach invited teachers to apprehend the complexity of students' languaging practices and behold their learning potential, possibilities that are often veiled and rendered invisible by the target-language only policy.

Together, the studies underscore the importance of shifting assessment away from static monolingual linguistic performance to use of tasks that recognize the interactionally contingent multilingual and multimodal nature of communication. We call for further

research that promotes contextual validity of language use and captures students' open, fluid assemblage of multilingual, multimodal, multisensorial resources for learning. Expanding the assessment focus to include these dynamics invites appreciation of the multimodal and collaborative nature of language practices (Steele et al., 2022) to better align with the language and knowledge making evident in local classrooms and communities, addressing equity and social justice for language-minoritized students in our diverse sociolinguistic context.

Rethinking Assessment in Multilingual Classrooms: Embracing Functional Multilingual Approaches for Equity and Inclusion

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Across Europe, despite increasing multilingualism in schools, educational policies continue to reinforce monolingual regimes. Language proficiency in the socially dominant language is still perceived as the exclusive cornerstone of academic success, while the diverse linguistic repertoires of multilingual students are marginalized in both policy and practice. This monolingual bias extends to the assessment of pupils' language proficiencies and competencies, often leading to unfair disadvantages for multilingual learners. These limitations become especially evident in the context of large-scale assessments, where the focus remains on proficiency in the dominant language, disregarding students' ability to navigate multiple languages and their linguistic strengths outside of the mainstream language.

Glossaries, translations, and other test accommodations have been proposed as measures to promote fairness in assessment, offering multilingual learners more equitable opportunities to demonstrate their knowledge. However, these tentative and functional accommodations are controversial, with critics arguing they may affect the constructs being assessed, particularly in reading comprehension. Recent debates in Flanders, where digital assessments were developed for centralized reading tests, highlight the challenges of integrating linguistic accommodations without undermining the validity of the assessment. These concerns expose a fundamental tension between maintaining monolingual assessment standards and recognizing the multilingual realities of today's classrooms.

In this presentation, we explore how the ongoing prioritization of monolingual assessment practices not only limits the potential of multilingual students but also results in test results that do not accurately reflect students' (reading) competencies. We argue for the adoption of a Functional Multilingual Assessment approach, which embraces multilingualism as an asset rather than a barrier. By incorporating multiple languages into both formative and summative assessments, Functional Multilingual Assessment offers a more inclusive and equitable framework, allowing multilingual students to draw on their full linguistic repertoire to demonstrate understanding and skills. In our conclusion we will briefly deconstruct the tenacious systemic construction defects that prevent education from realizing the multilingual assessment turn. We also will take a moment to reflect on what our advocacy role as academics could be. Ultimately, this presentation advocates for a shift towards multilingual assessment models that align with the realities of contemporary, linguistically diverse classrooms.

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Navigating multilingual classrooms: Insights from global perspectives on teacher attitudes and practices

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This symposium examines the intricate dynamics of multilingualism in education, offering a unique perspective on the role of teacher beliefs, attitudes, and practices in shaping the educational experiences of multilingual learners.

A common thread across the studies presented at our symposium is the recognition of translanguaging as a critical strategy for leveraging students' diverse linguistic repertoires. This approach challenges monolingual ideologies and embraces the fluid use of multiple languages in educational settings. A central theme is the examination of how teachers' beliefs and attitudes towards multilingualism influence their pedagogical practices, with positive attitudes being linked to more inclusive and empowering educational environments. The impact of professional development on shaping teacher attitudes and beliefs is also highlighted, suggesting that targeted training in multilingual approaches, including pedagogical translanguaging, can lead to significant shifts in classroom practices. Furthermore, the role of contextual factors, such as societal and political circumstances, in shaping teacher attitudes and beliefs is acknowledged. These factors can potentially support or hinder the implementation of multilingual practices, including translanguaging.

Presentation 1 examines the relationship between teachers' beliefs and attitudes towards multilingualism and pedagogical translanguaging in the Basque Country, emphasizing the need for innovative solutions to integrate the minority language into a broader multilingual curriculum. Presentation 2 explores how preservice English teachers in China perceive and utilize their linguistic repertoires during teacher training. It advocates for teacher educators and institutions to support evolving understandings and adoption of discursive practices advocated in Global Englishes Language Teaching (GELT) proposals. Presentation 3 from the Australian context discusses the development of in-service teachers' language awareness through a translanguaging multimodal approach, identifying the challenges and opportunities in applying plurilingual strategies and digital multimodal composing in linguistically diverse classrooms. Lastly, Presentation 4 reports on an international comparative study analysing (pre)primary teachers' beliefs and attitudes towards multilingual learners across six European contexts, England, France, Germany, Northern Ireland, Norway, and Sweden. It reveals shared concerns and context-specific traits, providing a foundation for exploring how societal and political circumstances impact teachers' beliefs and attitudes on multilingualism.

Our symposium aims to offer a comprehensive view of the importance of teacher beliefs and attitudes in the education of multilingual learners. Collectively, the studies advocate for a shift towards translanguaging and plurilingual strategies. By highlighting the impact of professional development and contextual factors, these studies contribute to the discourse on creating more inclusive and effective educational practices for multilingual learners worldwide. The findings have implications for policy decisions, professional development initiatives, and the broader understanding of multilingualism in education.

Teacher attitudes towards multilingualism and pedagogical translanguaging

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This paper examines the outcomes of various studies on teacher beliefs and attitudes towards multilingualism and pedagogical translanguaging, focusing on the Basque Country. Recent debates in applied linguistics and sociolinguistics have highlighted the importance of these two concepts. The paper specifically examines the relationship with teachers' beliefs and attitudes, emphasizing their crucial role in educational change. The paper also explores the impact of professional development on teacher attitudes, the relationship between beliefs and language learning approaches, and the factors influencing teacher perspectives on multilingualism and pedagogical translanguaging.

The results of some studies in the Basque Country reveal that teachers generally hold positive attitudes towards multilingualism in this region, where Basque, Spanish, and English coexist in the curriculum of all pre-primary, primary and secondary schools. In some cases, French or German are also taught. Teachers are supportive of the learning of the curricular languages, including Basque, the minority language, and they believe fluency in all languages is a crucial aim.

Research conducted in the Basque Country has shown that in-service and university teachers, besides having positive beliefs about multilingualism, also recognize that Basque is particularly challenging to learn, and they expressed concerns about the imbalance between knowledge and use of the language. In contrast, one study found that pre-service teachers increasingly perceive Basque as easier to learn than other languages, such as English or French, suggesting a shift in attitudes that could help diminish the perception of Basque as a 'difficult' language.

Teachers' beliefs about pedagogical translanguaging are in agreement with current trends in language teaching methodologies, in particular emphasizing the importance of fluency and the value of a multilingual teacher model for enhancing student outcomes. The research outcomes emphasize the need for innovative solutions to integrate Basque into a broader multilingual curriculum and for professional development programs that support these developing attitudes and beliefs. The paper calls attention to the importance of professional development in shaping teacher beliefs and practices. Changing teacher attitudes and beliefs through professional development is complex and challenging, but specific training on multilingual approaches, including pedagogical translanguaging, aimed at changing classroom practices can lead to important shifts in beliefs and attitudes. It emphasizes the need for innovative solutions to promote the minority language, Basque, and to establish it as a central component of multilingual education.

Overall, this presentation provides valuable insights into the challenges and opportunities facing teachers in multilingual classrooms. The findings can inform policy decisions and professional development initiatives aimed at encouraging a more inclusive and equitable educational environment.

Exploring preservice teachers' translanguaging practices and perceptions in teacher training: A global Englishes perspective

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This study explores how preservice English teachers in China perceive and leverage their Chinese and English linguistic repertoires in ELT methodology training, and how a reflective understanding of their use of these repertoires can contribute to their development as teachers. To understand how their practices and conceptualizations of language and teaching move between monolingual ideologies and multilingual orientations, theories of translanguaging space and stance (Li, 2011; García et al., 2017) and the Global Englishes Language Teaching (GELT) framework (Rose & Galloway, 2019) were drawn upon to examine preservice teachers' experiences in teacher training. Through multimodal conversational analysis of lesson recordings, it was found that preservice teachers created translanguaging spaces to utilize different languages in the critical negotiation of pedagogies. In addition, they enacted translanguaging pedagogies by incorporating multisemiotic and multicultural resources in microteachings. Semistructured interviews were also carried out in which the preservice teachers, influenced by factors such as language ideologies and curriculum design, displayed mixed views towards translanguaging practices in teacher training and the ELT classroom. Bearing in mind this study's findings, it is hoped teacher educators and institutions will be encouraged to support preservice teachers' evolving understandings and adoption of the multiple forms of discursive practices that are advocated in current GELT proposals.

Using a translanguaging multimodal approach to develop teachers' language awareness in linguistically diverse classrooms in Australia

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In many educational contexts around the world, the linguistic diversity of students is increasing. A positive attitude towards students' home languages is evident among teachers, but they continue to use monolingual teaching practices (Alisaari et al., 2019; Lorenz et al. 2021; Turner & Tour, 2024). Active use of students' home languages can be counterintuitive if teachers do not share these languages, and working with teachers' language-related beliefs can lead to a deeper understanding of how to incorporate students' background knowledge into their learning (Turner, 2019). The idea of language awareness (James & Garrett, 1992; van Lier, 1998) is a useful framework for examining this understanding.

In the presentation, I will discuss the development of in-service teachers' language awareness by drawing on data from a study that followed a design-based framework. In the study, teacher educators/ researchers (TE/Rs) introduced plurilingual strategies and digital multimodal composing to seven teachers in five schools. Data were collected from classroom activities, group reflections, and individual teacher interviews. Thematic analysis was used to analyse data. Five domains of language awareness (James & Garrett, 1992), as adapted to include a translanguaging perspective, were used to code data and generate themes.

Language awareness was found to develop to different degrees across domains, and this related to teachers' (perceived) capacity to engage with plurilingual strategies. The social domain was found to be the most straightforward, and was also found to strengthen the affective domain. The power domain was made more visible for the teachers. The cognitive and performance domains were found to be challenging in terms of both application of plurilingual strategies and the development of language awareness. The implications of the findings to teacher professional learning will be discussed.

Multilingual learners in the (pre)primary sector: An international comparative study of teachers' beliefs and attitudes

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Through their beliefs and attitudes about language(s), teachers explicitly and implicitly communicate the value they attach to languages other than the language of instruction. Language practices and attitudes can inhibit or empower learners from minority language backgrounds and are therefore critical to achieving inclusive education (Cummins, 2021). However, relatively little is known about teachers' attitudes and beliefs regarding multilingualism. While some studies address specific national contexts (Paulsrud et al., 2023; Pulinx et al., 2017; Repo, 2020), there is an extensive gap in research generating comparable data from different countries. Such research is needed as a foundation for exploring how different societal and political circumstances may impact multilingual students' schooling.

In this paper, we present data obtained from interviews with 149 (pre)primary teachers in six European contexts (England, France, Germany, Northern Ireland, Norway, and Sweden). We focus on the (pre)primary level of education, as it is here that children enter the education system and acquire fundamental literacy skills, possibly without initial mastery of the societal language.

We ask:

- What do teachers think about multilingual learners, their languages and their learning?
- Do teachers across Europe share similar beliefs and attitudes regarding this subject?

- What are the contextual variables which may be shaping any differences in attitudes and beliefs?

During the semi-structured interviews participants were asked to agree/disagree with seven statements relating to multilingual learners. The responses to these statements have been coded and analysed using the same guidelines and instruments for all six contexts. Initial findings reveal both shared concerns across national boundaries, but also some context-specific traits.

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Promoting heritage languages in families, schools, and communities: Perspectives from research and outreach with multilingual Americans

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The United States has been often described as a “cemetery of languages,” with heritage languages (HLs) of immigrant communities consistently falling into disuse over three generations. Although over 20% of the US population speaks a language other than English at home (United States Census Bureau, 2022), monoglossic ideologies and assimilationist politics continue to threaten HL maintenance (HLM). Despite attempts to eradicate multilingualism through legislation outlawing bilingual education and efforts to establish official English, multilingualism is increasingly being viewed as a cognitive, social, and economic asset, especially in educational contexts. As of 2024, the Seal of Biliteracy is recognized in all 50 states (Californians Together, n.d.) and educators in linguistically diverse classrooms across the nation are embracing translanguaging pedagogies.

Situated in this sociopolitical context, this symposium presents research and advocacy work promoting multilingualism and HLM in homes, schools, and communities. We begin by presenting an ethnographic case study of one family’s Portuguese HLM efforts, with nuclear and extended family and friends working together to promote language and literacy socialization among the youngest generation, highlighting the importance of quotidian moments and everyday routines as sites for HLM, as well as children’s agentive roles in own their multilingual development.

We then report on a federally-funded university-schools partnership in which parents were recruited as learning mentors to advise teachers, administrators, and researchers in urban public school districts on how to better leverage English learners’ funds of knowledge and multicultural competences in formal academic settings, demonstrating how family members can be used as a valuable resource outside the home to promote students’ multilingual development and academic success at school.

Next, we compare two community organizations’ work to maintain HLs and cultural traditions among the Persian and Portuguese populations in Massachusetts. Sharing findings from research on an Iranian cultural association and a Portuguese language library, we explore HLM efforts initiated by these institutions and their employees’ perspectives on challenges they face and their impact on community language practices. Finally, we report on the experiences of Greek American HL speakers who have relocated to their ancestral homeland as adults, focusing on how returnees reflect on their multilingual repertoires, transnational identities and evolving communicative competence as they navigate family, work, and social life in contemporary Athens.

Weaving together research findings from American homes, schools, institutions and transnational communities, we highlight the successes, challenges, and future possibilities for promoting multilingualism among future generations of Americans.

Intergenerational language play as a site for Portuguese heritage language maintenance: An ethnographic case study of a Brazilian-American family

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Intergenerational interactions are a significant motivator for heritage language maintenance (HLM), with many families highlighting their children's ability to communicate with their grandparents as the primary reason to maintain their minority language (Kirsches, 2020; Kwon, 2017). However, while several studies have examined the interactional dynamics of HLM within nuclear families (e.g., Johnsen, 2022; Kheirkhah & Cekaite, 2015), little attention has been paid to the dynamics and impact of children's interactions with grandparents and other extended family members on their HL development.

This paper fills this gap by presenting select findings from a year-long multi-sited ethnographic case study of Portuguese HLM in a trilingual (Portuguese-Spanish-English) family living in Florida. Through a qualitative analysis of participant observation field notes, interviews, and video recorded interactions as the family engages in HL socialization practices at home, in their community, and during travel to visit extended family in Brazil, I examine specific discourse strategies employed by extended family members and family friends in their HLM efforts with the youngest generation, giving attention to the linguistic, cultural, and religious ideologies that influence their communicative strategies.

Sociable interaction in the form of linguistic play and multimodal involvement are common features of this family's discourse, as well as an important site for language and literacy socialization. In the presentation, I focus on examples of grandparent-grandchild interactions during a family trip to Brazil, showcasing how a grandfather with limited formal education uses creative multimodal forms of language play that tap into the two focal boys' (aged 8 and 10) developing metalinguistic awareness and positions them as the multilingual authorities of the family. The analysis demonstrates that the grandfather's play strategies for engaging the children in HL usage fostered authentic language and literacy acquisition, promoted a positive sense of shared cultural values, and created a unique family social space of love and nurturance, which in turn reinforced the children's desire to maintain their HL and pride in their ethnolinguistic identity. This study contributes to our understanding of the importance of attending to family roles, interactional dynamics, and participation frameworks in children's multilingual language development.

Family members as multilingual mentors in urban school districts: A university-school partnership in Boston

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The number of multilingual children in the United States has grown substantially over the past several decades reaching over 62 million (U.S. Census Bureau, 2024). Longstanding teacher shortages have accentuated a trend of teachers being put into classrooms without sufficient training or resources to support their multilingual students. In an effort to both meet the needs of schools for qualified teachers of multilingual students and to increase the ability of teachers to support the linguistic, academic, cultural, and emotional needs of multilingual students while promoting social justice, we implemented family mentoring with 60 in-service teachers in Greater Boston public schools through a federally funded university-school partnership.

Multilingual family and community members are an untapped resource for most teachers to activate linguistically and culturally relevant pedagogy within their communities of practice and amplify teachers' capacity to address issues of equity for multilingual students in their district. Family mentors were recruited to support teachers as they re-envisioned equity in their classrooms, schools, and districts. Instead of asking what immigrant families needed (e.g. literacy classes, food pantry), we asked, what could family mentors teach us about our students? Through a series of conversations, which were documented using field observations, focus groups, surveys, and artifact collection, we sought to strengthen teacher connections to multilingual families and community members. We aimed to engage families as equal contributors in the learning of their multilingual children as we worked to collaboratively identify community-based practices and strategies that support the academic success of ELs and jointly develop academic supports and activities for use across the district. We report findings from a case study determining the program's impact in one school district and highlight more and less successful strategies for fostering trusting relationships between multilingual families and the public educational systems serving them.

In this paper we describe the experiences of teachers as they engage with family mentors over a full year. We use thematic analysis of journal entries, classroom observations, and interviews with teachers to trace changes in practice and in how teachers articulate their approach to teaching and family partnership. We document movement towards strengths-based approaches to teaching multilingual students for several participants.

The role of community organization in the maintenance of heritage languages and cultural traditions: The Iranian and Portuguese diasporas of Massachusetts

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Research shows that outside the home, community organizations play an important role in promoting heritage language maintenance through a variety of programs, not only through formal heritage language learning opportunities for children and adults, but also through religious, cultural, and performing arts events, informal community networking events, and by opportunities to connect with homeland both physically and digitally (e.g., Garcia, Zakharia & Otcu, 2012).

This paper presents a comparative look at two such organizations serving diasporic communities in Massachusetts: a nonprofit Persian cultural association and a public Portuguese language library. Informed by year-long ethnographic studies documenting the programming, outreach, and community engagement of these organizations through participant observation, interviews with employees and patrons, the collection of cultural artifacts, and discourse analyses of the organizations' marketing materials and online presence, we consider how each organization both taps into existent local resources within the community and creates resources for community members seeking to enhance their connection with their ancestral homeland and diasporic communities. We also describe how and why community members are taking advantage of these resources, and discuss specific challenges faced by the organizations in maintaining their programming and promoting heritage language maintenance in the community.

We find that in the Persian diasporic community, the cultural association serves an important role in organizing events that promote and maintain the heritage language of Farsi as well as cultural traditions (e.g., poetry readings, Yalda, Nowruz). A critical analysis of its marketing materials and programming reveals that the organization reinforces that Persian heritage and culture is separate from the contemporary political and religious issues occurring in Iran.

In contrast, we find that the Portuguese library, located in a town in which over a third of the local population is of Portuguese origin, caters predominantly to the elderly population seeking reading materials in their native language, and has struggled to gain the patronage of younger second- and third-generation community members. Interviews with library employees reveal that the individuals responsible for the current programming have diverse origin stories and language ideologies themselves, and that these diverse perspectives

create a potential for growth and diversified programming to further motivate HLM in the local Portuguese American community.

Finally, we consider to what extent the activities of these organizations affect patrons' language ideologies and heritage language practices in their homes and families, and make recommendations for other institutions seeking to improve their impact in promoting heritage language maintenance in diasporic communities around the world.

Reflections on heritage language success and difficulties upon homeland return: Narrative accounts from Greek Americans in Athens

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This study examines the nexus of heritage language use, ideologies, and ethnolinguistic identities in the transmigration experiences of a group of diasporic Greek return migrants. Based on a dozen ethnographic interviews with second-generation Greek Americans who relocated to Athens from various US cities as adults for a variety of personal and professional reasons, we conduct a narrative discourse analysis (De Fina & Georgakopoulou, 2011) of returnees' stories about their reasons, decisions, and linguistic experiences of returning to their ancestral homeland. These narratives reveal participants' fraught relationship with the Greek language and varying levels of (non)-identification with both the diasporic communities of their youth and their newfound nonmigrant social networks in Athens.

A recurrent theme we discuss is returnees' discovery that the variety of Greek that they grew up speaking in their families and in their diasporic communities in the United States, often referred to as "Grenghish," is distinctive from the varieties of Greek spoken in contemporary urban Greece. While some participants frame these linguistic differences as incomplete register acquisition or dialectal distinction, others invoke standard language ideologies (Lippi-Green, 2012), with comparative descriptions like "pure vs. impure" and "standard vs. corrupt".

We employ positioning theory (Davies & Harre, 1990; Bamberg, 1997) and stancetaking (Dubois, 2007) to examine how participants construct discursive portraits of their multilingual development in the interview context by demonstrating various varieties of Greek they have learned throughout their lifetime and evaluating each variety from multiple perspectives. We find that returnees also mobilize and juxtapose these varieties to explain cultural conflicts and stereotypes they have navigated as returnees, to position themselves as more "evolved" and "cosmopolitan," and to authenticate their knowledge of both homeland and diasporic cultures.

This study sheds light on the complex relationship between heritage language maintenance, linguistic hybridity, and ethnolinguistic identity by exploring the indexical and iconic meanings of a heritage language when it returns to the homeland, and contributes to our understanding of language ideologies in the context of globalization, transmigration, and superdiversity. We reflect on the implications of these findings for the teaching of Greek as a heritage language in the United States and in diasporic communities around the world.

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Raciolinguistic Utopias and Dystopias in Bilingual and Language Education

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Alim, Rickford, and Ball (2016) put out a call to examine what it means to speak as racialized subjects in a global system of oppression. In response to this call, Rosa and Flores (2017) proposed the framework of raciolinguistic ideologies--ideas that conflate racialized bodies with linguistic deficiency--for the examination of institutionalized racial inequalities. Following this call, this symposium draws on the notions of raciolinguistic dystopias and utopias (Fallas Escobar, Ek, & Henderson, forthcoming) to examine various language education settings. *Raciolinguistic dystopias* are understood as the dominant narratives/ideologies placing communities of color at the margins of institutional life. Conversely, *raciolinguistic utopias* consist of the conditions of possibility that emerge from racialized individuals' disruptive linguistic practices and their reconfiguration of identities imposed by broader institutional racial hierarchies.

Too often, race-critical research focuses on how racial power structures weigh down marginalized communities or the raciolinguistic dystopias rather than on the subtle ways individuals resist them. As bilingual educators and researchers, we have witnessed the sense of hopelessness produced by this lack of attention to resistance. We believe that more attention on marginalized communities' resistance to raciolinguistic ideologies may illuminate avenues for transformational change for these communities. In keeping with this need for more balance in attention to power structures and resistance, the papers in this symposium address dystopias and/or utopias in language education in the contexts of Mexico, the United States, and Spain.

The symposium brings together scholars from various disciplines (early childhood, sociolinguistics, biliteracy, critical applied linguistics) and from countries (Costa Rica, Mexico, Spain, and the United States) to add to ongoing conversations about racial equity and to shed light on how raciolinguistic ideologies affect racialized bilinguals globally. The symposium's focus on U.S. bilingual teacher education, dual language/two-way immersion classrooms in K-12 in long-established bilingual education programs, CLIL programs in Castilla de La Mancha Spain, and Latino/a returnees' lived experiences with English and Spanish in Mexican schools can inform policy, practice, and scholarship for bi/multilingual and language education.

Raciolinguistic Dystopias and Utopias: Latina/o Bilingual Teacher Candidates' Negotiation of Raciolinguistic Ideologies

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Attending both to structures of oppression and their contestation, we draw on Stroud and Kerfoot's (2021) and Oostendorp (2021) to examine Latina/o teacher candidates (TCs)' negotiation of raciolinguistic ideologies. We illustrate how TCs experienced ideologies of language and race as *raciolinguistic dystopias* that remind them of their precarious place in a racial hierarchy. Yet, we demonstrate that TCs resisted *raciolinguistic dystopias* by drawing on their lived experiences and the support of mentors. These acts of resistance point to *raciolinguistic utopias* that foreshadow better ways of living that are not yet realized.

This study draws from a critical ethnography conducted with 17 Latina/o bilingual TCs at a University in Texas. The study included classroom observations, semi-structured interviews, as well as artifacts TCs created for the class. Data were read line by line to identify recurrent topics. Emerging codes were then contrasted for the creation of larger themes. Resulting themes pointed to processes of perceiving, policing, and countering raciolinguistic boundaries. Excerpts under these themes were further analyzed using Critical Discourse Analysis.

Analysis found that TCs moved from spaces of raciolinguistic dystopia to processes of constructing a raciolinguistic utopia. Initially, the dystopia was marked by the distortion of languages and identities, where candidates felt that they belonged neither in the U.S. nor in Mexico. Subsequently, TCs embraced their heteroglossic language practices (Tex-Mex) and identities (Tejano, Pocha, and Chicana). Moving from dystopias to utopias allowed the TCs to realize they could create their own identities and belongingness.

Our findings also show that although TCs' progression toward raciolinguistic utopias appear to be individual efforts, their engagement with raciolinguistic dystopias was fueled by intergenerational communities of support. These fleeting moments emerged from having been inspired by teachers, mentors, and relatives to resist structures of power. While these moments may have been instantaneous or short-lived, their significance was long lasting in that the fleeting moments of pushing back against the dystopian past and present contributed to their capacity to engage in imagining a better raciolinguistic future.

We argue that *raciolinguistic dystopias and utopias* allow for the analysis of structures of inequality while highlighting TCs' capacity to refashion new understandings of linguistic practices and identities. By employing these lenses, scholars and educators can move away

from overly deterministic approaches that negate the agency of multilingual individuals to illuminate the moments that lead to world building.

Translanguaging as Raciolinguistic Utopias in Early Childhood

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The National Association for the Education of Young Children (NAEYC, 2019) proposes that educators adopt responsive pedagogies addressing children's academic and linguistic characteristics to connect them to their home language and culture. Prioritizing emergent bilinguals' cognitive and linguistic engagement through appropriate practices motivates them to produce language for meaningful purposes. Because research on languaging within play remains minimal, exploring children's interactions in dramatic play activities is important because these inquiries illuminate aspects of culture and language that materialize when children are intrinsically motivated to communicate using their linguistic repertoires.

Using translanguaging (García & Wei, 2014) and Latino/a critical race (LatCrit) (Solórzano & Yosso, 2001,) theories, Mexican American learners' translanguaging practices were explored during sociodramatic play at a pre-kindergarten center along the Texas/Mexico border. One teacher and 17 students participated—all of Mexican descent. Data included: teacher interviews; transcripts of weekly audio and video recordings of children in the dramatic play center; and fieldnotes from video recordings and classroom observations.

LatCrit served as a lens to examine early childhood processes that may emphasize learning of English as raciolinguistic dystopias for racialized children. Themes included translanguaging to create, invent, command, explain, imagine, and seek information. Topics were collapsed into categories matching translanguaging literature and Halliday's (2004) functions of language (instrumental, regulatory, interactional, personal, heuristic, imaginative, and representational). Many episodes were grouped under two categories: translanguaging to imagine and translanguaging to regulate.

Findings revealed children's motivation to play led to the ability to imagine and create within sociodramatic play. This "desire to participate in learning or investment" was evident as children (García & Wei, 2014) created, imagined, and enacted play frames. Children used the template of their own experience to create characters and roles, enacting a range of communicative resources. These *raciolinguistic utopias* reveal possibilities that are not yet fully realized but emerge from children's disruptive linguistic practices. Additionally, culturally relevant pedagogies that capitalize on and promote use of children's linguistic repertoire open up spaces of "resistance and social justice" (García & Wei, 2014, p. 115). Conversations about language and social justice are critical when multilingualism and bilingualism are seen as "'un-American' and considered a deficit" (Delgado Bernal, 2002, p. 112).

Bilingual unrest and utopias in Spanish CLIL programs: A language socialization perspective

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This presentation explores the phenomenon of bilingual unrest, defined as the sociocultural and linguistic tensions and conflicts that arise in CLIL bilingual programs in La Mancha city (Relaño-Pastor, 2019, 2018a, 2018b), where enthusiasm for Content and Language Integrated Learning (CLIL) bilingual programs has significantly declined in recent years. In the past academic year alone, 80 out of 271 schools in CLM have abandoned these programs, reflecting a broader national trend that raises critical concerns about the effectiveness and implementation of bilingual education in Spain.

Initially, bilingual education saw a surge due to regional government initiatives in the early 2000s, with public and semi-private schools (concertados) voluntarily adopting these programs. By the 2019-2020 academic year, enrollment in bilingual programs had increased to 1.4 million students, a 498% rise from 2010-2011. Despite this growth, skepticism about the quality and outcomes of these programs persists. Critics argue that the current model is fundamentally flawed, resulting in students who neither achieve proficiency in English nor master the content subjects. In CLM, the dropout trend of opting out of bilingual programs is symptomatic of broader systemic issues, including inadequate teacher preparation, insufficient linguistic and racial equity administrative support, and a lack of information provided to families.

This presentation examines bilingual unrest from a language socialization perspective, addressing the fundamental role of language policy and practices at home and school in constructing this phenomenon. Based on data from a sociolinguistic ethnography of bilingual schools in CLM, the article analyzes stakeholders' voices through interactional and interview data. It proposes innovative approaches for a bilingual education agenda that incorporates language socialization, aiming to conceptualize utopian bilingual educational environments that embrace racial and linguistic diversity.

Discussion

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In this symposium, presenters explore raciolinguistic dystopias and utopias (Fallas Escobar, Ek, & Henderson, forthcoming) to examine how racialized bilinguals negotiate language and identity across diverse educational contexts. As the discussant, I will synthesize key themes from the papers, highlighting their contributions to understanding the intersection of race, language, and education.

I will first address the role of raciolinguistic ideologies in shaping bilingual teacher candidates' experiences, as discussed by Fallas Escobar, Ek, and Henderson. I will consider how teacher education programs can better support Latina/o bilingual teachers in resisting racialized linguistic hierarchies. I will also reflect on Alanis' study of early childhood translanguaging, questioning how young children's emergent bilingualism can serve as a foundation for more inclusive and affirming pedagogies. Additionally, I will examine Relaño Pastor's concept of bilingual unrest in Spanish CLIL programs, linking these findings to broader concerns about bilingual education policies and the marginalization of racialized linguistic practices.

Throughout the discussion, I will emphasize the importance of balancing analyses of raciolinguistic dystopias with attention to the moments of resistance and transformation that point toward raciolinguistic utopias. I will invite symposium participants to consider how research can move beyond documenting oppression to actively contributing to policy and pedagogical shifts that promote linguistic justice. This discussion will engage scholars and practitioners in a critical dialogue about the possibilities for reimagining bilingual education in ways that challenge entrenched racial and linguistic hierarchies.

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Rethinking heritage language education for a global age: navigating new diversities, tensions and connectivities

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Heritage language education is an umbrella term that encompassed a wide range of socio-educational structures and settings aiming to sustain and augment the heritage languages, cultures, identities and histories of children and youth inhabiting diverse migrant communities worldwide (Cruickshank et al., 2023). Processes of globalisation and transnational mobility coupled with advances in digital technologies have intensified diversities within migrant communities. Such migration-induced diversities have foregrounded social actors' rich and varied migration trajectories, linguistic and cultural repertoires, desires and aspirations (see studies in Curdt-Christiansen et al., 2021; Li, 2016).

This colloquium explores how these internal diversities and translingual and transcultural realities are transforming situated language practices, ideologies, discourses and pedagogies across a range of heritage language education settings, namely community/complementary schools in Australia, Sweden, and Switzerland and religious education classes and places of worship in Germany. We investigate how these transformations create new tensions but also generate opportunities for new connectivities for individuals and communities, locally, nationally and transnationally and what these new connectivities might look like. Methodologically, the four papers mainly draw on ethnographic and collaborative perspectives where most authors have long established ties with the settings and communities they work and speak from a variety of language, culture and identity stand points and positions. Moreover, the papers are inspired by an approach to language as social practice, as "a set of ideologically defined resources and practices" (Heller 2007: 2), embedded in specific biographies and socio-cultural, historical and political contexts. This conceptual positioning problematises static and singular understandings of heritage languages, cultures, identities and communities, urging us to embrace multiplicity, messiness and ambiguity and proposing a shifting kaleidoscopic approach to heritage language education for a global age (Lytra et al., 2022).

Community language schools borrowing mainstream classrooms: Issues of power, equity and status

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More than 100,000 students in Australia attend a community language school on weekends or weeknights. These schools are set up by immigrant communities to sustain and augment their heritage languages, cultures, identities, and histories—needs not typically met by mainstream school systems. Although organised and governed by communities themselves, they often work in close proximity to the mainstream education sector. In Australia, roughly 80% of community language schools borrow classrooms at public schools. In New South Wales (NSW), 1 in 4 public schools now host a community language school. Many community language schools thus rely on the public education sector for successful operations, creating opportunities for local connectivities between communities and mainstream institutions.

These partnerships, however, are not without complications. Emerging research suggest that relationships between community language schools and mainstream hosts are often messy and ambiguous, reflecting the complexities of translingual and transcultural realities in heritage language education. In some studies, community language schools describe themselves as “unwelcome guests” (Cruickshank et al., 2018, p.26) in the mainstream school, while other studies have demonstrated how community language schools receive limited access to educational tools and resources in the host school (e.g. Nordstrom & Jung, 2022).

This study explores the relationship and balance of power between mainstream and community language schools. Guided by the question “how are positive relationships between mainstream and community language schools constructed and maintained?”, it draws on theoretical frameworks positing that status, alongside the distribution of power and resources, is crucial for understanding how inequalities are perceived and manifested (Ridgeway & Markus, 2022). These power dynamics reflect broader tensions in heritage language education, where competing ideologies and discourses shape how these schools and their contributions are valued. Although individuals’ perceptions around status can directly impact behaviour and performance, they are often overlooked in community language school research.

Drawing on interviews with 15 community language schools, the study explores how these schools perceive their relationship with their host school. Key preliminary findings show that “good hosts,” as experienced by community language schools, adopt a community mindset with a distributed leadership approach that enhances equality in terms of power, resources,

and status. In these contexts, the community language school is perceived as making valuable contributions to the mainstream school community, fostering new connectivities that benefit both the host and guest.

The role of non-formal religious education for heritage language maintenance: An empirical study of Russian Orthodox communities in Germany

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The development of linguistic and religious competencies is not limited to formal educational settings such as schools. Rather, primary linguistic and religious socialization takes place in informal settings, particularly within the family. However, these resources are rarely tapped in schools. Non-formal education programs organized by migrant self-organizations can play an important role in bridging this gap between language- and religion-related experiences at home and at school (Cruickshank et al. 2023; Pfaff et al. 2019). Organized as religious weekend schools, these programs can provide an opportunity to build on language skills acquired in the heritage language while receiving religious education in a minority faith (Souza 2016).

In Germany, heritage languages lack formal support, such as heritage language instruction in schools (Olfert & Schmitz 2018). Similarly, religious education in minority faiths faces challenges (Danilovich 2020). Against this backdrop, educational programs such as Sunday schools have been flourishing for years in the parishes of the Russian Orthodox Church in Germany. These programs are mostly offered in Russian, the language pertinent to the church community, and are aimed at its maintenance among children and adolescents (Danilovich 2021). These educational opportunities allow students to engage with the teachings of their minority denomination, while fostering their heritage language skills.

This paper analyzes non-formal education for minority children and youth, focusing on heritage language and religious education within the Russian Orthodox Church in Germany. It explores available educational opportunities, organizational structure, program content, and the demographics of teachers and participants. An online questionnaire was distributed to 28 parishes of the Russian Orthodox Church in Germany to assess the structural conditions, pedagogical approaches, and language components of Sunday schools. Additionally, interviews were conducted with five key stakeholders from one parish involved in educational program implementation. The results of the study provide insights into the structure and content of these educational programs, the demographics of their participants, and the perspectives of the key individuals involved in their development. They also highlight the potential for new tensions to arise as different practices interact within these settings, while opportunities for new connectivities between heritage language education and religious instruction may emerge.

Discursive constructions of cultural values in two heritage language education contexts in Sweden

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Heritage language schools are a key site for the construction and reproduction of historical and cultural values, where identities and values are negotiated and contested rather than just simply passed down from one generation to another (Blackledge & Creese, 2010; Prokopiou & Cline 2010; Lytra, 2022).

In this paper, we present data from an ethnographic study on Greek as a heritage language in two educational contexts in Sweden: mother tongue tuition, which is part of the national school system, and heritage language lessons in a complementary school. The rich history of intergenerational migration between Greece and Sweden over the last sixty years has led to significant variation in linguistic and cultural repertoires, as well as internal diversity in language ideologies, discourses, and pedagogies.

Based on interviews with teachers, parents, and students, as well as classroom observations and audio-recordings, we explore how Greek historical and cultural values are discursively constructed and how these discourses are recontextualized in the classroom. To this end, we focus on how teachers and pupils discuss and prepare for the celebration of one religious and one national holiday, and we examine what space for negotiation is made available to them in the two educational contexts and how this takes shape in the classroom.

Preliminary results show tensions in the way cultural and historical values are discussed and operationalized in the classroom, due to the differing policies and structural frameworks associated with each educational setting. The results also highlight internal diversity within the Greek diaspora community (Lytra, 2022), with some parents placing extra value on the celebration of religious and national holidays, while others express concerns and distance themselves from what they consider to be conservative and nationalist values. This diversity is similarly reflected in classroom practices, where teachers and pupils negotiate -implicitly and sometimes explicitly- these tensions. The paper aims to discuss how historical and cultural values can be addressed differently in two parallel yet differing heritage language education contexts and show how discursive traces of internal diversity in the diaspora community can be recontextualized in the classroom.

Heritage language teachers as grass-roots policy actors: Reconciling tensions and creating new connectivities

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Greek heritage language education has been experiencing rapid change driven by shifting socioeconomic and institutional conditions, processes of large-scale migration and internal diversities in migrant communities post-2009 (Panagiotopoulou et al. 2019). These changes have opened new spaces for community-based initiatives and the transformation of Greek heritage language teachers into grassroots policy actors (Lytra 2023). Against this evolving background, Greek community schools and their teachers are understood to play a key role in sustaining representations of language, culture, history, and collective memory for migrant children and youth. More specifically, previous studies have interrogated how the commemoration of history and heritage through national celebrations in Greek community schools has been mobilized as a powerful tool for the reproduction of ethnocentric national narratives and the development of monolithic ethnocultural identities. These representations often collide with children and youth's situated negotiations of emergent and complex multilingual and multicultural lived experiences and identities (Simpson 2014, Voskou 2021).

This paper draws on a "slow" autoethnographic study (Grandia, 2015), charting processes of continuation, adaptation and change in a Greek community school in Lausanne, Switzerland. It explores how teachers sought to reconcile the discursive and symbolic tensions between fixed with more fluid and expansive notions of language, culture, and identity. Applying a critical syncretic literacies lens inspired by Gregory and colleagues (2013), the paper illustrates how teachers adopted and adapted elements of the discourse of Philhellenism to appeal to international support for the Greek Revolution and its local manifestations to rethink, assemble and create the textual productions performed in the commemorative celebrations (poems, formal speech (panigyrikos), sketches, artefacts). These discursive moves were aligned with the school's broader ideological mission to connect Greek language and culture with the multiethnic Swiss society and the development of a translingual and transcultural pedagogical orientation that capitalised on students' entire linguistic repertoires and cultural repertoires (Lytra et al 2022). In so doing, teachers sought to create new connectivities linking the commemorative celebrations to students' lived experience and knowledge systems intersecting diverse spatial-temporal contexts.

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Translanguaging as a Transformative Pedagogy: Innovating Multilingual Education for Empowerment and Equity

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This symposium explores translanguaging as a transformative pedagogy for multilingual education, with a focus on empowerment and equity (Li Wei, 2024). It aims at deepening our understanding of translanguaging practices in classrooms, showcasing innovative approaches, and discussing their broader implications for enhancing educational inclusivity and addressing systemic inequalities.

Our panel will feature three insightful presentations. The first paper will present the results of a literature review analysing 111 articles to explore the transformative potential of translanguaging as a multilingual pedagogy. Findings revealed that translanguaging's transformativeness exists along a spectrum entailing the recognition and inclusion of students' bi/multilingualism, the deconstruction and innovation of notions about language mixing and a social critique and action aimed at challenging historical inequalities.

Next, the second paper will discuss findings from research conducted in collaboration with an ESL instructor and middle-school emergent bilingual learners. The study inquiries about the use of translanguaging as a transformative pedagogy through which students' native languages are employed for the acquisition of biliteracy, with a focus on writing skills. A register analysis of students' work revealed how they drew on their full linguistic repertoire, with vocabulary choices shaped by their desire to express emotions and succeed in the assignment, all while continuing to develop literacy in English.

Then, the third paper will present findings from a ten-month ethnographic study on educational language policy in Saint Lucia. The study focuses on two second grade teachers and the ways they enact language policies structured by particular Discourses about languages. Findings illuminate that throughout the school-year, colonial schooling is ordered by language governing curricula operating as monolingual policies prescribing English as the exclusive medium of instruction. However, during October's Jounen Kwéyòl Festivities many educational practitioners enact translingual policies as transformative pedagogical tools for (dis)ordering colonial schooling by (de)governing from monolingual policies structured on coloniality of power and its Discourses about languages.

Overall, each presentation incorporates diverse experiences where translanguaging is employed as a transformative pedagogy to promote inclusiveness, equity, and justice-oriented praxis. Our symposium is dedicated to advancing multilingual education through innovative, asset-based approaches. The symposium will begin with a 5-minute opening

remark to set the stage for the discussions. Each presentation will last 20 minutes, followed by 5 minutes for questions and answers. A renowned scholar in translanguaging will then lead a 10-minute discussion to provide an overview and critique of the papers. The session will conclude with a 10-minute panel discussion, addressing additional questions from the audience.

(Re)conceptualizing the Transformativeness of Translanguaging: A Spectrum Perspective

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Translanguaging theory posits that bi/multilingual students have unitary, dynamic repertoires of communicative features and seeks to subvert monolingual norms that perpetuate their marginalization (García et al., 2021). Yet, some argue that translanguaging research in education fails to live up to its transformative claims. Motivated by this debate, we reviewed 111 articles focused on translanguaging in U.S. PK-12 education spaces to explore if, how, and for whom translanguaging is transformative.

We begin by conceptually grounding translanguaging as an ontologically and pedagogically transformative theory. We then outline various critiques, including (what we term) the context-specific critique (Guerrero, 2023), language rights critique (Cenoz & Gorter, 2015), transformative limits critique (Jaspers, 2018), material effects critique (Block, 2018), and decolonial critique (Canagarajah, 2022).

Next, we outline our methods. Our inclusion criteria were (a) involve PK-12 students; (b) report on first-hand data collection; (c) employ translanguaging as a conceptual or methodological lens; (d) published between 2009 and 2021; and (e) U.S. educational contexts. We searched major databases and reviewed leading journals focused on language and education, generating over 4,000 hits. After reviewing titles/abstracts and finalizing the list of included articles, we developed a descriptive coding matrix (e.g., context of study, research design, major findings). Second round coding focused on criticality/transformativeness, exploring what, if anything, about translanguaging is transformative (and for whom).

Based on this analysis, we propose that translanguaging's transformativeness exists along a spectrum: from recognition and inclusion (affirming students' bi/multilingualism) to deconstruction and innovation (validating language "mixing" as legitimate practice) to finally, social critique and action (engaging in explicit critique/action to challenge inequities). All categories denote transformation or transformative potential, albeit to varied degrees. At

the same time, given that few articles coded as social critique and action, we call for more translanguaging-in-education research that embraces an explicit justice-oriented praxis.

This review synthesizes twelve years of U.S. translanguaging research, offering new empirically-grounded insights into the transformative potential of pedagogical translanguaging and highlighting directions for more critical engagement.

Bilingual Writers Reveal their Full Potential: A Multilingual SFL Genre Pedagogy

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A long-standing belief in second language instruction is that instruction must be carried out exclusively in that language. Observers of bilingual learners have questioned such policy and most recently there has been a concerted effort to promote the value of intentionally using the student's language to enhance language and literacy development (i.e. translanguaging pedagogy) (Sánchez & García, 2022).

Systemic functional linguistics (SFL) considers language as a resource to make meaning given the context of the situation, including the topic, audience and voice, and mode (Halliday & Matthiessen, 2004). Bilingual individuals have more than one language to draw from and are influenced by context when making specific language choices (Brisk & Ossa Parra, 2018).

The purpose of the study is to analyse the specific features of each language in the writing of U.S. middle school bilingual learners in the early process of acquiring English. Using a multilingual approach to SFL genre pedagogy, the ESL teacher created a bilingual classroom context where the students' native languages and English were used by students and their teacher. A register analysis of students' writing showed that choice of language was influenced by what they wanted to express and the desire to do well in their work. In addition, the linguistic features of the writing in the native language were consistent with their level of maturity, while the features of English exhibited an early stage of development.

Incorporating translanguaging within the SFL genre pedagogy benefits students and teachers (Khote & Tian, 2019). Emergent bilingual students express themselves to their cognitive and linguistic level of maturity avoiding the frustrations of students forced to use the second language only. Teachers change their perception of these students from deficient to competent learners.

"Dismantl[ing] monolingual approaches to instruction" of English as a second language (Tian et al. 2020, p. 3) is a challenging task in the context of a society that venerates English at the expense of other languages. The transformative power of translanguaging pedagogy is increasingly being demonstrated by studies (e.g., Cenoz & Gorter, 2021), showing its positive impact on students, teachers, and the creation of school cultures where success is not solely defined by English proficiency. There is no need to fear that embracing a multilingual approach to second language instruction will hinder English learning—in fact, evidence shows that students thrive in such environments. Ultimately, the societal language, English,

will still be acquired, but with the added benefit of preserving and valuing students' full linguistic repertoires.

“Lévé, wèpètè èpi mwen, raise up, repeat with me”: Translingual Policies for (Dis)ordering Colonial Schooling in Saint Lucia

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A challenge in postcolonial communities is ensuring linguistically responsive education for all learners. Such is the case of Saint Lucians, a Caribbean Sea community striving to (re)vitalize their French-Creole heritage through teaching Kwéyòl, a Caribbean Creole language emerged out of French and Niger-Congo language contacts contextualized in colonization and plantation slavery (Simmons-McDonald, 2006).

Since British colonial times, Saint Lucians' schools have been ordered by language governing curricula operating as monolingual policies prescribing English as the exclusive medium of instruction for the acquisition of literacy and academic knowledge. The historical marginalization of Kwéyòl has contributed to the current (a) high number of Kwéyòl speakers who did not acquire literacy in Kwéyòl or English (Simmons-McDonald, 2006), (b) sharp decline in the number of speakers who practiced Kwéyòl (Irvine, 2020), and (c) fear among many Saint Lucians who wonder if Kwéyòl will be one day lost forever (Castrillón-Costa, forthcoming). However, during October's Jounen Kwéyòl Festivities many educational practitioners enact translingual policies (Castrillón-Costa, forthcoming) as transformative pedagogical tools for (dis)ordering colonial schooling by (de)governing from monolingual policies structured on coloniality of power (Quijano, 2000) and its Discourses (Gee, 2014) about languages.

This presentation draws from a 10th-month ethnography of educational language policy conducted in a Primary School in Saint Lucia throughout the 2022-23 school-year. Grounded on a transmodern theoretical approach intertwining Global North critical notions and decolonial Caribbean-Global South thought, this research explores language policy enactments, the Discourses about languages structuring them, and the ways they frame schooling activities. Specifically, I answer the following research questions:

- What language policies were enacted by two Saint Lucian second-grade teachers throughout the school-year?
- What Discourses about languages structured the language policies enacted by two Saint Lucian second-grade teachers throughout the school-year?

Data includes (a) fieldnotes produced during participant-observations, (b) pictures of artefacts and realia, (c) an illustrative video depicting a translingual activity, and (d) excerpts of informal conversations with focal participants. Data analysis consisted of two steps. First, A thematic analysis was conducted, framed by Johnson's (2013) five categories of analysis

for Language Policy and Planning (LPP). Then, a Discourse analysis guided by Gee's (2014) seven building tasks and six tools of inquiry was performed to deepen the analysis.

Findings illuminate (a) Discourses about language appropriateness, standardization, hierarchies, and exclusiveness structured the enacted monolingual policies ordering colonial schooling, (b) Discourses about language as cultural heritage and communal identity structured translingual policies employed to (dis)order colonial schooling, and (c) the need for trans-plurilingual policies (Castrillón-Costa, forthcoming) framed on bordered Caribbean-Creole understandings, values, and practices to better serve all learners.

Discussion

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Translanguaging, transknowledging, and biliteracy in a Chinese-English Bilingual School

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In this symposium, we offer a case-study of the theoretical and pedagogical design and practical implementation of a Chinese-English bilingual programme towards to biliteracy development. Our primary focus is on how students are best able to develop biliteracy in a bilingual school within a predominantly monolingual English language education system. This is a context characterised by increasing in-migration of students from multiple countries and linguistic communities.

The past decade has seen increasingly intense debates challenging conventional bilingual education in North America and Europe. Influential scholars propose an alternative that understands bilingual education through a holistic bilingual lens rather than the conventional monolingual lens, with the theories and pedagogies of ‘translanguaging’ (e.g., García, 2009; García & Li Wei, 2014). Heugh (2021) situates translanguaging within a broad field of bilingualism/multilingualism in education, drawing attention to the fundamental role of knowledge exchange and translation (‘transknowledging’) in human communication and in the process of teaching and learning in a bilingual school.

The program we discuss adopts several bilingual pedagogies including paired literacy, translanguaging and transknowledging. We draw attention to a recently trialled ‘paired literacy’ approach involving the Chinese and English literacy teachers who collaborate in ways that strive towards complementary, systematic and purposeful use of both languages to encourage simultaneous biliteracy development. Teachers also encourage two-way translation and knowledge exchange between the two languages to support bilingual learning in both the language-specific lessons and for learning across the curriculum.

We include four presentations. First, we interpret translation, translanguaging and transknowledging pedagogies in setting the scene for bilingual education as these relate to our programme. Second, we discuss the process of working with teachers on developing a curriculum framework specific to Chinese language and literacy learning in this specific bilingual school context. Third, we illustrate a ‘functional bilingual teaching and learning framework’, drawing attention to a Chinese-English paired literacy approach. Teachers’ practical implementation of the paired approach to developing oral and early literacy in Chinese and reading and writing in both languages is presented. Fourth, we address teacher professional learning needs and provision in school context.

Translation, translanguaging and transknowledging in a Chinese-English Bilingual School

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This paper introduces three pedagogical and theoretical principles that underpin the curriculum and pedagogical design of a Chinese-English bilingual school established in South Australia in 2017. These are: translation, horizontal and vertical translanguaging, and transknowledging. These principles are based on a broad understanding of bilingualism and multilingualism that recognises the role of translation (e.g., Cook, 2010; Heugh, Li & Song, 2017) and reciprocal exchanges of knowledge in bilingual and multilingual education. They include informal and formal (or horizontal and vertical) communicative practices used by multilingual learners in many parts of the world (Heugh, 2015). Like discussions of ‘translanguaging’ (e.g., García & Li Wei, 2014), these include informal practices of codemixing, codeswitching, interpreting, translating, and what Robyn Ober (2024) refers to as ‘slipping and sliding’ between languages in Australian Aboriginal communities. Bilingual and multilingual practices in this school are understood as including more formal practices of learning to separate languages for purposes of linguistic distinction. This is because, beyond schooling, ‘proficiency’ in ‘standardised’ views of language serves gate-keeping functions, for example, access to further or higher education, particular professions, practices of faith (religion), judicial and legislative matters, diplomacy, and trade (Heugh, 2015, 2021).

Much recent discussion introduced a binary dichotomy between ‘conventional’ views of bilingual education in North America as restricted to an artificial separation of languages in dual language or immersion programmes, and the affordances of fluid use of translanguaging. However, drawing on the experiences of bilingualism and multilingualism education in Africa, Australia and South Asia, the stance adopted here recognises both the fluidity of ‘slipping and sliding’ in many everyday linguistic practices, and when, why, and how the differentiation between languages is necessary.

Bilingualism and multilingualism are not simply to do with language, they are also to do with the translation and reciprocal exchange of information and knowledge, or ‘transknowledging.’ In this symposium teachers in this school bring examples of how they use transknowledging to enhance both biliteracy development and learning across the curriculum in two languages.

Teacher engagement in developing curriculum for Chinese language in a bilingual program context

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Curriculum frameworks for additional language learning are influential in shaping second / foreign language teacher's understandings and expectations of curriculum constructs and quality teaching and learning. There are however no such curriculum frameworks currently available in Australia for the growing number of intensive language programs such as bilingual, immersion or Content and Language Integrated Learning (CLIL) programs.

In contexts where time on task is far in excess of most 'language-as-content' programs, attention to the distinctive features of languages such as Chinese are often underestimated or overlooked in planning and delivery of such content focussed programs, adding significantly to the challenges of building knowledge and skills to learn content through Chinese language for alphabetic background learners. Chinese teachers, often trained as Chinese language-as-content, second language teachers as a result often lack insights and understandings into how to accelerate development of learners' conceptual knowledge of the Chinese language, of learning to speak a tonal language (using Hanyu Pinyin Romanisation as a tool) and in establishing effective strategies for efficient learning to read and write in Chinese in order to use the Chinese language for learning content in other learning areas (e.g., Orton 2016, 2020).

This paper explores the process of working with overseas educated but locally trained teachers of Chinese, working in a bilingual program in the primary years to develop a curriculum framework specific to Chinese language learning in their primary years bilingual program. The process required teachers to adapt their understandings of both language-as-content and language-for-learning practices, by using both the dominant English Language curriculum and literacy practices and the local Chinese as an additional/second Language curriculum as a basis for advancing their understandings of what matters in developing a bilingual, bi-literacy capability among novice, alphabetic-background learners. A significant aspect of the resulting Chinese-English bilingual curriculum program for the primary/elementary years is the focus on the development of bi-literacy capabilities in both Chinese and English, requiring significant specificity in the process of learning both characters and Hanyu Pinyin at a pace likely to provide sufficient scaffolding for students, so that they can begin to learn across the curriculum using texts in Chinese from the earliest opportunity. Samples of curriculum developed collaboratively with teachers, with specific reference to literacy development in Chinese will be discussed.

A ‘functional bilingual teaching and learning framework’ and biliteracy development for a bilingual program

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This presentation illustrates a ‘functional bilingual teaching and learning framework’, drawing attention at a ‘paired literacy’ approach, and presents teachers’ implementation of a ‘paired literacy’ approach in this program.

During the first phase of the bilingual program’s implementation, parallel research on Chinese-English bilingual programs was conducted internationally. This has resulted in the development of a ‘functional bilingual teaching and learning framework’ for developing standards-based curriculum, materials and pedagogies for effective bilingual programs (Li, 2020). The framework includes key criteria, namely, enabling the simultaneous biliteracy development and ‘systematic’ or ‘purposeful’ use of two or more languages in bilingual teaching and learning (see also the ‘functional view of multilingualism in education’ in Heugh, 2018; ‘transknowledging’ in Heugh 2021, ‘paired literacy instruction’ in Escamilla et al., 2014; ‘preview-view-review’ in Freeman & Freeman, 2005; and ‘translanguaging’ in García & Li Wei, 2014). These features are interrelated and provide the building blocks for effective Chinese-English bilingual teaching and learning. A paired literacy approach is a significant part of the framework. Aiming at simultaneously developing biliteracy for students, paired literacy instruction focuses on oracy, reading, writing, metalanguage, and making connections across or between languages (Escamilla et al., 2014). Extending Escamilla et al. (2014)’s paired literacy instruction further, the ‘paired literary approach’ in this study makes connections between language-specific lessons and bilingual teaching across the curriculum, and considers carefully the selection and use of vocabulary, sentence structure, genres, and translanguaging, translation and transknowledging strategies.

In the second part of the presentation, first, two Grade 4 literacy teachers (one for each of Chinese and English) share their experience of the development and implementation of a theme-related, standards-based paired literacy unit through close collaborative planning and teaching in two languages. In particular, the two teachers illustrate collaborative teaching of reading and writing using the same genre and text types in two languages. This involves the systematic and purposeful use of bilingual materials, translanguaging, transknowledging, two-way translation, and preview-view-review strategies. Next, one bilingual teacher from the school brings her innovative approach to develop oral and early literacy skills in Chinese, with a specific focus on sound (phonemic awareness) in words (through the use of pinyin) and making connections with English language in terms of phonological knowledge outlined

in the curriculum framework (see also presentation 2). She shares a trial of systematically and explicitly teaching sounds, pinyin, and decoding and encoding Chinese characters in pinyin and to decoding and encoding words in English through the lens of a paired literacy approach.

This presentation demonstrated the connections and practice among bilingual theories, research and classroom implementation.

Reciprocal learning for bilingual education teachers

Mei French¹

¹University of South Australia

This presentation focusses on the professional learning needs of teachers in a Chinese-English bilingual program in an urban Australian public school. Working in the only Chinese-English bilingual program, and one of only a handful of bilingual programs in the state, means that these teachers have professional learning needs that are more specific than what may be available through existing structures such as education systems or professional associations. There is a need to develop and implement a professional learning strategy for the school that engages with expertise from researchers and practitioners from diverse contexts, as well as building a model for ongoing collegial sharing and professional learning that is sustainable at the institutional level.

Teachers in this Chinese-English bilingual program bring with them diverse multilingual repertoires and experiences both personal and professional, including engaging with a range of multilingual, bilingual and monolingual settings in Australia and internationally. They also identify different professional learning priorities connected to their career stage, professional experiences, teaching focus and career aspirations. The diversity in these dimensions offers potential for reciprocal learning between staff as well as between students and staff.

Drawing on survey responses and discussions with teachers, this presentation will include elaboration of different teacher profiles, and factors that influence these. An analysis of the professional learning priorities at the levels of individual teachers, teaching teams and the Chinese-English bilingual teaching staff will be presented, framed in the context of institutional structures and available resources.

The development of a school-wide strategy that aims to address diverse needs and establish a reciprocal approach to professional learning will be discussed. Such a strategy would incorporate multiple dimensions of professional learning including communities that engage in reciprocal learning through collaborative relationships for planning, teaching and reflection, action research, and engagement with external research expertise. This strategy equally needs to address the institutional requirement for a sustainable approach to professional learning that can be maintained and developed by and for school leadership, program leadership and program staff on a medium and longer-term basis; and within the context of a complex and changing staff profile, framed by broader issues of skills shortages and precarious employment for teachers. There is an extent to which the strategy can build on existing school structures and practices, though changes in school culture will also support effective professional learning.

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Many facets of cognition in simultaneous interpreting

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Simultaneous interpreting is a multilingual communicative context that requires an exceptional combination of cognitive processes, placing heavy demands on working memory, cognitive and motor control and attention control, to say nothing of the level of mastery of the source and target language and requisite general knowledge. Multiple research foci exist in cognitive interpreting studies, ranging from those examining the unfolding of the task itself, via the underlying cognitive and neural architecture, to the consequences of extensive interpreting practice.

The three presentations gathered here are couched in distinct research traditions, but represent complementary approaches to understanding the cognitive composition of simultaneous interpretation. A first paper presents the use of eye-tracking to investigate the distribution of attention and cognitive load under conditions of low and high acoustic challenge. A second presentation extends the use of eye-tracking in a multimodal investigation of how technological assistance in the booth affects attention and markers of cognitive load. The final paper takes a different perspective, and interrogates the consequences of interpreting expertise for cognitive flexibility.

Despite the different approaches and foci that these studies present, all three reflect complementary efforts to better understand the implementation of the interpreting process as a psychological whole. This interdisciplinary composition aims to foster lively interaction among researchers whose diverse perspectives and methodological backgrounds will promote synergistic insights into one another's research. The goal of the symposium is to highlight key examples of recent progress made in interpreting studies.

By driving progress in our understanding of these multiple facets of this exceptionally demanding language management task, we progress towards a new and more extensive understanding of its cognitive makeup, with implications not only for how simultaneous interpreting may contribute to our understanding of multilingualism, but for the practice and training of interpreters. The symposium provides a platform to showcase diverse research methodologies and will set up a discussion on the theme of how process and expertise researchers can join forces to derive more compelling and more comprehensive models of the interpreting process, to drive new directions of research in the field of cognitive interpreting studies and to enhance the impact of this field on research in bilingualism and cognition.

Disentangling attention in simultaneous interpreting

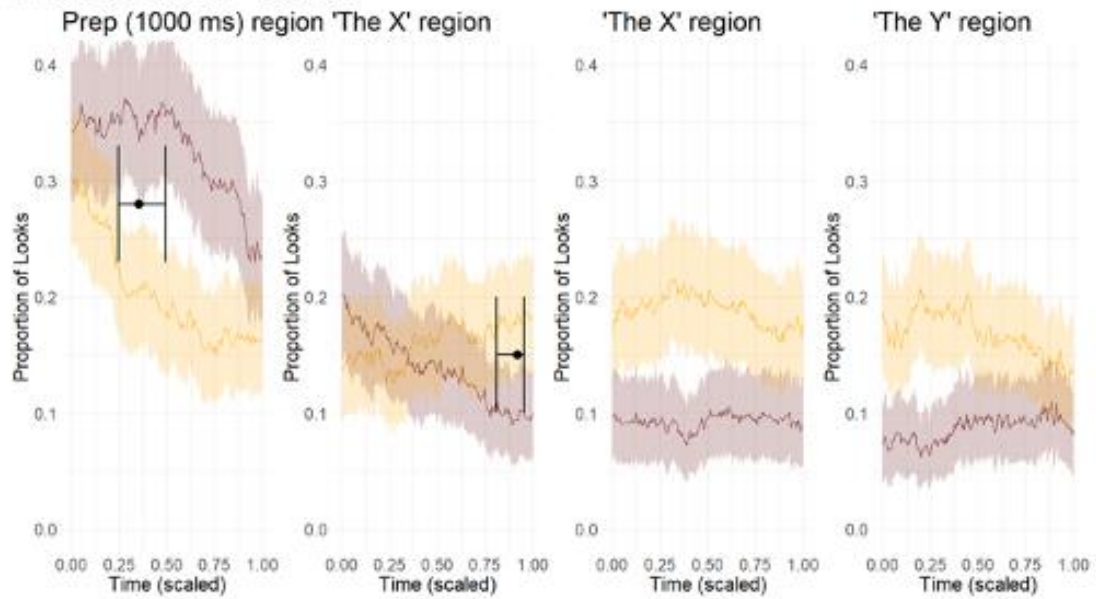
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Simultaneous interpreting involves rapid shifts of attention between listening and speaking, posing challenges in cognitive load management (Hervais-Adelman et al., 2015). This study examines attentional shifts (Arnold & Lao, 2015) in simultaneous interpreting, comprehension, and production, through an eye-tracking experiment using the visual world paradigm. To this end, we track eye movements to analyze semantic prediction patterns and measure cognitive load (Seeber & Amos, 2023) through pupil dilation (Just & Carpenter, 1993). Our study also examines the influence of sound quality (Buján & Collard, 2022) on these processes.

Forty-two professional interpreters from Geneva participated in tasks involving comprehension, production, and interpreting of sentences accompanied by visual arrays representing three objects. Participants heard a context-setting sentences followed by a critical sentence (of this type, “The man/woman is at the location” - “The *Target X* is next to the *Target Y*”) for comprehension and interpreting, while only the context-setting sentence was provided for production. The first sentence was accompanied by a visual array with three images: the smallest object (*Target X*), the bigger object (*Foil*) and the biggest object (*Target Y*). While gaze patterns and pupil diameter were measured during the second sentence in a blank-screen paradigm (Altmann, 2004). Auditory stimuli alternated between high-quality (HQ) and low-quality (LQ) audio.

Production Task



Production in interpreting task

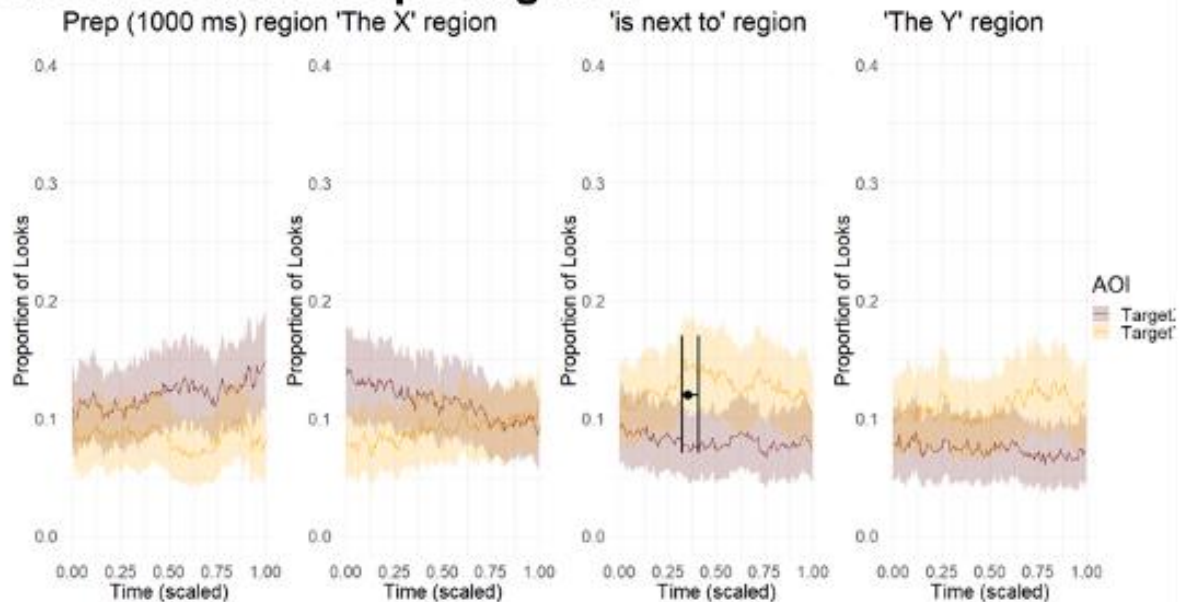


Figure 1 Upper: divergence points and 95% confidence intervals superimposed on the fixation curves, depicting fixation to Target X and target Y of the comprehension task in four time windows: a 1000 ms preparation window, “The X” window, “is next to” window, and “the Y” window. Lower: divergence points and 95% confidence intervals superimposed on the fixation curves, depicting fixation to Target X and target Y of the interpreting task in four time windows.

Results (Fixation, in Figure 1, pupillometry in Figure 2) indicate that sound quality affects attentional shifts, with LQ reducing the likelihood of shifting attention to the first object mentioned but speeding up shifts to the second. Attentional shift timing differed by task, occurring later in interpreting than during production, highlighting the relative complexity of real-time translation. Cognitive load, measured by pupil dilation, varied with task and audio quality; in HQ, comprehension initially generated larger pupil dilation, while during

interpreting it increased downstream. In LQ, interpreting consistently generated larger pupil dilation, indicating greater cognitive load.

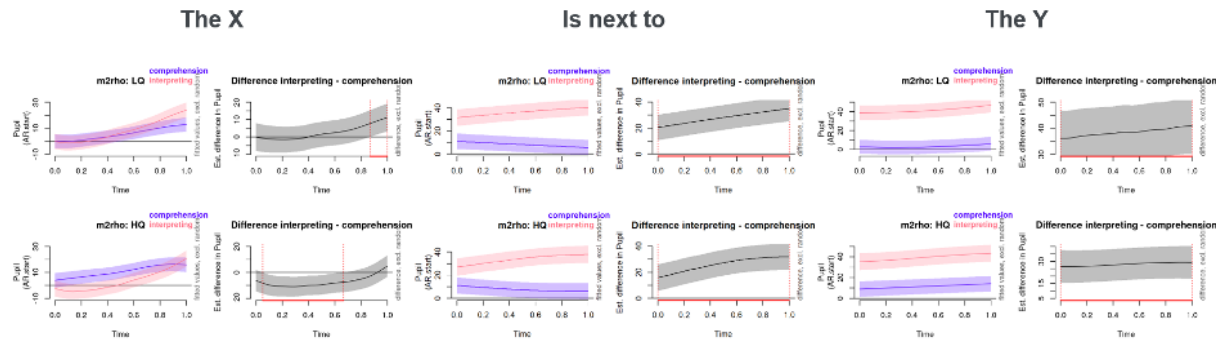


Figure 2. Changes in pupil dilation over time during tasks of comprehension and interpreting under high-quality (HQ) and low-quality (LQ) audio conditions in the three time windows of the critical sentence “The X”, “is next to”, and “the Y”. In each window, the upper-left plot represents non-linear smooths (fitted with a generalized additive model) for comprehension (blue, dark) and interpreting (red, light) in LQ condition (the pointwise 95%-confidence intervals are shown by shaded bands). Upper right: difference between the two (non-linear) smooths comparing the comprehension to interpreting in LQ condition (the pointwise 95%-confidence interval is shown by a shaded band). Lower left: non-linear smooths for comprehension (blue, dark) and interpreting (red, light) in HQ condition. Lower right: difference between the two (non-linear) smooths comparing the comprehension to interpreting in HQ condition.

Multimodal Insights into Interpreter-AI Interaction: Eye-Gaze and EEG Analysis with the Artificial BoothMate in Real Meetings

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Interest in in-booth support for simultaneous interpreting is growing, with numerous studies since Defrancq & Fantinuoli (2021) focusing on system and interpreter performance. However, the behavioral and cognitive dynamics within CAI-tool-equipped booths remain underexplored. In this multimodal study (N = 12), we investigated interpreters' interactions with an AI-based CAI-tool during meetings at an international organization. Using a dummy-booth setup, interpreters from Dutch, German, Spanish, and French booths performed interpreting tasks while integrating the Artificial BoothMate into their workflow. The tool provided live transcripts, technical terminology with translations, and numbers extracted from the speakers' output. We analyzed interpreters' eye-gaze patterns across three key Areas of Interest (AOIs): the tool, supporting materials (paper and digital), and the floor (meeting room, slides, speaker), during alternating tool-on and tool-off intervals at 15-minute intervals. Additionally, we assessed the impact of the CAI-tool by analyzing neurophysiological responses through EEG time-frequency band analysis. The eye movement data revealed that tool activation significantly influenced participants' fixation behavior. Fixations were longer and more frequent on the tool during Tool On intervals, suggesting heightened attention. The Transcript region attracted more attention, and the Terms region consistently engaged participants, reflecting its importance. Supporting materials, particularly printed materials, were relied upon more when the tool was off. Booth-specific differences showed that Romance language participants experienced higher cognitive load, indicated by longer fixations and reduced saccade peak velocity. EEG results revealed increased theta power during Tool On conditions, consistent with higher cognitive load. Interestingly, alpha power increased, contrary to expectations, suggesting variability in alpha responses. Beta power was higher during Tool On conditions, signaling greater engagement, while gamma power showed similar patterns without significant differences between tool conditions. Lastly, all frequency bands decreased over time, possibly due to fatigue. Overall, the tool's activation significantly shaped interpreters' attention and cognitive processing.

Cognitive flexibility advantage transitioning from local switching to global monitoring: Evidence from student interpreters around the intermediate expertise level

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Interpreting requires regular and frequent language switching and is thus likely to enhance interpreters' cognitive flexibility. However, findings on this advantage issue are mixed (see Babcock & Vallesi, 2017; Becker et al., 2016; Dong & Liu, 2016; Van de Putte et al., 2018; Yudes et al., 2011; Zhao & Dong, 2020), probably due to two types of confounding factors: interpreter expertise and task differences. Nevertheless, there has been no attempt to empirically test the influence of these factors on the presence of cognitive flexibility advantage, either in interpreters (compared with general bilinguals) or in general bilinguals (compared with monolinguals). Such attempts may help depict the dynamic picture of how language experience may impact cognitive flexibility advantage, and specify features of typical tasks used to test cognitive flexibility, providing methodological implications for future research.

Based on a systematic review of the literature, and considering the interpreting task in terms of switching requirement, the present study investigates the developmental features of cognitive flexibility advantages transitioning from local switching to global monitoring. Specifically, we targeted the critical training period of intermediate interpreter expertise and compared participants' switching performance in both the rule-based WCST and the cue-based colour-shape switching tasks (including both uni-/bivalent versions). Switch cost and mixing cost are respectively considered indices for ability in transient/local and sustained/global control in task switching, or one's ability in local switching and global monitoring

Results showed that student interpreters at the pre-intermediate level outperformed comparable bilinguals in switch cost but not in mixing cost in both the uni-/bi-valent colour-shape switching tasks, and in errors and global RT in the WCST. With the same participants tested one year later and with interpreting students at the post-intermediate level, interpreters outperformed controls only in mixing cost in the bivalent task and in WCST global RT.

The findings with the colour-shape switching task revealed a developmental transition of interpreters' cognitive flexibility advantage from local switching control to global monitoring control (e.g., advantages respectively indexed by switch cost and mixing cost), and a differential sensitivity of the tasks (e.g, with the bivalent version more sensitive to mixing cost than the univalent version). As for the rule-based WCST, although there is no discussion

about the three types of index (completed category, error, and global RT) in the literature as far as we know, there also seems to be a gradual movement from local switching control to global monitoring control. See Figure 1 for a visualisation of the proposed development.

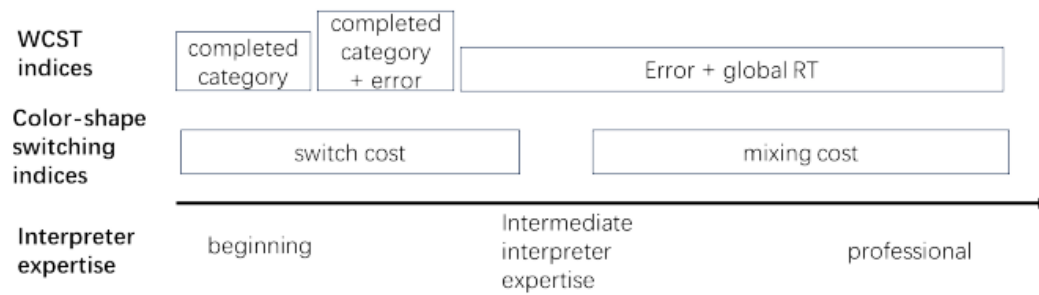


Figure 1. *Hypothesized developmental features of interpreters' cognitive flexibility advantages as reflected in different task indices*

Discussion

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After the presentation of the three empirical studies, we will convene a round table among the presenters, moderated by the symposium organisers. The discussion will reflect upon the complementarity of their research approaches and share their views on how the different strands of evidence can be integrated into existing models and to help identify missing links. This will be an opportunity for the audience to engage in further discussion with the participants. Such an interactive session will serve the purpose of allowing diverse perspectives to be heard and to provide an open forum for exploration of open issues and the identification of blind spots that currently hamper the field from “connecting the dots” between disparate groups and techniques.

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Pedagogical Approaches for Young Language Brokers: Bridging Research and Practice Across Educational Stages

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Cristina Lozano-Argüelles, clozanoarguelles@jjay.cuny.edu

This symposium aims to explore innovative pedagogical approaches for young language brokers across educational stages and disciplines. It addresses the unique educational requirements of young bilinguals who act as informal translators for their families and communities.

Young language brokers, often heritage learners of their families' languages, have distinct language profiles from second language learners (Gatti & Graves 2020). While it is widely acknowledged that heritage learners require tailored language training approaches (Kagan & Dillon 2012), their brokering experiences have received little attention in program and curriculum development. Language brokering experiences positively impact various aspects of language learning and cognition, including L1 and L2 acquisition (McQuillan & Tse 1995), metalinguistic processing (Valdés 2003), semantic access (López et al. 2017), and verbal creativity (Vaid et al. 2015).

Beyond language learning, brokering experiences influence academic trajectories, enhancing listening and communication skills (Orellana 2009), problem-solving abilities (Vaid et al. 2015), cultural awareness (McQuillan & Tse 1995: 205), standardized test scores (Dorner et al. 2007), and academic self-efficacy (Acoach & Webb 2004). Furthermore, the mixed impact of language brokering on emotional well-being can potentially affect academic experience and performance. While potentially a risk factor for mental health (Rainey et al. 2014), positive experiences can boost self-esteem and personal growth (McQuillan & Tse 1995; Weisskirch 2007).

The symposium seeks to bridge research findings and educational practices by examining current approaches, integrating brokering experiences into curricula, supporting students' needs, and proposing innovative teaching methods. It includes various types of studies and proposals across educational contexts and disciplines. Ultimately, this symposium aims to develop a comprehensive understanding of how to best support and empower young language brokers in their academic journeys and capitalize on their unique qualities.

Aligning with the ISB15 theme 'The Different Faces of Bilingualism,' this symposium contributes to the multidisciplinary dialogue on bilingualism, promoting a more inclusive understanding of bilingual experiences and their implications for education and cognitive development.

Incorporating Language Brokering Experiences to the Interpreting Curriculum

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This presentation summarizes a pedagogical initiative to integrate students' language brokering experiences into interpreting curricula. It addresses a critical gap in interpreter education by bridging students' lived experiences as language brokers with formal interpreting training. Traditional interpreter education has been tailored to late elective bilinguals and primarily focused on professional standards and techniques. However, programs increasingly attract heritage speakers and early bilinguals (Lozano-Argüelles under review) with significant brokering experience (Antonini et al. 2017). Despite this recognition, few interpreter education programs have systematically incorporated students' brokering experiences into their curricula. This project aligns with calls for inclusive interpreter education (Angelelli 2017) and builds on studies examining the relationship between brokering and professional interpreting skills (Valdés et al. 2003).

During the 2023-24 academic year, the authors conducted a study with incoming students to an undergraduate translation and interpreting program in the United States (N=23) to investigate their prior brokering experiences and associated emotional responses. Data were collected through an online survey including both closed questions and an open narrative. They were analyzed using descriptive statistics and Grounded Theory, respectively.

Results showed that students began brokering at an average age of 11.9 years. Most broker(ed) several times per week, primarily for parents and strangers in healthcare and educational settings. Emotional responses varied, with both positive (pride, empathy) and negative (nervousness, pressure) feelings reported. The qualitative analysis also revealed triggers for emotions, brokering challenges, effective strategies, etc.

The researchers analyzed these findings alongside other project data and course materials to achieve three goals: (1) inform the overall redesign of the course curriculum, (2) integrate language brokering elements into interpreting practice assignments, and (3) create six activities focused on language brokering, addressing key issues from the narrative analysis. This presentation will detail these three pedagogical adaptations and their implications for interpreter training. Additionally, we will share preliminary observations on the redesigned course's language brokering component, based on initial feedback from students and faculty.

Examining Effects of Language Brokering Experiences at the Intersection of Language and Emotion

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In many immigrant, refugee, and language contact communities, parents that do not speak the dominant language often rely on their bilingual children to serve as translators and interpreters. This global phenomenon is known as language brokering. Research on language brokering reveals that this experience has effects on cognitive and linguistic processing leading to greater semantic access and a more unified conceptual representation across languages (López & Vaid 2018), yet work on the emotional effects of brokering reveals more mixed findings with support for both positive and negative feelings in regards to brokering experiences (Weisskirch 2007). Importantly, the linguistic and emotional nature of language brokering experiences may not be mutually exclusive, as language brokering experiences are not just linguistic in nature but also emotional. Past work suggests that emotional and stressful experiences can affect cognitive and linguistic processing, including emotional language brokering experiences (Kazanas & Altarriba 2016, Lopez 2020, Mittal et al. 2015). This paper examines how emotional language brokering experiences affect lexical processing using an emotional lexical decision task (ELDT).

Sixty-five Latinx Spanish-English bilingual brokers completed ELDTs in both English and Spanish. Participants were presented with emotion (positive-HAPPY; negative-ANGER) and emotion-laden (positive-KITTEN, negative-COFFIN), and non-word control (e.g., HIRT) prime-target word-pairs and decided as quickly and as accurately as possible if the presented word was a word or not. Reaction time in milliseconds and accuracy rates were measured. Participants also completed a detailed language brokering and background questionnaire. Data reveal that different language brokering experiences, the language of the task, and word emotion and word emotion-laden type affect processing. Results are discussed in terms of how language brokering experiences are both linguistic and emotional, potentially modulating the processing of emotional information.

This talk highlights the importance of addressing the emotional aspects of language brokering experiences and offers pedagogical strategies to support language brokers in the classroom. We present activities, tools, and resources for educators and caregivers to help mitigate the emotional burden of language brokering. Our goal is to educate communities

on the implications of language brokering experiences and alleviate their emotional burden. We conclude with suggestions for future research and best practices to support families, caregivers, teachers, and language brokers.

*Dr. López contributed to this proposal in her personal capacity. The views expressed are her own and do not necessarily represent the views of the United States government.

The Participatory Action Research and Co-Creation Methodology in “Empowering Young Translators”

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This presentation focuses on the "Empowering Young Translators" pilot action, an initiative to support children and young people who translate and interpret for peers, family, and their local community. Specifically, it examines the process of co-creating resources among stakeholders to support brokers and their communities. This pilot action is part of the broader Networking the Educational World: Across Boundaries for Community-building (NEW ABC) H2020 project (GA: 101004640), which aims to enhance inclusion of immigrant children and youth in education.

Methodologically, the pilot action is grounded in Participatory Action Research (PAR), which emphasizes the importance of lived experiences in addressing issues arising from unequal social (and educational) systems and in designing and implementing effective solutions. PAR involves those directly affected by problems in both leadership and participation roles, aiming to drive emancipatory social change through systematic research and new knowledge creation. In alignment with PAR, co-creation has been a core element of the NEW ABC Project, involving various stakeholders in planning and executing activities to enhance learning, dialogue, and self-expression. Co-creation places stakeholders at the centre of project design, implementation, and evaluation. It fosters dialogue and collaboration, promoting democratic partnerships between researchers and community members to design activities that are tailored to the community's specific needs and context.

The "Empowering Young Translators" pilot action was initially implemented in the UK and subsequently retested in Italy to assess its adaptability and scalability. Working with primary and secondary pupils, teachers/educators, families, researchers, and other educational stakeholders, the action aimed to develop and design resources to improve the cultural, social, emotional, and wellbeing aspects of being a young translator. Through co-creation, the project amplified the voices of young translators, valuing their 'expertise by experience' while supporting their skill development and meaningful involvement in activities that affect their daily lives.

This project has significant implications for the inclusion and empowerment of multilingual youth in educational settings. By recognizing and supporting the unique skills and experiences of young translators, it not only enhances their personal development but also contributes to more inclusive and culturally responsive educational environments. The co-creation approach demonstrated in this pilot action offers a model for developing targeted,

effective interventions that can be adapted across different cultural and educational contexts.

Exploring Personal Identities to Support Bilingual Heritage Speakers of Spanish in the Interpreting Classroom: Empowering Young Language Brokers

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Community interpreters play a crucial role as cultural mediators and gatekeepers of language access, making them integral to advancing social justice in our communities. Often members of marginalized groups themselves, they not only experience language-based discrimination but also frequently witness the racial and ethnic inequities faced by linguistically diverse individuals in public services. In particular, community interpreters who are bilingual heritage speakers of Spanish in the United States regularly navigate complex intersections of race, ethnicity and social injustice in their communities. Many of these interpreters have served as young language brokers, translating and interpreting for their families and communities from an early age.

As such, these interpreters in the U.S. have the unique potential to become agents of cultural, ideological, and political transformation by using their lived experiences as marginalized individuals and language brokers to promote linguistic justice. This presentation emphasizes the advantages of encouraging young heritage speakers of Spanish, who are often experienced language brokers, to explore their intersecting identities in training environments, such as interpreting classrooms. By analyzing how privilege normalizes certain identities and cultural practices (McIntosh, 1990; DiAngelo, 2020; Goodenough, 2020), these students have the opportunity to foster a sense of community, empathy, and cultural humility within the field.

My approach aligns with recent research highlighting the positive impacts of language brokering experiences on various aspects of learning and cognition, as detailed in the symposium proposal description. Additionally, such classroom strategies may help novice interpreters recognize how privilege sometimes manifests as racist behavior or is embedded in racist policies, thereby perpetuating inequitable systems (Kendi, 2019). This awareness is crucial for young language brokers who have firsthand experience navigating complex social and linguistic landscapes.

Drawing on survey data and written deliberations from bilingual Spanish heritage speakers in interpreting classrooms, this presentation outlines how identity-building exercises, self-reflection, and group discussions in translation and interpretation education can deepen students' understanding of identity politics and privilege. These practices not only empower aspiring interpreters to further the profession but also help address the failures of language policy by centering marginalized voices and perspectives.

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Contributions of linguistic and cognitive factors to language mixing in multilingual children across contexts

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Many multilingual children alternate between their languages within one and the same conversation. This phenomenon is referred to as language mixing, code-mixing, or code-switching. In this symposium, we present four studies that delve into the question why multilingual children show this behavior. Previous empirical research has mostly highlighted linguistic factors such as language proficiency and dominance in various social-interactive contexts (e.g., single-language contexts, dual-language contexts, dense code-switching contexts). However, more recent research suggests that cognitive processes, such as inhibitory control and social cognition, may also be related to children's language mixing. In addition, language practices and language norms, which typically vary across social-interactive contexts, play a role. While researchers seem to agree that multiple different factors are relevant to children's language mixing, little is known about how these factors interact and relate to more specific types of mixing: between speakers (cross-speaker), between utterances (intersentential), and within utterances (intrasentential). Therefore, the objective of the symposium is to focus on the multifactorial nature of predictors of language mixing by multilingual children across contexts and languages.

All four studies adopt a multifactorial approach and investigate whether and how linguistic and cognitive factors contribute to childhood language mixing. In doing so, each study takes a unique approach. First, the symposium includes studies conducted in different sociolinguistic contexts comprising different language combinations. This provides an opportunity to compare results across contexts. Second, while some studies distinguish between inter- and intrasentential mixing, other studies highlight cross-speaker mixing. This is relevant as relations with different factors could be dependent on the type of mixing. Third, different designs and measures are used that give insight into the role of linguistic and cognitive factors. Measures include a scripted confederate dialogue task that taps into monolingual versus bilingual contexts, observational research that compares the majority and minority language through structured conversation and narratives, parent report that provides general insight into daily language use at home, and a systematic review that aggregates findings of a large body of previous research. The age range across the four studies spans from pre-school to early school age.

This symposium underscores the importance of investigating children's language mixing as a multifactorial phenomenon and the intricate interplay of the different factors that are related to language mixing in multilingual children. By encompassing diverse language pairs, sociolinguistics contexts, types of mixing and methodologies, these studies collectively

contribute to our comprehensive understanding of mechanisms underlying childhood language mixing.

Look who's talking ahora: Child language mixing with monolingual vs. bilingual interlocutors

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Language mixing by bilingual children has often been attributed to gaps in lexical or syntactic knowledge. Other skills, such as cognitive control and social cognition, have less often been considered. Furthermore, relationships between cognitive and linguistic skills and language mixing have usually been examined in contexts where there is an expected target language. In dense code-switching contexts, different mechanisms may underlie language mixing (e.g., Green & Abutalebi, 2013). The current study examines the relationship between children's linguistic and cognitive skills and their language mixing in monolingual and bilingual contexts.

Research Questions:

1. Does the relationship between children's linguistic and cognitive skills and their use of language mixing look different in a bilingual context compared to a monolingual context?
2. When children respond to a monolingual interlocutor in the opposite language, how does this relate to their linguistic and cognitive skills?

Methods: Data have been analyzed from 41 children (13 at risk for Developmental Language Disorder [DLD], 28 with Typical Language Development [TLD]), ages 4-7, who were exposed to Spanish from birth. In a scripted confederate dialogue task over Zoom, children described pictures in three contexts: with a bilingual partner who code-switched frequently, with a Spanish-speaking monolingual partner, and with an English-speaking monolingual partner. Partners explicitly described their language knowledge (e.g., "My name is Ashley, and I only speak English"; "Me llamo Maria y sólo hablo español"; "Me llamo Carmen, y hablo los dos idiomas, español and English"). Children also completed an online version of the morphosyntax subtests of the Bilingual English Spanish Assessment (BESA, Peña et al., 2018). They completed a Dimensional Change Card Sort Task (DCCS) and the Theory of Mind Task Battery in their preferred language to index cognitive control and social cognition, respectively. Parents reported children's familiarity with code-switching by listening to code-switched sentences and rating how likely their child would be to hear or say a sentence like that.

RQ1: The effect of context on within-utterance language mixing was moderated by relative proficiency, familiarity with code-switching, and theory of mind (Figure 1), but not by cognitive control or diagnostic status. In a mixed-effects logistic regression controlling for

relative proficiency, children more familiar with code-switching were more likely to exhibit language mixing with a bilingual partner and to show greater differentiation by context, while theory of mind was related to language mixing only with an English monolingual partner.

RQ2: Children who responded in the opposite language to a monolingual partner tended to be younger and have lower cognitive control and overall language skills. In a logistic regression including all three factors, only language skills had a significant effect ($b = -0.12$, $SE = 0.05$, $z = -2.30$).

Implications: Overall, these findings suggest that use of within-utterance language mixing, particularly in a bilingual context, may be more related to linguistic environment and experience, while use of cross-speaker switching in a monolingual context may be more related to developmental factors. These patterns reinforce that it is crucial to consider context when examining patterns and potential mechanisms of language mixing in children.

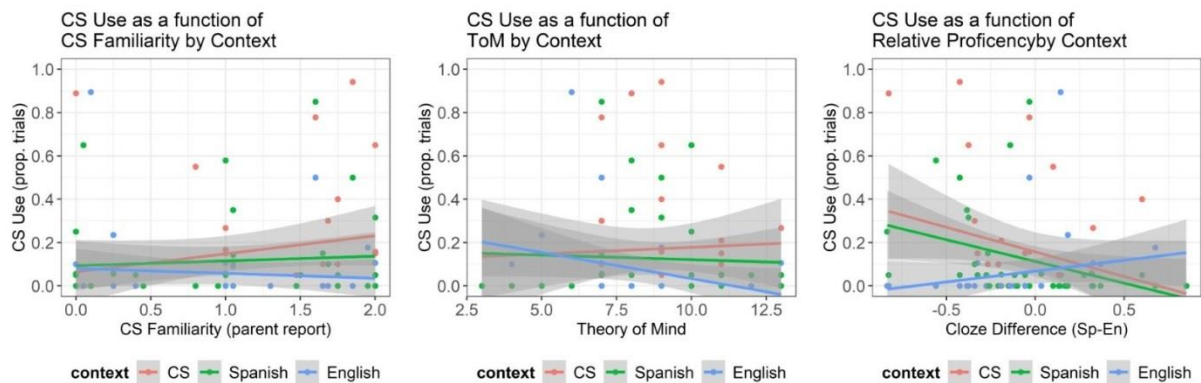


Figure 1. Scatter plots showing how the relationship between language mixing and variables of interest (CS familiarity, theory of mind, relative proficiency) vary by the context of the interaction. These plots show the raw data as a proportion of trials containing language mixing, but the analyses were conducted as a mixed-effects logistic regression predicting the odds of engaging in language mixing in each context.

A longitudinal study of Turkish-Dutch children's language mixing: language status, language proficiency, cognitive control and Developmental Language Disorder

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In daily life, multilingual children must navigate the complex task of adapting their language choice based on context and interlocutors. Successful language choice requires awareness of linguistic norms, adequate language proficiency, and cognitive control. Research suggests that the status of each language plays a crucial role in children's language mixing, particularly when comparing the frequency of mixing in majority-societal and minority-heritage languages. However, there is limited research examining the simultaneous effects of language status, proficiency, cognitive control, and DLD on language mixing in single-language settings, especially outside North America and in children with low language ability.

To address this gap, we analyzed data collected from bilingual Turkish-Dutch children in the Netherlands in two single-language settings in the minority-heritage language (Turkish) and the majority-societal language (Dutch). In each setting, a brief structured conversation was followed by a narrative task. The primary aim was to examine the role of language status on language mixing frequency, while also exploring whether language proficiency and cognitive control influence these patterns. The inclusion of children with DLD (n=11) allowed for an examination of whether mixing behaviors in children with typical development (n=20) differed from those with low language ability, who are presumed to have poorer cognitive control. A longitudinal design followed children from 5-6 years of age to 7-8 years of age, enabling the exploration of stability in mixing patterns over time.

The results revealed a clear tendency for children to mix Dutch into Turkish more frequently (7-16%) than the reverse direction (<1%), suggesting a significant effect of language status. Higher proficiency in Dutch, lower proficiency in Turkish, and the presence of DLD were all linked to more frequent mixing in the Turkish setting. Interestingly, cognitive control appeared to have limited effects on language mixing behavior. Furthermore, mixing frequency decreased over time, likely reflecting increasing proficiency in Turkish as the children aged. These findings indicate that both external (language status) and internal (language proficiency, DLD) factors are more influential than domain-general cognitive control in shaping language mixing behavior in bilingual children.

In conclusion, this study underscores the importance of both child-external and child-internal linguistic factors—such as language status, proficiency, and DLD—on language mixing, highlighting their stronger impact compared to cognitive control. Additionally, the decrease in mixing over time suggests that improving proficiency in the minority-heritage language may contribute to greater stability in bilingual language use. These insights have implications for understanding the complexities of bilingual language development and the factors that shape children’s language choices in multilingual settings.

Juggling languages: Dual language learning children's code-switching behavior reflects underlying language and cognitive abilities

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Dual language learning children fluidly switch between their languages, a phenomenon referred to as code-switching. Code-switching can occur into different directions, from a societal towards a heritage language and the other way around, and at different locations, either within an utterance (i.e., intrasententially) or between utterances (i.e., intersententially). These different code-switching forms are far from being stable and uniform and are thought to undergo qualitative changes across childhood. Although it is assumed that these changes reflect children's maturational progress in linguistic and cognitive abilities, a comprehensive understanding of this complex interplay as well as to what extent different code-switching forms relate to linguistic and cognitive strengths and/or challenges is still missing.

In our study, we examined how code-switching behavior across the preschool age is affected by linguistic and cognitive determinants. We expected age-related changes in code-switching forms to be explained by children's linguistic and cognitive skills. Moreover, we specifically anticipated intrasentential code-switching to be linguistically and cognitively more demanding than code-switching intersententially.

We studied 106 dual language learning children (age: $M = 56.15$ months, $SD = 10.32$; 56% female) exposed to the societal languages German or French and the heritage languages Italian or Turkish. Children's intra- and intersentential code-switching from the societal to the heritage language and vice versa was assessed through parental questionnaires. Children's dual language competences and their cognitive abilities in inhibitory control and verbal working memory were assessed using standardized testing batteries.

Cross-sectional multilevel analyses showed indeed that code-switching behavior changes across the preschool period, affecting particularly intrasentential switches into the heritage language ($b = -0.14$). Children's linguistic skills affected their switching direction reflecting underlying societal (into societal language: $b = 0.23$; into heritage language: $b = -0.20$) and heritage (into societal language: $b = -0.05$; into heritage language: $b = 0.19$) language abilities. However and against our expectations, irrespective of switching intra- or intersententially. In turn and in accordance to our assumptions, intra- and intersentential code-switches were differentially related to cognitive skills. Children who showed strong inhibitory control switched less frequently into the societal language intrasententially ($b = -0.15$). Conversely, this form of switching was positively associated with verbal working memory capacities ($b = 0.31$). As anticipated, switching intersententially was not related to

cognitive capacities. The initially determined change in code-switching behavior was best explainable by children's verbal working memory capacities.

Our findings suggest that specific forms of children's code-switching reflect both underlying linguistic and cognitive strengths as well as challenges. However, associating specific code-switching forms with specific strengths or challenges is not straightforward. The same code-switching form, as for instance switching intrasententially into the societal language can be an expression of underlying weak inhibitory control and strong verbal working memory capacity. Understanding these dynamics and the fact that code-switching relates to strengths as well as challenges in language and cognition may help researchers, childcare professionals, and parents in understanding and supporting children's learning and development.

Language mixing in young multilingual children and its correlates: A systematic review

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All multilingual children mix their languages to some degree and incorporate elements from multiple languages into their speech. There are however large individual differences in the frequency with which multilingual children mix their languages, but large-scale studies examining individual differences in language mixing among multilingual children are still lacking. Over the years, several hypotheses have attempted to explain why multilingual children mix their languages. Together, these hypotheses suggest that children adapt their language mixing to the social environment. Additionally, some hypotheses suggest that various linguistic (e.g., language proficiency and dominance) and cognitive factors (i.e., cognitive control processes) are important in explaining childhood language mixing, for which relations may vary across social-interactional contexts. Furthermore, the factors may have differential relations with different types of language mixing (cross-speaker, inter-, and intrasentential mixing), and relations may change over time. It is therefore important to explain individual differences in children where language mixing as well as the social environment, and linguistic and cognitive skills are still developing.

A substantial body of research has addressed these different factors and seem to suggest differential results. However, a comprehensive overview is absent, resulting in a limited understanding of the dynamic interplay of factors in early childhood language mixing. In this study, we present a systematic review of the literature on relations between social, linguistic, and cognitive factors, and language mixing in multilingual children aged 2-6 years in naturalistic settings (i.e., longer stretches of discourse in which children choose their own words). We aim to a) identify which social, linguistic, and cognitive factors have been studied in relation to language mixing; b) discuss associations between these factors and (different types of) language mixing; and c) consider interrelations between these factors in relation to (different types of) language mixing. In so doing, the review seeks to shed light on the different factors driving language mixing behavior in early childhood and guide future research.

The PRISMA-P protocol for this systematic review was preregistered on PROSPERO and OSF. Initially, we obtained 4,239 records from four databases (i.e., ERIC, LLBA, PsycInfo, and Scopus), from which duplicates were removed ($n = 1,045$). Titles and abstracts were screened with AI-aided technology (ASReview) using the SAFE procedure. This resulted in 357 relevant records. After removing additional duplicates and non-retrievable records, we

screened 220 full-texts in Covidence. Next, data was extracted from all included studies ($n = 80$). Preliminary results suggest that most studies focus on social factors ($n = 70$), followed by linguistic ($n = 46$) and cognitive factors ($n = 6$). Social factors include conversational style, discourse strategy, exposure, interlocutor language ability, interlocutor language mixing, language mixing experience, language status, language policy, setting, sociolinguistic context, and topic. Linguistic factors include language attitudes, differentiation, dominance, lexical gaps, preference, and proficiency. Cognitive factors include cognitive control, executive functioning and task-switching. Moreover, many studies include multiple factors ($n = 56$). In the following months, we will perform a systematic narrative synthesis of the associations and interrelations between these factors and (different types of) children's language mixing.

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Does exposure to multiple languages influence socio-pragmatic communication skills?

Chair: Elise van Wonderen, e.vanwonderen@uva.nl

Recent studies have suggested that exposure to multiple languages may enhance children's socio-pragmatic communication skills (e.g., Fan et al., 2015; Verhagen et al., 2017; Yow & Markman, 2015), most notably visual perspective taking (i.e., taking into account what someone can and cannot see during communication) and sensitivity to a speaker's non-verbal cues such as pointing gestures and eye gaze (for a review and meta-analysis, see van Wonderen et al., 2023). Nevertheless, the evidence has been mixed, and it is currently unclear (i) under which circumstances differences in social-pragmatic skills occur (e.g., for which (sub)skills and for which type of bi-/multilinguals) and (ii) what mechanisms underly such differences (i.e., what aspects of multilingual exposure lead to differences in socio-pragmatic communication skills?).

In this symposium, we will present four empirical studies in three talks that tested (i) children's processing of iconic co-speech gestures, (ii) children's visual perspective taking skills, and (iii) adults' performance on a cue integration task that required attention to the speaker's visual perspective, the semantics of the speaker's utterance and the speaker's eye gaze. These studies investigated different types of multilinguals: simultaneous and sequential bi-/multilingual children, novice child L2 learners with varying levels of exposure to the L2, and older multilingual adults.

Together, these studies provide insights into the two questions mentioned above: (i) when we expect differences between monolinguals and multilinguals in socio-pragmatic communication skills to occur, and (ii) if such differences occur, what the underlying factors are. These two questions will be explored further during the discussion session.

Monolingual and multilingual children's use of co-speech gestures during speech comprehension

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Research suggests that multilingual children are more sensitive than their monolingual peers to non-verbal information such as gestures, at least in referential communication tasks (e.g., Verhagen et al., 2017; Yow & Markman, 2011). However, studies that examined differences between monolingual and multilingual children focused on behavioral outcome measures that were the result of using non-verbal information, rather than on children's attention to non-verbal information during sentence processing. In this study, we tested whether multilingual children make more (or different) use of iconic co-speech gestures during auditory sentence comprehension than monolingual children.

40 Monolingual Dutch and 40 multilingual (Dutch + other language(s)) children between the ages of 5 and 8 completed a listening comprehension task during which eye movements were recorded. Children watched a video in which a speaker uttered a sentence. The final word of the sentence was accompanied by an iconic co-speech gesture that was aimed to represent that word. For instance, while uttering the sentence “Jimmy is in the house”, the speaker held his hand in a roof-shaped form to depict a house. During the presentation of the video, four pictures were presented that matched (1) both the final word in the sentence and the gesture made by the speaker (e.g., a house with a pointy shaped roof), (2) only the final word but not the gesture (e.g., a house with a flat roof), (3) only the gesture but not the word (e.g., a tent), and (4) neither the word nor the gesture (e.g., a car) (see Figure 1). Children were not given explicit instructions about what to look at on the screen; they were only told to listen carefully to what had been said. After the screen with the speaker, children heard a comprehension question (e.g. “Where is Jimmy?”) and were asked to name the picture (out of the same four pictures that were presented previously) that best matched the answer to this question.

The preliminary results (N = 30 per group, data collection to be completed in December 2024) show no significant differences between multilingual and monolingual children in their looking proportions to the word-gesture target or the gesture competitor while they were listening to the sentence. However, multilingual children continued to look at the speaker for a longer period of time from the moment the speaker made a gesture. Increased attention to the speaker might be due to increased intake of non-verbal information during listening or, alternatively, delayed speech processing (i.e., multilingual children may need more time to process the auditory information uttered by the speaker and may thus increase allocation of attention to the speaker). Interestingly, in the comprehension trials, multilingual children

chose the gesture competitor significantly more often than the monolingual children, even though they did not fixate this picture more often during the auditory sentence. These results suggest that multilingual children partly use speaker information to a larger extent than monolingual children.

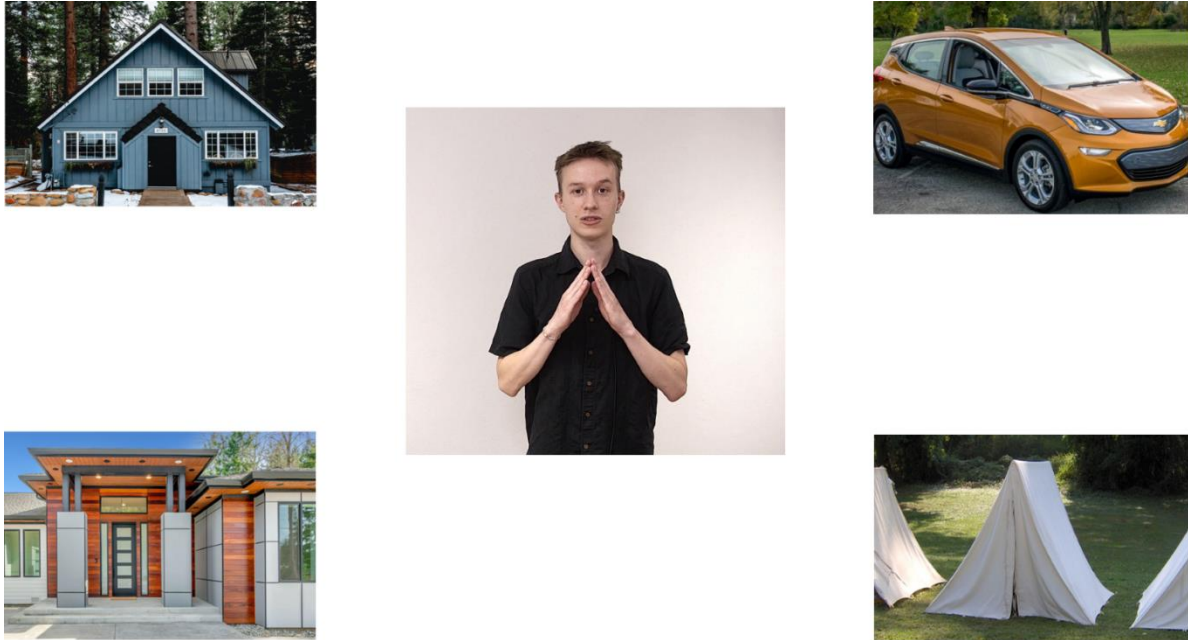


Figure 1. Speaker screen while the speaker says “Jimmy is in his house”, with the word-gesture target at the top left, the word competitor at the bottom left, the gesture competitor at the bottom right, and the unrelated distractor at the top right.

Advanced visual perspective taking skills in children learning a second language

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It has been suggested that growing up in a multilingual environment favours the development of enhanced social skills (Fan et al., 2015; Goetz, 2003), and early experience that people communicate in different languages would promote children's understanding that different people have different knowledge (Goetz, 2003). Indeed, there is evidence that bilingual children have precocious perspective taking (PT) skills, the ability to take other people's visual perspectives. I will present two studies that show advanced PT skills in children learning a second language.

The first study asked whether learning a foreign language in an educational setting leads to an acceleration of visual PT development in monolingual children and whether the amount of exposure to the foreign language makes a difference. We tested three groups of English monolingual 4-5 year-old children with varying exposure to (various) second languages on a communicative, visual PT task (i.e., the director task, Keysar et al., 2000). In this task, children were asked to take the visual perspective of a communication partner (the director) into account when following instructions. Children were tested at the beginning of their first year at primary school and 24 weeks later.

Children attending bilingual schools (n = 32) and children with weekly short second language lessons (n = 29) exhibited a very similar acceleration in visual perspective taking skills, compared to children without any second language provision (n = 38) who showed no improvement over the course of the study. This boost in children with second language exposure was not related to executive function or gains in second language proficiency. Thus, limited foreign language teaching might boost young children's social cognitive development in social settings, providing an enhanced basis for their social competence development.

The second study explored two explanations of the bilingual advantage in perspective taking: enhancement of executive function or social skills. We tested 42 5- and 6-year-old bilingual children and 40 monolingual peers on a series of non-verbal inhibition tasks, a social skills test (Test of Emotion Comprehension), and two counterbalanced versions of the director task: the standard version with a human director and a non-social version with a camera replacing the director (Santesteban et al., 2015). Bilingual children outperformed monolingual children on both versions of the task. While a human director led to more correct responses than the camera condition, this did not interact with group differences. Also, while performance in the director task correlated with inhibition skills and scores on

the Test of Emotion Comprehension, neither explained the group difference in visual PT. Therefore, neither EF nor social skills seem to explain the bilingual advantage.

These studies suggest that both limited exposure to a foreign language in educational settings as well as early bilingualism leads to advanced visual PT skills in a communicative setting. But the mechanism behind this advancement remains unknown and will need to be explored in future studies.

Integration of social-pragmatic cues in aging: Effects of early and current bilingual experience

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¹Singapore University of Technology and Design

The ability to process and integrate social-pragmatic cues in communicative contexts is essential for understanding a speaker's intention and ensuring effective communication (Bohn et al., 2022). These include linguistic cues such as the semantics of words, non-linguistic cues such as eye gaze, and contextual cues related to the speaker's situation. Past research suggests that older adults experience an age-related decline in their ability to integrate multiple cues to another person's communicative intent (Li et al., 2023). On the other hand, evidence suggests that bilingualism may influence this ability in children and young adults (e.g., Lee et al., 2021; Yow & Markman, 2015). For example, compared to monolinguals, bilingual preschoolers were better able to integrate communicative cues to successfully identify others' referential intent (Yow & Markman, 2015). However, it remains unclear whether lifelong bilingualism can enhance older adults' cue integration ability and mitigate the negative effects of aging. Here we examined how different aspects of bilingual experience (i.e., age of acquisition and language usage balance) influence the ability to integrate communicative cues in older adult bilinguals.

Participants were 132 community-dwelling older adults (mean=66.1 years, range=55-77; 46 males, 86 females) from Singapore, a multilingual society. All participants were cognitively healthy as screened by the Montreal Cognitive Assessment (Nasreddine et al., 2005). They completed a self-report language questionnaire, a cue-integration task, and two neuropsychological tests that assess general cognitive abilities (nonverbal intelligence and processing speed). In the cue-integration task, participants were asked to identify a target referent object by considering either three cues (contextual, semantic, and gaze) or two cues (contextual and semantic only) across two within-subject conditions (see more details in Figure 2). Task performance was measured as the number of correct responses in each condition (maximum score=4). To quantify early bilingual experience, we used L2 age of acquisition (L2AoA) as a proxy for bilingual onset (mean=4.8 years, range=0-9). For current bilingual experience, we calculated language entropy, an index of language diversity based on self-report language usage percentages (Gullifer & Titone, 2020), with higher values indicating more balanced use of multiple languages (mean=0.69, range=0-1).

We ran a mixed effects linear regression predicting performance with condition, L2AoA, and language entropy as predictors, and participants' age and general cognitive abilities as control variables. Only L2AoA emerged as a significant predictor, $\beta=-.13$, $SE=.06$, $p=.029$,

such that an earlier age of bilingual acquisition was associated with better cue integration ability in older adults, after controlling for age and general cognitive abilities. The predictors of condition, language entropy, and the control variable of processing speed were not significant ($ps > .052$). However, participants' age ($\beta = -.26$, $SE = .07$, $p = .001$) and nonverbal intelligence ($\beta = .16$, $SE = .07$, $p = .028$) each contributed to task performance, where younger participants and those with higher nonverbal intelligence tended to perform better in the cue-integration task. These findings suggest that early bilingual acquisition may have a greater impact on social-pragmatic processes, such as cue integration, than current language usage patterns in aging. Early bilingual experience seems to enhance resilience against age-related declines in older adults' social-pragmatic communication skills.

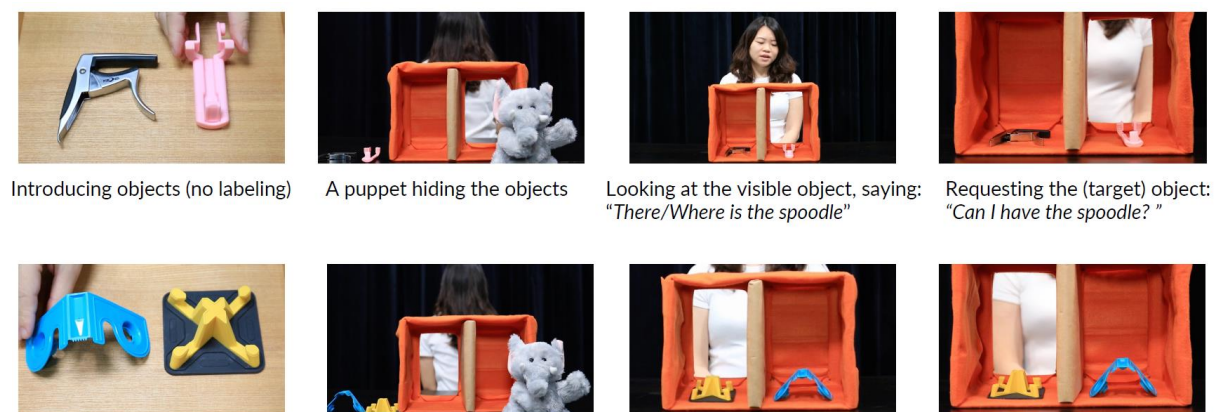


Figure 2. Screenshot of the key frames in the cue integration task. Top panel shows the three-cue condition, where participants need to integrate (1) the speaker's context (she could see only one of the two objects placed in the box), (2) the semantics of "there" and "where", and (3) the speaker's eye gaze. Bottom panel shows the two-cue condition, where only contextual and semantic cues are shown. The order of conditions was counterbalanced across participants.

Discussion

Elise van Wonderen¹

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In the literature, three hypotheses have been put forward to explain why exposure to multiple languages may influence children's socio-pragmatic abilities: the Monitoring Hypothesis, the Compensation Hypothesis, and the Mediation Hypothesis (van Wonderen et al., 2023).

The Monitoring Hypothesis states that multilingual children must monitor who can speak and understand which language to avoid communication breakdowns. Because of monitoring their interlocutors' language abilities and preferences, multilingual children may pay closer attention to their interlocutors in general, resulting in increased sensitivity to their knowledge state and communicative needs (Yow & Markman, 2011, 2015). Alternatively, the Compensation Hypothesis suggests that paying attention to various communicative and contextual cues could serve as a compensatory strategy to mitigate any gaps in multilingual children's vocabularies or morphosyntactic skills (Verhagen et al., 2017). Finally, the Mediation Hypothesis proposes that the effect of multilingualism on pragmatic abilities is mediated by multilinguals' advanced executive functions or Theory of Mind (Fan et al., 2015; Yow & Markman, 2011, 2015).

Although these hypotheses have often been mentioned in the literature, they rarely have been tested directly. During this discussion session, we will discuss together with the audience to what extent the four presented studies provide evidence in favor or against these three hypotheses. We will also discuss the insights these four studies provide into the conditions under which we expect to find differences between monolingual and multilingual children in socio-pragmatic communication skills. Finally, we will discuss directions for future research to further pinpoint why and when multilingual exposure influences children's and adult's socio-pragmatic skills.

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Perspectives on multiple domains of Spanish-English bilingual development in the US

Chair: Martha Shiro, shiromartha@gmail.com

This symposium presents a comprehensive view of bilingual language development, with a focus on Spanish-English bilinguals growing up in the US. As language is multilayered, the study of language development needs to concentrate on different levels of analysis and multiple domains in language development. Studying bilingual language development is even more complex, as the speakers occasionally merge and mix the languages they speak, and it is unclear how the development of one language affects the development of the other.

The four studies presented here adopt diverse views on Spanish-English bilingual language development in children growing up in the US. The focus ranges from lexical development to syntax, narrative discourse, and parent-child interactions. One study explores comprehension, whereas the other three focus on production. The data used in three studies consist of language produced during spontaneous interactions, and one study relies on analyses of standardized test scores. The first study presents a longitudinal analysis of bilingual children's vocabulary growth in Spanish and English at ages 2.5 and 12 and finds that, in general, vocabulary scores in English and Spanish are positively correlated, except expressive vocabulary scores between ages 2.5 and 4. The second study finds that Spanish heritage speakers and Spanish L2 learners aged 8 to 12 are more accurate in comprehending relative clauses in English than in Spanish. The findings of the third study suggest that 5 and 6-year-old Spanish-English bilinguals and English-speaking monolinguals develop narrative abilities in similar ways, with minor differences in the uses of evaluative expressions. The fourth study adopts an integrated view of the two language systems in bilingual children aged 3 to 5, and finds that the proportion of translanguaging in parent-child conversations during book reading is higher in children's utterances than in their parents', and higher in conversations about narrative than expository books.

It is important to underscore that having a multi-faceted perspective on bilingual language development and examining multiple domains not only enhances our understanding of this phenomenon but also aids in diagnosing atypical language development and supports the academic success of bilingual children in school.

Competition, Co-Existence, or Support? A Longitudinal Study of the Relation Between Spanish and English Development in Bilingual Children from 2.5 to 12 Years

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¹Florida Atlantic University

Many children in the United States are exposed to, and to some degree acquire, a language other than English at home. English is the language of school and the workplace in the United States, and thus it is of practical importance to understand how the acquisition of another language affects the acquisition of English. Spanish is often the language of family relationships and cultural transmission, and thus it is of importance to understand the factors that influence its development.

The present study makes use of longitudinal data on children from Spanish-speaking homes in the United States, who were followed from the ages of 2.5 years to 12 years. Expressive vocabulary was assessed with examiner-administered tests every 6 months from 2.5 to 5 years and annually to 12 years. Receptive vocabulary was assessed from age 4 to 12 years. We ask of these data: (1) what are the concurrent relations between children's Spanish and English vocabulary knowledge at each assessment point between 2.5 and 12 years, and (2) what are the relations between growth trajectories in Spanish and English over this period. The concurrent relations between vocabulary scores in English and Spanish were evaluated using bivariate correlations. The relation between English and Spanish growth trajectories was addressed using bivariate spline analysis, which decomposed growth curves into linear components and allowed for an examination of relations between growth rates in two languages.

The findings were that the concurrent correlations between English and Spanish expressive vocabulary scores were negative and significant from 2.5 years to 4 years. After age 7 years, the correlations were nonsignificant but consistently in the positive direction (Figure 1). Receptive vocabulary scores in English and Spanish were positively correlated at every age beginning at 5 years. Bivariate spline analyses indicated that growth rates in English and Spanish expressive vocabulary were not significantly related in period from 2.5 to 4 years and were positively related in the period from 4 to 12 years. English and Spanish receptive vocabulary growth rates were consistently significantly positively related (Figure 2). The only negative effects of one language on the rate of growth in the other was a negative relation between English expressive vocabulary growth from 2.5 to 4 years and Spanish expressive vocabulary growth after 4 years.

Thus, competition between two languages is suggested in the negative concurrent relations between Spanish and English expressive vocabulary scores from 2.5 to 4 years and in the

negative predictive relation between early growth in English and later growth in Spanish. Overall, the pattern of findings is more consistent with co-existence and mutual support. When there are negative effects of one language on the other past the age of 4 years, it is heritage language development that is threatened by societal language development.

Figure 1

Age-Related Changes in Concurrent Correlations Between English and Spanish Expressive Vocabulary Scores (n=149)

Note: * $p < .05$, ** $p < .01$

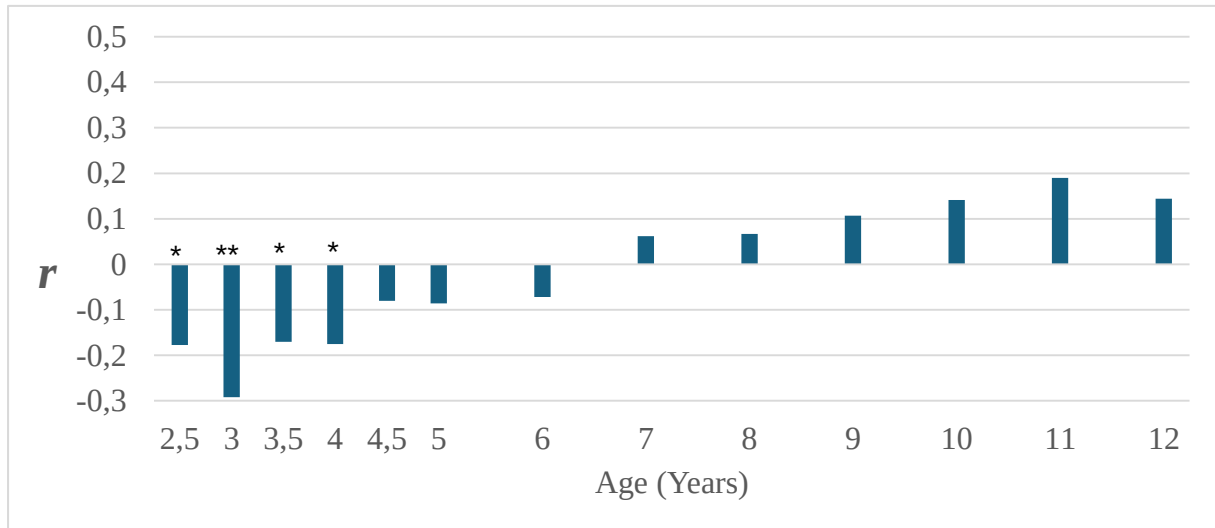
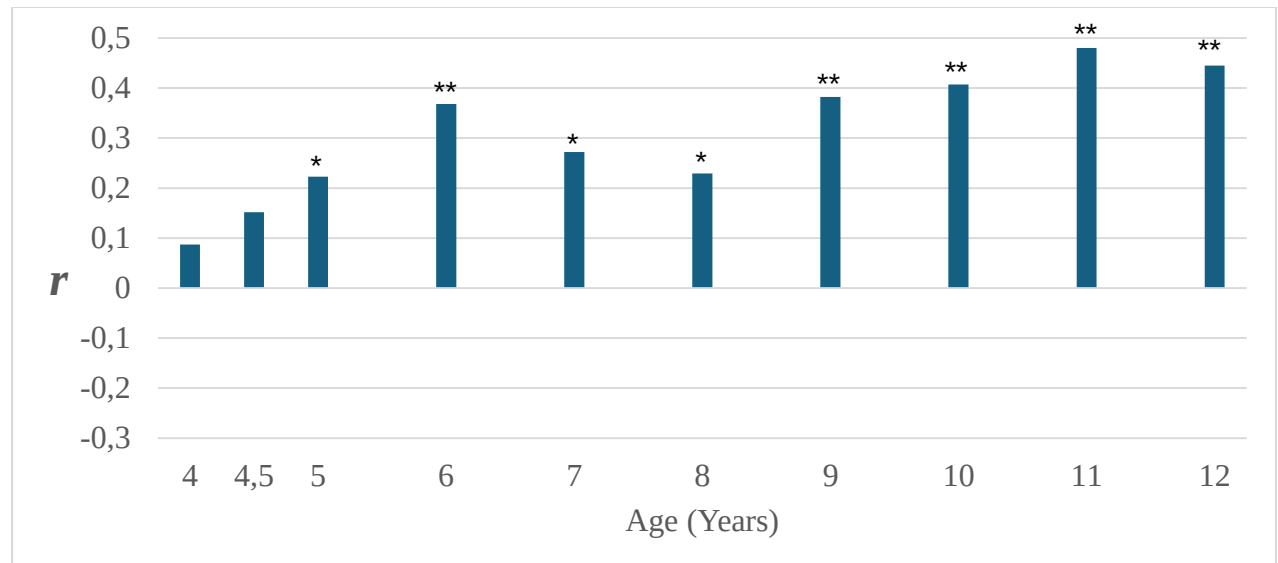


Figure 2

Age-Related Changes in Concurrent Correlations Between English and Spanish Receptive Vocabulary Scores (n=149)



Note: * $p < .05$, ** $p < .01$

Comprehension of Spanish and English Relative Clauses by Child Spanish Heritage Speakers and L2 Learners

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¹University of Illinois- Urbana-Champaign

Compared to other languages, the acquisition of relative clauses in Spanish by school-age children has not received much attention. In this study we tested the comprehension of relative clauses in Spanish and English by Spanish heritage children (n = 29) and L2 learners (n = 17) of Spanish (ages 8-12) attending dual immersion bilingual programs in the US.

Relative clauses are embedded clauses that modify noun phrases of the main clause, either in the subject or in the object position. Syntactically, relative clauses involve movement and reinterpretation of phrases (Guasti, 2002). Relative clauses emerge early in development but are mastered after age 7 in several languages, (Guasti & Cardinaletti, 2003; de Villiers et al., 1994; McKee et al., 1998). Crosslinguistically, object relatives are more difficult to comprehend than subject relatives because the subject of the clause intervenes between the gap and the head DP. Under Relativized Minimality (Rizzi, 1990), comprehension is facilitated when the two DPs have different morphosyntactic features (Adani et al., 2010; Friedman et al. 2009).

There are two critical differences between Spanish and English relative clauses. **1) word order:** Subject relatives have Verb-Object (VO) order in English and Spanish, and object relatives have Subject-Verb (SV) order. In subject relatives Spanish has another possibility: OV order in subject relatives and VS order in object relatives. **2) object marking:** animate and specific objects in Spanish must be marked with the preposition “a”; unlike English. Given these structural differences, we predicted greater difficulty with Spanish than with English relative clauses overall, even for the heritage speakers who have more cumulative language experience in Spanish than the L2 learners.

The children completed several standardized measures of proficiency and literacy in the two languages and a picture-sentence matching task. Items were presented with two pictures with reversible animate agents and patients: participants chose the picture that matched the sentence (A or B) they hear (Example 1). Items included subject, object and prepositional relative clauses and manipulated the plural features of the NPs (same vs. different number). The Spanish items also tested word order within the RC and object relative clauses with and without object marking.

Overall accuracy in English (well above 90%) was much higher than in Spanish (slightly above chance), as predicted (Figure 1). In English, accuracy on subject was higher than on object and prepositional relative clauses; in Spanish accuracy on subject relatives was lower due to the different word orders. In English, accuracy did not differ by type of relative clause or

features of the NP (Figure 2), while in Spanish different number features in the DP facilitate comprehension, as predicted under Relativized Minimality. Although on several proficiency measures the L2 learners and the heritage speakers differed, statistically, the heritage speakers were marginally better than the L2 learners in Spanish, suggesting that early input in Spanish does not provide such an advantage to heritage speakers with these complex sentences at this age, and that literacy and instruction in Spanish at school is equally beneficial for both groups.

Picture A



Picture B

SRC: *Muéstrame el hombre que alimenta a la mujer.*
Show me the man who feeds the woman

ORC: *Muéstrame el hombre **al** que alimenta la mujer.*
Show me the man who the woman feeds

PRC: *Muéstrame la mujer de quien depende el hombre*
Show me the woman the man depends on.

Example 1: Sample items with same number in intervening DPs.

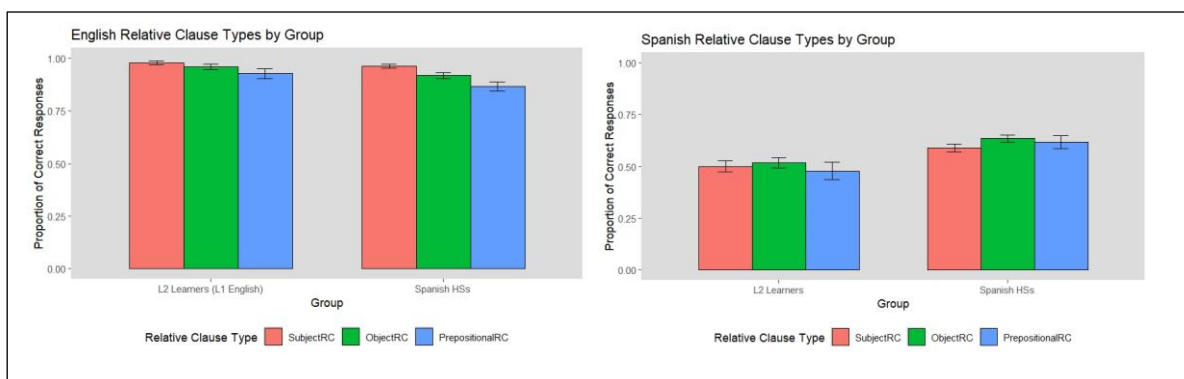


Figure 1. Comprehension of different relative clause type by groups in the English and the Spanish Task.

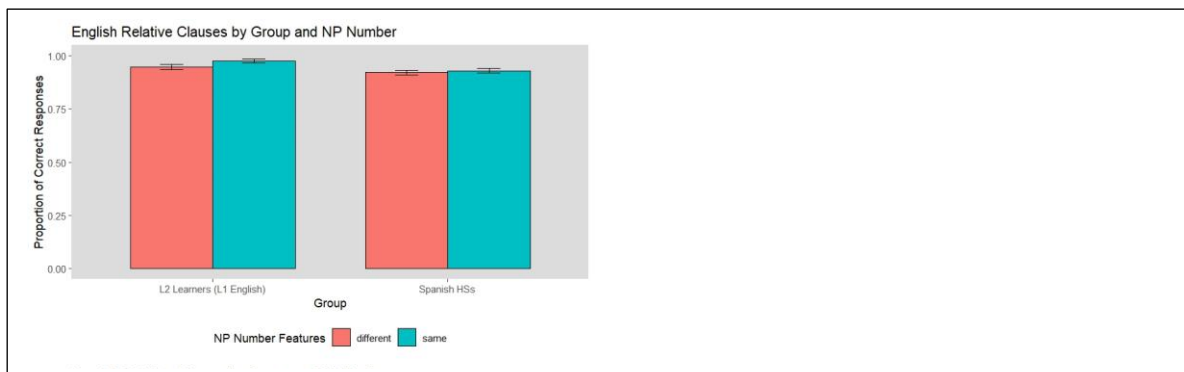


Figure 2. Accuracy on the comprehension of RCs (overall) by plurality of intervening DPs in English and Spanish.

Bilingual narrative development: Personal narratives of 5 and 6 year-olds

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¹Universidad Central de Venezuela

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Narratives reflect the culture in which the speaker is immersed. The narrator must resort to socio-cultural, cognitive and emotional abilities, in addition to linguistic and pragmatic skill as they construct a temporal axis of events and position themselves, while motivating the events by using evaluative language. Then, how do bilingual children, who are exposed to two languages and two cultures simultaneously, adapt their narratives to the corresponding norms? Studies on bilingual adults show that the language in which the story is told has an impact on their narrative production. The purpose of this cross-sectional study is to determine how bilingualism affects children's story-telling abilities in personal narratives. We focused on 5 and 6 year-old children who are exposed to both languages from birth to determine how bilinguals develop their narrative skills at this age, and how their narrative skills compare to those of monolinguals in the same age period

We collected personal narratives in English from 28 English-Spanish speaking bilingual and 16 English speaking monolingual five-year-olds as well as 28 bilingual and 28 English speaking monolingual six-year-olds, all typically developing children, using the same prompts. As narratives consist, not only of a sequence of events, but also of evaluative expressions that convey the speaker's stance, all of which give meaning to the story, we analyzed the narrative structure and the evaluative expressions to determine how their narratives are organized. Thus, we coded for narrative length, narrative components (abstract, orientation, complicating action, resolution and coda) and for evaluative expressions (attribute, cause, cognition, emotion, intensifiers/mitigators, intention, negation, physical and reported speech).

The findings suggest that despite bilinguals' lower scores on vocabulary tests, their performance in English narrative performance is very similar to that of monolinguals. As shown in the figures below, the 5-year-old bilinguals tend to use significantly more evaluative expressions than their monolingual peers ($p=.023$) (Figure 3). We found no difference in the length or the structure of narratives. Neither did we find any differences on these three measures between monolinguals and bilinguals in the 6-year-old age group. When comparing age groups, the 6-year-old monolinguals use significantly more evaluative expressions than the 5-year-old monolinguals ($p=.004$) (Figure 3), but no difference was found in the bilingual group and there was no developmental difference on the other measures (narrative length and structure). As oral narrative abilities predict later academic

success the findings of this study shed light on typical bilingual development and help teachers in facilitating literacy learning in bilinguals as well as monolinguals.

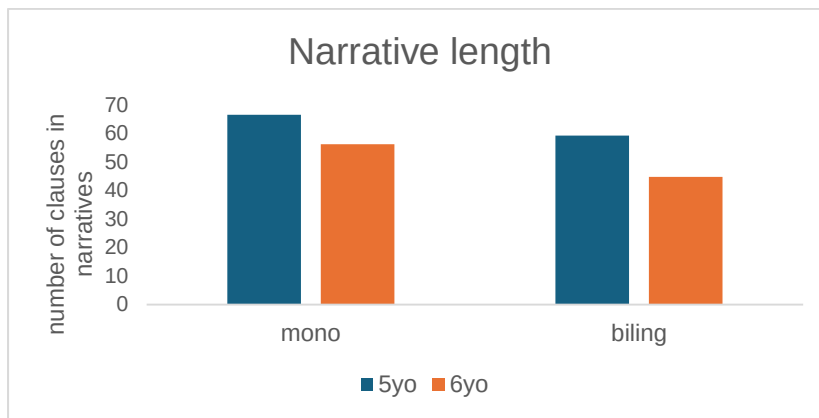


Figure 1

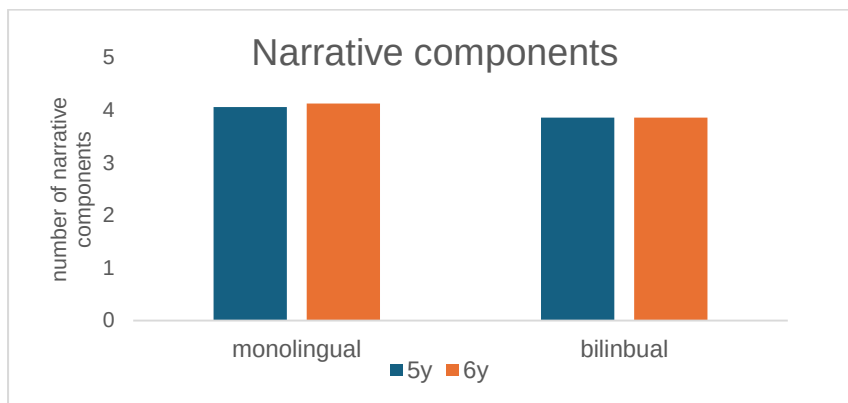
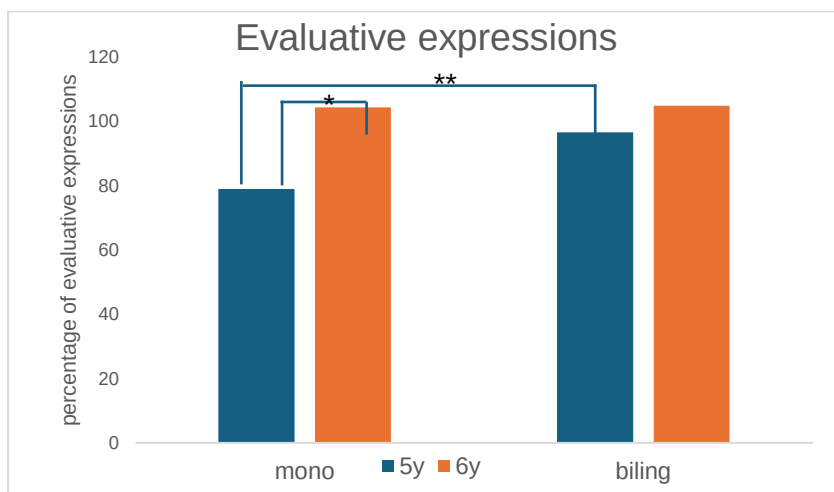


Figure 2



Note: * $p < .05$, ** $p < .01$

Figure 3

Parent and child translanguaging during book sharing

Gabriella Sierra¹, Gigliana Melzi², Catherine Haden³ & Maureen Callanan¹

¹University of California Santa Cruz

²New York University

³Loyola University

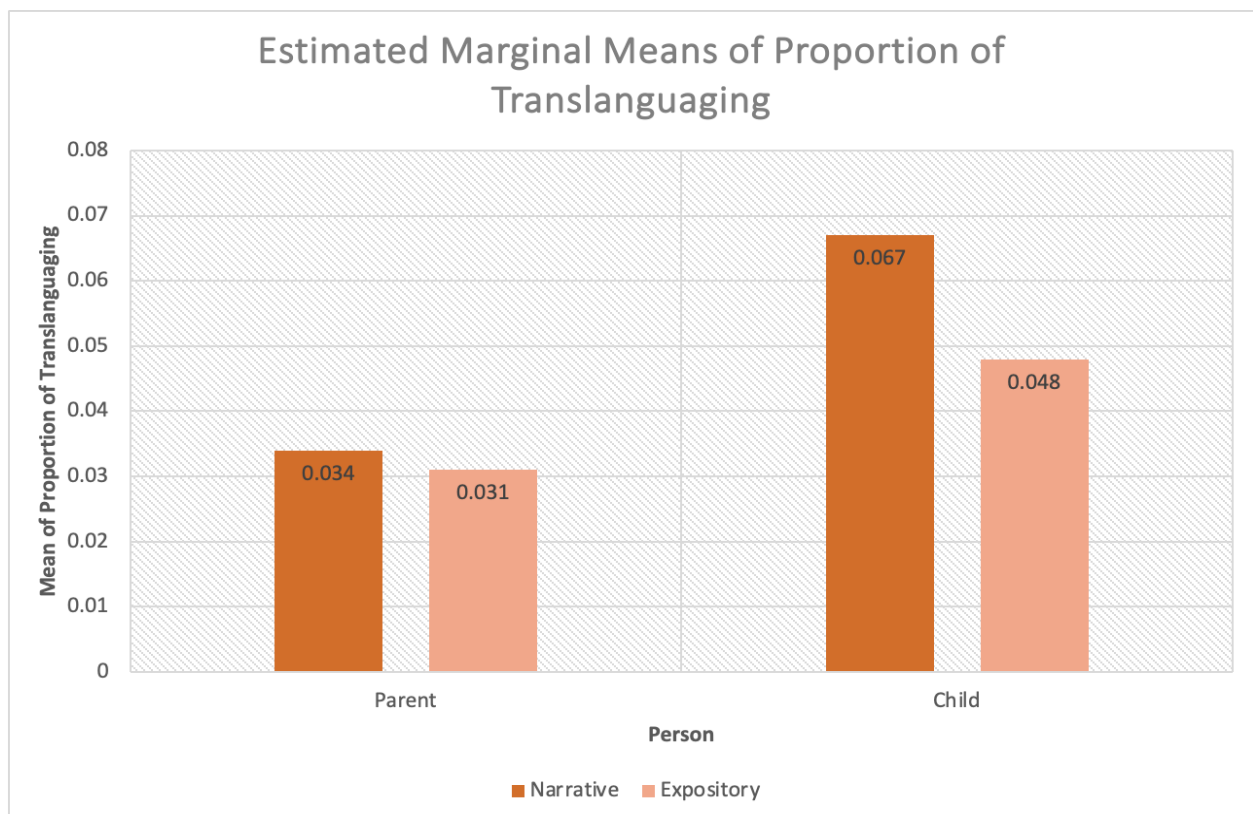
Children exposed to multiple languages use their linguistic repertoire to navigate different conversational spaces. Researchers have documented bilingual children's language use across contexts and described the incidence of code-switching in everyday speech. Yet this work generally views children's language abilities as separate linguistic systems. García and Lin (2016) argue that this approach does not acknowledge the fluidity of language or the dynamic opportunities children have to communicate their ideas. They propose *translanguaging* as an alternative that appreciates how bilingual children use their full linguistic repertoire to shift the audience and acknowledge cultural contexts. Burgeoning research on translanguaging during parent-child conversations provides empirical evidence that translanguaging supports children's learning across diverse content areas, including math, history, and literacy. Studies, however, have yet to examine parent-child translanguaging in science-learning contexts. In this study, we investigated the frequency and functions of translanguaging as parents and children shared two science-content books of two different genres.

Participating families (n = 75) were recruited for a larger project on early science learning from a bilingual Head Start Program in New York, primarily serving low-income Latine families of children ages 3-5. For this study, 68 bilingual parent-child dyads were included (excluding families with grandparents as primary caregivers and others with audio issues). As part of the larger protocol, dyads were invited to share two bilingual books of different genres (narrative and expository) in a way that felt natural to them. The research team created two sets of books about nature to introduce similar science material at the same level of reading difficulty but of contrasting genres. The narrative book tells a story about a character in a natural environment, whereas the expository version teaches facts about the same environment. Coding labeled every parent and child utterance as Spanish, English, blended, or ambiguous (difficult to assign language) and then identified the frequency of translanguaging for parents and children separately, and its function.

Preliminary analyses show that 82% of the families engaged in some form of translanguaging. When reading the narrative book, 59% of parents and 62% of children used translanguaging at least once. With the expository book, 65% of parents and 56% of children used at least one instance of translanguaging. As shown in Figure 1, on average, in the narrative book, parents used translanguaging in 3.4% of their utterances and children in

6.7% of their utterances. For the expository book, parents used translanguaging in 3.1% of their utterances and children used translanguaging in 4.8% of their utterances. Coding for functions shows two overarching roles of translanguaging in the context of book sharing. The first is to support children's language learning through direct translation, or implicit teaching (e.g., full or partial repetition). The second role is to enrich the book-sharing interaction, including changing languages to voice a story character and making references to culture. Results will be discussed concerning the linguistic strengths young bilingual children bring to learning about topics typically seen as only school-related, such as science.

Figure 1



Supporting bilingual acquisition in individuals with developmental conditions: insights from Wales

Chair: Eirini Sanoudaki, e.sanoudaki@bangor.ac.uk

While bilingualism research has made significant strides in recent decades, relatively little is known about bilingual development in individuals with disabilities or developmental conditions. This knowledge deficit has led to parents often being advised against bilingual exposure for their children with developmental conditions (Drysdale et al., 2015). Furthermore, there is little support available for bilingual acquisition and for language learning experiences in these populations.

Wales, as an officially (Welsh-English) bilingual nation, with a large number of bilingual families, provides an ideal environment in which to investigate bilingual acquisition in diverse populations.

Based in North Wales, the [Child Bilingualism Lab](#) has been investigating bilingual development in neurotypical children as well as children with conditions such as Down syndrome, autism, Rett syndrome and developmental language disorder for over a decade. The lab has also been working on interventions and outreach, supported by the Welsh Government's aim to increase the number of Welsh (bilingual) speakers (Welsh Government, 2017).

This symposium will showcase the latest work of our lab team and collaborators, with a primary focus on supporting bilingual individuals with developmental conditions. The talks will both explore the support available (to parents and professionals) via questionnaires, and will also present support in the form of targeted interventions (development of resources and a language learning project for Welsh).

The thematic symposium makes a unique contribution to this area by presenting a coherent body of language research in individuals with developmental conditions in a bilingual nation. It also takes a holistic approach by documenting previously unexplored perspectives and needs, while also executing and evaluating interventions. The multidisciplinary insights offered provide the blueprint for similar work, so that disabled children and adults' inalienable right to language can be supported.

Synthetic children's voices for bilingual augmentative and alternative communication (AAC) in Wales

Meinir Williams¹, Sarah Cooper¹, Delyth Prys¹ & Dewi Jones¹

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Augmentative and alternative communication (AAC) is used by a wide range of people in Wales, ranging from low-tech systems such as flash cards to complex high-tech systems which use eye-tracking and text-to-speech (TTS) technologies (Crowder, 2019). Access to AAC is set out in Article 21 of the United Nations' Convention on the Rights of Persons with Disabilities (2006), but this is much more challenging in lesser resourced languages (Tönsing et al., 2018).

Article 30 of the United Nations' Convention on the Rights of the Child (1989) states that all children have the right to use their own languages and enjoy their own culture whether this is shared by the majority of the people in the country where they live or not. In Wales, where both Welsh and English are official languages with equal status, this means that access to functional AAC in Welsh is a human right for children.

Despite this, potential users of bilingual high-tech AAC in Wales face many challenges. These include lack of suitable software in Welsh, voices that are unable to code-switch, which is a very common feature of spoken Welsh (Deuchar & Davies, 2009), and adult synthetic voices that are unsuitable for children to use.

In light of these challenges, eight pairs of Welsh and English TTS voices, four male and four female, were developed for use by bilingual children and young people in Wales who use high-tech AAC. These voices represent a variety of accents and age ranges, with the youngest being appropriate for children up to around 11 years old and the older voices designed to be used up to adulthood.

The voices are currently available for use through the National Health Service (NHS) in Wales, and this presentation will include feedback from Speech and Language Therapists, users of the voices and their families.

Bilingualism in Rett syndrome: a parental questionnaire

Rebecca Day¹, Sarah Cooper¹ & Eirini Sanoudaki¹

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Rett syndrome is a rare genetic condition which is thought to affect around 1:10,000 females, limiting the ability to produce speech in many cases (Neul et al., 2010). Individuals with this condition can learn to communicate using Augmentative and alternative communication (AAC, Unholz-Bowden et al., 2023), although provision for non-English languages is known to be limited (Tönsing et al., 2018). There are not yet any publications which explore the prevalence of bilingualism in people with Rett syndrome, the types of languages people with Rett syndrome are exposed to, or the experiences and perspectives of parents of bilingual individuals with Rett syndrome. Exploring the latter is particularly important given that parents of individuals with a neurodevelopmental condition may be advised against dual language exposure by healthcare professionals (Drysedale et al., 2015).

The aims of this study were i. to establish the prevalence of bilingual exposure in individuals with Rett syndrome in the UK, and ii. to document experiences of bilingualism in Rett syndrome, including the advice given to parents of individuals with Rett syndrome regarding bilingualism by healthcare and other professionals.

In a survey of 45 parents/guardians of individuals with Rett syndrome living in the UK, a wide range of linguistic diversity was observed, including exposure to 18 different languages among the people with Rett syndrome. Notably, 17 (37.7%) of the responding parents reported themselves to be bilingual. Regarding the people with Rett syndrome, 18 (40%) were reported to be exposed to more than one language, whilst 13 of these were reported to be able to understand more than one language, and 7 were reported to be able to communicate in more than one language.

This study found that reported advice from professionals was mainly positive towards bilingualism in Rett syndrome. Results also revealed a largely positive view of bilingualism amongst parents of individuals with Rett syndrome, although attitudes towards the ability of people with Rett syndrome to understand and communicate in one language were more positive than attitudes towards the ability to understand and communicate in two or more languages.

This data provides a first glance at the prevalence and diversity of bilingual experiences in Rett syndrome within the UK. It also adds to the discussions surrounding bilingual AAC use, and beliefs of language comprehension versus communicative ability in individuals with Rett syndrome.

Investigating the experiences of professionals working with bilingual children in Wales

Jazmine Beauchamp¹, Sarah Cooper¹ & Eirini Sanoudaki¹

¹Bangor University, Wales, UK

This presentation reports on a project investigating the availability and suitability of Welsh-language resources for professionals working with Welsh-English bilingual children, with a particular focus on Speech Language Therapists (SLTs).

A new language maintenance policy introduced in 2017 aims to increase the number of Welsh speakers and expand the use of Welsh across Wales (Welsh Government, 2017). The success of this policy heavily relies on introducing Welsh to younger generations. SLTs, alongside Primary School Teachers and Early Years Practitioners (EYPs), are often the first to work with children during language development, however, research on their experiences in this context remains limited.

The study employed questionnaires exploring the current practices and experiences of these professionals within Wales. Likert scale and open-ended questions examined participants' views on the availability, accessibility and suitability of Welsh medium resources to support their work with Welsh-English bilingual children. The questionnaires were distributed across Wales; after securing 36 responses, we are conducting in-depth follow up (ongoing) focusing exclusively on SLTs.

Results illustrate that these professionals face challenges in their work with bilingual children, and that these challenges vary between professions. More SLTs said that they faced challenges compared to the Teachers and EYPs, with half (18/36) of the respondents of the first questionnaire stating that they faced challenges in bilingual assessments/teaching. Furthermore, most of the participants stated there was a lack of the necessary resources that would enable them to provide the best support possible to bilingual children. Around a third of the respondents stated that they had to create their own Welsh speech assessment tool, while a third had to translate resources from English. The Welsh resources already available were more suited to Teachers and EYPs than SLTs, with many SLTs listing resources of various types that they had to create themselves.

Results reveal the extent and types of support needed for professionals working with bilingual children in Wales. Recommendations arising from this study directly inform the development of policy and resources within Wales. Implications for bilingual Speech and Language Therapy more broadly and for the wider bilingualism research field are also discussed.

Language and the Arts: Exploring creative techniques to aid adults with disabilities with learning a new language

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This project sought to explore artistic and creative techniques to teach Welsh to adults with varying physical and learning disabilities. This innovative project is the first of its kind to be completed in Wales, and one of the first internationally to explore this topic. The present research is an exploratory project, run in collaboration with Blas Pontio and Annedd Ni Day Centre, both in Bangor, North Wales. Several disciplines were involved with the project, including music, dance, creative writing and language specialists. Sessions were held weekly for 10 weeks between October and December 2023.

Previous research suggests that inclusion of the Arts (music, drama, dance etc.) not only improves engagement when learning a new language, but that the real-world links between new vocabulary and artistic techniques can help to cement this vocabulary and improve memory of newly learned items (Anderson & Chung, 2010). However, the existing, limited literature in the field focuses on typically developing school-aged children learning an additional language. Recent research suggests that children and young adults with additional learning needs face a “systematic disadvantage” (Davies, 2023, p. 231) accessing Welsh-language opportunities, whether that be education or extra-curricular.

The present study adopted a holistic approach, centering on improving individuals’ overall attitudes towards Welsh, as measured with pre- and post-intervention questionnaires, as well as in-session observations. Participants reported more positive attitudes towards Welsh in the post-intervention questionnaire than at the start of the project, clearly demonstrating how language intervention projects can be successful in ways other than just increasing vocabulary ability. Additionally, testimonies from Annedd Ni staff and practitioners involved in the project illustrate the lasting impact that this project had. This project took a more holistic approach to language, including links to culture and history, and provides us with a blueprint for how such interventions could be planned in the future, differently from traditional language intervention programmes. Outcomes suggest that exposure to an additional language alongside the Arts in a positive, safe and enjoyable environment can support language learning in adults with learning disabilities, alongside improving their attitudes towards minority languages.

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Collaborative methodologies for understanding Indigenous and minority language education in practice

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This panel brings together scholars who are developing and implementing collaborative methodologies in the area of Indigenous and minority language education. Indigenous and minority languages represent a special group of bilingual or multilingual learners; due to historical and often ongoing social prejudice, they face additional challenges that are different than those of second or foreign language learners, including negative ideologies about their language, as well as lack of learning materials, institutional structures, and economic support (McIvor 2020). There is thus a complex and evolving constellation of factors that impact Indigenous and minority language education.

For research to take these factors into account and ultimately contribute to improving the educational experiences and outcomes of minoritized learners, scholars must continually assess and evolve our methodological toolkits. This includes critically examining the kinds of questions that we ask, the data that we collect, how we collect it, and how we analyse it. Collaborative approaches to research design and practice have been advocated by language and education scholars for decades as a way to calibrate the research focus with the needs and concerns of stakeholders (e.g. Cameron et al. 1992; Czaykowska-Higgins 2009). Many Indigenous scholars have called for participatory approaches to knowledge creation and for changing the power imbalance in research relationships (e.g. Smith 1999; Virtanen et al. 2021). At the same time, scholars are pressured to produce independent research, and to orient to theoretical debates and developments in their field, rather than the concerns of participating stakeholders. This symposium examines ways forward for scholars working with collaborative and participatory methods in the current academic and educational landscape.

Each presentation in this symposium presents and reflects on the methodological approach of an Indigenous language education project characterized by collaboration among a team of researchers, and/ or by collaboration among researchers and other stakeholders. The papers represent projects in Europe and Latin American, allowing for a broad perspective on the use of collaborative methodologies under different circumstances. Ranging from exploring the learning trajectories of Sámi students and parents in Northern Norway, to the efforts of teachers and scholars in Ecuador and Mexico, the papers illustrate different approaches to collaborative methodologies that break with some of the norms of individualist, insider-outsider research. Presenters discuss challenges that have arisen, and strategies developed to meet these challenges, as well as future directions in effective and ethical methodologies for research on minoritized multilingual learners and teachers.

Authority, authorship, and engagement in the co-creation of Indigenous language materials

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This presentation shares and reflects on the recent work of the Revitalization, Maintenance, and Development Linguistic Project (PRMDLC) in Mexico, a collaboration between speakers, researchers, educators and other stakeholders which has been active for over thirty years. A key strategy of this initiative involves crafting culturally tailored materials that resonate with native traditions and presenting them through audiovisual media, in contexts where Indigenous children rarely encounter their heritage languages. Central to PRMDLC's mission is creating a dynamic corpus co-authored by Indigenous speakers with the continuous support of scholars and the NGO Linguapax, among other stakeholders. This corpus includes various resources, ranging from printed materials to audio-visual and multimedia content in indigenous languages produced by the speakers and intended for their use, with an overarching goal of reaching and influencing a wider, mainstream audience. We have developed a collection of over 70 works in mainly Mexican Indigenous languages, e.g. Maaya T'aan, Nahuatl, Tu'un Savi, and Hñahñu; Ayuuk, Yokot'aan, Diixazá but also in Mapundungun and Kichwa in South America, Ojibwe in North America, and Sakha in Russia. We will illustrate and discuss the work of the PRMDLC, including several of these culturally attuned materials. We will focus on our latest collaboration with Tosepan Titataniske (Union of Cooperatives) in the North Eastern Sierra of Puebla state, Mexico in the production of materials in Nahuatl (local variant of Nahuatl) and Tutunaku, highlighting the role that language revitalization plays in the broader context of an ongoing struggle for Indigenous autonomy and self-determination in the region.

This collaborative endeavour also organises workshops that promote the use of minoritised languages. An important aspect of this project is the use of multimedia incentives, such as film animations. These multimedia materials are showcased during significant community events and local festivals. This indirect method of revitalization fosters voluntary and spontaneous participation as a form of engagement. Moreover, it contrasts with the prescriptive methods often found in educational systems that tend to enforce 'correct', prescriptive usage with a strong focus on literacy, rather than encouraging spontaneous language play and the joy of speaking the minoritized language. Furthermore, the choice to use this approach is motivated by a critical reflection on academic practice. We discuss the implications of a collaborative approach such as that of PRMDLC for academic practice and

argue for the need to change academic narratives characterized by extractive linguistics, and to recognize the authority—and authorship—of Indigenous speakers and artists.

Exploring Indigenous education through team ethnography

Åse Mette Johansen¹, Hilde Sollid¹ & Elin Furu Markusson¹

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This presentation is based on the experiences of doing team ethnography in the ongoing project Multilingualism in Transitions (MultiTrans), in which the aim is to understand the temporal and spatial dynamics of multilingualism in educational transitions, under shifting societal circumstances. The project explores how language choices are made in these transitions, and what these processes mean to multilingual individuals, with respect to language practices, identities, agency and participation. The team ethnography takes place in Northern Norway, primarily in the city of Tromsø, and it includes subprojects among both historical and transnational minorities. In this presentation, we zoom in on the experiences of doing team ethnography in our ongoing MultiTrans subprojects where we focus on multilingualism in education for the Indigenous Sámi people.

Team ethnography has traditionally involved a team of researchers approaching research questions in similar ways and on similar scales, i.e. by using the same methods, investigating similar scenes, and working with similar groups of participants. Inspired by Blackledge and Creese's (2010) take on team ethnography, we instead investigate multilingualism in transitions by approaching it from various scales, places and individual experiences, based on each individual researcher's project. Additionally, the group consists of researchers with different backgrounds, both in terms of research experience and fields, but also linguistically and geographically. To uncover connections and lack thereof in a rhizomatic network of experiences of multilingualism in transitions, we are using nexus analysis in the individual subprojects (cf. Scollon & Scollon, 2004). This provides a range of different perspectives on methods, theory and empirical material. Ultimately, we aim to have a dynamic approach in the team ethnography that is rooted in the same overarching research questions and methodology but not prescribing the use of the same tools, such as methods and theoretical concepts.

Against this backdrop and by highlighting examples from different subprojects, we present both what collaboration within the MultiTrans team of researchers means for the different stages of the research process, and how this team ethnographic approach can contribute to improving Sámi language education.

Understanding learner trajectories through participatory multimodal methods: Lessons from the SPEAKERS project

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Language learners typically experience both set-backs and support over the course of their lives. Understanding learners' trajectories is at the heart of the multi-case SPEAKERS project, where a team of researchers is collaborating to illuminate why and how some learners of Indigenous languages transition to becoming speakers, while others do not. In this presentation, we provide an overview of the project and discuss a multimodal methodological approach that we have jointly developed as a tool to answer our shared questions across culturally distinct contexts.

The SPEAKERS project investigates learners of Sámi in several regions of Norway, and considers the Sámi case in relation to two comparative cases, namely Isthmus Zapotec in Mexico and Kichwa in Ecuador. Each case study involves unique considerations, however the project as a whole aims to facilitate a comparative perspective across cases. With this in mind, the project team has developed a multimodal, participatory data collection tool which we call trajectory drawings, and which we aim to apply in contextually-appropriate ways in each of the contributing cases. Here we focus on the use of this tool in Norway and Ecuador, where we have been using trajectory drawings to identify and investigate key life moments or *muda* that may trigger the transition from learner to speaker.

The idea of trajectory drawings is inspired by Adriansen (2012) and her work on timelines, as well as scholarship on the lived experience of languages and speaker-centered methods more generally (Busch 2012; Purkarthofer & Flubacher 2022). In the timeline approach, the researcher requests a participant to draw key life events, typically along a line. Timelines as a method challenges the power dynamics between researchers and participants, and participants become co-generators and co-owners of data, while collaborating with the researcher to interpret what they have chosen to represent. Additionally, a multimodal task shifts the focus and can make the interview situation more comfortable and natural, allowing the participants to speak freely about topics that may be both emotional and tense.

We demonstrate how our team has adapted and used timelines in order to focus on voice, agency, and embodied language experiences. We share multilingual protocols created to explain trajectory drawings to participants with different worldviews. For example, both Sámi and Kichwa languages and cultures are shaped by a non-linear conception of time. We use the term trajectory to avoid the linear implications of 'timeline' and we invite our participants to include key language events that may have happened before they were born, as well as language situations they envision in the future.

We discuss the affordances of the trajectory drawing approach, as well as challenges we have encountered. We conclude reflecting on researchers' positionalities which still imply unequal power dynamics and evoke an infamous history of research on Indigenous people.

Discussion

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Decolonizing Family Language Policy: Navigating Family Language Planning and Decisions from Different Epistemologies (Part I)

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How to validate and revalidate the knowledge, linguistic practices and cultural values of indigenous, multilingual and migrant families? How to dismantle structural inequality between minority and majority language groups? How to empower and give voices to indigenous, marginalised multilingual and migrant families? This extended panel (two block symposium) seeks to answer these questions from a decolonisation perspective to understand what types of family language policies (FLP) exist across different geographic contexts and how these different types of FLPs contribute to the ongoing debates of epistemological hegemony on what counts as family (home), good parenting practices, rich (impoverished) linguistic environments, and valuable languages. Most importantly, the contributors in this panel aim to move beyond the hegemonic and canonic epistemologies in sociolinguistics/applied linguistic studies and FLP frameworks (Curdrt-Christiansen & Palviainen, 2023; Lanza & Lomeu Gomes, 2023) to explore new theories, different epistemological stances, understudied contexts as well as new and different types of data in their research of FLP.

The topics included in the panel address critically not only the fundamental issues of family vs society, home vs home-making, language power vs language differences, language shift/loss vs language maintenance, but also the theoretical underpinnings that shape different language beliefs and language practices in society and families. To understand that the family is a critical domain, the panellists will approach FLP and family multilingualism from different epistemological perspectives that uncover the discursive reproduction of hierarchies and “differences” constructed in society in relation to language, race/ethnicity, and social class. Through different epistemologies and methodologies, the contributors will reveal how sociopolitical status of various languages is established, and why it is reinforced through linguistic hierarchy, and in what ways it exacerbates the social, linguistic, cultural and political differences between groups, ethnicities and classes.

Aligning with ISB’s overarching theme of different faces of bilingualism and the recent calls for diversity and inclusion in social sciences, the topics covered in this panel will advance our understanding of FLP to shed light on how families navigate their multilingual experiences and family decisions that contribute to children’s multiple language development in general and heritage language development in particular.

The power of *guan* (管) in decentering Western canons of knowledge around heritage language development in rural Ireland

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In this study, we explore how *guan* (管) is practiced to resist the hierarchical positioning of English in migrant Chinese families living in rural Ireland. *Guan* is an indigenous notion of parenting practices rooted in Chinese culture. It encompasses concepts of love, guidance, nurture, and government. While culture-specific notions of parenting can vary across societies, cultures, and countries, Western cultural beliefs and theories about parenting and family language interactions tend to dominate the field of family studies. Rooted in fundamental cultural beliefs, *guan* serves as a tool for parents to navigate their familial practices. It emphasises the relationships between high control and high support, and between involvement and responsibility. Highlighting supportive relationships between family members, the study addresses the following research questions:

- How do cultural beliefs and dispositions influence parental perceptions of *guan*?
- In what ways does *guan* affect children's heritage language development?

This study is part of a larger ethnographic study on family language policy (FLP) in Ireland involving six Chinese migrant families living in rural Ireland from different socioeconomic backgrounds. Data were collected through semi-structured interviews, informal focus-group discussions, follow-up text messages and observations. All families were interviewed four times, each lasted from two to three hours. Interview questions focused on parents' perceptions about and ideologies surrounding *guan* and the (ir)relevance of *guan* in developing and maintaining their children's heritage language. Weekly text messages were exchanged to collect follow-up discussions and clarifications about different types of *guan* practised in the families. Interviews were mainly conducted in Putonghua and text messages used Chinese. The study provides illustrative evidence that parental *guan*, as a management system, challenges Euro-American-centric parenting beliefs and practices as the *ideal* parenting norm, falsifying universal claims of *West is best* which seeks to silence and belittle other ways of understanding and relating to the world. The study illustrates three aspects of parental views on *guan*: 1) *guan* is time-consuming and challenging; 2) it may be unpleasant, but it is necessary; and 3) *guan* is rooted in love, not control. The findings suggest that *guan* can provide parents with a conceptual framework and concrete mechanisms to manage family multilingualism. It can also serve as a model for heritage language development. Our study indicates that recognising indigenous practices can open a space for other ways of

learning, doing and being, challenging the epistemological assumptions about Western canons of knowledge.

Reclaiming Kazakh: Language, power and subjectivity

Juldyz Smagulova¹

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Kazakhstan is a multilingual and multicultural society where the majority of people speak Kazakh and Russian with various degrees of proficiency. It is also known for its language policy of reinstating Kazakh as a national language of the newly independent nation, establishing it as a language of the state and education. In Russian-speaking urban communities, the policy implies revitalization of Kazakh as a second language. The main drive of the language policy is to challenge the legacy of Russian, historically a more prestigious and powerful language in the local linguistic market.

After the annexation of Crimea in 2014 and especially after the 2020 invasion of Ukraine by Russia, decolonisation becomes a more prominent subject of public and academic discussions (cf. Aralkhan 2023). The decolonial discourse includes reflections on roots of statehood, identity, and memory as well as seeking cultural revival, e.g., Kazakhstan's State Program of Spiritual Revival "Rukhani Zhangyru" (Nazarbaev 2017). The Russian imperial and Soviet past are increasingly being re-evaluated as colonial. This often translates to calls for "linguistic awakening" (Leydiker 2023) and decolonizing epistemologies and knowledge production (cf. Tlostanova 2019, 2020; Bissenova 2023).

The aim of this paper is to examine the parental views on language socialization to understand how the meanings associated with languages reflect or shape the discourses of decolonization. The special focus is language ideologies of ethnic Kazakh parents who opted to educate their children in Russian (In Kazakhstan parents can choose the language of instruction). It explores how these parents rethink the role of Russian, an imperial heritage, and adjust their family language policy (FLP) in the current geopolitical context. The data are collected through semi-structured interviews with urban Russian-speaking urban ethnic Kazakhs who have children of school-age studying in Russian-medium schools. The participants include parents from 20 families in Almaty, which is the largest city in Kazakhstan and one of the most Russified. The interview covers such themes as parents' language proficiency and language biography, their FLP, reasons for choosing Russian-medium schools for their children, and concerns they have about Russian MOI education. The study adds to the discussion of language, power and subjectivity in the context of decolonial turn in society.

Family multilingualism among Chinese rural-to-urban migrant workers

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Scholarship on multilingualism is increasingly embracing developments in the social sciences that advocate for the inclusion of a southern perspective to advance knowledge (Guilherme and Souza, 2014). The field of Family Language Policy (FLP) is no exception (see e.g. Lomeu Gomes, 2018; Lanza & Lomeu Gomes, 2020; Curdt-Christiansen et al., 2023; Léglise, 2023), where a critical approach to examining family multilingualism wishes to spotlight marginalized voices and language practices, among other concerns. As such, the approach aligns with work examining the intersection of peripheralization and multilingualism (Busch, 2013), raising the question “how a particular kind of multilingualism in a particular kind of site becomes constructed as peripheral or as central, with what kind of consequences, driven by whom, and with effects for whom” (Pietikäinen and Kelly-Holmes, 2013, p.2).

This paper aims to contribute to this undertaking by looking at the FLP and language practices of so-called *nongmingong* (rural-to-urban migrant workers) in contemporary China. One of the salient features of China’s economic development in the past decades has been a massive internal migration from peripheral areas to wealthier ‘upper tier’ cities. These workers often live in ‘urban villages’ (*chengzhongcun*), city neighborhoods characterized by informal habitats that house migrants and other low-wage earners from various rural parts of the country, thus representing an environment where besides *Putonghua* (the national language), often many and quite divergent language varieties can be found. Based on a combination of semi-directed interviews and recordings of conversations, this paper explores how the participants engage in the construction of multilingual families within this specific context and how they negotiate their (sense of) belonging in the local urban community.

Discussion

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Decolonizing Family Language Policy: Navigating Family Language Planning and Decisions from Different Epistemologies (Part II)

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One more language, one more road: Transnational parents' agentic home-making through family language planning

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This study explores how transnational parents, as agents of family bilingual and bicultural planning, perceive home-making within the context of constant mobility. Data were collected through three rounds of semi-structured interviews with 15 transnational Chinese families in the U.S., as part of a two-year sociolinguistic ethnography project. In this project, the transnational parents initiated a language program aimed at fostering their Chinese-American children's bilingual and bicultural abilities. Drawing on Canagarajah's (2021) southern orientation to language and mobility and the Chinese indigenous understanding of "home (家)" from Chinese philosophy, this research examines how parents' imagined home-making is constructed through intentional family language planning that incorporates their children's migration experiences. A qualitative content analysis was conducted to uncover the complex ways in which parents engage in family language planning to expand their children's linguistic and cultural repertoires as bilingual and bicultural individuals. The findings reveal that parents view bilingualism and biculturalism as highly situated approaches that support their children's making sense of spatial, geographical, and social mobility. Children in these families are seen as capable of navigating these three dimensions of mobility through strategic language use, enabling limitless home-making. These findings underscore the importance of incorporating home-making as a critical construct for understanding transnational parents' aspirations and challenges in agentic family language planning. In particular, drawing on the concept of "home" from Chinese philosophy, we intend to argue that the translational parents attempt to create a space for their harmonious co-existence with the spatiotemporal transnational being, that is, home-making, through their strategic bilingual/bicultural management for their children.

Exploring family language policy through a socio-historical and processed lens

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This study investigates the process of family language policy and planning among a group of immigrant mothers in Hong Kong, and explores the underlying cultural, socio-political and ideological reasons. Moving beyond a discrete analysis of family language policy within the home context to incorporate elements of historical time and space, the data analysis shows that family language policy is shaped by individuals' cultural affiliations, future imaginations and their experiences across the contexts of school, community, workplace, host society and home country. Furthermore, broader social and ideological realities also impact individuals, and thereby influence family language policy. The data analysis suggests that social structure shapes FLP through family members' 'immersion in different fields' (Revis, 2019, p. 6), which 'acts as a "structuring structure" as it reproduces or contests the status quo by generating diverging attitudes and actions' (Bourdieu, 1977, p. 72). The findings indicate that family language policy relates to ideologies and power relations in the broader society of Hong Kong. While the government promotes a language policy of trilingualism and biliteracy (English, traditional Chinese in written form, Cantonese and Putonghua in spoken form), the heritage languages spoken by ethnic minority groups, such as Panjabi, Urdu, Hindi, Nepalese and Tagalog, have gone unnoticed (Gu et al., 2017). Not only do few schools offer heritage language courses; those that do require students to choose between learning a heritage language and Chinese as their L2, and most, if not all, ethnic minority students choose Chinese as their L2, given its social and pragmatic value. This is why the mothers in this study drew on their social experiences of travelling back to their home country and their imagined identities or communities to reregulate their family language policy of reinforcing their children's heritage language learning. This strategy may be understood as both a counter discourse to the marginalised position of heritage language and culture, and as an awareness of the contextualised nature of the value embeddedness of languages. This is the agency the individual is faced with in language policy at the micro level. The findings echo the need for "a decolonial approach to family multilingualism" (Gomes, 2018, p. 51) in FLP framework.

A critical perspective may help us uncover the discursively constructed process of gender, class, and race/ethnicity within the cross-cultural encounters of families originating from the South and living in the North.

Decolonizing Family Language Policy: The call for Investigating Multilingual Dynamics in new Contexts

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The core inquiry of family language policy (FLP) research is why some children in predominantly monolingual societies become bilingual, while others do not. However, a significant critique of FLP research concerns its focus on middle-class nuclear families (Léglise, 2023). This critique calls for decolonizing the field by expanding the scope of research to include diverse family types, with other experiences and other constructions of reality. Conducting research during the pandemic provides a unique opportunity to study less privileged contexts and the circumstances that arise within them.

Analyzing 50 in-depth interviews conducted in spring 2022, the present study employs a comparative approach to language practices in multilingual families during the COVID-19 pandemic, providing insights into language maintenance in families from various socioeconomic backgrounds across Cyprus, Estonia, Germany, Israel, and Sweden. Our goal was to investigate whether and how the COVID-19 pandemic affected HL and SL acquisition and literacy learning environments.

The results indicate noticeable changes in FLP, driven more by child agency than by parental intentions alone. Consistent with prior studies (Murrmann, 2021; Sheng et al., 2021), families reported both positive and negative impacts of disrupted schooling routines on HL and SL use and development. Young children required increased support from parents, older siblings, and extended family members. Our findings reveal that FLP during the pandemic was significantly influenced by access to education in both the HL and SL. Educational inequalities were exacerbated by home-based learning, with socioeconomic status emerging as a crucial factor. Families with low income or unemployed parents could not provide the same educational opportunities as their well-off counterparts (cf. Sun et al. 2023). Additionally, not all families had sufficient space at home or adequate information and communication technology to support HL and SL literacy effectively.

Our study emphasizes the need to expand FLP research to encompass diverse contexts, socioeconomic backgrounds, and family structures to provide new insights that can guide language policy and practice. Adopting a decolonizing approach provides a more comprehensive understanding of the complexities of multilingualism in varied settings, contributing to more inclusive and nuanced insights into family language practices and policies. Investigating low SES families is essential for FLP research as they face unique challenges and dynamics in maintaining heritage languages (HLs) and navigating societal languages (SLs).

Discussion

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Resilience in heritage language acquisition

Chair: Bradley Hoot, bhoot@depaul.edu

Research on heritage languages (HLs) has historically exhibited a bias toward identifying areas of vulnerability and providing explanations for deviations from monolingual or standard varieties, and some scholars have suggested foregoing deficit-oriented perspectives (e.g., Urciuoli, 2008). Indeed, Polinsky & Scontras (2020) argue that systematically exploring areas of resilience in HL grammars is “much-needed” to form a full-fledged view of the processes shaping HL acquisition. ISB, with its multidisciplinary and international scope, is an ideal place to contribute to said exploration. This symposium thus proposes a shift in perspective, emphasizing areas of linguistic resilience while highlighting the role of language variation in HLs.

Collectively, our empirical findings showcase the resilience of HL grammars despite pressures from the dominant language. Examples come from three languages in different HL situations—Spanish in the United States, European Portuguese in Switzerland, and Quechua in Peru/Argentina—to give the symposium the broadest possible reach and allow presenters to identify commonalities across languages and populations.

Yet one might argue that even emphasizing resilience can inadvertently reinforce deficit-based analyses, as it remains framed around converging on the (often monolingual) target. Variability within monolingual varieties is often overlooked, and innovations in the HL are often treated differently from instances of language change. To avoid this pitfall, this symposium emphasizes variation across speakers and structures, allowing consideration of why we find resilience in some cases but not others. By incorporating insights from language acquisition and language contact, we encourage conversation between subfields that have traditionally approached language innovation through different lenses to arrive at a more unified understanding of resilience in HLs.

The role of prosody and semantic cues in the processing of focus in English by English-dominant Spanish heritage speakers

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Eschewing a deficit-based view of bilingualism, we investigate the role of prosodic/semantic cues when Spanish-English heritage bilinguals process focus in their dominant language—English—to determine the presence of variability due to contact. Building on work exploring prosody/semantics interactions with Dutch-English speakers (Akker & Cutler, 2003; hereafter, ‘A&C’), we explore heritage bilingual contexts to examine cross-linguistic/substratum influence from Spanish in a situation where language contact has been both extensive and durable (over many generations). Unlike Dutch, which marks focus like English, focus can be marked in Spanish using word order, although the extent to which it does is debated: the syntactic literature claims focus must be right aligned (Zubizarreta, 1998), while experimental results find that both final-focus marking and in-situ marking are possible (Hoot & Leal, 2020). We employ three experiments to examine the effects of prosody, semantics, and their interaction on focus processing.

Methods: Participants are presented with auditory stimuli in the dominant language (English) where focus is manipulated through prosody and/or semantic context. Sentences contain target phonemes word-initially; participants detect targets as quickly as possible. Reaction times constitute the dependent variable, with predictors including accent (accented/deaccented) and semantic focus (focused/unfocused). Stimuli were cross-spliced to ensure targets are acoustically identical across conditions, while preceding prosodic/semantic contexts differ. Experiments will be deployed in Gorilla; Data gathered via Prolific. **Participants** will include 75 Spanish-English heritage bilingual adults and 75 English NSs from the American Southwest (25 per group, per experiment).

Experiment 1 focuses on prosodic cues alone, hypothesizing that influence from Spanish, argued to rely on word order, may present challenges for Spanish-English bilinguals interpreting prosodically marked focus. Because A&C found that non-native listeners showed less efficient mapping of prosodic cues, we expect that bilingual speakers may not consistently rely on prosody alone to detect focus in English.

Experiment 2 shifts focus to semantic cues, investigating how *wh*-questions affect processing. By presenting participants with sentences preceded by *wh*-questions guiding focus, we explore whether semantic cues direct attention. Based on previous findings (see Slabakova, 2008), we expect Spanish-English bilinguals may not show reduced efficiency in processing focus via semantic cues, particularly in non-final position.

Experiment 3 integrates prosodic *and* semantic cues, echoing A&C's orthogonal design, to explore their combined effect. A&C found a lack of interaction between prosodic and semantic cues with Dutch-English learners, suggesting a less robust integration. We expect Spanish-English heritage speakers will show a similar pattern, with potentially significant differences in how these cues are used, reflecting the ongoing debate on how Spanish marks focus and whether these mechanisms transfer to English (their dominant language).

The findings of this research will contribute to our understanding of how bilinguals process focus in their dominant language, potentially uncovering substratum influences in the dominant language. These results may also offer insight into the broader implications of L1 focus-marking strategies on processing, particularly in the context of languages like Spanish where prosodic and word-order cues are under debate.

On the resilience of heritage grammars: Insights from child heritage speakers of European Portuguese

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This talk identifies resilient areas in European Portuguese (EP) as a HL and, in parallel, delineates areas that display variation. We argue that the linguistic variation found in heritage grammars can be attributed to the amplification of variation present in monolingual grammars. By demonstrating that both stable, resilient linguistic properties and those characterized by variation are systematic in heritage grammars, we challenge deficit-oriented approaches to HL (see D'Alessandro et al., 2021; Shin et al., 2022). Ultimately, our work seeks to contribute to a predictive, theory-driven, and empirically grounded model of heritage grammars that integrates the effects of linguistic and extralinguistic factors in the development of non-dominant languages (in line with Polinsky & Scontras, 2020).

Our data come from analyses of a corpus of written narratives by Portuguese HL children (aged 8 to 15) living in various regions of Switzerland, complemented by a corpus of equivalent narratives from monolingually raised Portuguese children. In a series of previous and ongoing studies (e.g. Flores, Rinke, Torregrossa & Weingärtner, 2022; Rinke, Flores, Oliveira & Correia, 2024), we have analyzed several linguistic properties, including word order, and subject and object expression.

Overall, our data reveal that the child HSs exhibit very stable HL grammars. Analyses of different verb types and the adequacy of agreement morphology, tense, and word order (verb placement in main and subordinate clauses and object-verb order within the VP) demonstrate that these HSs possess stable syntactic and morphological knowledge. Lexical knowledge is positively correlated with age and proficiency; morphological and syntactic deviations are minimal. We conclude that, within the analyzed age range, the children have received sufficient exposure to both languages to develop stable morphological and syntactic knowledge in the verb domain.

The analysis of subject and object expression confirms that these linguistic areas show more variation among HSs. However, this variation follows predicted patterns and can be explained by (i) linguistic complexity, (ii) ongoing diachronic development, or (iii) lexical and/or grammatical ambiguity. The results indicate that HL children exhibit some variation in clitic placement, primarily by overgeneralizing enclisis, a pattern also found in monolingual acquisition and colloquial registers of EP. We attribute this variation to the high degree of complexity in the EP clitic system. Furthermore, the overuse of null objects by HSs, also observed in other studies (Rinke, Flores & Barbosa, 2018), reflects the extension of null

objects along a referential hierarchy (Cyrino, Duarte, & Kato, 2000), showing that HSs contribute to the diachronic development already occurring in Portuguese. Finally, regarding subject expression, in line with other studies on Romance HLs, the results show an overuse of overt subject pronouns. This variation can be explained by the ambiguity of overt pronouns (e.g., they are not always contrastive), which are challenging in the acquisition of EP.

Resilience in heritage Quechua intonation: *wh*-questions in two varieties of Southern Quechua

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This paper examines the resilience of heritage Quechua intonation, focusing specifically on *wh*-questions in Cusco Quechua in Peru and Santiago del Estero Quechua in Argentina. Quechua and Spanish use different strategies to mark *wh*-questions. In Quechua, *wh*-questions are formed with an interrogative pronoun and an interrogative suffix (1) or an evidential suffix (2):

(1) *May-taq wawa-cha-yki.*

where-INT child-DIM-2SG.POSS

‘Where is your little child?’

(2) *Pi-n chahay runa.*

who-EV that man

‘Who is that man?’ (Cerrón-Palomino, 2003)

Quechua does not use intonation to mark questions. Unmarked *wh*-questions in Quechua typically have a final falling intonation, similar to statements (Cerrón-Palomino, 2003; O’Rourke, 2005). In contrast, Spanish *wh*-questions can be produced with both rising and falling contours (Hualde & Prieto, 2015), with rising contours being more common in Peruvian Spanish (O’Rourke, 2005). Previous research suggests that heritage Quechua intonation is relatively resistant to Spanish influence (Colantoni & Sánchez, 2021; Muntendam & Torreira, 2016; O’Rourke, 2005). However, these studies have largely focused on statements, and *wh*-questions are understudied.

This study aims to (a) investigate the intonation of *wh*-questions in heritage Quechua in Cusco and Santiago del Estero, (b) assess the extent of resilience of heritage Quechua intonation to Spanish influence, and (c) account for potential variation across speakers and regions. By examining Quechua in two regions, this study sheds light on the interaction of linguistic and social factors that influence the resilience of heritage languages.

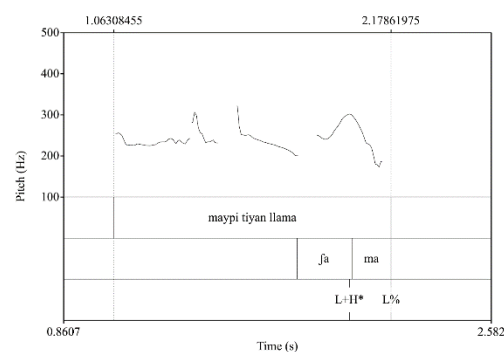
The participants were 16 Quechua heritage bilinguals from Peru (age: 23-47 years, mean age: 33; 8 females) and 41 from Argentina (age: 24-79 years, mean age: 54 years; 25 females). Data were collected using two interactive tasks designed to elicit *wh*-questions in Quechua and Spanish. Additionally, participants completed a sociolinguistic background questionnaire. Each participant produced 32 *wh*-questions per language, which were transcribed and annotated using *Praat*. Intonation contours were analyzed using ToBI

(Estebas-Vilaplana & Prieto, 2009), with a focus on nuclear pitch accents and boundary tones. The use of morphology in Quechua was also examined.

The findings revealed that morphological markers were infrequently used in Quechua *wh*-questions, potentially indicating Spanish influence. In Quechua, rising and circumflex nuclear pitch accents were most frequently observed, with most utterances ending in a low boundary tone (Fig. 1). These patterns contrasted with those observed for Spanish, in which falling nuclear pitch accents and rising boundary tones were more common. Overall, the intonation of Quechua *wh*-questions showed considerable resilience to Spanish influence, consistent with previous research. However, there was variation across speakers in the two regions, possibly due to differences in language history and use. Interestingly, the intonation of *yes/no*-questions produced by the same participants seemed more vulnerable to Spanish influence, suggesting that the resilience of intonation may vary depending on the structure.

In all, this study provides new empirical data on Quechua and highlights the resilience of some aspects of heritage intonation, with important implications for research on language contact and bilingualism.

Figure 1. Intonation contour of *Maypi tiyan llama*. ‘Where is the llama?’.



Discussion: Theoretical and practical considerations for studying resilience in heritage language research

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Modern work on heritage languages has attended most closely to outcomes of reductive change in their grammars. Such focused attention on identifying and accounting for areas of vulnerability in heritage language change has spotlighted processes leading to a decrease in paradigmatic complexity and a tightening of syntagmatic relations in these varieties. Relatively less attention has been paid to their more resilient domains, yielding insufficient empirical data and few theoretical insights into the issue of stability in heritage language transmission. In this discussion, we take stock of some of the emerging generalizations and outline additional ways in which future research can continue to inform this topic, starting with the fundamental question of how the notion of resilience itself could be conceptualized in a heritage language context, and how differences in such conceptualizations may affect the interpretation of findings and their implications. We also consider how variation within and across heritage languages informs the notion of resilience, synthesizing insights provided by the three distinct heritage language contexts and the different methodological approaches highlighted in the symposium presentations, and we engage all symposium presenters and attendees in a conversation about how a systematic investigation of heritage language resilience could be realized in future work.

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The Potential of Minoritised Languages to Promote Plurilingual Competence for all Students: lessons from the Basque and Irish Contexts.

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The introduction of minoritised languages at school constitutes one of the major stages for the revitalisation process of those languages. Depending on the socio-political and historical context, the place and role of minoritised languages in education has taken a myriad of forms. The cases of Basque in the Spanish and French States and Irish in the Republic of Ireland and Northern Ireland constitute a good example of this (O'Duibhir, 2018; Rodríguez-Aguirre & Manterola, 2024): in schools where Spanish-French/English are the medium of instruction, Basque/Irish are taught as subjects. In immersion schools, Basque and Irish are used as languages of instruction, Spanish/French/English being taught as subjects. Regardless of the bilingual program, the introduction of Basque/Irish at schools has aimed at the promotion of plurilingual competence among students.

During the last decade, an important change of perspective has taken place in relation to the teaching principles and strategies that aim at the promotion of plurilingual competence. Teaching approaches where the languages of students' repertoire were kept separated or isolated have been questioned, in favour of more integrated approaches, such as translanguaging pedagogy and pluralistic approaches. In those approaches, curricula and language alternation activities are designed in order to better exploit the whole plurilingual repertoire of students (Cenoz & Gorter, 2021; Cenoz & Jessner, 2009; Troncy, 2014). The teaching of and through Basque/Irish has the potential to support language learning for all students when plurilingual approaches are adopted.

By analysing the implementation of teaching resources, classroom activities and students' productions from Irish and Basque educational contexts, this symposium seeks to explore the potential of minoritised languages to promote plurilingual competence for students with diverse linguistic trajectories and contexts.

A Plurilingual Approach to Grammar Teaching Through a Minoritised Language

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Our Irish case study will show how multilingual children (n=291) were encouraged to share knowledge from their home languages through an inductive plurilingual approach to teaching Irish grammar in English-medium primary schools. 5 schools took part in the study in which 60-80% of the children in the participating classes spoke a home language other than Irish or English. Children were guided by the teachers to compare and contrast patterns across languages beginning with the Irish language structure as a basis for comparison. Children recorded the grammar rule in a reflective language journal (Ní Dhiorbháin & Ó Duibhir, 2017). Plurilingual and intercultural awareness was supported through Irish which all children were learning as a school subject in English-medium primary schools. This study shows the potential of a minoritised language to link all children's languages, particularly when the minoritised language is the common second/additional language for all children (Little & Kirwan, 2019).

Research argues that children need support to develop plurilingual competences (Cenoz & Jessner, 2009). Professional development in the form of instructional coaching (Ali et al., 2018) was provided to teachers (n=11) along with all of the teaching resources. Teachers taught the inductive plurilingual lessons over a six-week period and children engaged in plurilingual activities. Data were gathered from focus groups with teachers (N=3, N=3, N= 2, N=2) and one interview (N=1) before and after the research. 60 children participated in 11 focus groups at the end of the research period.

Findings show that children enjoyed the inductive plurilingual approach and that it was successful in giving students a platform to share their linguistic knowledge, develop across linguistic awareness and to affirm linguistic and cultural diversity. Teachers benefitted from the instructional coaching and the provision of teaching materials. They relayed that the inductive plurilingual approach was effective in developing language awareness across languages and this was a practical approach to develop children's knowledge of Irish while including all of children's languages in class.

On the Didactic Role of Basque, Spanish and English in Teaching Resources Aiming the Development of Plurilingual Competence

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The goal of this presentation is to discuss the didactic role of Basque, Spanish and English in teaching resources and activities designed to promote the plurilingual competence of immersion education students.

Contemporary Basque education curricula encourage language-integrated approaches for the promotion of students' plurilingual competence. In line with current perspectives in multilingual education (Candelier & Castellotti 2013; Cummins, 2017), they underline that the activation of students' full linguistic repertoire may positively influence the development of plurilingual competence.

In this presentation, I will analyse some teacher-student classroom interactions videotaped in the framework of an experimentation of a teaching resource. The aim of that resource was to improve students' skills to carry out trilingual oral presentations. Participants were a group of Basque immersion students, aged 16. They were required to alternate Spanish (their L1), Basque (L2) and English in their oral presentations.

The focus will be on a specific revision task focused on Spanish, which took place at the end of a series of activities aimed to improve the use of topic introducers in the three languages. Most activities focused on Basque and on English to a lesser extent. It should be noted that during all those activities, including the revision task, the teacher always addressed students in Basque, whatever language she wanted the students to use in their answers.

The analysis of teacher-student interactions shows that the teacher made use of diverse strategies in order to facilitate the transfer of skills worked in Basque L2 (and in English L3) to Spanish L1. Strategies include summarized references to past activities on topic introducers in Basque, and questions addressed to students about the translation of Basque and English topic introducers into Spanish. Students' reactions and responses were positive and accurate: thanks to their advanced competence in Spanish L1, they quickly accessed the Spanish equivalents of topic introducers worked in previous activities in Basque L2 and English L3.

These findings will be discussed in relation to the didactic role of minoritised and hegemonic languages in plurilingual teaching resources. I will argue that the teaching of plurilingual competence does not imply an equal didactic treatment of the languages involved. On the contrary, when minoritised languages constitute the main language of instruction as well as the most prominent focus of teaching, benefits are attested in the learning of the

minoritised, the hegemonic and the foreign language. I think this argument may contribute to a better understanding of the potential of minoritised languages to promote plurilingual competence for all students.

Teaching for Transfer of Skills Across Languages

Maire Ní Láimhín¹, Pádraig Ó Duibhir¹ & Aisling Ní Dhiorbháin¹

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When children learn a second language (L2) at school, they can already speak their home language (L1), and this influences how they learn the L2 (Pinter, 2011). While surface features of the L1 such as pronunciation and syntax can interfere with L2 production, there are potential benefits to transferring skills across languages which outweigh the challenges. If the L1 and L2 share similarities such as orthography and phonemes, children can be given opportunities to reflect on the similarities and differences between the languages and to gain a greater understanding of the structure of their L1 in the process. In this way languages are taught partly in relation to one another.

The theoretical underpinning for integration across languages derives from two inter-related concepts, namely metalinguistic awareness and the interdependence hypothesis. Metalinguistic awareness refers to children's ability to focus on language as an object of thought and the processing of two languages over an extended period can promote its development. The interdependence hypothesis has been described by Cummins (1981, p. 29.) as:

To the extent that instruction in L_x is effective in promoting proficiency in L_x, transfer of this proficiency to L_y will occur provided there is adequate exposure to L_y (either in school or environment) and adequate motivation to learn L_y.

The Primary Language Curriculum in Ireland (Department of Education and Skills, 2019) adopts an integrated approach to teaching English and Irish. The study reported here explored what integration across languages might mean in actual classroom practice. We employed a single-site case-study design using a collaborative inquiry approach. Four Grade 1 and 2 primary school teachers engaged in six one-hour professional learning community sessions over a six-week period. The teachers observed four modelled classroom lessons delivered by the researcher and then implemented four learning activities in their classrooms using resources provided by the researcher. Teachers engaged in a one-hour interview before and after the six-week period.

Qualitative research methods were employed for the study. Template analysis and thematic analysis were combined to generate key research findings supported by a researcher-reflexive journal which we report in this presentation. Teachers expressed a change in their understanding and implementation of the transfer of skills having engaged in professional learning. Increased teacher language awareness of similarities and differences across languages supported teacher confidence and competence to teach for the transfer of skills. We explore the potential of engagement in professional learning communities with coaching

using a collaborative inquiry approach to support teacher pedagogical content knowledge of the transfer of skills across languages.

“Grand Oral” Bilingual Assessment in Basque Immersion Education: Analysis of High School Students’ Bilingual Strategies

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This contribution aims to explore how Basque language immersion students improve their bilingual discursive skills, while preparing the bilingual Basque-French “Grand Oral” (GO) assessment following a teaching sequence based on Integrated Language Teaching.

To that extent, we followed a group of (20) students from the only Basque immersion high school in Northern Basque Country (NBC) (France) preparing the bilingual GO assessment, which is a compulsory part of the Baccalauréat.

The GO is an oral explanatory-argumentative text genre, addressed (in French) to a jury composed by an expert and a “naïve” member. However, Basque Literature and Culture speciality students are allowed to include Basque in some parts of their speech, and their jury is composed by a Basque speaker and a monolingual French speaker. Consequently, those students are invited to use translation or mediation techniques.

Previous research with similar text genres in the Basque Autonomous Community (Spain) shows that immersion students successfully manage linguistic alternation when producing multilingual texts. However, they scarcely adapt Basque terminology when using another language (i.e. English) (Aldekoa, 2018). Following Aldekoa’s work, we implemented a bilingual teaching sequence, based on Didactic Engineering (García Azkoaga & Idiazabal, 2015). The sequence was designed in collaboration with the two Basque Literature and Culture subject teachers, and it followed the official evaluation criteria, as well as oral text analysis criteria (Dolz & Schneuwly, 2009).

For the pre-texts of our sequence, we recorded 20 students performing an adapted bilingual GO and then analyzed their productions. This analysis showed that students alternate languages with no lexico-grammatical difficulties, as expected. However, when referring to Basque terms in French, they hardly included any clarification for the non-Basque-speaking member of the jury. Besides, discursive elements such as final greetings and organizers were missing.

Based on those results, we implemented a set of activities in Basque with the experimental group (10 students), aimed to promote transfer to French, and to improve discursive and bilingual strategies. Later, both experimental and control groups were asked to perform a bilingual GO again.

The analysis of final text shows that experimental group students perform a more complete assessment regarding: the use of connectors (i.e. language alternation announcements), initial and final greetings, explanation of Basque terms in French, and explicit inclusion of the French monolingual jury-member.

These findings could help the understanding of Basque immersion students' oral bilingual strategies and the potential of skill-transfer from Basque to French. They could also trigger the creation of multilingual teaching approaches in NBC, yet unexplored.

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The role of language distance in bilingual language processing: a multifaceted examination of two typologically distant languages

Chair: Irene de la Cruz-Pavía, irene.delacruz.pavia@deusto.es

The current symposium comprises four talks that investigate the language learning and processing abilities of bilingual speakers of Spanish and Basque, two coexisting though typologically highly different languages. Spanish is a well-studied language spoken by essentially the entire population of the Basque Country, while Basque is undergoing a strong revival in its use, early acquisition and later learning as the consequence of social engagement and active linguistic policies. Basque and Spanish differ in core aspects of their grammar (case-marking, word order...). Indeed, Basque features rare characteristics in the context of European languages, such as its ergative-absolutive case marking and subject-object-verb word order. Understanding the role of language distance in bilingual language processing and learning is essential towards fully characterizing how our minds and brains accommodate more than one language. In turn, investigating languages with understudied typological features is indispensable for attaining a general understanding of language processing. To these aims, the proposed symposium will provide a multifaceted overview of current psycho- and neurolinguistic developments in the study of Basque-Spanish bilinguals.

First, Zawiszewski and Laka will present electrophysiological and behavioral evidence from early and highly proficient L1Basque-L2Spanish and L1Spanish-L2Basque bilinguals tested while processing L2 grammatical traits that are either similar or different from the L1 (agreement vs. case morphology), and show that L2 processing is to a large extent shaped by the characteristics of the L1 grammar. Erdocia and colleagues will then show that lexical activation of cognates facilitates Spanish native speakers' learning of syntactic structures in Basque, although only when dissimilar between the L1 and L2. de la Cruz-Pavía and colleagues will follow, showing that adults' word segmentation abilities in the L2 remain constant throughout their lifespan, and establishing the relative role of key bilingual dimensions in the segmentation abilities of L1Spanish-L2Basque bilinguals with a wide range of linguistic profiles. Finally, Arantzeta and colleagues will shed light into the relationship between bilingualism, language use, aging and interference control, showing that bilinguals with high Basque use exhibit superior interference control in the Stroop task as compared to monolinguals and low-use bilinguals.

The proposed symposium provides thus a broad perspective of the bilingual processing of Basque and Spanish. With its variety of linguistic areas investigated, ages and linguistic backgrounds examined, and methods used, it perfectly fits the theme of the ISB15. Furthermore, in accordance with the conference's spirit of inclusivity, the symposium will further our knowledge of a minority and still understudied language.

Crosslinguistic effects on second language processing

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In this talk, we will focus on the influence of native (L1) grammar on second-language (L2) processing. We will present experimental evidence—both electrophysiological and behavioral—from early (AoA = 3 years) and highly proficient bilinguals: L1Basque–L2Spanish and L1Spanish–L2Basque speakers. Participants were tested on L2 traits that are either similar to their L1 (e.g., verb agreement morphology, Figure 1) or distinct from their L1 (e.g., ergative case morphology, Figure 2). Results revealed a similar biphasic N400-P600 pattern in response to agreement morphology violations for both natives and non-native speakers of Basque (Figure 1). However, in the case of ergative morphology violations, non-natives exhibited a significantly smaller P600 component than natives (Zawiszewski et al., 2011).

In another series of experiments designed to assess how bilinguals handle morphosyntactic structures that either align or differ between their L1 and L2 (Zawiszewski et al., 2020), native and early (AoA = 3 years) highly proficient Basque-Spanish and Spanish-Basque bilinguals were tested while processing: (a) ergative and dative morphology in Basque, and (b) accusative and dative morphology in Spanish.

Regarding the electrophysiological data in the ergative and dative conditions, ergative violations in the native group elicited an N400, followed by a robust P600 component. In contrast, L2 speakers exhibited a similar negativity (N400), but a significantly smaller P600. In the ungrammatical dative condition, both L1 and L2 Basque speakers showed a similar N400-P600 patterns. Spanish participants showed a comparable pattern of results: while both native and non-native speakers revealed similar N400 components in response to accusative morphology violations, the non-native group displayed a significantly smaller P600. Dative violations elicited a similar N400-P600 response in both groups. However, contrary to our predictions, the positivity (P600) was larger in native speakers, likely due to the dative manipulations—specifically, the fact that dative-marked nouns were preceded by a pronominal clitic, a dependency required in the northern variety of Spanish but absent in Basque.

Based on these findings, we will argue that L2 processing is largely shaped by the characteristics of L1 grammar. In other words, native vs. non-native differences arise in areas where L1 and L2 diverge, while similar processing patterns are observed in areas where both languages share common features.

OBJECT-VERB AGREEMENT

native speakers

non-native speakers

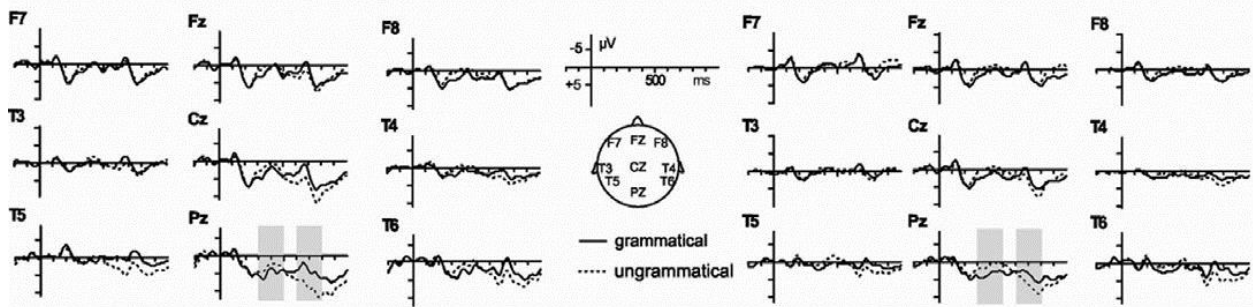


Figure 1

ERGATIVE CASE

native speakers

non-native speakers

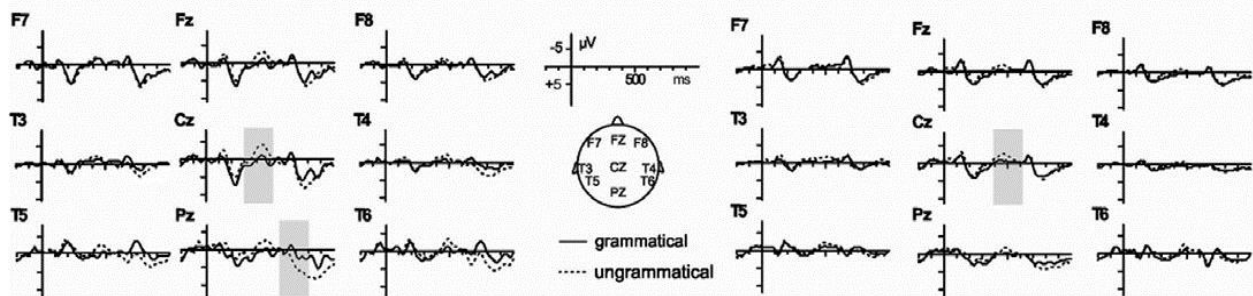


Figure 2

The facilitative role of cognates in the acquisition of similar and dissimilar structures

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Cognates facilitate L2 syntax processing (Hopp, 2017). We present two experiments aiming to investigate for the first time whether cognates additionally facilitate adult L2 syntax acquisition. We created two versions of a mini-language: one with Basque-Spanish cognate verbs and the other with non-cognates. In Experiment 1, the learning target were SOV and OSV structures with postpositional agent-patient marking, existing in Basque but not in Spanish. Two groups of 30 Spanish natives without knowledge of Basque learnt the vocabulary of both language versions. Then, they were exposed to sentences formed by the two structures with a cognate or non-cognate verb, each accompanied by a picture (Figure 1). Finally, participants learnt new non-cognate verbs, later used in a picture-description task testing syntax learning. Learning new non-cognate verbs was necessary to test cognate and non-cognate learners with the same materials and judge the extent to which the cognates and non-cognates in the exposure phase had influenced syntax learning. Experiment 2 was identical to Experiment 1, except that the learning target were SVO and OVS structures with prepositional patient marking similar to Spanish (Figure 2).

Cognates are processed faster than non-cognates (Dijkstra et al., 1999). This is attributed to cognates' formal similarity across languages, which causes that their orthographic/phonological and semantic representations are more strongly activated than those of non-cognates (Dijkstra et al., 2002). Cognates also facilitate the acquisition of syntactic structures (Sanahuja & Erdocia, 2024). In the present study, we hypothesized that the stronger activation of cognates compared to non-cognates facilitates the acquisition of cross-linguistically dissimilar L2 structures, but does not facilitate the acquisition of cross-linguistically similar L2 structures, which could be processed using L1 structures and, strictly speaking, did not need to be learnt.

Our hypotheses were tested in the production task of Experiments 1 and 2. Cognate and non-cognate learners saw pictures of transitive actions and had to write a sentence that described each picture using the vocabulary and the structures learnt. In Experiment 1, both groups of learners wrote a comparable number of correct SOV and OSV sentences. Overall, cognate learners wrote a significantly larger number of sentences with correct word order and agent-patient marking than non-cognate learners. In Experiment 2, cognate and non-cognate learners were significantly more accurate when writing SVO sentences than OVS

sentences but, overall, both groups were comparably accurate in their use of the structures. In line with our hypotheses, these findings suggest that the stronger activation of cognates compared to non-cognates facilitates the acquisition of L2 structures, but only when these cannot be processed using structures present in the L1.

	Language version	Sentence	Picture
SOV	Cognate/ Non-cognate	Antzezle-ak gidari-a pintatu/margotu actor-A pilot-P paint “The actor is painting the pilot.”	
OSV	Cognate/ Non-cognate	Gidari-a antzezle-ak pintatu/margotu pilot-P actor-A paint “The actor is painting the pilot.”	

Figure 1. Examples of SOV and OSV sentence-picture pairs for the cognate and the non-cognate version of the language in Experiment 1. Sentences for the two language versions were identical except for the cognate/non-cognate verb. A = agent mark, P = patient mark.

	Language version	Sentence	Picture
SVO	Cognate/ Non-cognate	Antzezle pintatu/margotu a gidari actor.A paint P pilot “The actor is painting the pilot.”	
OVS	Cognate/ Non-cognate	A gidari pintatu/margotu antzezle P pilot paint actor.A “The actor is painting the pilot.”	

Figure 2. Examples of SVO and OVS sentence-picture pairs for the cognate and the non-cognate language versions of the language in Experiment 2. Sentences for the two language versions were identical except for the cognate/non-cognate verb. A = agent mark, P = patient mark.

Word segmentation throughout the adult lifespan: An examination of younger and older Basque-Spanish bilinguals

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Chunking the continuous speech signal into meaningful units is not a trivial task, yet humans accomplish this feat effortlessly. A wealth of work has shown that adults and infants automatically integrate a number of cues available in the signal and has revealed important changes in their relative weight and interplay across development (e.g., Mattys et al., 2005). However, a single study to date has examined whether one of these cues—statistical learning—remains constant throughout adulthood (Palmer et al., 2018). Similarly, the handful of studies available investigating the segmentation abilities of bilingual populations have exclusively focused on infants and young adults. In this study, we investigate whether healthy aging impacts adults’ word segmentation abilities. Additionally, we explore bilinguals’ segmentation abilities of their second language. Viewing bilingualism as a multifaceted construct and a continuum (Dash et al., 2022), our study seeks to understand whether and how four key dimensions of bilingualism—age of acquisition, language proficiency, language use and frequency of language switch—determine older bilinguals’ use of semantic, syntactic and phonological information in word segmentation.

We tested 72 healthy older (60-79 years) and 87 young (18-35 years) Spanish-Basque bilinguals that varied greatly in their knowledge, use and age of acquisition of Basque, and two control groups of Basque-Spanish bilinguals (n=26; n=37, respectively). We assessed these factors using self-report and objective measures and controlled for fluid intelligence in both groups and for cognitive health and cognitive reserve in older bilinguals. Participants completed a segmentation task in Basque, adapted from Sanders and Neville (2000), which comprised 240 sentences of three types: (1) natural sentences, i.e. fully grammatical and meaningful; (2) jabberwocky sentences, where content words were replaced with nonsense words, but functors were preserved (i.e., grammatical, but not meaningful); and (3) phonological sentences comprising only nonsense words, but preserving all phonological information (i.e., neither grammatical, nor meaningful). Each sentence contained a target phoneme and participants’ task was to indicate whether it occurred word-initially or word-medially.

Multiple regression analysis revealed that accuracy in the segmentation task was significantly above chance (all $p \leq .001$) in all three conditions—natural, jabberwocky, phonological—and in both target positions—word-initial and word-medial—. Importantly, adding age as a fixed effect or in interaction with other factors did not improve model fitness. Conversely, frequency of language switch, proficiency, and fluid intelligence (all $p \leq .01$) predicted segmentation accuracy. Further, proficiency interacted significantly with sentence type ($p < .0001$), as proficiency-related gains were greatest in natural sentences, followed by jabberwocky, and lastly by phonological sentences. Proficiency also interacted significantly with target position ($p \leq .001$), as accuracy increases related to proficiency were larger in word-initial targets.

These results evidence thus the stability of our segmentation abilities throughout adulthood and align with Palmer et al.'s (2018) findings on statistical learning resilience to aging in speech segmentation. They also identify the role of specific bilingual dimensions in achieving native-like segmentation of a second language and suggest a particular role of proficiency in modulating word segmentation in adult bilinguals.

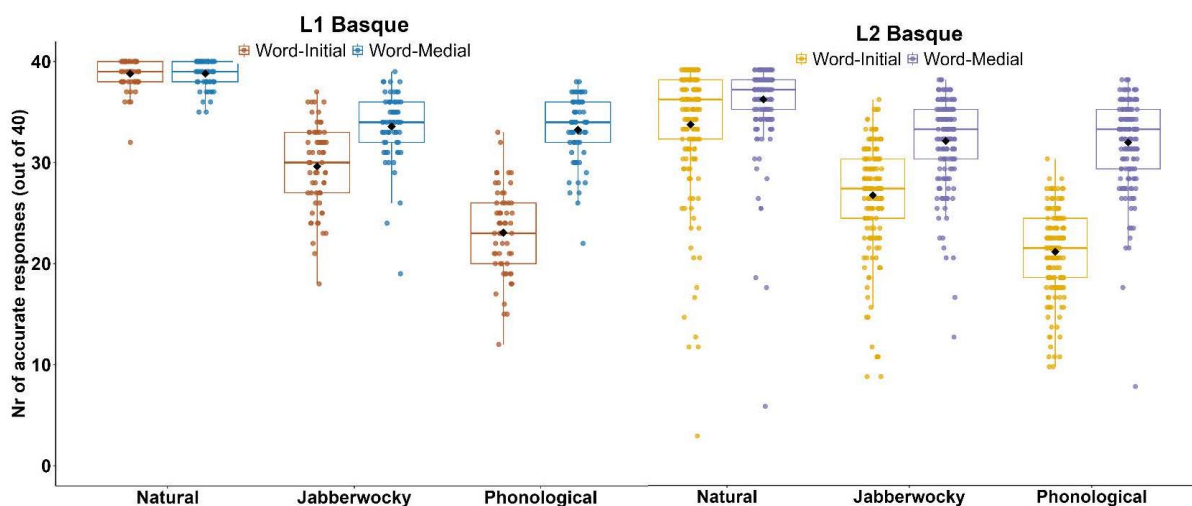


Figure 1. Accuracy in the segmentation task (raw data) in L1 Basque (left) and L2 Basque bilinguals (right).

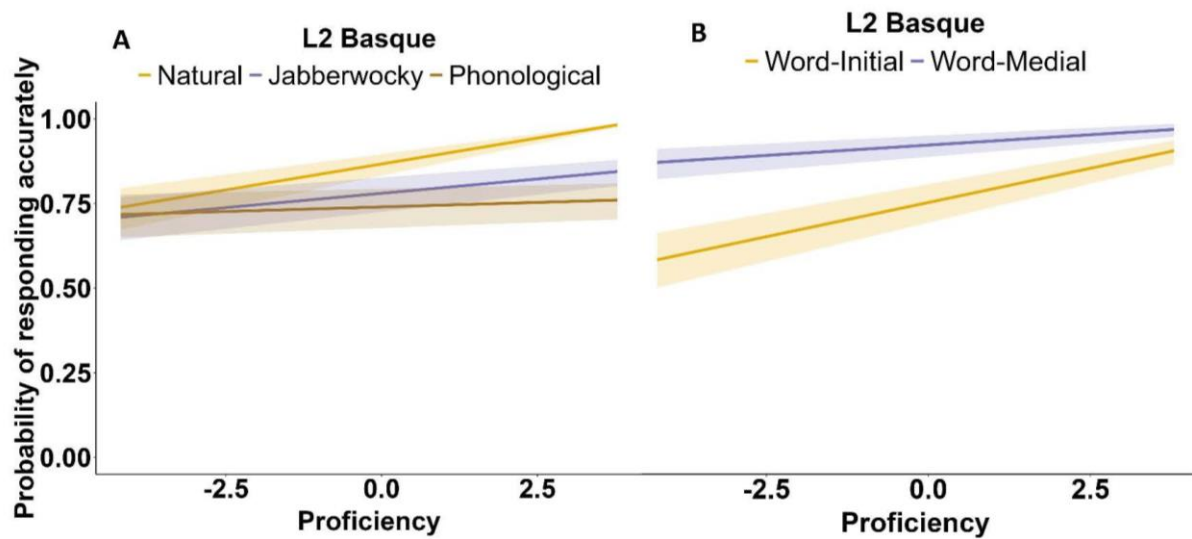


Figure 2. A. Accuracy vs. Proficiency by Sentence type computed on estimated marginal means. Accuracy increased with proficiency in all cases, but natural sentences produced the largest proficiency-related gains, followed by jabberwocky and lastly by phonological sentences. B. Accuracy vs. Proficiency by Target position computed on estimated marginal means. Accuracy increases related to proficiency were larger in word-initial targets.

The influence of language use on interference control in aging bilinguals: Evidence from the Word-Color Stroop task

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There is an ongoing debate whether bilingualism enhances interference control, with some studies showing a bilingual advantage, particularly in older adults (e.g., Ware et al., 2017), while others find minimal or no effects (Donnelly et al., 2019; Kousaie & Phillips, 2012). Our study examines this issue by exploring the relationship between bilingualism, aging, language use, and interference control using the Word-Color Stroop task, a measure of inhibitory control that requires participants to identify the color of a word conflicting with its meaning (e.g., "red" printed in blue).

Our sample consisted of 242 individuals aged 30-80, including 158 highly proficient Basque-Spanish bilinguals and 84 Spanish monolinguals. The study aimed to investigate (a) whether interference control declines with age similarly in bilingual and monolingual individuals, and (b) whether the bilingual advantage is modulated by the frequency of Basque use, the minority language in this context.

Participants' language experience was measured using the adapted Language Experience and Proficiency Questionnaire (LEAP-Q; Marian et al., 2007), which provided a Bilingual Composite Score reflecting Home Use/Proficiency and Social Use. Data were analyzed using regression models, with the Stroop interference score as the dependent variable, and age and group as independent factors.

Our results revealed that interference control decreases significantly with age, with no significant interaction between age and bilingualism. However, overall, bilinguals maintained significantly better control than monolinguals. A deeper analysis showed that language use was positively related with interference control abilities (Figure 1). Bilinguals with low use of Basque had similar interference control to monolinguals, whereas those with high use of Basque exhibited superior control (Figure 2). We analyzed the role of Basque use separately in terms of Home Use/Proficiency vs. Social Use. The correlation coefficient for Social Use and interference control was greater than that for Home Use/Proficiency, indicating a stronger relationship between social language use and the bilingual advantage in interference control.

These findings underscore that the bilingual advantage in interference control is closely tied to the frequency and context of language use, not merely to bilingualism or even language competence itself. Importantly, our results indicate that this advantage is stable across ages, with no significant interaction between age and bilingualism. These insights contribute to understanding how bilingual experience impacts cognitive control, especially in aging

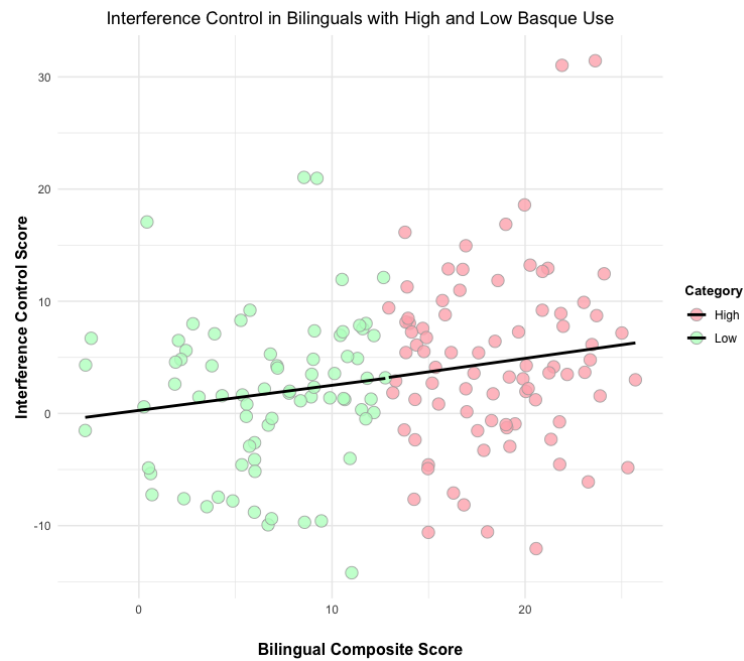


Figure 1. Relationship between Bilingual Composite Score and interference control in bilinguals with high and low Basque use. BCS classification categories are calculated based on the group mean.

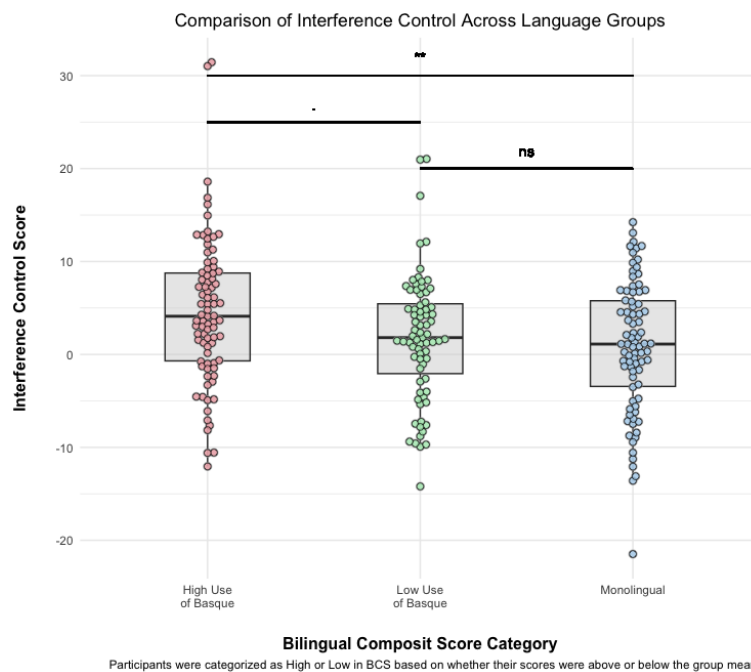


Figure 2. Comparison of Interference Control Scores Among Bilinguals with High and Low Bilingual Composite Scores (BCS) and Monolinguals.

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Bilingualism and the brain – charting routes ahead

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It is by now well-established that the brain retains plasticity across the lifespan, with environmental stimulation and learning being among the important factors affecting both brain structure and function (Fuchs & Flügge, 2014). One key experience among these is bi-/multilingualism, the knowledge and use of more than one language. A growing body of research has shown that bilingual experience, and crucially the nature and degree of engagement with that experience, affects the brain- and cognitive plasticity, particularly attentional control and certain types of memory (Bialystok & Craik, 2022). While the picture is far from complete, we have gained better understanding of a) the general trajectory that many bilingual speakers follow, which b) seems moderated by how one engages with their languages (e.g., DeLuca et al., 2020; Pliatsikas, 2019). Despite this positive shift in understanding of bilingualism-induced neural plasticity, many questions in this domain remain poorly understood or unanswered. One such question is how individual differences in bilingual experience affect neurocognition, not only during young adulthood, but also at both ends of the lifespan (i.e., how they interact with development and cognitive aging). Another is what these individual differences in language/cognitive control adaptations and their neural underpinnings might entail for other (cognitive) experiences in the everyday life of a bilingual.

The present symposium therefore explores two avenues: 1) how bilingual neurocognitive adaptations manifest across lifespan, and 2) what these adaptations might entail for aptitude or outcomes in education. The current plan is to explore these avenues via four talks. Those will deal with implications of bilingual experience for: a) infant and early child development, b) cognitive aging, c) aptitude and education, and d) young adulthood.

Resting-state functional connectivity in awake bilingual and monolingual infants

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Several studies report that early bilingual experiences are associated with changes in the brain's structures, functions, and connectivity (Arredondo et al., 2022; Mechelli et al., 2004; Pliatsikas, 2019). These investigations on the neuroplasticity afforded by bilingualism have focused primarily on the mature adult brain and on children who produce language. Little is known about whether these differences are present during the first year of life, when infants comprehend language but do not yet produce it. The present study investigates whether differences in resting-state functional connectivity emerge among monolingual- and bilingual-raised infants.

Infants (39 bilingual-raised, 27 monolingual-raised; age range= 6- to 10-month-olds) observed an experimenter blow bubbles for up to 3 minutes. Using functional near-infrared spectroscopy (fNIRS), we measured brain activity in frontal and temporal cortical regions during the procedure. Afterwards, parents completed questionnaires regarding their child's language exposure, including whether bilingual-speaking parents mixed (i.e., code-switch) between the two languages.

Monolingual infants showed stronger positive connections than bilinguals within the right frontal and right temporal regions. In bilinguals, less exposure to language mixing by their parents showed a trend of stronger connectivity in these same right hemisphere regions.

These preliminary results suggest that differences in resting-state functional connectivity among bilinguals and monolinguals may begin to emerge from specific bilingual language experiences and as early as the first year of life. These differences in resting-state functional connectivity could be associated with the greater amount of exposure that monolinguals have with their primary language, allowing them more practice in forming neural connections to accommodate the language system. Further research testing this hypothesis is needed. The results of this study have important implications for building theories on how the brain adapts to bilingual experiences, including when and how do neural changes begin to emerge across the lifespan. Further studies are needed to analyze connectivity differences alongside language learning milestones in development.

Bilingualism and aging: the why, when and how

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Our world is constantly aging, with a consequent increase of age-related pathology incidence. Pharmacological solutions are scarce, and this prompts us to find lifestyle factors with the potential to stave off aging's consequences for the mind and brain. Two decades of research suggest bilingualism as a potential candidate. But how does it all work? What are the mechanisms and the variables underlying this phenomenon? In my talk, I will discuss several aspects of the relationship between bilingualism and aging through a series of experiments conducted in the last 3 years.

I will begin by briefly presenting the socioeconomic background situating this line of research in terms of relevance and potential impact (Gallo et al., 2022). Subsequently, I will argue that bilingualism is not only a factor of reserve, but a unique one, supporting this claim with both conceptual reasons (Gallo & Abutaleb, 2024) and experimental data (Gallo et al., 2022).

I will then proceed to explore the modulatory role played on this “anti-aging” effect by an important characteristic of bilingual experience, linguistic distance (LD). LD’s dynamic modulatory effects index two different stages of bilingual experience that distinctively contribute to neurocognition and reserve: learning and language control (Gallo et al., 2024a).

The next stage will investigate the time-course of the onset of bilingualism-induced neuroprotective effects. The literature still somehow considers investigating reserve in youth as a taboo. I will argue that bilingualism is a good candidate life experience to observe the onset of reserve mechanisms in early life stages, and present data supporting the emergence of bilingualism-induced reserve effects in youth. I will explore the neuroplastic mechanisms underlying bilingualism’s “anti-aging” effect by presenting data (Gallo et al., 2024b) supporting the hypothesis of a bilingualism-induced neuroplastic trajectory that follows an inverted-u shape and highlight how this trajectory fits in the reserve framework (Stern et al., 2020), providing theoretical grounding for the beneficial consequences of bilingualism observed for cognitive aging.

Language aptitude and multilingualism. Are language learning skills enhanced by multilingualism, or are good language learners more multilingual?

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That bi- and multilingualism are related to numerous advantages is a debatable but persistent finding (e.g., Antoniou, 2019). But does knowing and speaking multiple languages also make it easier to learn additional languages? Language learning aptitude, a specific talent for learning foreign languages (Carroll, 1981), is a construct traditionally used to determine inter-individual variability in efficiency and rate of success in language learning. Turker and colleagues' (2021) neurocognitive model of language aptitude points to the anatomy of the auditory cortex as one of the underlying neural correlates of high language aptitude. Intuitively, experience with more languages (i.e., higher degree of multilingualism) should be associated with increased levels of language learning aptitude (e.g., Eisenstein, 1980). With evidence for the auditory cortex being associated with bi-/multilingual experience (Kepinska et al., 2023; Ressel et al., 2012), a causal link between being more multilingual and increased levels of language learning aptitude seems probable. In our recent work (Ramoser et al., in revision), we investigated the anatomy of the auditory cortex in the context of language aptitude in participants with varied degrees of multilingualism (speaking between 1 to 6 languages, no early bilinguals). While we found relationships between the degree of multilingualism and language aptitude, and language aptitude and the auditory cortex anatomy, no relationship between multilingualism and auditory cortex was established. It might therefore be the case that language aptitude is not necessarily enhanced by increased levels of multilingualism (through neuroplastic changes in the auditory cortex) but that the relationship between multilingualism and aptitude reflects a mediating influence of another factor. The latter explanation has been recently supported by Rampinini and colleagues (2024) who administered a wide range of linguistic, cognitive and perceptuo-motor skills, along with motivation and language history questionnaires to participants with varied degrees of multilingualism. The data was analyzed with an exploratory graph analysis and the metrics describing the individual multilingual language experience (experience with speaking, understanding, and current exposure of languages) clustered together with dimensions of motivation, rather than the traditionally understood language aptitude measures. These two strands of data bring a novel perspective on language aptitude in the context of multilingualism. It might be the case that cognitive aspects of aptitude are fairly independent of one's language experience. The relationships found in the data so far might reflect niche-seeking and gene-environment interactions, rather than an enhancing influence of experience with multiple languages on learning

additional ones. Future studies should employ longitudinal designs to provide further evidence for the direction of the causality of the aptitude – multilingualism relationship.

Testing the UBET model – neurocognitive adaptations to individual bilingual experience during executive function tasks

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A growing body of research shows that bilingual experience affects domain-general neurocognitive outcomes (e.g., attention) and their neural underpinnings (e.g., Carter et al., 2023; Pereira Soares et al., 2022). Two recent proposals, the Unified Bilingual Experience Trajectories (UBET) framework (DeLuca et al., 2020) and an adaptation framework by Bialystok and Craik (2022), have attempted to further specify the nature and mechanisms of bilingualism-induced neurocognitive adaptations. UBET proposes a series of relationships between specific bilingual experiences, their associated cognitive demands, and the neurocognitive adaptations to handle these demands more effectively (DeLuca et al., 2020). The adaptation framework proposes a general attention-based adaptation mechanism to bilingual experience and outlines how aspects of this adaptation may manifest differently across various neurocognitive outcomes/measures. While some evidence supports UBET's predictions for attentional control (e.g., Carter et al., 2023), little research to date addresses either UBET's predictions for task switching or the related predictions of the adaptation framework. The present study addressed some of the predictions of both proposals, focussing on task switching.

207 young adults with varying degrees of bilingual experience took part in two non-verbal switch tasks (color-shape (CS) and number-letter (NL)), while EEG was recorded. They also completed several language background measures (e.g., the Language and Social Background Questionnaire; the National Adult Reading Test). Switch- and mixing costs were calculated for each task, both for behavioural task performance (reaction times) and neural recruitment patterns (ERPs, TFRs). Factor scores representing distinct aspects of bilingual experience outlined by UBET (intensity and diversity of bilingual engagement, duration of bilingual experience, language switching intensity, and relative proficiency) were obtained via a confirmatory factor analysis run on the background measures.

Structural equation modelling showed that increased intensity of bilingual language use and frequency of language switching led to reductions in evoked activity for the NL task and reductions in oscillatory activity for the CS task, but neither related to variations in behaviour. These results generally support both proposals. They suggest increased efficiency of recruitment of neural resources in handling the cognitive demands associated with switching as a function of more intensive engagement in bilingual experience (Bialystok & Craik, 2022; DeLuca et al., 2020). The variance in (bilingual) effects between the two tasks also point towards differences in cognitive requirements of different tasks (Bialystok & Craik, 2022).

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Beyond the Spoken Word: Typing and Writing as Windows into the Bilingual Language System

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While most knowledge about language production comes from studies on spoken language, writing and typing have become dominant modes of global communication—whether through the Internet, social media, note-taking, or exams—sometimes even surpassing phone calls and face-to-face interactions. Despite their growing importance, the social, cognitive, and linguistic factors underlying written and typed communication, particularly for second-language writers, remain poorly understood. As multilingualism becomes more prevalent, writing in multiple languages has become essential. However, psycholinguistic research has extensively focused on the effects of bilingualism in speech, with far less attention paid to writing, primarily due to the technical challenges involved in studying it. Few methods exist to link written and typed communication with real-time cognitive processes. The primary goal of this symposium is to showcase research on writing and typing production from various perspectives and to encourage the research community to explore these forms of communication in addressing theory-driven questions. This approach aims to deepen our understanding of the mechanisms that support bilingual written and typed communication, opening new avenues for investigating the pathways into bilingual language production.

This symposium will bring together both emerging and established language scientists to develop a comprehensive understanding of writing and typing production. To achieve this, Dr. Svetlana Pinet will first **(1)** establish the theoretical and empirical foundations necessary to understand what typing can reveal about the language production system. She will outline the components of typing production, discuss current theoretical frameworks, and highlight key psycholinguistic effects that should be considered. Next, Dr. Carlos J. Álvarez will **(2)** review research differentiating handwriting from typing, emphasizing the theoretical and methodological implications of handwriting, and why it is crucial to promote and maintain its use—particularly as a tool for facilitating learning and its potential impact on second language acquisition.

Building on this foundation, Dr. Olivia Afonso will **(3)** provide an overview of how spelling processes differ between monolinguals and multilinguals, and how these differences affect spelling accuracy, handwriting, and typing speed across the lifespan and varying levels of second language proficiency. Finally, Dr. Antonio Iniesta will **(4)** explore how personal and task-related factors—such as language dominance, and task demands—affect typing. We aim to conclude the symposium by highlighting the importance of incorporating socially

realistic settings to fully understand typed communication. We will present a project that embodies this approach, using a combination of behavioral time-based, and linguistic corpus measures to examine how social and linguistic demands influence typing production and how these outputs align with real-time text production subprocesses.

What Have We Learned About Language Production from Studying Typing?

Principles and Implications

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Although keyboards have been invented more than a century ago, their recent integration in our modern daily life through personal computers and smartphones has elevated typing to the status of a common means of communication. It now constitutes a relevant and essential modality to study language production. In this talk, I will review the main findings brought about by studying language production through typing. After exposing the current theoretical frameworks, I will review the landmark psycholinguistic effects reported on typing performance. I will demonstrate what the confrontation of modalities such as speaking, handwriting, and typing can tell us about the language production system. Finally, I will highlight what I consider to be the missing link between response selection and execution in language production frameworks to keep advancing our understanding of language.

Why Handwriting is (Very) Important: Evidence from Different Domains and Implications for L2 Acquisition

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Handwriting is a complex behavior and an exclusive human achievement. From a cognitive perspective, writing by hand involves a whole series of processes of very different kinds: psycholinguistic, sensorimotor, memory, attention, etc. It was invented more than six millennia ago, and was the first way to transform linguistically expressed ideas or words into a graphic format. However, it seems clear that it is an activity that is becoming out of fashion. Nowadays and for years now, the appearance and use of computers, mobile phones and other devices have displaced handwriting. We write less and less in the old way. For this reason, it seems important to investigate whether writing by hand or typing on a keyboard are equivalent processes. Or, on the contrary, the old way of writing has some advantage that leads us to promote and maintain its use.

In this talk, we intend to review research in different domains that indicate that the latter option is the correct one. For instance, some studies with children have shown better letter recognition and learning when letters are written by hand than when they are typed. Similar results have also been found with adults working with “new letters”. The evidence of these and other experiments indicate that this improvement generally affects learning, including recognition and recall not only of letters but also of words.

From the point of view of cognitive neuroscience, the results go the same way. It has been proposed that the factor that facilitates learning is the accurate coordination of the hand movements when writing each letter with a pen. EEG data has also shown more elaborate neuronal connectivity patterns for handwriting than for typing. In addition, different brain areas for processing handwritten and typed characters are activated. Neuroimaging results with very young children highlighted that the advantage of handwriting in the recognition of symbols relay in the link between visual and motor systems in our brain. Finally, the implications of these studies as well as some research for second language learning will be discussed.

Becoming Multiliterate: How Children and Adults Spell, Handwrite, and Type in an Additional Language

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Although bilingualism is now an extensive field of research in psycholinguistics, *biliteracy* is still a considerably less studied topic. However, the number of people who can write in more than the language has substantially grown in the last decades due to the increased opportunities currently available to work and study outside the native country. But learning to write is challenging. Spelling is a complex skill involving the ability to correctly apply phonology-to-orthography correspondences and to store whole-word orthographic forms in the lexicon. In this talk, we will summarise the results obtained in a series of studies conducted with children and adults with English as an additional language (EAL) addressing how biliterates ensure that the correct set of correspondences is applied and how the lexicons from different languages are organised.

In a study conducted with 9-11-year-old children with Spanish as their first language, participants were asked to spell-to-dictation English words. The results showed that younger children were more affected by the length of the stimulus, while older children showed a greater sensitivity to lexical and semantic variables. Interestingly, these effects were observed not only in spelling accuracy, but also in the duration of letter formation and the intervals between letters. These findings confirm a shift from a sublexical to a lexical strategy when spelling in EAL and suggest that spelling processes influence the handwriting speed of young writers. We will also discuss how the spelling difficulties experienced by Spanish-speaking children with dyslexia of a similar age translate to English and how these word-level difficulties affect higher-order writing processes such as syntax and planning.

We will also discuss two studies (analysis ongoing) conducted with adult Spanish-speakers with EAL exploring the relationship between the two lexicons and the effect that the first language's sublexical structures (i.e., syllabic boundaries) have when writing in English. Regarding lexical effects, our findings revealed that writing durations for English words with both cognate translations in the first language (*park* - *parque*) and "false friends" (*carpet-carpet* - *folder* in English) differed from words with unrelated translations (*table* - *mesa*). We also observed that these effects varied as function of English proficiency. Regarding the

effects of the first language's sublexical structure, Spanish syllabic representations did not affect the duration of the inter-letter intervals when writing in English (an effect repeatedly observed in Spanish). However, differences were observed that might be associated to the frequency of the target bigrams in the first language.

Finally, we will summarise the evidence obtained in an exploratory study (analysis ongoing) conducted with adult speakers of EAL with different first languages. Participants typed the name of pictures with sequences that are regular or irregular in English, and the degree of overlap with the first language correspondences will be considered in the analysis of inter-key intervals.

This evidence will be discussed in the context of a developmental perspective of how the relationship between languages changes as proficiency and age increase, and the impact that spelling processes may have on the handwriting and typewriting speed of biliterates.

How Do Language Experience and Task Demands Modulate Typing in Bilingual Adults? Moving forward Exploring Multilingual Typed Communication.

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As highlighted earlier, typing is a crucial mode of interpersonal, professional, and societal communication. However, our understanding of typed communication, especially in multilingual individuals, remains limited. In this presentation, we will discuss various experimental paradigms implemented to explore the word-level and subword-level processes underlying isolated word and sentences production in bilinguals with different sociolinguistic contexts, as well as how different time-based behavioral measures can be used to track these linguistic processes. We will also address the need to explore individual linguistic experiences examining how modulatory factors, such as language dominance, impact typing under high (accuracy and speed) and low (accuracy alone) task demands. Additionally, we will review other modulatory factors previously explored, such as learning background and language similarity, which influence language co-activation during typing.

Most studies presented in this symposium employ rigorously controlled paradigms and materials to isolate key subprocesses involved in writing and typing. However, typed communication involves complex cognitive processes that interact with sociolinguistic mechanisms to support human communication. We aim to conclude the symposium by emphasizing the importance of incorporating socially realistic settings. We will present a project that embodies this approach, using a combination of behavioral time-based and linguistic corpus measures in a typing task that links typing outputs with real-time text production subprocesses. By examining how external evaluation affects real-time typing, we seek to understand how social demands influence typing production and to identify differences when bilingual adults use their dominant (L1) versus non-dominant (L2) languages.

A multidimensional view of writing is relevant for changing biases that people face for writing difficulties and orthographic and typographical inaccuracies in academic and professional spheres and opens the door to new methods of first and second-language educational training and assessment. Moreover, given the ubiquity of global multilingualism and the status of English as a global lingua franca of the Internet, understanding how people use English as a second language for typed communication is of paramount importance for creating and refining text-based systems that are efficient and equitable for all.

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Capturing Diversity in Bilinguals' Development

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Bilingualism is a dynamic and multifaceted phenomenon (e.g., DeLuca et al., 2019). Yet, research often treats bilinguals as one homogeneous group, overlooking their inter- and intra-individual differences across development. Bilingual individuals differ in factors such as the variety of languages they speak, how closely related these languages are, when and how they are exposed to their languages, and whether they develop neurotypically or not.

In this symposium, we explore how the diversity among bilingual children impacts their language, communicative, and cognitive development. We will start by critically evaluating how previous research has assessed differences among bilinguals' early language exposure (Marchman et al.), and presenting a novel way of quantifying this diversity and highlight its predictive value for language development (Aalders et al.).

We will then focus on bilingualism in children diagnosed with Autism Spectrum Disorder (ASD), who experience specific communicative and cognitive challenges (e.g., Perrault et al., 2019; Craig et al., 2016). While multilingual experience may positively impact these developmental domains in the neurotypical population (e.g., Yow and Markman, 2011; Bialystok, 2017), it remains to be determined whether this beneficial, potentially compensatory effect of bilingualism is also observable in ASD. We will end the symposium by addressing how the diversity among bilinguals - in the neurotypicality of their development and their exposure to multiple languages - influences their comprehension of co-speech gestures (Wolfer et al.), and their interference inhibition (Baumeister et al.).

In sum, this symposium highlights the importance of considering individual differences in researching bilinguals across development. This will be achieved by identifying research gaps, giving researchers tools to fill them, and examining the impact of bilingualism on an understudied, yet increasing population lacking evidence-based recommendations (Beauchamp & MacLeod, 2017).

Assessing bilingual vocabulary development using parent report: Gaps and opportunities

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While bilingualism/multilingualism is the norm rather than the exception worldwide, the field lacks consensus on many aspects of how to appropriately and validly assess language development in bilingual/multilingual children. For children under 3 years, early vocabulary knowledge is a useful measure of language abilities, with delays in vocabulary often used to identify children who may be at increased risk of language impairments (Rescorla & Dale, 2013). Since the mid-1990s, parent report has been a popular, cost-effective, and valid tool to estimate children's early vocabulary in the monolingual context (Frank et al., 2021). This technique relies on parents as expert observers owing to their many opportunities to observe their child (e.g., at morning and at night; at dinner and at bathtime). Parent report has advantages over observational or experimental techniques, especially with young children, because it does not require a behavioral response or rely on a child's cooperation (Marchman et al., 2023). However, using parent reports in the bilingual/multilingual context requires several additional important considerations for administration, scoring, and interpretation (Weisleder et al., 2023).

In this talk, we review previously unpublished findings from a systematic review (Weisleder et al., 2024) conducted to identify common practices for using parent report to assess early bilingual language development, with vocabulary as the focus. We reviewed 576 studies (January 1980–March 2022), yielding 101 studies coded for 22 variables. Results indicated that the number of studies is growing, yet the field continues to be dominated by research in North America and Europe with children who are learning English as the societal language. We also identified many areas of consensus, including the importance of assessing bilingual/multilingual children in all of their languages and the need to adapt instruments for a particular language and context. At the same time, less consensus was found regarding standard practices for reporting methods and how instruments should be best adapted to the full range of bilingual/multilingual contexts.

Here, we report on two new findings. First, studies were significantly more likely to assess children in both languages when they included homogeneous (92%) (children were learning the same language pairs) versus heterogeneous (63%) (children were learning multiple language pairs) samples, $\chi^2(1) = 12.18, p < .001$. Moreover, studies with homogeneous samples were less likely than those with heterogeneous samples to use newly-created

instruments (18% vs 37%), $\chi^2(1) = 4.12, p < .05$, particularly translated instruments (4% vs 19%), $\chi^2(1) = 5.56, p < .05$. Second, there was little consensus on methods used to estimate exposure levels. Only 36% of studies used a previously-published instrument and a variety of measures were reported (e.g., relative exposure to each language, absolute exposure, exposure from parents only). Accounting for a child's exposure to each language is critical to obtaining vocabulary estimates that are comparable within and across bilingual and monolingual samples (Floccia et al., 2018). We will discuss findings in the context of the broader systematic review, highlighting gaps in current research on assessment of bilingual exposure and vocabulary and providing examples of ongoing studies seeking to address these gaps.

From chaos to cohesion. Quantifying the complexity of early multilingualism

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With an increasing number of children growing up in multilingual environments, it is imperative to understand the nuances of their everyday language experiences and how they contribute to developing their communicative behaviour. This project builds upon two measures established in adult literature to capture the communicative complexity in early multilingual environments: language entropy and linguistic distance. Language entropy (LE; Gullifer & Titone, 2020; Titone & Tiv, 2023) describes the uncertainty and complexity of a system capturing language exposure in different social contexts. By accounting for different contexts present in children's lives (e.g., home, institutional care) and the time children spent in each context across their development, we expand this measure, making it applicable to developmental research. Furthermore, we incorporate linguistic distance (LD) as an additional driver of complexity. Previous research has demonstrated that LD amplifies the intricacies of language acquisition and negatively correlates with the vocabulary size of toddlers, thereby increasing the communicative complexity (Gampe et al., 2021).

Language entropy was calculated based on data on their child's language exposure obtained through caregiver questionnaires. Linguistic distance was assessed via the Levenshtein distance between lexical items of the language pairs (Automated Similarity Judgment Program, ASJP; Wichmann, 2020). The complexity indicators (i.e., LE and LD) were evaluated for their predictive value for children's language development as measured by a bilingual language test (Gampe et al., 2018). The results show a quadratic relationship between language entropy and children's vocabulary. Furthermore, we found a negative association between linguistic distance and children's vocabulary. These effects were only present in the dominant and conceptual vocabulary. The project supports transitioning from a binary classification of language status (i.e., bilingual vs. monolingual) to a more nuanced representation of the complexity inherent to children's daily communicative experiences. This innovative approach aims to elucidate variations in development and behaviour with enhanced precision and sensitivity to the intricacies of everyday reality.

Multilingual effects on gesture comprehension in autistic children

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Previous work reports inconsistent findings pertaining to co-speech gesture comprehension in children diagnosed with Autism Spectrum Disorder (ASD), from challenges (Perrault et al., 2019) to preserved abilities (Dimitrova et al., 2017). An independent body of research posits that greater multilingual exposure confers an *increased sensitivity* to communicative cues, leading notably to the better interpretation of deictic (i.e., pointing) gestures observed in multilingual neurotypical children, as compared to monolinguals (Yow & Markman, 2011). The present work investigates whether this beneficial effect is present in the autistic population, and whether it extends to iconic (i.e., representing the referent) and conventional (i.e., culturally-shared, arbitrary) gestures.

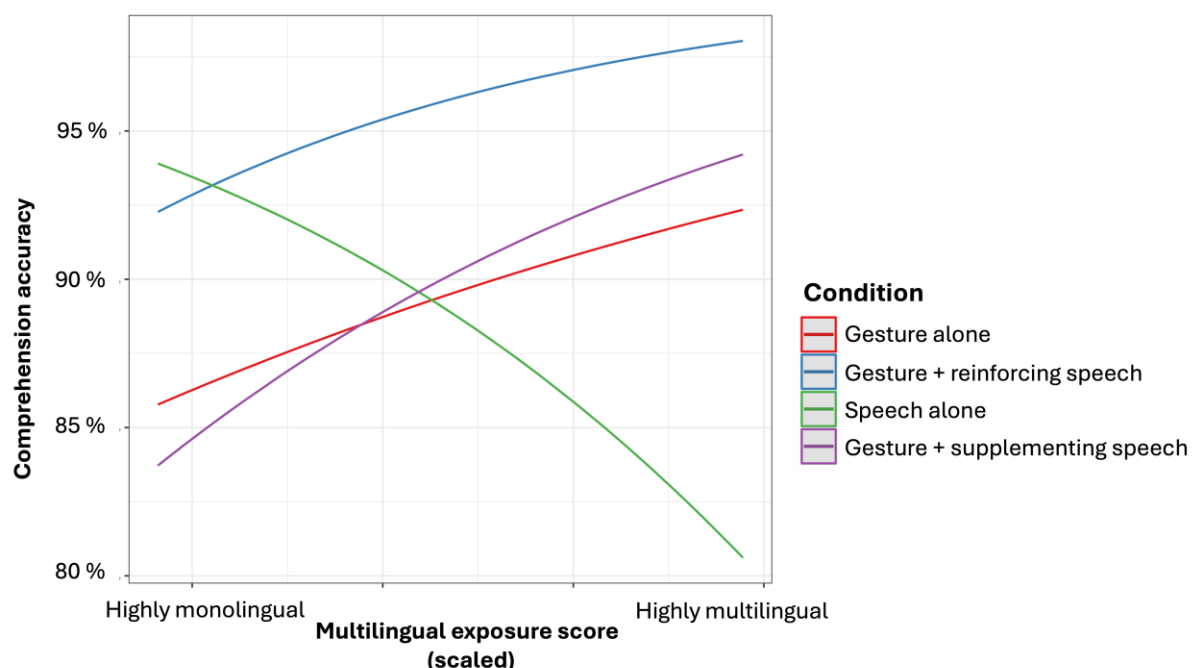
Eighty-nine children with ASD (19 females), aged 4;4 to 12;0 with varying exposure to a second language, completed a gamified task assessing the comprehension of *deictic*, *iconic* and *conventional* gestures presented in four communicative modalities: (1) alone (e.g., gesture DRIVE), (2) with reinforcing speech (e.g., gesture DRIVE, say “driving”), (3) with supplementing speech (e.g., gesture DRIVE, say “lady”), as compared to (4) speech produced alone (e.g., say “driving”). Participants watched a video and selected the corresponding picture, a non-verbal assessment that avoids penalizing children with language impairments, often attested in autism (Rapin & Dunn, 1997). A continuous *multilingual exposure score*, reflecting the child’s degree of exposure to more than one language in the last year, was computed based on parental estimates (i.e., from the Q-BEx questionnaire (De Cat et al., 2022)) to circumvent the caveats of monolingual versus bilingual group comparisons (Leivada et al., 2023).

Accounting for key variables such as age, parental educational level, sex, vocabulary knowledge (i.e., PPVT (Dunn & Dunn, 2007)), non-verbal IQ (i.e., Ravens-2 (Raven et al., 2018)) and autism severity (i.e., SCQ score (Rutter et al., 2003)), mixed-effects logistic regressions showed a differential effect of *multilingual exposure* on the gesture comprehension task performance. While participants with greater *multilingual exposure*

scores, as compared to children with lower multilingual exposure, exhibited significantly lower performance on the baseline *speech-only* modality (4) providing only a verbal information without a gesture, no such effect was shown for the comprehension of items containing a gesture, whether or not it was accompanied by speech. Participants with higher *multilingual exposure* had improved comprehension accuracy when a gesture was presented, compared to when it was not (**Fig.1**).

Consistent with an advantage-disadvantage trade-off in multilingual individuals (Dentella et al., 2024), these findings suggest that despite increased challenges in processing the linguistic information, autistic children with higher multilingual exposure use gestural information efficiently as a compensatory mechanism. Following previous work (Wermelinger et al., 2024; Yow & Markman, 2011), this could be a manifestation of the multilinguals' *increased sensitivity* to the communicative environment, here observed in autism. By applying a continuous approach to explore multilingual effects on the comprehension of various types of gestures in autism, this study provides new evidence that multilingual exposure is not detrimental to the communicative development of children with ASD (Beauchamp & MacLeod, 2017).

Figure 1. Predicted gesture comprehension performance as a function of multilingual exposure score. The *multilingual exposure score* varied from 0 (strictly monolingual) to 100 (highly multilingual) and reflected the extent to which a child was reported to be exposed to several languages during the last year, based on the Q-BEx' parental estimates (De Cat et al., 2022).



Increased balance in language use predicts greater interference inhibition in neurotypical and autistic children

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Executive functioning (EF) encompasses higher-order cognitive processes such as inhibition, attention, and working memory (Diamond, 2013). Individuals with Autism Spectrum Disorder (ASD) often exhibit difficulties with EF (Craig et al., 2016). Bilingualism, the ability to understand or speak more than one language irrespective of proficiency or timing of acquisition (Grosjean, 1982), is a complex and heterogeneous phenomenon, varying in age of first exposure, amount of exposure, use, and proficiency (DeLuca et al., 2019).

Research comparing monolingual and bilingual children on EF tasks has produced mixed results (Bialystok, 2024). Some studies suggest bilingualism enhances EF in neurotypical (NT) and autistic children (Bialystok, 2017; Gonzalez-Barrero & Nadig, 2019). For example, Bialystok posits that enhanced EF in bilinguals arises from managing two languages, which strengthens “executive attention.” This system may particularly benefit tasks with high attentional control demands (Bialystok & Craik, 2022). However, others have reported no effects (Gathercole, 2014). This inconsistency may stem from the complexity of bilingualism.

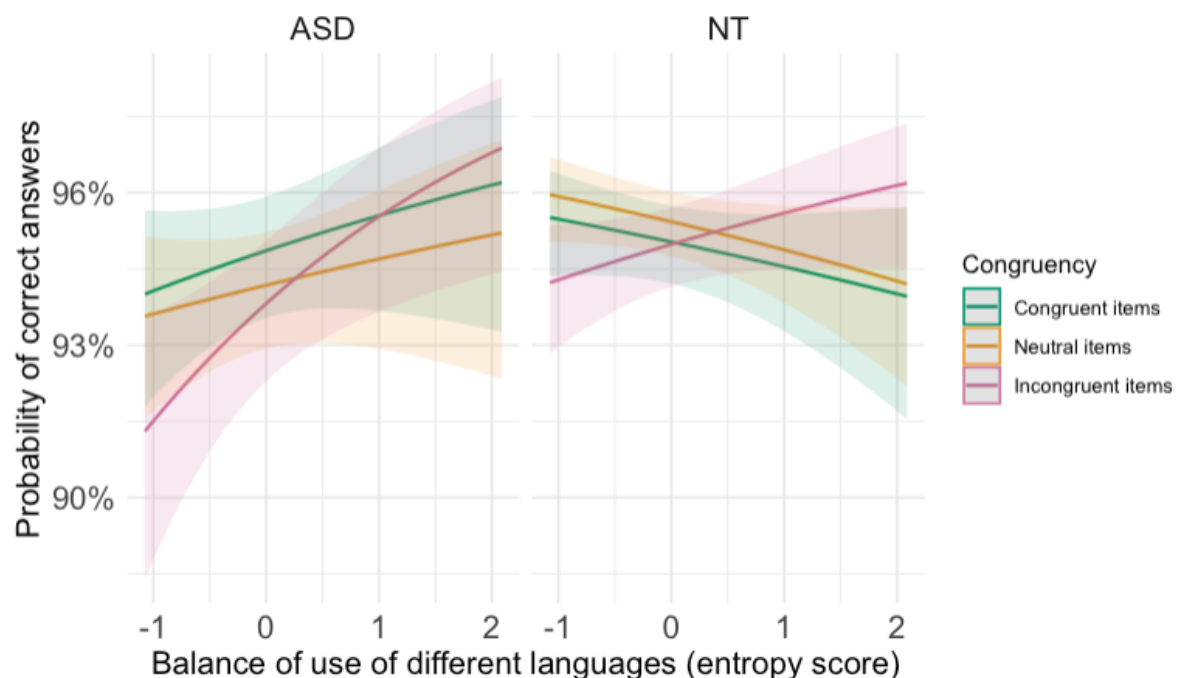
To address the challenges of group comparisons, this study examined the relative use of different languages by calculating an entropy score (Gullifer & Titone, 2020). Entropy accounts for the relative cumulative use of the first (L1), second (L2), and third language (L3), measured by a parent-report questionnaire (Q-BEx; DeCat et al., 2022), calculated as: $H = -\sum_{i=1}^n p_i \cdot \log_2(p_i)$ (p_i : proportion of languages used).

We assessed interference control, the ability to suppress competing information to perform a response (Nigg, 2000), using the Simon task (Simon & Wolf, 1963) in NT and autistic children. Participants gave speeded responses to colored stimuli that appeared in the center (neutral condition), left, or right (congruent above the corresponding button, incongruent on the opposite side) of a screen. They pressed a red button on the right for red stimuli and a blue button on the left for blue. Incongruent trials required participants to resist competing responses based on location, leading generally to lower accuracy and longer reaction times (RTs). According to Bialystok (2017), we hypothesized that more balanced use of multiple languages would predict better accuracy and faster RTs in the Simon task.

The study included 218 NT ($M = 7;8$, $SD = 2;5$) and 107 autistic children ($M = 8;9$, $SD = 2;2$). Accuracy and RTs were analyzed using GLMM, with random effects for *participants* and covariates for *age* and *socioeconomic status*. We probed main effects and two- and three-way interactions among *cumulative use entropy*, *diagnostic group* (NT, ASD), and *condition* (neutral, congruent, incongruent). Results showed a significant positive main effect of *age* and of *cumulative use entropy* for incongruent items in NT and autistic children (Estimate = 0.218, $SE = 0.092$, $z = 2.371$, $p = .018$); Figure 1. There was no significant difference between NT and autistic children on accuracy, but children with ASD had lower RTs.

Consistent with Bialystok (2024), these findings suggest that L2 use positively influences task performance requiring enhanced cognitive control, particularly for incongruent items. In autistic children specifically, increased L2 use may help alleviate ASD symptoms.

Figure 1. Effect of balance of use of different languages on the predicted probability of accuracy in different conditions in children with ASD and neurotypical (NT) children



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Measuring bilingual language knowledge with acceptability judgments

Chair: Bradley Hoot, bhoot@depaul.edu

Acceptability judgment tasks (AJTs) are perhaps the most widely used method in linguistics, employed ubiquitously in empirical studies in every framework and with every population, including bilinguals of all types. The heterogeneity of many bilingual populations, however, adds additional complexity to designing an AJT, and researchers using AJTs with bilinguals—whether L2 learners, heritage speakers, attriters, or others—need to consider “The Different Faces of Bilingualism” in their experiment design. Yet despite some work addressing this need (e.g., Ionin, 2021), there remains a dearth of methodological advice for deploying this extremely common task effectively with different bilingual populations. ISB is the right place to continue filling that gap.

Each presentation in this symposium reports the results of a recent empirical study using AJTs to examine the grammatical knowledge of Spanish/English bilinguals, with a focus on the methods used and the lessons other researchers can draw from them. Just as AJTs are extremely widely used, Spanish/English is perhaps the most widely investigated language pair, making it a sensible starting point for a discussion of methodology, and holding the languages constant keeps the symposium’s focus on design decisions without introducing additional cross-linguistic variation. Nevertheless, researchers using AJTs with any language will benefit from a systematic consideration of how this common task can best be deployed.

Each study investigates a different grammatical feature—*islands*, *inalienable possession*, *code-switching*—using that experiment to identify areas of special concern for using AJTs with bilinguals. The first presentation sets the stage by walking through each design decision involved in designing an experimental syntax study for bilinguals. The second considers the features of the response scale and how its use may vary across populations. The third examines the individual and group-level characteristics of bilinguals that can affect the outcome of AJT studies. The final presentation discusses the potential pitfalls of internet-based participant recruitment, which is increasingly common in the field. Together, these presentations address some of the most pressing methodological questions researchers need to consider when designing AJTs for bilinguals.

Designing an AJT to measure syntactic island effects in heritage Spanish

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This presentation reports the results of an experiment examining syntactic island effects with heritage speakers of Spanish via an acceptability judgment task (AJT), using it as an example to highlight the methodological decisions required at each stage of designing an AJT to measure bilinguals' grammatical knowledge.

Islands are structures in which long-distance dependencies are not possible, as in the complex NP island (1). Some islands, like constraints on *whether* (2), vary cross-linguistically, and Spanish is claimed not to instantiate this restriction (Torrego, 1984). We examine these two islands.

(1) *¿Qué tarea escuchaste el rumor de que Mateo copió ____? 'Which homework did you hear the rumor that Mateo copied ____?'	Complex NP Island
(2) ¿Qué tarea quieres saber si Mateo copió ____? 'Which homework do you want to know whether Mateo copied ____?'	Whether island

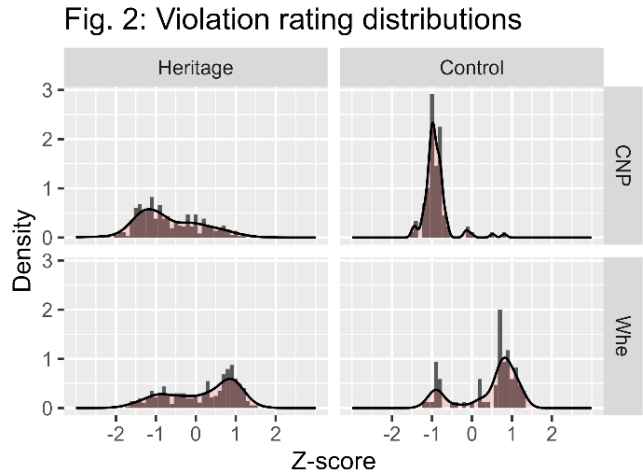
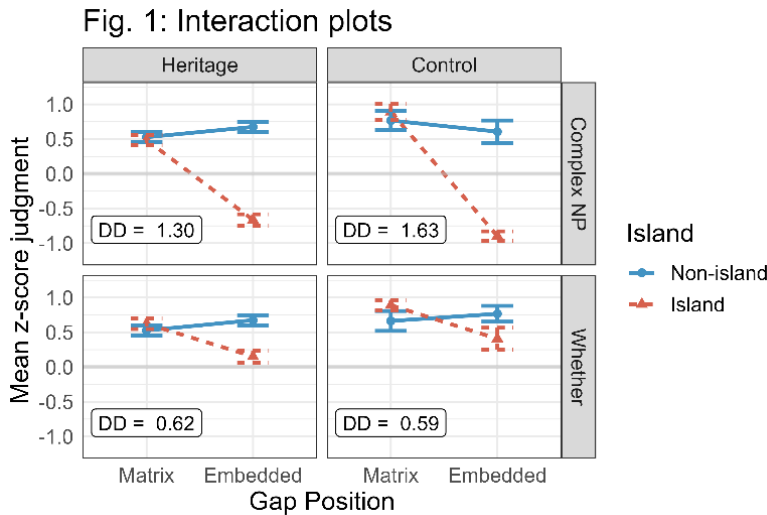
Because long-distance dependencies are an area of special vulnerability in heritage language acquisition (Polinsky & Scontras, 2020), we hypothesized bilinguals would differ from monolinguals in their knowledge of islands. In the presentation, we describe in detail each decision we made to test that hypothesis.

We discuss operationalizing the island effect via a 2x2 factorial design crossing ISLAND presence (Island/Non-island) and GAP position (Matrix/Embedded), with the interaction as the outcome of interest. We report how we designed items to isolate this effect, how we designed the fillers, and how we distributed them in the task. We discuss the choice of a written AJT and the software employed. We present our sampling procedure: following an *a priori* power analysis, we recruited a group of heritage Spanish speakers (N=183) who acquired Spanish in childhood in the United States, and a control group (N=93) of monolingual Spanish speakers.

We then report the decisions made during data analysis, including data processing, visualization, statistical tests, and interpreting the results. We used a linear mixed-effects model for each island to test the relevant interactions, finding significant effects for both structures and both groups, with no three-way interactions suggesting group differences. Interaction plots (Fig. 1) reveal the characteristic island pattern in all cases and similar patterns across groups. Effect sizes (DD scores) are similar, too. Furthermore, we examined the distributions of each group's ratings (Fig. 2), finding similar patterns (clusters around the

same modes) for the key violation conditions for both groups, albeit with greater variability (flatter distributions) for the heritage speaker group.

We conclude the bilinguals pattern with the control group, suggesting constraints on syntactic islands may be resilient to divergence in heritage language acquisition. Finally, we discuss the possible role of systematic response biases in increasing the variability for the bilingual group, as well as the balance between examining individual data and group-level effects.



Two-alternative forced-choice judgment tasks in comparative code-switching studies

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Code-switching research indicates that bi/multilinguals evaluate certain language switches as acceptable while considering others ill-formed (Bullock & Toribio, 2009). Although Likert-type judgments are central to code-switching research, in communities where code-switching is stigmatized they may yield biased judgments or rejection of sentences that, although part of speakers' repertoires, are perceived as socially undesirable (Parafita Couto et al., 2015). By contrast, studies like Stadthagen-González et al. (2018) have employed two-alternative forced-choice (2AFC) tasks, in which participants perform pairwise comparisons that are then examined using Thurstone's analysis (1927). This places the linguistic structures on an interval scale indicating varying levels of acceptability. This method provides more nuanced insights into speakers' intuitions, especially where direct judgment methods may be influenced by social desirability bias. It is also less cognitively demanding than Likert-scale ratings, making it preferable for extended studies (ibid.). A disadvantage of 2AFC is that the number of comparisons required per participant grows combinatorially with the number of linguistic structures being compared, requiring careful experimental design to manage participant time and cognitive load. Nevertheless, it remains a powerful tool for revealing acceptability intuitions, particularly across contexts, especially in communities where different histories of language contact and sociopolitical influences shape bilingual practices. While bilingual speakers' judgments have typically been investigated in a single group of code-switchers, we focus on the comparative study of two geographically separated bilingual contexts where Spanish-English code-switching is commonplace: Belize and New Mexico.

We used the 2AFC task to examine null *que* constructions (e.g., *Espero Ø the boss is all right* 'I hope (that) the...') in participants from Northern Belize (N=149) and New Mexico (N=26). While this phenomenon has been examined from a 'single community' perspective (e.g., Silva-Corvalán, 1994), we analyze these structures through a comparative lens. Based on oral production data (Torres Cacoullos, 2020), we hypothesized that null *que* constructions would be dispreferred by both groups. Results revealed a remarkable pattern of uniformity, as both bilingual groups gave the highest ratings to conditions with overt *que* and *that*. Contrastingly, conditions with null complementizers were rejected. Data from Northern Belize also showed

that only code-switchers who more frequently use English accept mixed English-Spanish (N=23) questions with null *que*, i.e., What does Gabriel say *Ø el jefe compró?* ‘...say (that) the boss bought?’ Our findings suggest that language use frequency among code-switchers is determinant in influencing bilinguals’ acceptability judgments.

We conclude by reflecting on the advantages and challenges of employing 2AFC tasks in the comparative study of code-switching structures, emphasizing the need for innovative methods to capture bilingual intuitions in diverse sociolinguistic contexts.

Variability in Spanish inalienable possession: A study of Acceptability Judgment Tasks in different types of Spanish-English bilinguals

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This study seeks to address the variability in AJT responses among bilinguals by examining data from Spanish-English bilinguals with different acquisitional backgrounds to assess whether this between-groups factor affects judgments, and then assessing the within-group variability to see whether it is best explained via bilingual language factors or simply as an artifact of the task.

The task was constructed to test *inalienable possession* in Spanish, which is a syntactic construction where Spanish and English diverge significantly. In English, inalienable possession is marked by a possessive determiner (e.g., *he washed his face*), while in Spanish, it typically involves a definite determiner paired with a preverbal clitic (e.g., *él se lavó la cara*, lit. 'he to-himself washed the face'). Previous research on Spanish-English bilinguals has produced mixed findings: some studies suggest variability in the bilinguals' use of inalienable possession in Spanish, while others report alignment with monolingual Spanish norms (see Giancaspro & Sánchez, 2021). Such divergent findings provide an ideal foundation for a methodological study, which can test whether the variability stems from differences in the bilingual groups or from inconsistencies in the tasks used to measure the phenomenon.

A written AJT was conducted using a 7-point Likert scale with three distinct groups of Spanish-English bilinguals: heritage speakers of Spanish (i.e., early bilinguals) ($N=41$), L1-English L2-Spanish bilinguals ($N=38$), and L1-Spanish L2-English bilinguals ($N=45$), all with intermediate-to-advanced proficiency in both languages. Participants completed the AJT via Qualtrics, evaluating 18 target sentences that included constructions with the verbs *lavar* 'wash', *morder* 'bite', and *quemar* 'burn' and respective inalienable body part direct objects. The stimuli were designed to test four conditions, including the canonical construction Clitic + Definite (*se lavó la cara*) 'to-himself washed the face', the completely English-like construction $\emptyset$ + Possessive (*lavó su cara* 'washed his face'), and two hybrid constructions, Clitic + Possessive (*se lavó su cara* 'to-himself washed his face' and $\emptyset$ + Definite (*lavó la cara* 'washed the face').

The results show that all three groups consistently rated the canonical Clitic + Definite as acceptable. However, all three groups showed variability regarding the acceptability of the English-like and hybrid conditions—neither fully rejecting nor fully accepting them. As for between-group differences, the heritage and L2 English bilinguals were more accepting of

the variant forms, while the L2 Spanish bilinguals outright rejected just the $\emptyset$ + Definite. As for within-group differences, the variability observed was influenced by bilingual language factors, with the strongest correlations relating to their overall language dominance score, individual Spanish proficiency score, and self-reported reading skills in Spanish. These findings suggest that the variability in AJT responses among bilinguals is not merely a result of random error, but rather common factors that contribute to bilingual participant heterogeneity play a role and should be controlled for.

Unveiling methodological pitfalls: The impact of Internet-based recruiting on acceptability judgment tasks with Spanish/English bilinguals

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Researchers are increasingly conducting AJT experiments using online platforms like CloudResearch, Prolific, or MTurk, to recruit participants, and tools like Ibex, Gorilla, and Qualtrics to carry out the study. While AJT results can vary across participants and items (Häussler & Juzek, 2021), adding internet recruitment has introduced new potential methodological pitfalls, such as challenges vis-à-vis statistical power and reliability (Bentley, 2021). This presentation examines how recruiting via one Internet-based platform, CloudResearch, may have influenced unexpected results on an AJT, contributing to a broader discussion on refining research methodologies in bilingualism studies.

We conducted an AJT with Spanish-English bilinguals in the United States, incorporating a social approach by contextualizing code-switching (CS) within reggaetón music. In the experiment, we labeled stimuli sentences as either coming from reggaetón lyrics or not, to examine how results varied with participants' enjoyment and frequency of listening to reggaetón music. 137 participants, recruited using CloudResearch panels, took part in this study. To control that participants were familiar with CS, we included two filter questions at the beginning of the survey; they had to answer both correctly to continue. The stimuli used in this experiment were adapted from Koronkiewicz (2014), in which he found that full nominal subject switches (e.g., *Esos chicos* ran 'those guys...') were rated 5, 6, or 7 81.4% of the time, while pronominal subject switches (e.g., *Ella* ran 'she...') were rated 1, 2, or 3 70.8% of the time. We found that the participants rated the sentences at an average of 4.15 across the board, indicating that participants rated ungrammatical sentences higher and grammatical sentences lower than expected based on Koronkiewicz's findings.

The unexpected results from this study highlight the potential pitfalls of using internet recruitment tools. While controlling for participants in monolingual studies is already challenging, this difficulty is amplified when recruiting bilingual participants, particularly for CS studies. How can we make sure that the participants have been exposed to CS, belong to a CS community, are CSers, and have intuitions about CS? The broader aim of this presentation is to foster a discussion on best practices in bilingual research methodologies. By recognizing and addressing the limitations associated with online platforms like CloudResearch, researchers can improve the accuracy and reliability of their findings, thereby contributing to a more nuanced understanding of code-switching. This discussion is essential for advancing the field and ensuring that AJTs and other experimental methods produce valid results.

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Navigating Bilingualism within Spain: Challenges and Insights from Basque, Galician, and Catalan

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The purpose of this symposium is to underscore the importance of studying lesser-known regional minority languages, which often receive limited attention due to their smaller speaker populations and the dominance of bilingual contexts. The symposium brings together research on three of Spain's most prominent minority languages: Basque, Catalan, and Galician. By examining these languages in diverse bilingual settings, all with Spanish as the majority language, we aim to deepen our understanding of the relationship between bilingualism, language change, society, and educational models. Regional minority languages possess unique social, cognitive, and linguistic characteristics, shaped by their distinct features and sustained bilingual contact. This makes them ideal for bilingualism studies. However, research on these languages presents specific challenges: the absence of monolingual control groups, constant evolution due to contact, significant variation, and, in some cases, the lack of a standardized or prestigious variety.

Despite these challenges, studying minority languages offers critical insights into bilingualism. The studies presented in this symposium address key issues in bilingualism research, ranging from methodological considerations—such as the applicability of psycholinguistic norms in minority languages—to linguistic phenomena, including how lexical items and speaker dominance take the lead on the restructuring of the negative paradigm of a language. The symposium also touches upon issues related to language acquisition, such as how children navigate optionality when exposed to conflicting input from both languages, as well as social factors, such as how speaker sensitivity to sociophonetic variation predicts their processing of certain linguistic structures.

Together, these studies provide some insights regarding bilingualism in minority language contexts, addressing both linguistic and social dimensions. The research highlights the complex dynamics of language contact and its effects on speakers' cognitive and social behavior. By integrating methodological, linguistic, acquisitional, and social perspectives, the proposed symposium not only sheds light on the challenges faced by minority language speakers, but also offers broader insights into how bilingualism shapes language processing, structure, and acquisition. Ultimately, these studies aim to deepen our understanding of how language, society, and cognition interact, offering valuable insights for future research on bilingualism. Each presentation will conclude by outlining the potential logical next steps

in the study of each of the regional languages involved in the symposium, and there will be a short final discussion

Lexical Variation in Galician: Addressing the Challenges of Bilingualism and Regional Diversity in MultiPic

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Introduction: This study investigates lexical variation in the Galician naming responses derived from the Multilingual Picture (MultiPic) database, a resource designed to facilitate psycholinguistic research across multiple languages (Duñabeitia et al., 2018, 2022). The MultiPic database consists of 500 carefully selected color images representing various concepts, which serve as stimuli for various (psycho)linguistic tasks such as picture naming. Extending this resource for the Galician language presents distinct challenges, primarily due to the sociolinguistic landscape of the region, where Galician and Spanish coexist. This bilingual environment fosters complex patterns of language contact and influences lexical choices, making it essential to understand how these dynamics affect naming responses (Álvarez de la Granja et al., 2024).

Methodology: Participants: A sample of 85 Galician-Spanish bilingual speakers (age range: 18-82, Mage 42; 47 females), recruited primarily via social media platforms and local press, participated in the online study.

Procedure: The task was conducted individually (Gorilla Experiment Builder) in an uncontrolled environment, promoting naturalistic responses that reflect everyday language use. Data collection occurred from mid-April to mid-June 2023, aiming to capture a broad spectrum of responses that mirror the linguistic diversity within the Galician-speaking community (e.g., geographical, age-related). Participants were informed that they would see a series of images displayed individually at the center of a computer/tablet screen. They had to type the name of the entity depicted in each picture using bare nouns. If unsure of the name, they could type "?", which would be recorded as an "I don't know" response. After entering the name, participants rated their familiarity with the concept using a 100-point scale slider, where the lowest value indicated "not familiar at all" and the highest indicated "very familiar." The entire session lasted about one hour, with breaks provided every 50 trials. Participants also completed a sociolinguistic questionnaire designed to gather insights into their language use and educational background.

Results: Descriptive analysis of naming responses revealed significant lexical variation (H index = .88, SD = 3.72; the H index is an information statistic that reflects the level of agreement across participants, being equal to 0 when all participants give the same name to a given picture). This scenario contrasts with other languages such as Spanish (H index = .30, SD = .40). Notably, only 21% of the images achieved a perfect H index, compared to 49% in Spanish.

Sociolinguistic and individual factors like regional dialects, Spanish proximity, participants' age, and educational backgrounds influenced lexical retrieval. Indeed, many participants used Spanish terms or hybrid forms, highlighting the impact of bilingualism on lexical choices.

Discussion & Conclusion: These findings highlight the complexities of extending standardized psycholinguistic tools like MultiPic for minority languages. The study underscores the need for understanding linguistic variability and social dynamics when developing resources for psycholinguistic research in diverse environments. Importantly, it contributes to understanding the challenges and opportunities of using multilingual databases and tools in minority/bilingual language contexts, advocating for a collaborative approach to resource development that reflects each language's linguistic and cultural intricacies.

Basque ergative processing is modulated by speaker variety and its social meaning

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Listeners use social information available to them to process linguistic information and the way listeners link linguistic forms with social meanings is heavily dependent on their experiences (Campbell, 2010; D’Onofrio, 2018). We focus on this issue in a revitalization context, because revitalization presents a unique set of identities socially indexed to linguistic variation, and the particular ways in which sociolinguistic variation is valued differ from non-revitalization contexts in important ways. We tested (1) how sociophonetic variation of ergativity predicts sentence processing in Basque, and (2) the indexical associations that listeners make in such processing. In the Basque context, form and meaning associations of variation are modulated by speaker authenticity, which often crosscuts variety: ‘new speakers’ tend to use Standard Basque (Batua) but are considered less legitimate, and ‘traditional’ speakers are often considered ‘native’ for speaking a local variety (Rodríguez-Ordóñez, 2021).

One important socio-indexical feature in Basque is ergative case marking. Basque ergativity marks transitive and some intransitive subjects with ergative case (-k suffix), and other intransitives with absolutive (zero-marking). Despite its sociolinguistic importance, however, the ergative suffix is subject to variable phonetic reduction, as are all word-final obstruents in Basque. A total of 100 Basque-Spanish bilinguals (50=new listeners; 50=traditional listeners) participated in a self-paced listening task on sentences produced by a standard or a local variety talker (blocked presentation, counterbalanced). Each block contained 108 sentences in which the ergative suffix form (unreduced, reduced, absent) was crossed with the verb’s argument structure. After each block, listeners rated the talker’s authenticity, correctness, and background on a 14-item questionnaire.

Traditional listeners listened longer when the subject’s case was inconsistent with argument structure, regardless of talker variety, but treated reduced suffixes ambiguously suggesting that reduction adds uncertainty in sentence processing. New listeners showed little sensitivity to subject form. For the sociolinguistic questionnaire, a principal component analysis yielded two principal components, which we interpreted as representing the talker’s authenticity (associated with use of a traditional variety and home transmission) and grammatical correctness (associated with mistakes, school transmission), respectively. Both listener groups differentiated the two talkers, but the traditional listeners relied more on

authenticity, whereas new listeners relied on both dimensions, rating the local variety talker as both more authentic and more correct (see Figure).

These findings are consistent with local ideologies of Basque Standardization (Urla et al., 2018) in that the standard rarely gets valued as 'authentic', its correctness is valued depending on the bilingual experience. We further interpret these results on the basis of alternative linguistic markets (Woolard, 2008), whereby (1) access to legitimate speech forms may be different for each listener group, (2) create contradictory normative expectations which consequently (3) affect how ergativity is processed

Development of (optional) DOM in Catalan-Spanish Bilingual Children

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The acquisition of Differential Object Marking (DOM) has been of special interest in bilingual situations as a vulnerable morphosyntactic feature. Yet, most research has been conducted in a DOM language (Spanish, Romanian, Hindi) in contact with a no-DOM language (English) (Montrul; 2015; 2022, a.o.), and results have typically found erosion /simplification of the DOM system. The present study considers two partially overlapping DOM systems (Catalan and Spanish) in bilingual children. While standard Catalan has a reduced use DOM, being obligatory only with personal pronouns, substandard Catalan optionally extends DOM to proper names and definite human NPs. This latter system somewhat overlaps with Spanish, which requires DOM with all [+human, +definite] NPs. Previous studies on adult Catalan DOM (Benito, 2017; 2023; Perpiñán, 2018; Pineda, 2023; Puig-Mayenco et al., 2018) have attested ample optionality in acceptance data, and to a lesser extent also in production. However, no previous study has investigated the acquisition of this systematic variation in either Catalan or Spanish across ages and linguistic dominances. The purpose of the present study is to investigate how bilingual children simultaneously acquire and develop the distribution of DOM in both Catalan and Spanish.

A total of 115 children (ongoing data collection) from ages 7 to 14 were tested in different areas of Catalonia. Parents completed an adapted version of the Language Dominance Questionnaire (LaDoQ, Perpiñán & Soto-Corominas, 2021), which classified bilingual children in a continuum from Catalan-dominant to Spanish-dominant. Two equivalent Oral Production Tasks, in Catalan and Spanish, were administered, each containing 12 scenarios controlled for animacy, distributed across two lists. Participants were instructed to produce a sentence using the verb provided and a [+/-animate] object (examples in Fig. 1). Participants were tested in both languages, in random order, at least one week apart. In Spanish, children were expected to produce DOM in animate contexts and omit DOM in inanimate contexts; in Standard Catalan, on the other hand, DOM is disallowed in both contexts, although previous research has found optionality in animate contexts.

The binomial logistic regression with Animacy (animate vs. inanimate), Language (Spanish vs. Catalan), Age (scaled), and Language Dominance as fixed factors and Participant and Item as random factors indicated a significant Animacy effect in both languages (bigger in Spanish): DOM is present in [+animate] NPs and absent in [-animate] NPs; also, DOM is more likely in Spanish (Fig. 2). The developmental results indicated that participants had different trajectories depending on their Language Dominance and Language of testing: the development of DOM in Spanish animate NPs is gradual in Spanish-dominant speakers,

whereas Catalan-dominant children started producing more DOM in inanimate (ungrammatical) contexts in Catalan, which disappears with age (see Fig. 3).

In sum, bilingual children show use of DOM driven by animacy in both languages. The optionality observed in adult Catalan is not present in children: they do not fully replicate either the standard or substandard adult systems, resulting in a Catalan grammar that closely resembles Spanish. Should differences between languages arise, these would emerge later.

Catalan Polarity items in nonveridical contexts: the effect of lexical item and language dominance

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This study examines the extent to which Catalan speakers allow Polarity Items (PIs) such as *res* ('nothing/anything'), *ningú* ('no one/anyone'), *cap* ('nothing/anything'), and *mai* ('never/ever') to appear in non-veridical contexts. Prior research (Espinal & Tubau, 2016; Espinal & Llop, 2022) suggests these indefinites function both as PIs (in non-veridical contexts) and as Negative Concord Items (NCIs, in anti-veridical contexts). Llop (2020) identifies an ongoing linguistic shift where older Catalan speakers accept broader non-veridical licensing of polar generalizers and minimizers, while younger speakers restrict this to interrogatives and conditionals. This study tests whether Catalan speakers accept the licensing of these items in non-veridical contexts (e.g., questions, conditionals, comparative structures, and adversative predicates) and how this acceptance is influenced by (a) the specific lexical items and (b) the bilingual profile of the speakers.

We conducted an acceptability judgment task (AJT) using a 4-point Likert scale to assess how Catalan speakers with varying language dominance perceive the use of polarity items (*res*, *ningú*, *cap*, *mai*) in non-veridical contexts. The AJT included 46 experimental items across four conditions (non-veridical contexts) and an equal number of distractors, totaling 96 items. The task was administered to 384 Catalan-Spanish bilinguals (315 females, 115 males, 14 undisclosed, age $M=46.51$; $SD=18.04$) from various geographical areas and educational backgrounds. Participants also completed the Bilingual Language Profile (Birdsong et al., 2012) to calculate a dominant language score, and through k-clustering we classified them into three groups: Catalan-dominant ($n=199$), Balanced ($n=136$), and Spanish-dominant ($n=49$).

Descriptive results show that the Catalan-dominant and balanced groups exhibit similar acceptance levels across conditions, though with significant intra-group variability. The Spanish-dominant group shows lower acceptance levels for three of the four conditions. Using an ordinal mixed-effects model (CLMM), we found that *ningú* differs from other lexical items in interrogative and conditional contexts, with Spanish-dominant speakers less likely to accept *ningú* across non-veridical contexts. Acceptance was highest for comparative structures, consistent with the fact that Spanish allows polarity items in this context (Espinal, 2000), which may reflect cross-linguistic influence from Spanish. These findings are

discussed concerning theoretical analyses of Catalan polarity items and the impact of language dominance in early bilingualism within and beyond the Catalan-Spanish context.

The bi-literate brain: behavioral, neural, and genetic insights into recent evolutionary adaptations.

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Bilingualism and literacy, two remarkable cognitive feats that emerged relatively recently in human evolution, offer a unique lens through which to explore the brain's extraordinary adaptability and the intricate relationship between language and cognition. This symposium aims to shed light on the evolutionary origins and neural mechanisms underlying these abilities by bringing together leading experts to explore cutting-edge research on the bi-literate brain, encompassing behavioral, neural, and genetic perspectives.

We will embark on this journey by focusing on the neural architecture supporting reading, highlighting recent discoveries about the brain regions and networks involved in this complex cognitive process. Next, we'll examine the intriguing question of 'bilingualism' in the animal kingdom: is the capacity to fluently use two or more languages a uniquely human trait, likely linked to recent evolutionary adaptations in the brain? Further, we'll investigate the relationship between written language and other facets of language and cognition, drawing on evidence from multilingual individuals. Finally, we'll explore the genetic underpinnings of (bi)literacy, uncovering recent advances in identifying genes associated with reading and writing abilities.

The symposium will culminate in an open discussion, focusing on current knowledge gaps and charting the future course of research in this fascinating field. By bringing together these diverse perspectives, we aim to provide a comprehensive overview of the latest research on the bi-literate brain, offering invaluable insights into the evolutionary origins and neural mechanisms that underpin this remarkable human capacity.

Symposium schedule (100 minutes): Following a brief introduction by the organizers (5 minutes), each talk will be allotted 15 minutes, with an additional 5 minutes for questions (20 minutes total per talk). We will then conclude the symposium with a 15 minute discussion, featuring our diverse panel of speakers, conceived as a dynamic exchange of ideas, fostering cross-disciplinary insights that will illuminate the path forward in understanding the remarkable human capacity for bilingualism and literacy.

Dissecting the reading circuit in the bilingual brain with 7T fMRI

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In expert readers, the visual word form area (VWFA) is highly sensitive to written words, exhibiting a posterior-to-anterior gradient of increasing sensitivity to orthographic stimuli whose statistics match those of real words. Using high-resolution precision fMRI at 7-tesla magnetic field, we ask whether, in bilingual readers, distinct cortical patches specialize for different languages. In 21 English-French bilinguals, unsmoothed 1.2-millimeters fMRI revealed that the VWFA, previously thought as one or two regions with low-resolution fMRI, is actually composed of several small cortical patches highly selective for reading. These word patches show a posterior-to-anterior word-similarity gradient, but with near-complete overlap between the two languages. In 10 English-Chinese bilinguals, however, while most word-specific patches exhibited similar reading specificity and word-similarity gradients for reading in Chinese and English, additional patches responded specifically to Chinese writing and, unexpectedly, to faces. Our results show that the acquisition of multiple writing systems can indeed tune the visual cortex differently in bilinguals, sometimes leading to the emergence of cortical patches specialized for a single language.

Bilingualism in Animals? Understanding the evolution of language and reading.

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While all animals communicate, only some animals have the capacity to learn to understand and/or produce new vocalizations ("vocal learning"). However, there is considerable evidence that many animal species can learn to understand the meaning of the calls of other species. Furthermore, some species can mimic the calls of other species, and in some cases use these in the correct context, a form of "bilingualism". Regarding our own species, all humans are talented vocal learners, and can readily master one or more human languages, and also mimic the calls of other species. Reconstructions of early hominin history suggest that exogamy, and thus bilingualism, may have been typical during the evolution of language. Turning to reading, the capacity to read is clearly an exaptation of pre-existing circuitry, rather than an adaptation in itself. Stanislas Dehaene's model of "cortical recycling" provides the best model of how this exaptation works.

Literacy and biliteracy and language aptitude: Evidence from multilinguals

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A growing body of research on language aptitude shows that while humans are all equipped to learn and use several languages simultaneously or sequentially, there are substantial individual differences in how quickly and easily they learn and what levels of mastery they attain. Probably the best known domain of individual differences in learning both first and additional languages are impairments in the specific learning of literacy skills (e.g. learners on a dyslexia continuum). The underlying mechanisms that lead to such differences are known to affect all languages in the multilingual repertoire (Sparks et al., 1989). In this talk, we will focus on previous work on children (N=615) as well as on new evidence from a large test battery administered to adults (N=152, typical and dyslexic readers). In line with other evidence (Li et al., 2019), the results suggest that overall the aptitude to learn additional languages, despite its undoubtedly multifaceted nature, cannot be shown to be domain-specific but relies on domain-general cognitive abilities. We discuss different ways of modeling the multi-variable data sets in order to identify components of aptitude. Fitting a network graph analysis to the adult data set, we show that there are positive associations of most language-oriented metrics such as artificial grammar learning tasks or rote word learning tasks with other cognitive metrics such as working memory or intelligence. However, specific metrics pertaining to reading skills (as e.g. pseudoword reading accuracy or phonological awareness in spoonerisms), while also being positively associated with other cognitive and language-related metrics, nevertheless cluster more closely together and tend to be empirically separable from the latter. We discuss these findings in the light of the late (from an evolutionary point of view) emergence of literacy as a specific form of language use. We also frame our insights within well-established dichotomies in (applied) linguistics and bilingualism research such as Cummins' BICS (1979) and CALP, Hulstijn's BLC/HLC (2024), or Givón's pragmatic vs. syntactic modes (Givón 1979). Moreover, we discuss the specificity of literacy use and acquisition in the light of empirical longitudinal findings that show a specific disconnect from the development of second or third language oral vs. literacy skills. Since current day construals of language aptitude also take into account motivational

constructs, we also discuss metrics of motivation and their association with skill development in order to elucidate the question whether skills are causes or effects of motivational dispositions (van Bergen et al., 2023).

Exploring the Genetics of (Bi)literacy: Unraveling the Genetic Basis of Language and Reading

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Language and reading are cognitive skills unique to humans and crucial for living in modern society. To be proficient in language and reading, one must rapidly integrate a vast circuit of brain areas with both great accuracy and remarkable speed. Most children learn language and reading with remarkable ease, following universal milestones and developmental sequences. Nevertheless, around 7% of preschoolers experience deficits in language production and/or comprehension (Norbury et al., 2016) and for about 5 to 12% of the population learning to read is extremely difficult (Peterson & Pennington, 2015). These individuals are affected by Language-based Learning Disabilities (LLDs) which encompass a group of comorbid and developmentally associated neurodevelopmental disorders, beginning early in life and producing lifelong undesirable outcomes as well as social impact and economic burden (American Psychiatric Association, 2013). LLDs are characterized by clinical and subclinical delays of speech and language acquisition followed by reading, spelling, and writing impairment, in absence of genetic syndromes, neurological and psychiatric diseases, mental retardation or hearing loss (Tallal, 2004). The involvement of several genes explaining only a small part of the heritability of language-based learning (dis)abilities has been reported (Mascheretti et al., 2017; Rice, 2012). In the last 10 years, large genome-wide association studies (GWASs) have yielded new insights about the molecular basis of the heritability of language-based learning (dis)abilities and have enabled the calculation of pan-genomic propensity scores (Andlauer & Nöthen, 2020) for these traits. In addition, comprehensive analysis of the evolutionary history of some of the genes involved in language-based learning (dis)abilities has been provided (Mozzi et al., 2016). In this talk, we will provide an up-to-date excursus of the genetics of language-based learning (dis)abilities and of the evolutionary history of genes involved in disorders of spoken and written language.

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The morphosyntactic development of Spanish as a heritage language among child heritage speakers

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This symposium brings together four presentations that explore the morphosyntactic development of Spanish as a heritage language among child heritage speakers. The presentations examine how various linguistic factors influence the acquisition of Spanish as a heritage language in the US. By focusing on mood, verbal morphology, and clitic production, the symposium offers a comprehensive view of the developmental challenges and trajectories encountered by child heritage speakers. The research presented provides valuable insights into the interplay between linguistic and extralinguistic factors that shape heritage language development during childhood.

Requena & Dracos and Solano-Escobar & Cuza focus on subjunctive mood selection. Solano-Escobar & Cuza investigate how modality affects the use of the subjunctive mood, and overall variability in mood selection across obligatory and variable contexts. The findings highlight the critical role of modality in influencing the degree of morphological variability and the protracted development of certain subjunctive contexts in heritage speakers. Requena & Dracos extend this analysis by examining the interaction between modality and speakers' internal factors within different communicative environments. It explores how child heritage speakers navigate the complexities of mood selection in different sentential contexts. The research underscores the impact of intraspeaker variability and modality as a new requisite to the mastery of mood in heritage Spanish.

Sánchez and colleagues examine verbal morphology. Specifically, they examine the relationship between input and output interactions in both Spanish and English on the acquisition of third-person verbal forms among child heritage speakers. The study evaluates how interactions at home and in school environments influence verbal morphology during childhood. Interestingly, the findings reveal that Spanish input and output do not significantly affect Spanish performance. A negative correlation was found between the frequency of Spanish input and lower performance in English, while greater output in Spanish correlated with higher English performance. This suggests that actively producing the heritage language may enhance the development of the majority language, particularly during early schooling.

Rivera and colleagues address clitic production in child heritage speakers, focusing on the impact of linguistic experience in a majority language context. The study examines how exposure to and interaction with the majority language environment influence the target

production and intuition of clitics in heritage Spanish. The findings reveal that the majority language context plays a crucial role in shaping clitic acquisition and usage. This research highlights the need to consider the broader linguistic environment when studying morphosyntactic development in heritage speakers.

The role of modality in child heritage speakers' production of subjunctive mood

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This study investigates the acquisition of obligatory and variable subjunctive across modality type among child heritage speakers of Spanish. Specifically, it focuses on the production of obligatory and variable subjunctive in deontic, epistemic, and epistemological predicates, and the role of extralinguistic factors such as chronological age, proficiency and language exposure and use.

The subjunctive mood, known for its grammatical complexities, has been extensively studied among heritage speakers. Previous research has documented difficulties in the mastery of the subjunctive mood with Spanish heritage speakers showing lower rates of subjunctive use in variable contexts, but higher rates in obligatory contexts (Montrul, 2007, 2009; Silva-Corvalán, 1994; Van Osch & Sleeman, 2018). These findings have been taken as evidence of interface vulnerability effects in the acquisition of mood. Nonetheless, recent studies by Lustres et al. (2020) and Perez-Cortes (2021) have suggested that differences between obligatory and variable subjunctive might be mitigated if the modality of the predicates is controlled. This study builds upon existing literature that emphasizes the role of modality in language acquisition (Blake, 1983; Merino, 1983; Silva-Corvalán, 1994) and employs a comparative analysis to examine whether child heritage speakers of Spanish exhibit similar patterns of subjunctive use as their monolingual peers and parents.

Thirty child heritage speakers of Spanish (age range: 6;5 - 12;8, M= 9;11, SD=1.91), thirty monolingual children from Mexico (age range: 6;0 - 12;2, M= 9;46, SD=2.17), fifteen immigrant parents (age range: 29 - 47, M= 39;27, SD=6.56) and fifteen monolingual parents (age range: 25 - 45, M= 34;67, SD=6.87) completed an elicited production task. The results revealed significant differences in subjunctive use between groups. The heritage children were outperformed by the monolingual children and parents as they exhibited lower subjunctive use. However, there was variability in their production. The results showed that the heritage children employed the subjunctive more frequently in deontic contexts than in epistemic and epistemological contexts. Similarly, monolingual children showed high subjunctive usage in deontic and epistemic contexts but lower usage in epistemological contexts. No differences were observed between obligatory and variable contexts within the same modality. These findings challenge previous assertions regarding the influence of selection type and underscore the significance of modality in research of mood. Despite variability within participants, the results indicated that the subjunctive production was

influenced by the participants' age and proficiency levels. High proficiency along with increased age led to a higher proportion of subjunctive use. These findings indicate that modality plays a vital role in influencing the extent of morphological variability in heritage grammars. The development of subjunctive mood occurs at varying rates, with some contexts being more susceptible to protracted development. Heritage children follow a developmental path that progresses from deontic to epistemic to epistemological modality. This path underscores the increasing cognitive and linguistic demands placed on heritage children and explains why they exhibit protracted development in more complex constructions.

Bilingual acquisition of Spanish mood selection in complement clauses

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One key question in the study of bilingualism pertains to the origin of the vulnerability attested among adult heritage speakers (HSs) when compared to the previous generation who provided heritage language (HL) input. The present study contributes to elucidating the source of such variability by examining heritage language acquisition among school-age children.

Two language-internal factors (modal complexity and variability) that have been proposed to account for the greater optionality in SUBJ use among adult HSs could interact with child HSs' individual differences in their command and use of the HL, resulting in reduced SUBJ use with sentential complements. The present study examines child HSs of Spanish ages 5-15 and their acquisition of SUBJ in two modally distinct sentential complement contexts where SUBJ expresses presupposition (*está* 'is' + adj + *de que* 'that'...) and nonassertion (*no cree que* 'doesn't believe that...', *duda que* 'doubts that...'), respectively. We will examine both the linguistic factors of modality and variability as well as speaker factors related to command and use of the HL. The research questions that guide this study are: (1) What is the developmental path and timing for SUBJ in sentential complements (presupposition and nonassertion contexts) among child HSs of Spanish?, (2) To what extent do exposure and use of HL Spanish, dominance (i.e., relative morphosyntactic proficiency), and SUBJ accuracy with volition (a categorical and modally simpler context) condition SUBJ use with sentential complements? and (3) To what extent do modality and variability condition HS acquisition of SUBJ with sentential complements?

We administered an elicited production task to 78 typically developing Spanish-English bilingual children (ages 5;1-15;0; M = 8;3, SD = 2;8) from a large Hispanic community in central Texas. They were all born in the U.S. or migrated there before age three. At least one parent (usually both) was born in Latin America (97% in Mexico and 3% in Honduras). Performance in Spanish and English morphosyntactic measures showed that the sample consisted mainly of English-dominant or Balanced bilinguals. This is in keeping with the observation that Spanish-dominant is not a major profile in young Spanish HSs in the U.S. (Hoff et al., 2021). Exposure to and use of English and Spanish outside school was assessed via a parental questionnaire. We also tested thirty-one first-generation adults from the same bilingual community as the children.

The results indicate that subjunctive with sentential complements is not uniquely difficult. The children with sufficient exposure to and capacity with the HL to master the early-

acquired, categorical, and modally simple volition context were highly likely to achieve target-like subjunctive usage with presupposition and eliminate nontarget-like responses with nonassertion. In contrast, the preponderance of optionality in sentential complements derived from children who did not master volitional subjunctive and generally relied on alternative or innovative ways to express modal meanings. This was the case for the majority of HS children tested. Therefore, we propose that heritage children in central Texas are developing a distinct HL grammar for modality.

Verbal development in Heritage Spanish-English and Spanish-English bilingual children in immersion schools

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Research has shown that heritage bilinguals who do not receive formal instruction in the heritage language present distinct developmental patterns and greater morphological variability than monolinguals and non-heritage bilinguals (Montrul, 2016). While research on the role of education in heritage language development is growing, less is known about the impact of children's use of and experience with the heritage language. This study explores the role of Spanish immersion schooling in the morphological development of Spanish heritage bilingual children in the US using adult heritage speakers as a baseline. Both groups live in a language contact situation where English is the socially dominant language. The study focuses on the relationship between input/output interactions between the HSs and their parents in Spanish and English at home and their input/output interactions in school on the acquisition of third person verbal morphology in Spanish and English.

18 Spanish-English heritage simultaneous bilingual children (HBC) attending a Spanish immersion school in the US (mean age 5;5) and 16 heritage bilingual adults (HBA) completed a modified version of the BESA proficiency test (Peña et al. 2018) in both languages. (Spanish: HBC, $M=0.70$, $SD=0.46$; HBA, $M=0.93$, $SD=0.26$; English: HBC $M=0.78$, $SD=0.41$; HBA $M=0.99$, $SD=0.11$). Following Sánchez et al. (2023), participants completed 24 items: Spanish: 2 training sentences, 5 with plural morphemes, 5 with progressive verb forms; English: 2 training sentences, 5 with singular morphemes, 5 with progressive verb forms. When comparing child and adult heritage speakers: HBAs produced more expected responses on the BESA in both languages than HBC ($B = -3.96$, $SE = 1.18$, $p < .001$), and participants produced more expected responses on the BESA in English than in Spanish ($B = 2.10$, $SE = 0.81$, $p = .009$). HBAs produced more expected responses than HBCs in Spanish ($B = -2.83$, $SE = 1.43$, $p = .047$) and in English ($B = 3.79$, $SE = 1.28$, $p = .003$). The interaction

between age group (children/adults) and language (ENG/SPA) was not significant at the $p < .05$ level. When evaluating the role of input and output on child heritage speakers (pre-K and K), input and output in Spanish do not have any significant effects on Spanish BESA performance nor on overall BESA performance. Frequency of input in Spanish was negatively correlated with lower BESA scores in English ($B = -0.60$, $SE = 0.22$, $p = .007$), yet greater output in Spanish was correlated with higher English BESA scores ($B = 0.56$, $SE = 0.20$, $p = .004$). This latter result suggests that frequent production of the heritage language does not negatively impact the development of the majority language. It facilitates its development during the early school years, a finding that supports the impact of bilingual schooling. Overall, children produced more expected responses on the BESA in English than in Spanish ($B = .61$, $SE = 0.30$, $p = .040$). The implications of this exploratory study are discussed in terms of heritage bilingual development over time.

Bilingual input matters: the role of individual differences in different language contexts

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In Bilingual Language Acquisition literature, the role of Age of Acquisition (AoA) has been found to be significantly beneficial to language acquisition. However, recent evidence has suggested that it might not be true for heritage speakers (HLers) who are exposed to their heritage language from early in life but have similar performance to late bilingual speakers (L2ers) in different morphological aspects such as gender-marking forms in Spanish (Cuza & Perez-Tattam, 2016; Martinez-Nieto & Restrepo, 2023; Montrul, 2010) or clitics in Italian (Romano, 2020). In this context, the role of other factors such as language dominance (Flores et al., 2019) or individual differences (Kuhl et al., 2016) are also potential modulators of language acquisition which remain underexplored in relation to immersion level.

We explore to what extent input exposure to Italian in the speakers' lifespan modules the target production of clitics depending on the characteristics of the majority language environment, namely, Spanish and Swedish. We hypothesize that while immersion will be determinant in predicting the successful acquisition of clitics in Italian, its role will be determined by the majority language context each speaker has grown up in. To do so, we tested HLers (n=21) and L2ers (n=41) that have lived most of their life with Spanish (Romance) or Swedish (Germanic) as their dominant language. In addition to completing a placement test and an ethnolinguistic questionnaire (Romano, 2020), all participants completed a structural priming task in Italian where sentences varying in complexity (causal, lexical, or modal sentences) were presented and responses were recorded for two values, correct clitic and primed structure. Additionally, participants completed a Grammatical Judgment Test (GJT) where we tested whether participants could discriminate between (un)grammatical sentences also varying in structural complexity. While the results of these tasks are explored elsewhere with a distinction between language profiles (namely L2ers vs HLers), to account for individual differences on participants' total input exposure to Italian, we did not differentiate between groups but instead we calculated an immersion compound index including age, AoA, and years of use of Italian (Li et al., 2019).

For the priming task, the mixed effect logistic analysis showed that participants immersed in another Romance language produce significantly more expected clitics than those immersed in a Germanic language and these advantageous effects of the environment just occurred with those HS exposed to Spanish (see Figure 1a). The production of target structures was explained by an interaction between majority language context, syntactic complexity and

immersion. While immersion in Italian positively predicted the production of target structures of causal and modal sentences for the Spanish dominant group, it negatively predicted the production of target lexical structures for the Swedish dominant group (see Figure 1b). Similar results were found for the GJT, where immersion negatively predicted participants' accuracy when answering to lexical and modal sentences just for the Swedish dominant group (see Figure 2).

This pattern of results reflects the fact that HLIers are exposed to a limited input in the language, generally provided by people also immersed in a majority language other than their L1. This environment accounts for a low stability or divergent acquisition of the heritage language (Carreira & Kagan, 2018) that seems to be present only when the input of the majority language does not reinforce the acquisition of the given structure (as when immersed in a Germanic language). Overall, these results accounted for a different analysis of linguistic experience when studying the ultimate attainment on a given language. More specifically, we have pointed out that the input provided by the majority language context is determinant when studying the acquisition experience of heritage speakers (see Titone & Tiv, 2023 for similar conclusions).

Figures

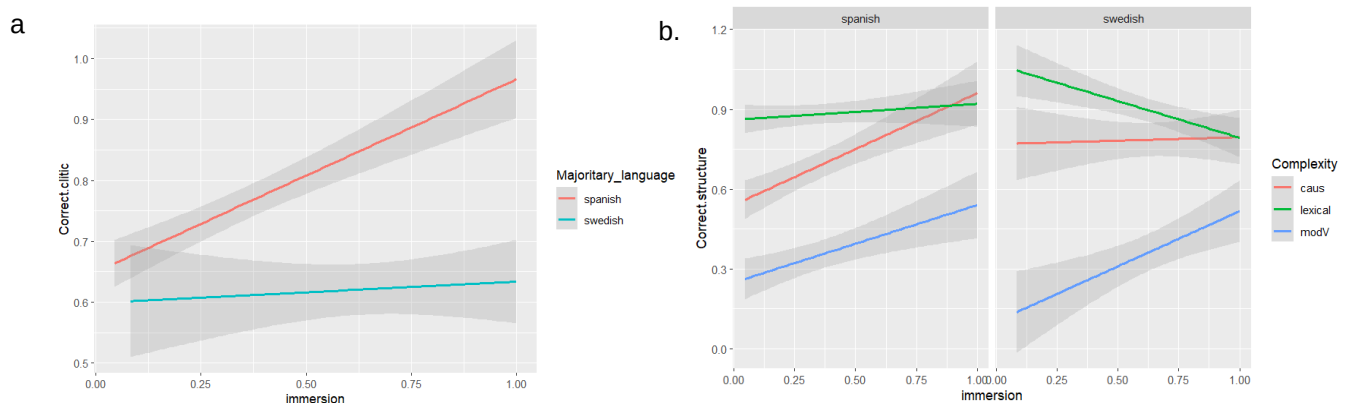


Figure 1. (a) Expected correct clitics production as a function of immersion and majority language. (b) Correct structure production as a function of immersion, complexity and majority language.

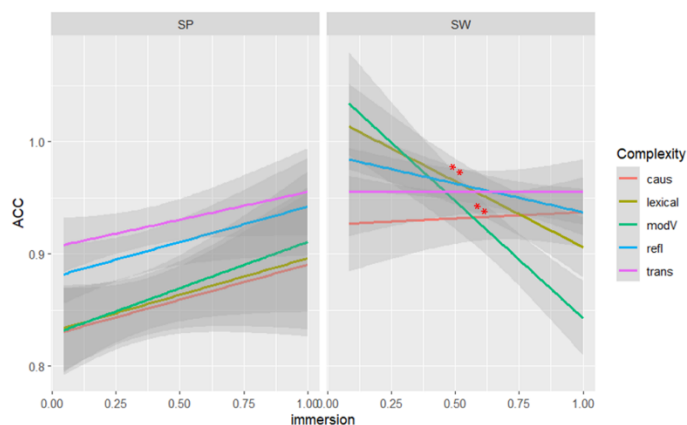


Figure 2. Probability to correctly answer in the GJT as a function of immersion, complexity, and majority language.

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The Role of Language Dominance and Experience in Bilinguals' Single-Word and Sentence Processing

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No two bilinguals are alike. Language proficiency and dominance have been examined as key explanatory factors in understanding the variability in bilingual processing. The construct of language dominance, or relative proficiency in bilinguals' two languages, can be understood in terms of directly measured proficiency (e.g., Gollan et al., 2012; Treffers-Daller, 2011), in terms of self-reports that include exposure to each language (e.g., Dunn & Tree, 2009; Marian et al., 2007), or a combination of these factors (e.g., Treffers-Daller, 2019; Robinson Anthony & Blumenfeld, 2019). Combining variables to calculate language proficiency or dominance has become an increasingly common practice in recent years, with the argument that it best captures the multiple dimensions that make up these dynamic underlying constructs (e.g., Kaushanskaya et al., 2020; Luk & Bialystok, 2013). This symposium will demonstrate that a combination of language experience and proficiency measures can account for bilinguals' performance across a number of tasks and contexts. We present four studies where language dominance or proficiency/experience, calculated as a combination of measures, critically modulate bilinguals' linguistic and nonlinguistic processing. These studies span behavioral and neural correlates of naming in the presence of crosslinguistic interference from false cognates, single word recognition in the context of crosslinguistic facilitation from cognates, and a study on complex sentence comprehension in the absence of crosslinguistic interaction. In all contexts, findings indicate that a hybrid language dominance or experience measure accounts for variability in performance across bilingual participants. Notably, while hybrid language dominance measures of self-reported exposure and objectively-measured lexical performance seem best able to capture bilingual processing at the word level, a factor of this nature does not appear to predict sentence-level comprehension. Instead, for sentence-level comprehension, a factor capturing multiple dimensions of language history seems most predictive. These findings suggest that while deriving multidimensional language dominance factors is valuable, it is also essential that the calculation of such measures be tailored to the research question at hand.

Influence of Language Dominance on Crosslinguistic and Nonlinguistic Interference Resolution in Bilinguals

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Evidence from language production indicates that bilinguals simultaneously activate both languages during word retrieval (e.g., Colomé, 2001). False cognates, phonetically and orthographically similar words that are semantically distinct across languages (e.g., Spanish “grapa” means “staple” but resembles English “grape”), provide a lens into bilingual processing as they typically trigger cross-linguistic interference relative to non-cognates (e.g., von Studnitz & Green, 2002). We examined the impact of relative language dominance on Spanish-English bilinguals’ crosslinguistic and nonlinguistic interference resolution as assessed during a web-based Spanish picture-word interference naming task and spatial Stroop paradigm, respectively, and the relationship between the two. Importantly, to calculate our language dominance measure, we combined language proficiency measures from subjective speaking, comprehension, and reading skills and current exposure to each language (self-reported on the Language Experience and Proficiency Questionnaire, LEAP-Q, Marian et al., 2007), as well as objective picture naming abilities in each language as indexed by the Multilingual Naming Test (MiNT, Gollan et al., 2012). By including this hybrid description of language dominance, we aimed to effectively account for performance across the bilingualism spectrum. Our results show that the expected interference and facilitation effects are observable across both the picture-word interference and the nonlinguistic Stroop tasks. Additionally, participants with greater English dominance had larger within-language, Spanish facilitation and marginally larger crosslinguistic (English to Spanish) false cognate interference effects. Similarly, participants with greater English dominance had larger nonlinguistic congruency facilitation effects. Our results are in line with other studies finding a relation between linguistic and nonlinguistic cognitive control (e.g., Blumenfeld & Marian, 2013). Correlated reaction time performance between the linguistic and nonlinguistic paradigms suggests that overcoming crosslinguistic interference may be partly based on cognitive control processes used outside of language. Modulations by language

dominance underline the importance of accounting for relative language proficiency in bilinguals' two languages when studying bilingualism.

Electrophysiological Signatures of Crosslinguistic Interference Resolution in Bilinguals With and Without Aphasia

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A central strategy used to examine the overlap in linguistic processing across languages is to identify tasks where crosslinguistic interactions can occur. In bilinguals with stroke-induced aphasia, deficits can impact each language and how the two languages interact with each other (e.g., Kuzmina et al., 2019). Yet little is known about the neural dynamics supporting the crosslinguistic interference resolution processes that may be affected in stroke-induced aphasia. Language dominance profiles need to be considered to understand inhibitory processes in language control when participating in any task that directly or indirectly requires activation of both languages (e.g., Declerck et al., 2020). Here, we examined the impact of three types of distractor words: false cognate (FC), unrelated (UR), and identity (ID) in naming during a picture-word interference (PWI) paradigm. We used a continuous hybrid index of language dominance, including self-reported proficiency and experience (LEAP-Q) and performance on the MiNT in English and Spanish, to link crosslinguistic effects to language profiles (e.g., Robinson Anthony & Blumenfeld, 2019). We examined neurophysiological correlates of cognitive control during crosslinguistic processing by focusing on a medial frontal component (at electrode FCz) peaking prior to vocal onset and previously associated with linguistic and nonlinguistic interference resolution. We used electroencephalography (EEG) to compare Spanish-English bilinguals with aphasia to age-matched controls. Twenty age-matched controls and 5 bilinguals with aphasia were included in the analyses. Behavioral results revealed that bilinguals with aphasia were slower and made more errors than age-matched controls. Across groups, reaction times were slower in the FC than UR condition and faster in the ID than FC condition. Accuracy was lower in the FC than UR condition (and higher in the ID than UR condition). For controls, the magnitude of the crosslinguistic PWI interference effect was modulated by lexical retrieval abilities in Spanish on accuracy. As Spanish dominance increased, the cross-linguistic interference effect decreased. Greater crosslinguistic interference effects were present with greater English dominance. Stimulus-locked EEG results revealed a medial frontal component with a slope that differed significantly from zero between 200-400ms in age-matched controls but not in bilinguals with aphasia. Response-locked EEG results revealed a pre-response component with a marginal effect on slope that differed from zero between -600 and -400ms in age-matched controls but not in bilinguals with aphasia. Both Stimulus and Response-locked data in age-matched controls revealed crosslinguistic interference and identity facilitation

effects on peak-to-peak amplitudes in age-matched controls. Initial findings suggest that while controls engage the medial frontal cortex to efficiently resolve crosslinguistic interference, this mechanism may be disrupted in bilinguals with aphasia, perhaps explaining overall slower and less accurate performance in bilinguals with aphasia. This work helps to elucidate how aphasia can influence word retrieval processes in the face of crosslinguistic interactions in bilinguals.

Language Dominance and Crosslinguistic Interaction during Word Comprehension

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This study explores the interaction between language dominance and crosslinguistic activation during bilinguals' word comprehension. Of particular interest was whether young adult bilinguals with self-identified perceived language difficulty or a history of speech-language services can leverage crosslinguistically shared cognate word knowledge during a vocabulary task. Previous research shows that cognate words—translation equivalents sharing semantic and phonological similarities (e.g., English *elephant*, Spanish *elefante*)—are recognized more accurately and efficiently than noncognate words (e.g., *horse* – *caballo*; e.g., Robinson Anthony & Blumenfeld, 2019). One explanation of this cognate facilitation is that word knowledge can be bootstrapped across languages, yielding a “cumulative frequency” effect where cognate forms appear overall more familiar (e.g., see Lijewska, 2020 for a review). This study involved 27 Spanish-English bilinguals (mean_{age}=19 yrs, SD_{age}=1.3, range_{age}=18–21), recruited based on self-identified perceived language difficulty or a history of speech-language services. Background measures included history of language use, exposure (LEAP-Q, Marian et al., 2007), and the Clinical Evaluation of Language Fundamentals-4 (CELF-4) in both English (Semel et al., 2003) and Spanish (Wiig et al., 2006). For the word recognition tasks, participants completed the full sets of the Peabody Picture Vocabulary Test-3 (Dunn & Dunn, 1997) and the Test de Vocabulario en Imágenes Peabody (Dunn et al., 1997). Language dominance was assessed using a hybrid of subjective (language exposure and exposure histories from the LEAP-Q) and objective measures (standard scores from CELF-4). Cognate effects were examined by comparing accuracy between cognate and noncognate words, while word difficulty was categorized into easy, medium, and hard based on word frequency (i.e., frequency per million; Corpus of Contemporary American English, Davies, 2008; Corpus del Español, Davies, 2016). Linear regression analyses revealed that language dominance predicted cognate effects on the English task, but only for medium-difficulty words (mean frequency=12 words/million, $F_{1,25}=13.57$, $p=.001$, $R^2 = 0.35$). For the Spanish task, language dominance predicted cognate effects for both relatively medium-difficulty words (mean frequency=59 words/million, $F_{1,25}=8.51$, $p=.007$, $R^2 = 0.55$) and harder-difficulty words (mean frequency=3 words/million, $F_{1,25}=9.74$, $p=.005$, $R^2 = 0.28$). These findings suggest that crosslinguistic interaction supports

word recognition most effectively for moderately frequent words. However, in contexts where word difficulty is easy, *proficiency* in the target language may overshadow crosslinguistic influences; for more challenging words, limited proficiency in the non-target language may reduce the impact of crosslinguistic interaction. These results contribute to our understanding of how language dominance modulates bilingual word recognition across word types and levels of word difficulty.

Language Proficiency and Language Learning History in Sentence Comprehension

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When characterizing the language profile of a bilingual adult, researchers often consider current proficiency levels within the bilinguals' respective languages. Although proficiency may influence processing and/or production at the lexical level in bilingual adults, early language history should additionally be considered as it influences sentence processing, especially of complex syntactic structures (Stern et al., 2021). The purpose of the current study is to investigate whether language learning history predicts Mandarin sentence comprehension abilities for adult Mandarin-English bilinguals above and beyond proficiency alone. Thirty-five healthy Mandarin-English bilingual adults residing in California ($\text{mean}_{\text{age}} = 42\text{yrs}$, $\text{SD}_{\text{age}} = 21\text{yrs}$, $\text{range}_{\text{age}} = 18\text{--}85\text{yrs}$) completed a Mandarin adaptation of the SOAP Syntactic Battery of Sentence Comprehension (M-SOAP; Love & Oster, 2002), a language experience and proficiency questionnaire (LEAP-Q), and a picture-naming test (MiNT-Sprint; Garcia & Gollan, 2022). Principal component analysis revealed two factors that captured 71% of variability in participants' language profiles: Current Proficiency and Exposure as collected via hybrid methods of self-report and direct assessment ($\lambda = 4.45$; includes self-reported ratings of Mandarin abilities, naming test scores, and current exposure) and a multidimensional measure of Language Learning History ($\lambda = 1.25$; includes age of first Mandarin exposure, age of fluent attainment, and years residing in an English-speaking country). Multiple regression ($F[2, 32] = 3.65$, $p < 0.05$, $R^2 = 0.43$) showed that only Language Learning History significantly predicted Mandarin sentence comprehension (M-SOAP) accuracy ($\beta = -0.02$, $t = -2.59$, $p < 0.05$) while the hybrid Current Proficiency and Exposure factor did not ($\beta = -0.001$, $t = -0.12$, $p = 0.90$). These results highlight the importance of considering language learning history in addition to using a hybrid approach for assessing proficiency, as early language experiences may uniquely influence sentence-level abilities in bilingual adults.

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Understanding Diversity in Heritage Bilingual Outcomes: The Role of Individual Differences and Online Research Methods

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A heritage speaker (HS) is an individual who acquires their heritage language (HL) in addition to the dominant language of the larger society early and naturalistically within the home/community environment. In this context, HSs are typically exposed to reduced linguistic input and have fewer opportunities for formal education or meaningful engagement in the HL (Benmamoun et al. 2013). As a result, their learning trajectories and outcomes often diverge from those of L1-dominant users of the same language. While the field of HL bilingualism initially concentrated on identifying vulnerable domains by comparing HSs to their L1-dominant counterparts, in recent years, the emphasis has shifted to a finer-grained approach, recognizing the extensive individual variability among HSs and aiming to identify the experiential variables that account for this variability (Rothman et al. 2023). Moreover, the increasing adoption of online research methods, such as electroencephalography (EEG) and eye-tracking, have provided valuable insights into the strategies used by HSs during HL processing that sometimes diverge from those obtained through offline behavioral methodologies. This is somewhat expected as online research methods capture automatic, real-time processes involved in language use, while offline tasks are more influenced by metalinguistic and socio-affective factors, which can disproportionately affect HSs (Polinsky, 2019), revealing how these complementary approaches reveal different but related aspects of HL processing, development, and use. The proposed symposium will consist of presentations followed by a discussion section. Specifically, it will feature three presentations of empirical research across various HS groups, language combinations, and acquisition contexts. These studies employed diverse online research methodologies to examine the role of different HL experience factors in understanding variability in HL outcomes. The discussion session will focus on how individual differences in HL experiences influence HL processing and contribute to variability in HL outcomes. It will also explore how these differences shape HL development and use, with a particular emphasis on the role of experiential factors, such as exposure and opportunities for engagement with the HL, in shaping language outcomes. The symposium will conclude by highlighting what these approaches—examining individual differences and employing online research methods—reveal about the diversity in HL development and use. Additionally, the discussion will emphasize the benefits of combining these approaches to gain a more comprehensive and holistic understanding of HL bilingualism.

Individual differences and morphological markedness in the processing of heritage language Spanish gender agreement: An event-related potential investigation

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The present study aims to unpack individual differences among Spanish-English HSs speakers in their processing of Spanish gender agreement at its interface with morphological markedness using EEG. According to the distributed morphology framework (Halle & Marantz, 1993), masculine nouns (*perro*_{masc} “dog_{masc}”) are underspecified for specific gender feature, i.e., unmarked/default, whereas feminine nouns (*casafem* “housefem”) fully specified with gender feature i.e., marked/specified. Such a markedness asymmetry modulates the processing (cost) for gender (dis)agreement. More specifically, Feature Clash Errors (masculine noun agreeing with feminine agreeing element, e.g., postnominal adjective) are proposed and found to be more costly than Default Errors (feminine noun agreeing with masculine adjective) (see Alemán Bañón and Rothman, 2016; Luque et al., 2023). Using a grammaticality judgement task with EEG, Luque et al. (2023) reported Spanish-English HSs at the group are sensitive to the markedness effect. In the task, four conditions were included, i.e., Grammatical Unmarked Noun (Carla pidió un_{masc} postre_{masc} dietético_{masc} después del almuerzo), Feature Clash Error (*Carla pidió un_{masc} postre_{masc} dietética_{fem} después del almuerzo), Grammatical Marked Noun (María dió una_{fem} clase_{fem} entretenida_{fem} el unes pasado) and Default Error (*María dió una_{fem} clase_{fem} entretenidomas el lunes pasado). Their moving window analysis also identified a bi-phasic N400-P600 pattern. While the P600 has been reported with Spanish L1-dominant users indicating syntactic repair, the N400 (typically linked to (semantic) integration cost) has not been observed. Two hypotheses have been proposed: (1) the bi-phasic pattern surfaces as an average of some participants showing a P600 while some showing an N400; (2) some, if not all, participants show both P600 and N400 with the P600 indexing syntactic processing and the N400 morphological pattern integration (Spanish nouns and adjectives carry relatively transparent morpho-phonological gender cues). To shed light on the two hypotheses, this study adopted an individual differences approach to identify if and how

Spanish proficiency (LexTale), Spanish exposure and use and Spanish formal instruction modulate each event-related potentials and their interaction with morphological markedness. We reanalysed Luque et al's (2023) using Generalised Additive Modelling based individual differences of N400 and P600 (Meulman et al., 2023) to gender (dis)agreement, i.e., Normalised Modelled Peak—a measure of robustness of ERP component. Data from 39 Spanish-English HSs were analysed. The results showed that HSs with higher proficiency or Spanish exposure are more sensitive to the markedness effect. Meanwhile, HSs with higher proficiency show larger P600 effect across error types while HSs with more exposure show smaller N400 effect for Default Errors. We postulate that HSs engaged in both grammatical repair (P600) and morphological pattern integration as an assistive processing strategy (N400) especially when the agreement error is more costly (Feature Clash) to repair syntactically. With more Spanish exposure, HSs are less likely to adopt the assistive processing strategy when the agreement error is less costly to repair (Default Errors). Additionally, Feature Clash Errors induced smaller N400 and P600 for those with instruction than those without instruction, potentially indicating that instruction makes the processing of agreement errors less costly.

Using internet-based eye-tracking to study prediction during sentence comprehension in adult heritage speakers of Mandarin Chinese and Russian

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This talk will explore the use of internet-based eye-tracking to investigate sentence processing in heritage language (HL) bilinguals, focusing on the critical role of individual differences in HL processing. Drawing on two studies that examine Mandarin-English and Russian-English heritage speakers (HSs), we demonstrate how online methodologies provide a flexible and effective platform for probing the linguistic mechanisms involved in HL processing. Importantly, both studies emphasize that HL processing is influenced by a range of factors, including linguistic experience and cognitive control. The first study investigates how Mandarin-English HSs' use sortal classifiers as semantic vs. grammatical form-class cues when creating expectations about an upcoming noun in a sentence. At the group level, the results suggested that HSs predictively used classifiers during sentence processing predominantly as a grammatical form-class cue, but the analysis of individual differences revealed a more nuanced picture. Specifically, speakers with more Mandarin formal instruction and Mandarin exposure and use in societal contexts were more likely to rely on semantic cues. We interpret these findings to underscore the potential role of metalinguistic knowledge, be it from formal (HL schooling) or potentially informal (social literacy practices) sources, in the processing of HLs. The second study examines (i) predictive processing based on verb semantic constraints and (ii) interference from locally coherent but globally inconsistent lexical information during sentence processing in Russian-English HSs. The basic findings of this study suggest that the Russian HSs utilized verb semantics to predict the upcoming linguistic information; they also experienced lexical interference from adjectives that were color word-consistent but verb-inconsistent, similar to the results observed in studies with monolinguals (Altmann & Kamide, 1999; Kukona et al., 2014) and adult L2 learners (Dijkgraaf et al., 2017). However, individual differences played a crucial role in shaping these processes. Factors such as cognitive control (measured via the Flanker task) and vocabulary knowledge influenced how individuals managed prediction and interference, respectively. Taken together, these studies illustrate the power of online methods for capturing how HL bilinguals process and predict linguistic information in real time. It also underlines the importance of examining individual factors that explain the variability we see in the linguistic processing of HSs.

Processing, production and interpretation of grammatical gender in Spanish and Syrian Arabic child heritage speakers

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A wealth of research has shown that adult HL bilinguals show significant differences in their HL performance and competence from homeland monolingual peers, and from one another (e.g., Rothman 2009). However, our knowledge is currently limited when it comes to HL development in childhood/adolescence (e.g., Meisel 2011, Montrul 2012, Kupisch and Rothman 2016), a period typically marked by drastic changes in the HL input. Regarding the processing of gender specifically, adult HSs have shown to use gender cues predictively and be sensitive to gender violations (Keating 2022, Fuchs 2022), but we do not have a clear picture on child HSs' use and processing of grammatical gender in their HL.

In this presentation, data from two studies examining the processing of grammatical gender in school-aged HSs of Spanish and Syrian Arabic is discussed. We investigated the following research questions:

RQ1. To what extent do child HSs accurately produce and interpret grammatical gender?

RQ2. To what extent do child HSs use grammatical gender cues for interpretation and prediction?

RQ3. Which linguistic and extra-linguistic variables affect the production, interpretation and processing of gender in this population?

RQ4. Are there any differences between offline and online measures, and if so, how can we account for them?

The participants are 6 to 15-year old Spanish HSs (N=60) residing in the Netherlands or the UK and 6-to 12-year-old Syrian Arabic heritage speakers (n=85) in Germany. The following three measures are used: 1) an elicited production task targeting gender assignment and agreement; 2) an eye-tracking experiment measuring interpretation and online processing of gender cues; 3) the Quantifying Bilingual Experience Questionnaire (Q-BEx) (DeCat et al. 2021) to collect information on experiential variables pertaining to Syrian Arabic and German exposure and use. In the eye-tracking task, the Spanish HSs and the monolinguals did not show an immediate response to the gender cue and perform only slightly above

chance level in interpretation. Age of onset of the societal language and proportion of use of the HL were found to be the main predictors of interpretation accuracy. The Spanish HSs behaved significantly less accurately than their monolingual peers in production. The findings in the eye-tracking task in HL Syrian Arabic suggest that at the group level the HS children do not use gender cues predictively. The accuracy scores for the same items in the elicited production task were above 80%. We will discuss these findings with a focus on the methodological contributions that data triangulation can provide, particularly in elucidating individual variation.

Discussion

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The discussion session will critically synthesize the findings from the presented empirical studies, focusing on the broader implications of adopting an individual differences approach and utilizing online research methods in the study of HL bilingualism. By examining individual variability in HL experiences—such as exposure, proficiency, and formal instruction—this approach provides deeper insights how experiential factors contribute to variability in HL outcomes, including HL development, processing, and use. Additionally, this session will explore the benefits of incorporating online research methods, which capture real-time processing and underlying language and cognitive mechanisms that offline behavioral methodologies may overlook. The scalability of these methods offers the potential for conducting generalizable studies across diverse populations of HSs, increasing inclusivity and representing a broader range of HL experiences. We will also address challenges such as ensuring data quality, managing diverse technological setups, and analyzing and interpreting complex data driven by individual differences. Ultimately, the discussion session will emphasize how the combination of an individual difference approach with online research methodologies leads to more nuanced, multidimensional insights into HL bilingualism. This integrative approach can potentially increase the reliability, validity, and generalizability of our knowledge and understanding of HL development, processing, and use while fostering a more holistic and ecologically valid understanding of the factors contributing to diversity in HL outcomes, enhancing the relevance of research findings to real-world contexts.

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Using Q-BEx to investigate individual differences in multilingual children

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Over the past decade, research has increasingly focused on the heterogeneity of language experiences and outcomes among bilingual and trilingual children, highlighting the importance of individual differences in these populations. This has coincided with a greater awareness of the need for reproducible research, and for greater comparability across studies – which is currently jeopardized by the multiplicity of tools used to document and quantify multilingualism. Increasing the generalizability of research findings requires some standardization of measurement tools, while still accounting for the inherent complexity of multilingual development.

The Q-BEx questionnaire (<https://q-bex.org>) was developed to address these needs and bridge the gap between research and practice. Its content was informed by an international, cross-sector consensus survey that determined the essential elements the questionnaire should document (De Cat et al., 2022). The questionnaire's functionality was designed based on three key elements: (i) a critical review of existing tools (Kaščelan et al., 2022), (ii) methodological insights from the psychometric literature (e.g., DeVellis, 2017), and (iii) input from focus groups comprising research experts, speech and language therapists, and end-users. Currently available for free in 28 languages, Q-BEx consists of seven customizable modules: *Background Information*, *Risk Factors*, *Exposure & Use*, *Language Proficiency*, *Richness*, *Language Attitudes and Satisfaction*, and *Language Mixing*. Its back-end calculator provides composite scores and wrangled data (in addition to the raw data) and creates downloadable PDF reports detailing the profile of individual children (including a risk index for language impairment) for teachers and speech & language therapists.

The goal of this symposium is to demonstrate the usefulness and reliability of Q-BEx as a tool documenting individual differences in a diverse sample of children, to provide research-informed guidance to professional users for the optimal customization of the questionnaire according to their needs, and to discuss the future of Q-BEx within an open-science approach.

The three presentations are based on a validation study including 121 typically-developing multilinguals aged 5;0-8;11 growing up in the UK, France or the Netherlands. The sample varies in societal language (n=3), heritage languages (n=32), multilingualism (91 bilinguals, 30 trilinguals), age of onset of exposure to the societal language (0-84 months-of-age), current exposure to heritage language(s) (ranging from 5% to 95% of total exposure time). Children's caregivers completed the full questionnaire, and children completed a test battery consisting of language tasks (vocabulary breadth and depth, non-word repetition, sentence repetition) and cognitive tasks (matrix reasoning, forward and backward digit span tasks).

Using Q-BEx to identify profiles in a diverse population

Ludovica Serratrice^{1,2}

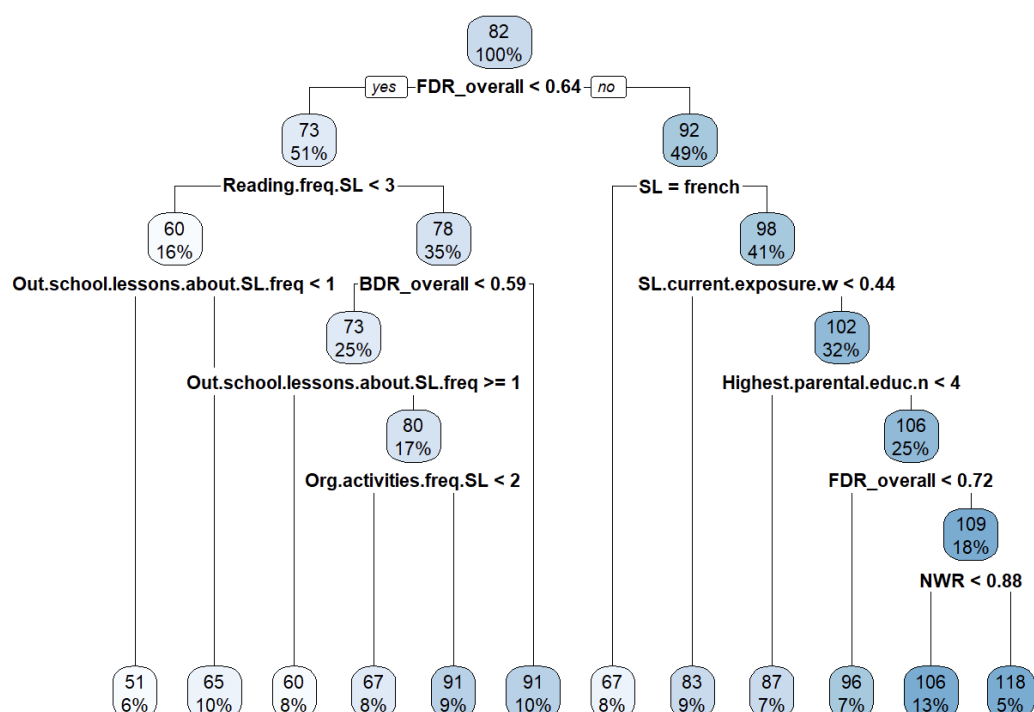
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The complexity and the distributed nature of multilingual children's language experiences are key determinants of their language proficiency. And yet all too often they are not adequately considered in predictive models.

In two studies, experiential factors from the Q-BEx alongside cognitive skills (verbal short-term and working memory, short-term phonological memory) served as predictors of language proficiency in the societal language (SL). We measured vocabulary (breadth and depth), and morphosyntax using the LITMUS sentence repetition task (SRT).

To explore the non-linear relationships in the data, we performed a random forest analysis ranking the most significant predictors, followed by binary recursive partitioning. For vocabulary breadth, the most significant predictors were: short-term memory and working memory, frequency of writing in the SL, current exposure to the SL, and language entropy. The topmost node in the binary recursive partitioning analysis (Fig.1) split the data by short-

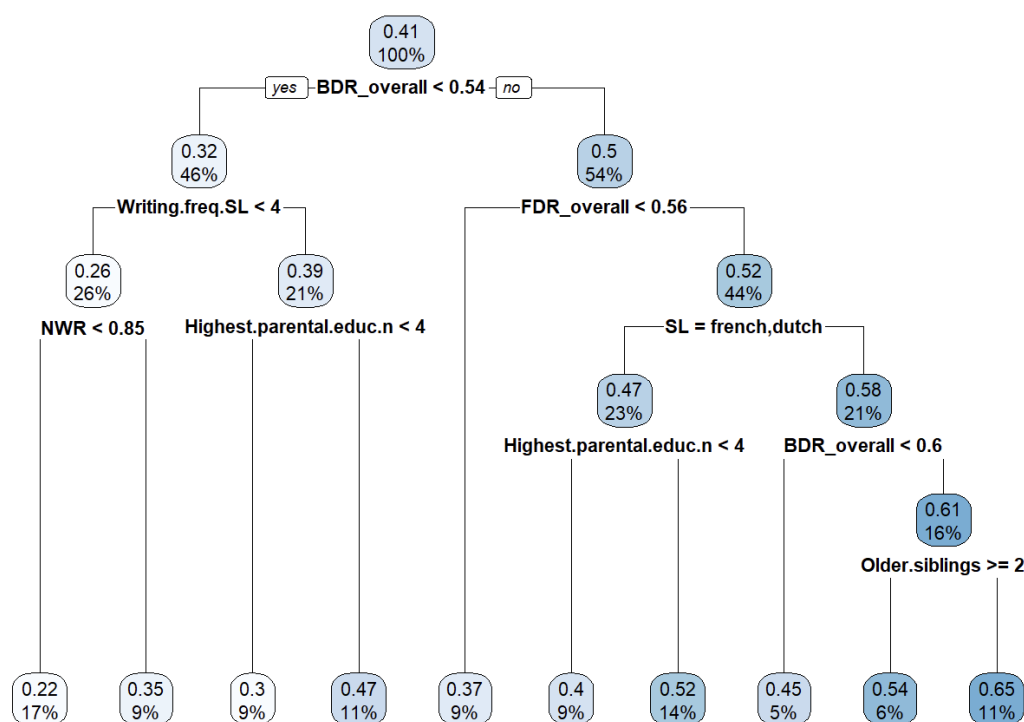


term memory.

Figure 1: Partitioning analysis of Vocabulary Breadth predictors (elicited with PPVT/ BPVS/ EVIP depending on the SL)

For children with lower short-term memory skills, we found interactions with reading frequency, working memory, out-of-school lessons and organized activities, showing that literacy activities are a protective factor. For children with better short-term memory skills, a larger vocabulary was predicted by the recursive interaction between current exposure, parental education, phonological skills. There was a cumulative effect of short-term and phonological memory, parental education, and exposure in a Matthew effect for vocabulary breadth.

In the random forest analysis for vocabulary depth, the most important predictors were working memory, short-term memory, frequency of writing in the SL, current SL exposure, and phonological skills. The partitioning analysis initially split the data as a function of working memory (Fig.2). For children with lower working memory skills, there was a protective factor of literacy activities and parental education. In contrast, the interaction of lower working memory skills, lower phonological skills, and fewer writing activities in the SL led to shallower vocabularies. Children with higher working memory skills but with low short-term memory also had shallower vocabularies. For those who had both higher working memory and higher short-term memory, vocabulary depth differed between France



and The Netherlands, and the UK.

Figure 2: Partitioning analysis of Vocabulary Depth predictors (elicited with the CELF Word Classes test)

For morphosyntax, in the random forest analysis, the most important predictors were age of onset of exposure to the SL, short-term memory, phonological short-term memory, current and cumulative exposure, and working memory. In the partitioning analysis (Fig.3), the data was initially split according to age of onset to the SL. Children who had been exposed to the SL at 8 months of age or older performed less accurately on the SRT, and the weaker their short-term memory skills the worse their performance. For those with better short-term memory skills, there was a positive interaction with time spent with friends. In children exposed to the SL before 8 months of age, those with stronger phonological memory skills scored the highest. For those with weaker phonological memory skills, more exposure to the societal language and better working memory skills were protective factors.

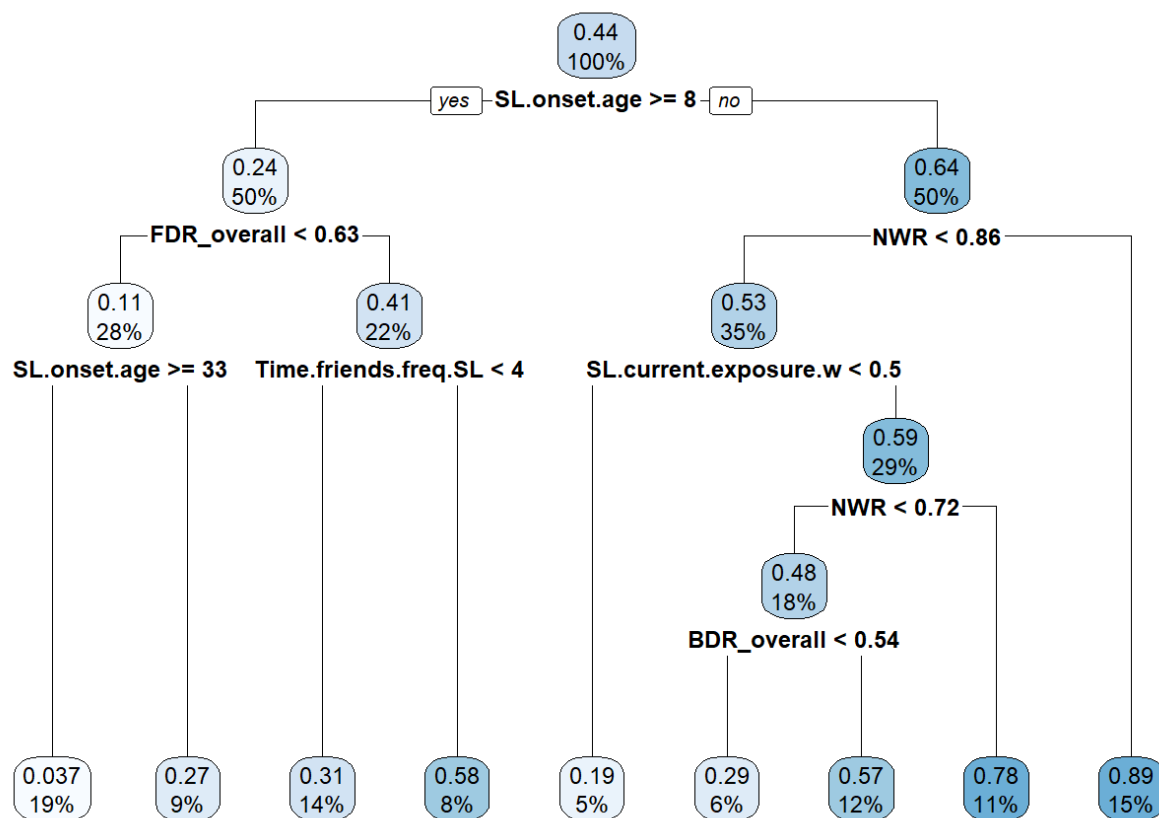


Figure 3: Partitioning analysis of Sentence Repetition predictors (elicited with the LITMUS)

In conclusion, the non-linear interaction between Q-BEx-derived experiential variables and cognitive variables successfully identified different profiles of language outcomes in this diverse population.

Unpacking language richness as a predictor of bilingual children's language proficiency

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Whilst not unproblematic as a concept (MacLeod & Demers, 2023), there is emerging evidence that input quality predicts variation in children's (emerging) language abilities (e.g., Unsworth et al., 2019). How input quality is operationalised varies. Some studies focus on specific aspects of the language environment, such as multimedia, home literacy practices, and interlocutor diversity (see Paradis, 2023 for overview), but most use a composite measure (e.g., Jia & Aaronson, 2003). The aim of the present study is to explore and evaluate one such composite measure, namely the Q-BEx richness score.

The Q-BEx richness score includes both a quantitative component (i.e., frequency of various language- and literacy-related activities) and a more qualitative component (i.e., interlocutor diversity/proficiency and SES). Two questions arise: (1) Do these components and the variables they include tap into the same latent construct? (2) Are certain (groups of) variables more important or more informative than others? To answer these questions, we conducted three separate analyses using the children's richness data and their language proficiency in both languages.

We first explored a dimension-reduction approach to gauge the contribution of each variable and to investigate whether alternative composite scores could or should be derived. A Principal Components Analysis revealed five or six components that were needed to account for 80% of the variance in the richness data in the SL (Table 1) and HL (Table 2), respectively.

	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5	Comp.6
Reading.freq.SL	0.44	0.03	0.19	0.31	0.01	0.51
Writing.freq.SL	0.42	0.29	0.30	0.17	-0.04	0.09
Homework.freq.SL	0.29	0.51	0.06	0.11	0.15	-0.13
In.school.lessons.freq.SL	0.25	0.19	0.21	-0.81	-0.13	0.09
Out.school.lessons.freq.SL	0.09	0.48	-0.40	0.09	0.05	-0.45
Tech.activities.freq.SL	0.33	-0.27	-0.41	-0.27	-0.02	0.25
Time.friends.freq.SL	0.35	-0.12	-0.48	-0.13	0.46	-0.05
Org.activities.freq.SL	0.32	-0.16	-0.18	0.11	-0.81	-0.29
SL.speakers.n	0.30	-0.44	0.04	0.27	0.20	-0.18
SL.high.prof.speakers.n	0.21	-0.28	0.49	-0.16	0.21	-0.57

Table 1: Factor loadings for PCA of richness variables for SL

	Comp.1	Comp.2	Comp.3	Comp.4	Comp.5	Comp.6
Reading.freq.HL1	0.34	0.05	0.53	0.02	0.05	0.29
Writing.freq.HL1	0.46	0.09	0.07	0.17	-0.05	0.32
Homework.freq.HL1	0.45	0.30	-0.21	-0.06	-0.01	-0.03
In.school.lessons.freq.HL1	0.37	0.15	-0.14	0.08	-0.15	-0.79
Out.school.lessons.freq.HL1	0.45	0.18	-0.13	-0.21	0.03	0.21
Tech.activities.freq.HL1	0.20	-0.34	0.36	0.07	0.72	-0.30
Time.friends.freq.HL1	0.18	-0.53	-0.14	0.36	-0.14	0.11
Org.activities.freq.HL1	0.11	-0.30	-0.47	-0.63	0.32	0.12
HL1.speakers.n	0.20	-0.51	-0.23	0.24	-0.27	0.03
HL1.high.prof.speakers.n	0.09	-0.31	0.46	-0.57	-0.50	-0.16

Table 2: Factor loadings for PCA of richness variables for HL

Two main contrasts emerged: literacy and formal aspects of language learning versus social-/leisure-related variables. Alternative data-driven composite scores were derived based on these contrasts. We subsequently compared the predictive power of these alternative scores with the original richness score by re-fitting the optimal models independently obtained for children's outcomes, including a different version of the richness score each time. We also ran models containing a richness score *excluding* interlocutor diversity/proficiency and SES. We found that (i) the data-driven alternative scores were no more informative than the original richness score, (ii) the models containing scores which included interlocutor diversity/proficiency fared better than those where this qualitative component was excluded, (iii) whether SES was included made little difference in the model's fit.

Finally, we use a two-way orthogonal partial least square analysis (O2-PLS) (Trygg, 2002) to determine whether the latent variables underlying richness were comparable across languages (HL vs. SL) and across countries (France, Netherlands, UK). We found that the proportion of shared variance between the HL and SL was very high, demonstrating that the same type of information is relevant to richness in both languages. This was also the case across countries, although the latent structure of HL richness in the Netherlands differed somewhat from the other two countries, most likely due to the specific HLs included in the Dutch sample and the nature of the associated HL communities.

In conclusion, our results suggest that it is acceptable for practitioners to use the original composite Q-BEx richness score to inform their expectations as to children's HL and SL proficiency, and that richness scores are sufficiently comparable across bilingual children's two languages.

Cost-benefit analysis: How detailed should your questionnaire be?

Cécile De Cat¹

¹University of Leeds (UK)

To decide on the level of questionnaire detail to document children's bilingual experiences, two problems need to be addressed: the quantity problem and the quality problem. It is notoriously difficult to get participants to fill in questionnaires, and completion time is often invoked as a major hurdle. That's the quantity problem: long questionnaires may result in missing data. The quality problem rests on the assumption that a greater level of questionnaire detail leads to greater precision of the estimates it can generate. It is a tacit assumption in the field that including more questions, or more precise questions, will generate more informative and reliable predictors for the outcomes of interest in the study.

Adopting an information-theoretic approach to address the quantity and quality problems, we perform a cost-benefit analysis comparing the informativity of alternative measures of language exposure when used as predictors of language outcomes. These alternative measures vary in the amount of questionnaire detail and in the type of questionnaire information used to derive them. They include current estimates (adjusted vs. not adjusted for time spent with interlocutors; estimated by interlocutor vs. by context, or globally across contexts; based on time with interlocutors vs. on number of interlocutors) and cumulative estimates (across periods in the child's life vs. age of onset of exposure) of children's input/exposure. We evaluate the trade-off between the cost of obtaining these measures (questionnaire length) and the benefit of including them (informativity of the predictors).

Our first set of information-theoretic analyses follows Burnham and Anderson (2003). We estimate, for each alternative measure of language experience, the probability that it yields the best-fitting model predicting language proficiency outcomes (compared to models fitted with the other alternative measures).

Our second set of analyses adopts a 5-fold cross-validation approach (Desmarais and Harden, 2014). In five successive iterations, the data is randomly split into a training set (80% of the data) and a testing set (the remaining 20%). Model-fitting is performed on the training set to obtain the parameter coefficient for each of the alternative language experience measures (as predictor of proficiency). That coefficient is then applied to the testing set to obtain a 'new sample' prediction. The margin of error between the predicted response (from the training set) and the observed response (from the testing set) provides an estimate of the stability of the predictor across subsets of the data. This allows us to assess the extent to which each alternative measure of language experience can generalize to a new dataset including different children.

Findings and implications: Although Age of SL Onset is the optimal predictor of Societal Language proficiency overall, it is highly sensitive to sampling effects (Table-3). Cumulative SL experience is a more reliable predictor (Table-4). Among the alternative predictors of Heritage Language proficiency, current exposure in the home is the optimal predictor (Table-5). Adjustment for time spent by interlocutor (i.e., the costliest measure to obtain) is never considered optimal in any of the analyses. Greater detail does not enhance informativity in that case.

Exclusion criterion	N (children)	Likelihood of being the most informative predictor of sentence repetition accuracy		
		SL onset age	Cumulative exposure	Current exposure
None	123	98%	1%	0%
SL onset > 50 months	113	85%	9%	2%
SL onset > 42 months	99	37%	28%	12%
SL onset > 36 months	88	12%	20%	23%

Table 3: Impact of sub-sampling on the likelihood that Age of SL Onset, Cumulative Exposure, or Current Exposure is the most informative language-experience-based predictor of sentence repetition accuracy. Exclusion criterion: cut-off in Age of SL Onset above which children are excluded from the sub-sample. Each row corresponds to a different sub-sample, with the first row including all the data. The number of children in each sub-sample is shown in the second column.

Language Experience predictor	Avg_RMSE	RMSE_Range	Avg_MAE
Current exposure (weighted)	0.25	0.07	0.20
Current exposure (non-weighted)	0.25	0.07	0.20
Current period of exposure	0.24	0.08	0.19
Current holiday exposure	0.25	0.07	0.20
Cumulative exposure	0.23	0.02	0.18
Age of onset of SL exposure	0.24	0.11	0.19

Table 4: Margin of error between the predicted response (from the training set) and the observed response (from the testing set), expressed as the average across the 5 iterations (Avg. RMSE), as the range across the 5 iterations (RMSE_Range), and as the average of the absolute differences between predicted and actual values (Avg. MAE). Each row in the table is the output of a separate model. All models predict the accuracy in Sentence Repetition accuracy (in the Societal Language). The models differ in the Language Experience variable (listed in the first column). The “weighted” measure of current exposure is adjusted for time spent by interlocutor.

Alternative Language Exposure predictor	Likelihood of being the most informative predictor of HL proficiency
Current exposure (weighted)	14%
Current exposure (non-weighted)	7%
Exposure in current language period	2%

Exposure in the home (non-weighted)	75%
Exposure during holidays	0%
Number of HL interlocutors	0%
Cumulative exposure	0%
Length of HL monolingualism (prior to SL onset)	1%

Table 5: Likelihood, for each alternative measure of HL exposure, that it is the most informative language-experience-based predictor of HL proficiency (as estimated by the parents on a 4-point Likert scale).

Discussion: The future of Q-BEx

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The presentations will be followed by a discussion of the risk of normalization inherent to the creation of standard questionnaires, and of how to achieve a sound balance between the ability to capture the diversity of bilingual experiences and the need to keep the questionnaire sufficiently short and clear for respondents. We will also invite a multi-lab collaboration to further the validation of Q-BEx across populations. To that end, we will share information about an OSF repository hosting the relevant guidelines and scripts. Finally, we will discuss the future of Q-BEx and its sustainability (aiming to keep it free to use for practitioners and researchers without access to funding).

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Visual representation of speakers, speaking and languages

Chair: Judith Purkarthofer, judith.purkarthofer@uni-due.de

Language researchers use visual representations in a variety of ways throughout the research process. For example, images may be used as elicitation devices on vocabulary tasks or in storytelling ; in experiments with participants to understand eye movements, and/or, as schematics to represent findings in scholarly publications (Haman et al. 2015, Schmid et al. 2016, Norvik et al. 2024). In this panel, we are interested in the meaning of visuals more broadly. Educators and researchers in language teaching employ visual methods to open ways of understanding child multilingualism, and drawings are also used to understand languages in the lives of speakers, e.g. when children are asked to draw language portraits or take pictures of relevant places linked to minoritized languages. Children have been asked produce pictures that help them to talk about languages and language experience (e.g. Busch 2012, Kajala & Melo Pfeifer 2018, Purkarthofer & De Korne 2019). From another angle, adults can also benefit from visual representations, especially when learning a second or a foreign language. Besides assisting with vocabulary and semantics, visual aids can also be a powerful tool in grammar instruction by guiding learners' attention, making syntactic structures explicit (case marking, tense, gender, declension, etc), thus helping learners gain a sense of grammar structures (Vissirini 2021).

This panel takes up the following questions:

- 1) How do speakers relate to non-verbal representations, be it of their own experience as in the language portraits, as depictions of everyday practice like the naming tasks or as tools to foster language learning?
- 2) How do we make sense of individual experience and abstract structures? How to design visual representations (i.e. in the case of syntactic features or vocabulary tasks)?
- 3) Which faces of bilingualism do we prioritize when using picture-based tasks? Which means of expressions are favored and why? What is the relationship between norms, tests and creative expression? Are we (made) aware of a hidden visual curriculum, if it exists?

In this panel, our aim is to discuss the role of visual representations of speakers, speaking and languages from different subdisciplines of bilingualism research. Researchers from Canada, Norway, Poland and Germany present their work – with parents and young children, students in school as well as adult learners of a foreign or second language. Their insights will provide the audience with case studies from which to start a more general discussion on the potential and challenges of visual representations.

The contributors are Judith Purkarthofer, Pernille Bonnevie Hansen, Ewa Haman, Magdalena Łuniewska, Magdalena Krysztofiak, Hanne Gram Simonsen and Gail Prasad – and including inspiration by Barbara Avila Vissir.

Centred or speaker-centred: approaching visual representations

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As visual representations gain momentum even in traditionally text-/talk-oriented disciplines like linguistics, the approaches to visual means and methods are increasingly in focus. Speakers may use drawings to access and represent their experiences, visual note-taking to map practices and finally visual clues to organize learning. In each of these activities, the relationship between languages, practices and speakers is conceptualized differently (see Zeiter 2022) and this contributions aims to map the main strands of research so far, thereby also relating to neighboring disciplines that have influenced the understanding of visuals (e.g. Pink 2006, 2007).

Building on discussions from an earlier workshop in Oslo in 2019, and on research experiences in the field of bi- and multilingualism research, we want to highlight opportunities for multimodal approaches and also problematize the character of visual material and the meaning in research. We are aware that photographs, images and drawings are not mere depictions of reality but rather complex ‘texts’ that are produced, ‘read’ and appreciated in a specific assemblage of repertoires and ideologies. This means that they are also governed by certain norms and expectations, even if they are less often stated explicitly. In order to understand how a ‘hidden (visual) curriculum’ can be in place, we explore the connection to visuals linked to particular languages, to certain types of practices and finally to individuals and groups of speakers – and how they are brought to use in methods and approaches.

Visual representations for speaking: Visual stimuli for lexical assessment: Towards fair and valid testing of children's multilingual lexicons

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Most normed vocabulary tests are designed for monolingual populations, and bilingual children are typically assessed in only one language, often in their L2 – the majority language. Tools created with non-monolinguals in mind are typically developed for a given population, such as speakers of the majority language and one given minority language. However, multilingualism is the norm in today's societies and there are often many, not two or three, languages present in preschools and classrooms. Hence, there is a substantial need for tools enabling holistic and valid assessment of the language skills of multilingual children.

The battery of tools under the umbrella name of LITMUS (Language Impairment Testing in Multilingual Settings) was developed to meet this need. One of these tools is the Cross-Linguistic Lexical Tasks (LITMUS-CLT), which assesses receptive and expressive knowledge of nouns and verbs through a picture-based test that takes 15-20 minutes and can be administered on paper or with a tablet. To achieve equivalence across languages, the tool is not copied or translated. Instead, each language version is constructed separately, with target words selected based on psycholinguistic criteria. The visual stimuli for each version of CLT are selected from a pool of pictures designed specifically for the tool, with new parallel pictures added when needed to adapt to cultural and geographical differences.

In this talk, we will present CLT, with emphasis on the picture base. The tool was originally conceived and developed among mainly Western researchers and for mainly Western contexts, and we will present and discuss the adaptations made to meet a wider range of contexts. We will discuss the opportunities and limitations of a tool with ambitious goals, and present experiences across a wide range of linguistic and cultural settings, with examples from Europe, Africa and Asia.

Visual representations of speakers: Picturing Linguistic Flourishing: Analyzing mixed media representations of teaching and learning in multilingual classrooms in Ontario, Canada

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Linguistic diversity has become a defining feature of Canadian schools in the twenty-first century. Today, whether students come to school identifying as dominant speakers of the language of instruction or bi-multilingual speakers of any variety of languages, all students need to build relationships with teachers and students who understand and speak different languages. In this way, classrooms offer prime sites of multilingual encounter and exchange in which to develop all students' mediational competence (Piccardo & North, 2018). While mainstream K-12 teachers often report feeling un(der)prepared to support multilingual learners (Petitt, 2011; Li, Hinojosa & Wexler, 2017; Deng & Hayden, 2021), there is a clear need for both teachers and students to learn together to communicate respectfully and productively with others across linguistic, cultural, racial, religious and social divides in multilingual classrooms. This presentation draws on an arts-based inquiry that sought to engage teachers and students in individual and collaborative reflection and visual representations of their experiences teaching and learning together in multilingual classrooms.

Teachers and students were guided by the research team to produce mixed media language portraits (Busch, 2006, 2010) and collages (Butler-Kisber, 2019) as visual research methods that afforded teachers and students time, space and materials for reflecting, negotiating and representing what linguistic flourishing looks like and feels like in their multilingual classrooms. The creative process was followed by individual interviews and focus groups during which participants discussed their artifacts, the creative process and their reflections on the metaphor of linguistic flourishing.

After discussing the schooling context in Ontario's English and French schools, I draw on participant generated language portraits, collages as well as interview and focus group data to analyze how teachers' and students' representations of teaching and learning in multilingual classrooms are negotiated and made visible through these different artistic forms. The individual language portrait and collaborative collage tasks were designed to help teachers and students make their social representations of languages, learning and themselves as learners in multilingual classrooms explicit. Creative representations were analyzed by applying Freeman and Mathison's (2009) framework for visual analysis attending to literal, biographical, empathetic and iconic readings of each artifact, as well as technical, editorial and indexical readings of the image creation process. This presentation seeks to

both “show and tell” the power and promise of creative multimodal arts-based methods in researching bilingualism and multilingualism in schools with teachers and students.

Discussion

Pernille Bonnevie Hansen¹

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In this panel, we cover psycholinguistic and sociolinguistics research approaches as well as discuss how design knowledge can support language learning and didactics teaching. The discussion aims to inspire reflection on visual methods in multilingualism research and in the multilingual classroom. The expectations towards methods, the underlying concepts and practical affordances of different approaches are rarely the focus of exchanges, and we expect fruitful discussions that will shape our understanding as well as challenge some unspoken assumptions. While in linguistics, the role of language beyond its function as a tool for communication is undoubted, researchers may not be equally aware of comparable complexities in the visuals they use for different purposes. We are confident that the use of images and visuals can provide us with unique insights and can facilitate our interactions with research participants and learners. We thus invite the audience into the discussion of examples and experiences as integral part of the symposium.

However, we see the need to start a critical discussion about challenges of visuals: in much the same way as languages, they transport meaning beyond the intended, they carry societal expectations, i.e. when choices are made about who is depicted (with regard to clothing as well as gender, race and disability), in connection to which activities (i.e. linked to gendered expectations), and with which target group in mind (e.g. children, adults, learners, decision-makers). We might be challenged by the use of pictures in tasks where participants draw on symbols that are unknown to us or that we find unacceptable (i.e. for their historical, potentially racist connotations) - and we can find it hard to see connections between visuals and languages in much the same way as certain participants find interacting with visuals in a language task challenging.

While the research presented in this symposium spans beyond the WEIRD (Western, European, industrialised, rich and developed countries), there is still a bias, within the fields represented and within the current symposium. We will discuss some of the limitations associated with this bias and explore experiences with and potential gains from expanding beyond the WEIRD when it comes to the visual presentations of speaking, speakers and languages.

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Aphasia in multilingual individuals: research, assessment and treatment

Chair: Marie Pourquié, mariepourquieweb@gmail.com

Currently, the number of bi/multilingual people with aphasia (MPWA) is increasing due to an aging world population and a growing trend of ethno-racial diversity seen in clinical populations (Centeno et al. 2020). However, this diversity is not reflected in aphasiology, as studies on MPWA remain underrepresented (Beveridge & Bak, 2011). From a clinical perspective, recent surveys report that SLPs feel not adequately trained and limited in their access to linguistically and culturally appropriate materials to serve both minority and bilingual adults (Centeno & Harris, 2021).

This symposium aims to present recent research studies on MPWA and to discuss some of the key challenges regarding their assessment and treatment, from an international perspective.

The first presentation will focus on pathological codeswitching and non-parallel language recovery in bilingual aphasia and will discuss whether these mechanisms belong to the general domain of cognitive control or are language-specific mechanisms. It will also emphasise on the need to develop assessment tools and crosslinguistic rehabilitation methods suitable for MPWA.

The second presentation will present a case study of rehabilitation strategies developed to treat a trilingual individual with aphasia focusing on the treatment in one language but in different linguistic tasks. It thus addresses a current issue in the field of SLP and bilingualism by looking at the benefits of cross-language transfer SLP therapy, i.e. whether treating certain languages can lead to improvements in the non-treated language(s).

The third presentation will provide an overview of the data collected from a recent survey completed by about 400 SLPs worldwide. It will report on SLPs' level of satisfaction with their training and access to useful resources (e.g. scientific literature, assessment and treatment tools, interpreters, consultants) to serve MPWA. This presentation aims to provide the latest data on SLP's requests, and to draw conclusions on what needs to be done in the near future to improve their working conditions.

Finally, a general discussion will be led by a renowned specialist in multilingualism, SLP, and research on language impairment in multilingual adults to guide reflection on the identified priorities for research on MPWAs and SLP training programs to a) guide future research and b) train the next generation of SLPs to cope with the global increase in multilingual patient caseloads. It will also inform students, clinical practitioners and researchers of the latest language assessment tools developed in aphasiology to enhance cross-linguistic studies and the study of bilinguals with aphasia.

An interplay between language and cognitive control in bilingual aphasia

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Background

According to the Inhibitory Control Model (Green, 1986), control helps in preventing and resolving interference caused by the undesired language during bilingual oral production. It is hypothesised that some patterns of language impairment in bilingual aphasia such as pathological codeswitching or nonparallel language recovery are due to a control mechanisms impairment. However, it is still unclear whether these mechanisms belong to the general domain of cognitive control or are language-specific mechanisms. Recent studies remain inconsistent: some studies argue in favor of language-specific control (Gray & Kiran, 2016, 2019) but others in favor of domain-generality (Van der Linden et al., 2018a, b). Such divergent conclusions might be explained by the patients' different recovery patterns or other factors related to their bilingualism (Mooijman et al., 2022; Van der Linden et al., 2018b).

Aim

This presentation will focus on the relationship between language control and cognitive control in bilingual aphasia with results from a recent study we conducted.

Methods

Nineteen bilingual L2 French speakers with different L1s (Arabic, English, Basque, Dutch, Persian) participated in this study: 10 people with aphasia (PWA) and 9 control participants matched on age, level of education and bilingualism. A questionnaire was created to assess bilingualism characteristics (dominance, proficiency and codeswitching habits before the brain lesion) and the Screening-BAT (Guilhem et al., 2013) for language assessment. The three components of the executive functions following Miyake et al. (2000) (inhibition, flexibility, working memory) were explored through both verbal and non-verbal tasks. Moreover, language control was examined in a discourse task, a semantic and phonologic verbal fluency task and management of cross-language interference in translation and judgment tasks (part C of the BAT, Paradis & Libben, 1987).

Results

The two groups of participants were compared on verbal and non-verbal cognitive control tasks and on language control tasks in L1 and L2. PWA performed poorer than control participants on verbal cognitive control tasks in L2 (Stroop $t(5.85)=3.09$, $p=.022$, TMT $U=5$, $p=.019$, digit span $t(14)=-2.58$, $p=.022$), on language control tasks (verbal fluency: L1 semantic $t(15)=-2.383$, $p=.031$; L2 semantic $t(17)=-3.05$, $p=.007$; L1 phonologic $t(16)=-4.01$, $p=.001$; L2 phonologic $t(17)=-3.32$, $p=.004$) and translation and judgment tasks : to L1 $U=18$, $p=.03$; to L2 $t(17)=-2.4$, $p=.028$). No group differences were revealed in non-verbal cognitive control tasks (Flanker task $U=22$, $p=.351$ and STT $U = 15$, $p = .148$) nor in the use of codeswitching in discourse (L1 $t(4.75)=2.09$, $p=.094$; L2 $U=27.5$, $p=.628$).

Conclusions

Taken together, our results support the hypothesis of an overlap between the two domains of control highlighting the language-specific control deficit in bilingual aphasia. In this presentation, a more detailed analysis of each patient's profile in terms of language recovery patterns, aphasia severity and codeswitching habits prior to lesion will shed light on the role of these factors in determining the relationship between the two types of control in bilingual PWA. Such analyses will enhance our understanding of the relationship between cognitive and language control and would to be essential developing assessment tools and implementing appropriate crosslinguistic rehabilitation methods in the future.

Pre- and Post-Treatment Assessment of a Multilingual Post-Stroke Patient: A Case Study of Agrammatism

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Background

Aphasia, an acquired language disorder typically resulting from a stroke, manifests in various language profiles, affecting comprehension and production in varying degrees. Agrammatism, a subtype, is characterised by difficulty in constructing grammatically correct sentences, often accompanied by impaired sentence comprehension and word retrieval challenges. In multilingual individuals with aphasia, language abilities can vary across their languages and acquiring aphasia further complicates this variation, with each language impacted differently. Addressing all languages in therapy is crucial, as improvements in one language may benefit others, supporting a more comprehensive recovery, while also addressing the individual's needs.

Aim

The goal of this study is to assess the effectiveness of language treatments, including Verb Network Strengthening Treatment, for a multilingual post-stroke patient with agrammatism, using the Comprehensive Aphasia Test (CAT) to evaluate language abilities before and after therapy. Additionally, it aims to determine whether treating certain languages could lead to improvements in non-treated languages as part of the overall therapy impact. This study mainly focused on the intervention in the English language.

Methods & Procedure

A (German-Turkish-English) multilingual post-stroke patient (age 34, 7 months post-onset), who engaged in language therapies for each of her languages, was monitored for language improvement following interventions.

The patient began therapies in the sequence of Turkish, German, and then English, maintaining therapy for all languages simultaneously but not on the same frequency: English therapies continued once a week for 16 months, Turkish therapies once or twice a week for a year, whereas German was more irregular and lasted for a year as well.

Prior to the intervention, the patient exhibited significant difficulties in constructing grammatically correct sentences, understanding complex sentences, and retrieving appropriate words during communication. The English therapies focused on improving

sentence processing, sentence comprehension, and word-finding abilities. The patient was assessed using the Comprehensive Aphasia Test (CAT; Swinburn et al., 2005) both before and after treatment. The comprehensive nature of the CAT allowed for detailed assessment across multiple language domains, providing a robust measure of the patient's linguistic capabilities pre- and post-treatment.

Results

Following the intervention, notable improvements were observed in her English language skills. The patient's sentence processing abilities showed substantial enhancement, evidenced by more grammatically accurate sentence construction. Sentence comprehension also improved significantly, allowing the patient to better understand and respond to complex verbal inputs. Additionally, there was a marked improvement in word-finding capabilities, reducing the frequency and severity of word retrieval failures during communication. She returned to her work as an English language teacher. Regarding her other two native languages, as reported by the patient herself and her speech and language pathologists, Turkish was improved, while German stagnated.

Conclusions

This study demonstrates that while focusing on a single language might not yield comprehensive results, addressing multiple languages may lead to overall enhancements. The findings and the intervention outcomes underscore how multilingual approaches can benefit language development and improve the quality of life for the individual.

Common practices and current challenges for Speech and Language Therapists working with multilingual people with aphasia: Results from an online international survey

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Background

The ongoing rise in cultural and linguistic diversity, coupled with epidemiological factors affecting minority populations, is expected to continue influencing adult neurorehabilitation programs worldwide, especially regarding the number of bi/multilingual people with aphasia

(MPWA) accessing clinical services (Centeno, 2015). Recent work on the clinical practices and training of Speech and Language Pathologists (SLPs) in the USA (Centeno, 2015) and Norway (Norvik et al., 2022) indicates that SLPs make commendable efforts to assess and treat MPWA despite facing significant challenges. To date, no international survey has been conducted on SLPs' clinical practices and challenges regarding the assessment and treatment of MPWA.

Aim

To address this gap, an international interdisciplinary group developed an online international survey to identify SLPs' common practices in providing clinical services to MPWA, and investigate SLPs' perception on their training, practices and access to assessment tools and treatment resources in relation to MPWA.

Method

Following a consensus approach, a 32-question survey comprising four main sections ((1) demographic information, 2) education and training, 3) clinical services for MPWA, and 4) clinical tools and therapy for MPWA)) was designed and distributed using Qualtrics in 14 languages through various international aphasia associations.

Results

373 SLPs from 55 countries completed the online survey in 14 languages. We identified the following key findings:

1. Training Background: 87% indicated that their educational/professional training was lacking in certain areas that would help to improve clinical services for MPWA. The most important needs identified were: best practice recommendations (95%), access to educational programmes (88%), and access to relevant literature (79%).
2. Assessment: 60% reported conducting language assessments in multiple languages. Among the 40% who assess MPWA in only one language, the main reasons cited were a lack of assessment tools in other languages (23%), a lack of proficiency in those languages by the SLPs (23%), and the decision to assess only the client's native or dominant language (19%).
3. Treatment: 63% indicated that they provide treatment for MPWA in more than one language, either personally, through caregivers, or with the assistance of clinical staff or professional interpreters.

Discussion and conclusions

Results provide valuable evidence from diverse cultures and languages, offering an updated overview of SLPs' clinical practices with MPWA worldwide. Based on the key findings, we conclude that SLP educational programmes should place greater emphasis on bi/multilingualism to better prepare SLPs for delivering clinical services to MPWA. Additionally, these results will contribute to the development of best practice guidelines for the assessment and rehabilitation of bi/multilingual aphasia across the world.

Discussion

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The presentations in this symposium bring to light the complexity of assessment and intervention practices for multilingual people with aphasia (MPWA). Each presentation offers a unique perspective on the questions at hand.

One question concerns language choice in assessing and treating MPWA. Clinicians need to determine whether they can assess all languages of a person with aphasia and how to best do that, and then determine which language should be selected for intervention. Finding assessment tools that are comparable across languages to ensure that relative abilities in each language are appropriately determined is challenging. Recent efforts to provide assessment resources include guidelines for carefully generating linguistically and culturally appropriate assessment tools (Martínez-Ferreiro et al., 2024). These efforts should help alleviate clinicians' reports of feeling underprepared about how to best assess MPWA.

Another challenge in clinical research and work with MPWA is the typical multilingual behavior of language mixing. Researchers have attempted to identify when MPWA mix their languages as a communicative strategy versus due to faulty control mechanisms associated with the acquired brain lesion (Fyndanis & Lehtonen, 2021). The understanding of the role of cognitive control in impairments observed in MPWA is critical to the application of best practices in assessing and treating people with aphasia.

Decisions about language choice for intervention with MPWA need to be informed by evidence from studies that explore the efficacy of intervention in more than one language simultaneously and the practicality of scheduling intervention sessions in multiple languages. Few studies to date have provided such much-needed evidence (Grasemann et al., 2021). An emergent approach to language-mixing and language-choice related decisions acknowledges MPWA's complete linguistic repertoire and embraces language mixing as part of the assessment process (Goral & El Hansali, in preparation).

Such decisions can maximize treatment outcomes and improve quality of life of MPWA. Once tools and evidence are available, speech-language therapy educational programs worldwide could incorporate this knowledge to adapt to the growing multilingual patient caseloads and to better prepare clinicians to assess and treat MPWA.

Taken together, the symposium raises existing challenges in assessment and intervention with MPWA and illustrates solutions, evidence, and further reflection on this complex matter.

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Bilingualism and Down Syndrome

Chair: Rebecca Ward, rebecca.ward@southwales.ac.uk

Down syndrome (DS) is the most common chromosomal condition, occurring in approximately 1 in 700 live births. Children with DS often experience challenges in vocabulary development, syntax, and articulation. Given these challenges, parents and guardians of these children often face challenges and uncertainty surrounding the impact of a bilingual environment on development. Initial reports in the literature document successful case studies of bilingual children with DS, yet studies find that parents or guardians often face difficulties in accessing bilingual provision. Furthermore, some professionals may advise that these children only learn one language due to concerns around capacity to acquire two (or more) languages. In one study, parents were even advised that using multiple languages at home might have caused or worsened their child's language challenges. To date, very limited research has been conducted with this population specifically, and there remains an absence of evidence to support families and clinicians with their decision-making processes and in their practices.

To address this issue, in this symposium, we will present a series of emerging research projects which aim to substantially move this field forwards. This will include four novel projects, exploring the multifaceted nature of bilingualism in this under-researched population. Presentations will cover a broad range of topics, ranging from heritage language maintenance to parental perspectives on bilingual upbringing, as well as specific linguistic abilities and theoretical frameworks. The first presentation will focus on caregivers' perspectives and experiences of raising bilingual children with DS, offering insights into the motivations, strategies, and concerns of these caregivers. The second presentation will examine the language development of bilingual children with DS where bilingualism is unsupported at the societal level to observe language profiles. The third presentation will apply a novel methodological approach to understanding bilingualism and individual differences by considering bilingual exposure as a continuous variable. Finally, we will have a wider discussion around bilingualism and Down syndrome, outlining recent research advancements and future research directions.

Together, these presentations will highlight the diversity of bilingual experiences among children with DS and the need for further research in this area. By bringing together diverse methodological approaches and perspectives, this symposium aims to gain a deeper understanding of bilingual language development in children with DS and to stimulate further collaboration in this developing field. This symposium represents a significant step forward in our understanding of bilingualism in children with DS.

Caregivers' Perspectives on Raising Bilingual Children with Down Syndrome

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Over half of the world's population uses more than one language daily. Bilingualism serves not only as a means of communication but also as a strong link to cultural identity and familial bonds. Recent research has uncovered the positive impact that bilingualism has on social, cognitive, and economic outcomes. However, caregivers' attitudes toward bilingualism significantly affect decisions on maintaining home languages or introducing a second language to their children. In contexts where bilingualism lacks societal support, parents or guardians often express concerns about cognitive overload, confusion from multiple linguistic systems, social integration, and academic disadvantages due to lower proficiency in the societal language. These concerns are especially pronounced for families with children with developmental disabilities such as Down syndrome (DS), where delays in language acquisition are common, and apprehensions about the impact of bilingualism are heightened. Understanding these dynamics is crucial for addressing parental concerns and optimising children's development in multilingual contexts, though significant gaps remain in understanding caregivers' perspectives across diverse bilingual environments.

This international study examines the attitudes and experiences of 57 parents or guardians raising bilingual children with DS. The aim was to explore what influences their attitudes and decisions, and whether emerging research and professional advice have influenced their perceptions. A significant majority (89.3%) of caregivers chose to raise their children bilingually, motivated by cultural heritage, community support, and perceived cognitive benefits, despite not all professionals endorsing this decision. Most caregivers viewed bilingualism positively and received supportive information, although concerns about a lack of bilingual therapists, educational provisions, and tailored information were common. Importantly, those who received advice on this issue from a professional were more likely to raise their children bilingually. Just over half (52%) of families expressed concerns about bilingualism, fearing it would be too difficult, lead to confusion, or lack of professional support. Despite these concerns, children with DS exposed to multiple languages were acquiring both languages with a good level of success. This study emphasises the need for consistent, evidence-based support from professionals to help caregivers make informed decisions about their children's linguistic development.

The impact of heritage language exposure on development of the societal language of children with Down Syndrome

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Existing studies on language development in children with Down Syndrome (DS) have paid little attention to bilingual children with DS in heritage language (HL) contexts, such as in England, where bilingualism is not supported societally. In HL contexts, it is widely known that factors such as age of exposure to the societal language (SL) and quantity and quality of input in each language vary considerably and have impact on language development. Given the growing number of speakers of non-English languages in England (Office for National Statistics., 2021) and the relatively high prevalence of DS, this study will investigate the language development of children with DS from minority language backgrounds in England. The following research questions will be addressed.

1. How do children with DS from minority language families develop their expressive language skills in the SL, English, compared to nonverbal mental age matched English monolingual children with DS?
2. Does language development in bilingual children with DS follow different developmental patterns from those of typically developing children?
3. How do quantity and quality of input affect the development of expressive language skills in English?

The data will be collected from February 2025 using the Multilingual Assessment Instrument for Narratives (LITMUS-MAIN; Gagarina et al., 2019). Eighty children will participate in the study. These children will be aged between 5-18 living in England, and they will belong to one of the four groups: children from minority language backgrounds with and without DS and English monolingual children with and without DS. Nonverbal mental age as well as the language groups of HLs and amount of HL input will be carefully matched. Starting from April 2025, we will analyse the children's narratives based on narrative length, lexical diversity, and syntactic complexity. We will examine the effect of language group (monolingual or bilingual), diagnostic group (with or without DS), nonverbal mental age, quantity and quality of input using linear mixed effects regression models, after collecting information regarding their linguistic background through the Quantifying Bilingual EXperience questionnaire (Q-BEx; De Cat et al., 2022).

In this presentation, we will present the theoretical and practical background that led to the design of this study alongside some preliminary data and analysis. This will expand our understanding regarding the effect of HL exposure on the development of the SL for children with intellectual disabilities such as DS. The study will provide parents and practitioners in HL contexts with the first empirical dataset that will help to make informed decision for their children regarding language use.

Exploring Bilingualism as a Continuum in Down Syndrome

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Bilingualism and bilingual experiences are notably unique, and the influence of the language environment on linguistic outcomes is highly heterogeneous. Instead of comparing bilinguals and monolinguals, recent approaches within the field propose employing continuous methods to better understand how bilingual experiences shape language development. This approach aims to understand and predict individual differences in language outcomes, which is particularly important when large individual differences are observed. This methodology is especially advantageous when studying populations with a high degree of variability in language outcomes, specifically children with Down syndrome (DS). Previous group studies with this population indicate that children with DS exposed to two languages perform comparably to their monolingual peers when age and non-verbal cognitive abilities are considered. At the same time, clinicians' advice to parents may not align with this evidence. To date, however, there is a scarcity of research examining how the extent of exposure to one language influences proficiency in the other language within this population. This is a key consideration when providing guidance to families about language choices and expected trajectories of development.

This study investigates whether the degree of exposure to a second language, specifically Welsh, influences the linguistic skills in the majority language, English, among children with DS. Sixty-five children were recruited, including children with DS and typically developing children with diverse language backgrounds. A series of regression analyses were employed to evaluate the impact of Welsh exposure on English language abilities, controlling for factors such as non-verbal cognitive abilities, short-term memory, and socioeconomic status. Findings demonstrate that increased exposure to Welsh did not detrimentally affect English language proficiency. These results suggest that bilingualism, viewed as a continuum, does not impede language development in children with DS. The study extends initial findings in the field and concurs that a bilingual environment for children with DS does not negatively impact language outcomes in a minority language setting.

Discussion: Bilingualism and Down Syndrome: Research Opportunities and Challenges

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Discussant: Rebecca Day³

This discussion session will explore current findings from research in the field of bilingualism and Down syndrome (DS), whilst considering potential future research directions. The primary focus will be on understanding language development patterns amongst bilingual populations, any broader cognitive outcomes, and how these insights can inform inclusive practices. The session will open with a reflection by the discussant, who will synthesise the key findings and themes from the presented papers. The purpose of this will be to draw connections across the contributions, by highlighting any recurring themes, common methodological challenges, and emphasise gaps in the research evidence. The discussant will aim to facilitate a discussion around these topics to identify avenues for future research as well as responding to parental and practitioner concerns about potential language delays.

Following this reflection at the beginning of the session, the speakers will be invited to contribute their perspectives and insights to further the discussion around bilingualism and DS. Key topics for exploration include the role of parental decision-making in determining bilingual exposure, the views of practitioners in supporting dual-language abilities and any cognitive or social implications resulting from bilingualism. The discussion will also consider inclusive practices in education and speech and language therapy, with a focus on strategies to foster bilingualism while appreciating and acknowledging individual differences.

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One Language Doesn't Tell the Whole Story: A Look at the Language Skills of Bilingual Autistic Children

Chair: Ana Maria Gonzalez-Barrero, PhD. Anamaria.gonzalez@dal.ca

Bilingualism is increasingly prevalent among families worldwide (Fibla et al., 2022). In fact, more neurodivergent children are growing up learning two or more languages (Digard et al., 2023). An increased interest in this population over the last decade has yielded a few studies examining the language skills of bilingual children on the autism spectrum (e.g., Dai et al., 2018; Zhou et al., 2019). However, many studies have focused on just *one* of the child's languages, providing a partial account of bilingual autistic children's language abilities. In this symposium, researchers from various countries and disciplines discuss the language skills of bilingual autistic children considering their *two* languages, providing a more comprehensive understanding of their language development in bilingual contexts.

The first talk of this symposium discusses insights about the performance of bilingual autistic children in each of their languages on a verbal fluency task, a paradigm that assesses two challenging areas for autistic children: language and executive functioning. The second contribution discusses the language choices of autistic children in a dense code-switching environment and the communication tools used by children on the spectrum with a range of language abilities (e.g., from minimally verbal to children using spoken sentences), analyzing the multilingual and multimodal conversational practices of this population. The third talk examines a key skill –working memory– and its influence on grammatical comprehension in neurotypical and autistic monolingual and bilingual children, providing novel evidence on the relationship between language exposure and working memory. Finally, the fourth talk discusses the narrative skills in both languages of neurotypical and neurodivergent children who acquired their languages through different modalities (interactive vs. non-interactive), highlighting key bilingual behaviours, such as cross-linguistic influence in their narrations. These diverse talks provide new insights on language development in bilingual children from a rich multidisciplinary and global perspective.

Lexico-Semantic Skills of Bilingual Autistic and Non-Autistic Children

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There is a growing number of autistic children who speak two or more languages. Although there is an increasing interest in the language development of these children, more research has focused on one of their languages. In this study, we used a verbal fluency task to examine the language and cognitive skills of bilingual autistic and non-autistic children. Verbal fluency tasks provide key information on lexico-semantic skills (Shao et al., 2014) and they also tap into two challenging areas in autism: language and executive functioning. Our objective was to examine the temporal dynamics of a verbal fluency task including bilingual children's two languages.

Twenty-four bilingual school-aged children (12 autistic and 12 non-autistic) participated in the study (age $M = 8;9$, $SD = 1;5$). Children were given 1 minute to name all the elements they knew for a given semantic category (e.g., animals). Items produced in the bilingual children's dominant and non-dominant language were compared. Groups were closely matched on key variables that influence verbal fluency performance (e.g., age, nonverbal IQ). Responses produced in each language spoken by the child (i.e., dominant and non-dominant) were coded based on the specific time in which they were produced.

Results showed that bilingual autistic children were faster and produced more words in their dominant relative to their non-dominant language. We are currently analyzing the temporal dynamics of bilingual non-autistic relative to bilingual autistic children. Results from this analysis will provide insight into the cognitive profile of bilingual autistic children. For instance, if it is found that autistic children are slower at producing words compared to their non-autistic peers, future research could explore further the processing styles of this population and how they relate to theories of slowing processing speed in autism (e.g., Zapparrata et al., 2022). Overall, these results are in line with prior findings showing that bilingualism is not detrimental to the language development of children on the autism spectrum.

Communication Tools used by Bilingual Autistic Children During Bilingual Interactions

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Although bilingualism has received increased attention in autism research, two significant gaps include a tendency to focus on skills in the societal language in comparison to monolingual peers and a tendency to focus on bilingual autistic children with high levels of spoken language. As a result, there is less work that examines the development and maintenance of skills in *both* languages, including bilingual practices such as code-switching (but see Cohen et al., 2023; Yu, 2016). There is even less known about bilingual development in minimally speaking autistic children. The current study begins to address these gaps by focusing specifically on bilingual interactions where autistic children are invited/encouraged to use all of their linguistic skills and by examining multimodal communication tools used during these interactions by children with a range of spoken language skills.

This study addressed the following research questions:

1. How do bilingual autistic children with a range of spoken language skills respond to a bilingual partner's use of both Spanish and English in an interaction?
2. What kinds of communication tools (e.g., gesture, vocalization, code-switching, echolalia, scripting, linguistic alignment in syntax and/or prosody, etc.) do children exhibit in these interactions?

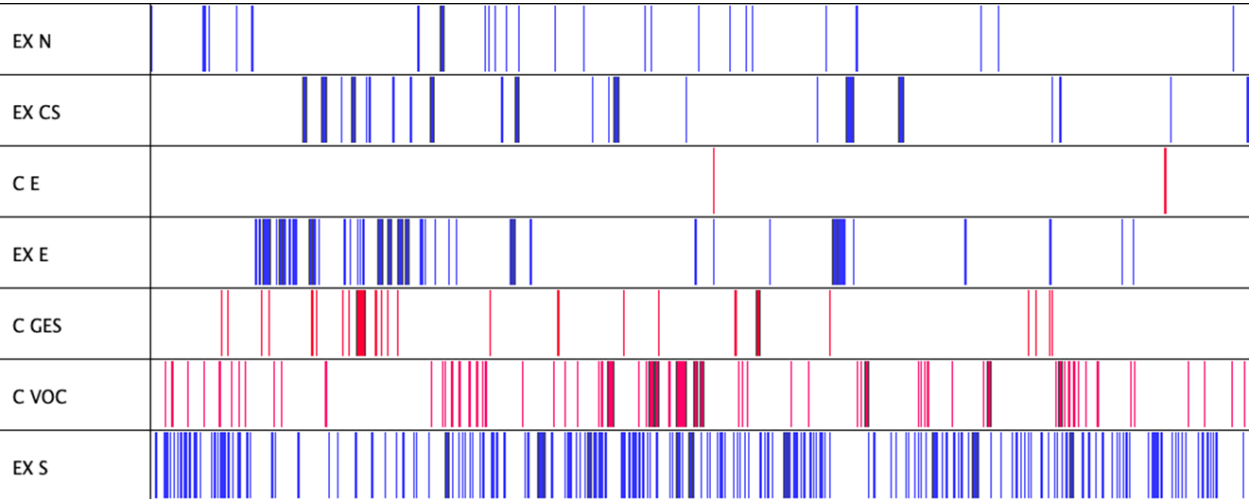
Method: In this exploratory observational study, we bring together data from two projects. Data sources include structured and unstructured interactions with a bilingual experimenter over Zoom, family-child interactions at home recorded over Zoom, and play-based in-person communication samples following a bilingual version of the Eliciting Language Samples for Analysis (ELSA, Barokova et al., 2021). Data collection is still in progress. To date, nine autistic children, ages 4-7, have participated in at least one of these tasks. These include 3 girls and 6 boys with family backgrounds from Puerto Rico, Mexico, El Salvador, Peru, and Spain. Two children were minimally speaking, two used mostly phrase speech, and five regularly spoke in sentences. The communication samples were transcribed and coded for adult language use (Spanish, English, code-switching) and children's use of each language and multimodal communication tools.

Results: As an observational study with a diverse range of participants and data sources, the data presented will be descriptive. First, we will examine the temporal back-and-forth between child and adult to examine the child's responsiveness to the adult's use of different languages. Second, we will describe the frequency and variety of communication tools used

by children with different levels of spoken language. For example (Figure1), a minimally speaking participant was responsive to both Spanish and English from the examiner and used a combination of gesture, signs, and vocalizations. Another participant with complex spoken sentences in both languages used various verbal tools (e.g., scripting, intonation, linguistic alignment in syntax and prosody) in combination with code-switching.

Discussion: Spanish/English bilingual autistic children with a range of expressive language skills responded to input in both languages with a variety of multilingual and multimodal communication strategies. These preliminary findings reflect a robust communication toolset that extends beyond common neurotypical conversational practices.

Figure 1



This figure, created in ELAN 6.8, shows an interaction between a bilingual adult examiner (Ex, in blue) and a minimally speaking child (C, in red). The x-axis reflects the passage of time over the 20-minute interaction. From top to bottom, the rows indicate use of language-neutral utterances (e.g., Okay) by the examiner, code-switching by the examiner, English word approximations by the child, English utterances by the examiner, gestures and vocalizations by the child, and Spanish utterances by the examiner.

Bilingualism, Working Memory, and Comprehension of French *Which*-Questions in ASD: A Winning Combination

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Language processing involves keeping track of who did what to whom during sentence comprehension, constrained by working memory (WM)—the ability to temporarily store and manipulate information (Baddeley et al., 2015). Language comprehension is essential for communication, yet individuals with Autism Spectrum Disorder (ASD) often face challenges with both WM and language, with links between the two (Habib et al., 2019). Bilingualism is associated with improved WM, as managing two languages demands WM resources, potentially enhancing WM over time for more efficient processing (Adesope et al., 2010). This leads to the hypothesis that potential bilingual advantages in WM extend to comprehension of structures soliciting WM, such as *wh*-questions, in both ASD and TD. This study tests this by examining comprehension of subject (1a) and object (1b) *which*-questions in French-speaking children with and without ASD, while exploring links with verbal WM and bilingual experience.

In (1a), *Quel mouton* ("which sheep") is the subject of *lèche* ("licking"), while in (1b), it is the object. We argue that WM is taxed more in object than subject questions, as the distance between *Quel mouton* and *lèche* is longer in (1b) than (1a), and involves an intervening noun *le canard* ("the duck"), in (1b) but not (1a) (Bentea et al., 2016).

A gamified tablet-based character-selection task assessed *which*-question comprehension (Figure 2), a non-word repetition task tested verbal WM (vWM), and a parental questionnaire measured bilingual experience. Participants included $N=42$ typically developing (TD) (monolingual: 22, bilingual: 20) and $N=45$ autistic children (monolingual: 27, bilingual: 18), matched on age (range: 3 to 12). GLMM analysed accuracy, and mediation analysis examined the causal paths between vWM, length of exposure to a second language (L2-exposure), and accuracy. We hypothesised that if bilingualism improves vWM which enhances comprehension of *which*-questions, an indirect effect of L2-exposure mediating vWM effects should appear. Alternatively, if vWM independently improves comprehension, a direct effect of vWM is expected.

The results confirmed that object questions were more difficult for all groups (Figure 3, left), consistent with the subject-object asymmetry in prior studies. Additionally, higher vWM was associated with greater comprehension accuracy in both ASD and TD. TD children performed at ceiling on subject questions regardless of vWM, but their accuracy on object questions

increased with vWM. In contrast, ASD children improved on both question types as their vWM increased (Figure 3, right).

Among bilinguals, TD children displayed a direct relationship between vWM and comprehension accuracy, while ASD children showed an indirect relationship mediated by L2-exposure. Bilingual ASD children with longer L2-exposure exhibited higher vWM, leading to better comprehension of *which*-questions. These findings underscore the cognitive benefits of bilingualism and suggest that L2-exposure does not impede native language comprehension. Rather, bilingualism may enhance vWM and, consequently, improve language comprehension in ASD for WM-demanding structures.



Figure 2. Example of image associated with a test item.

(1a) *Quel mouton lèche le canard?*
 which-sheep lick the.M.SG duck?
 ‘Which sheep is licking the duck?’

Subject Question (6 items)

(1b) *Quel mouton le canard lèche-t-il?*
 which-sheep the.M.SG duck lick?
 ‘Which sheep is the duck licking?’

Object Question (6 items)

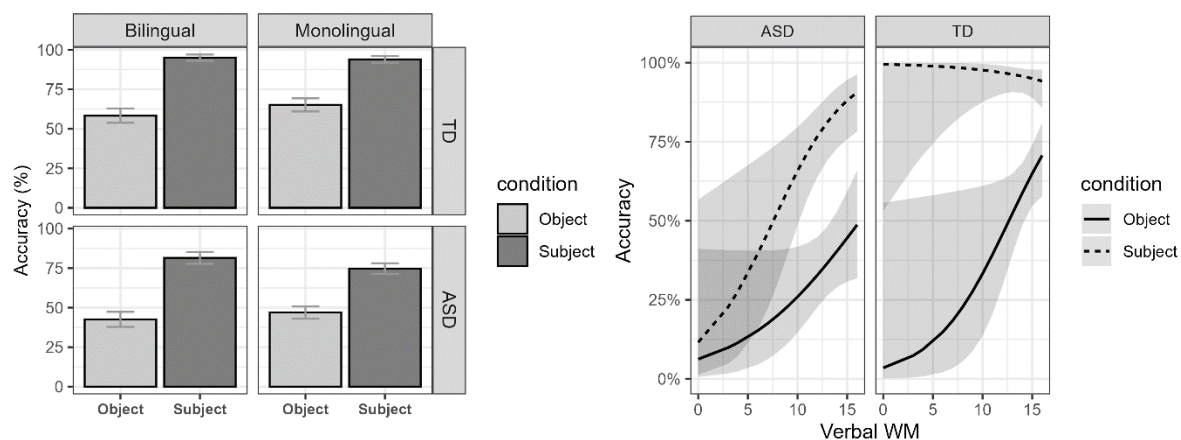


Figure 3. Left panel: comprehension accuracy as a function of group and condition. Right panel: comprehension accuracy as a function of verbal WM and condition.

Narrative Abilities in Multilingual Children with ASD: Comparison of Non-Interactive and Naturalistic Acquisition

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Some children with Autism Spectrum Disorder (ASD) grow up in multilingual environments, acquiring languages through naturalistic exposure, similar to their non-autistic peers. However, case studies have reported unexpected foreign language acquisition among autistic individuals through non-interactive exposure, such as TV and YouTube (e.g., Smith & Tsimpli, 1995; Vulchanova et al., 2012; Zhukova, 2021).

This study compares narrative abilities of English-Hebrew multilinguals aged 4;5-12 from three groups (n=46): (1) multilingual autistic children who acquired English non-interactively; (2) multilingual autistic children and (3) non-autistic peers who acquired English naturalistically.

Narrative production was assessed in English and Hebrew using the “Multilingual Assessment Instrument for Narratives” (Gagarina et al., 2012). Narratives were transcribed and analyzed for verbosity, type-token ratio, errors, and referential choice (e.g., full lexical phrases vs. pronouns, overt vs. null pronouns, ambiguous vs. non-ambiguous, definiteness marking). Pragmatic relevance in context influences the choice of referential expressions, which are challenging for individuals with ASD (Arnold et al., 2009). Languages also differ in referential encoding; English is [-pro-drop], while Hebrew is partially [+pro-drop]. Baseline assessments included non-verbal IQ, ASD severity, morphosyntactic abilities in English and Hebrew, and Theory of Mind.

The results show that multilingual children can produce simple narratives in both languages, regardless of acquisition mode (interactive vs. non-interactive) and clinical status (ASD vs. non-ASD). All children exhibited variability in verbosity, type-token ratio, and error count across English and Hebrew, reflecting uneven linguistic abilities, consistent with previous findings among multilinguals. Differences in referential expression use were observed between autistic and non-autistic children, with autistic children producing more ambiguous expressions; however, no significant differences were found between ASD groups. Cross-linguistic influence was evident in referential choices, such as pronoun omissions in English subordinate clauses, reflecting transfer of the [+pro-drop] feature from Hebrew ("The boy is crying because hurt").

In conclusion, autistic children acquiring English through non-interactive sources can exhibit linguistic tendencies similar to those learning through natural interactions. However, autistic children still display distinct qualitative differences compared to their non-autistic peers.

These findings have significant clinical and theoretical implications, which will be further discussed.

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The unexplored power of translational research: Applying insights from awake brain surgery to our current understanding of the bilingual mind

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Over the last century, research across various disciplines such as psychology, linguistics, neuroscience, and education has significantly advanced our understanding of bilingualism. Early studies often focused on whether bilingualism was beneficial or detrimental to cognitive development, with initial scepticism giving way to more nuanced perspectives. Pioneering research in the mid-20th century shifted from a deficit model to recognizing the cognitive and social benefits of bilingualism, including enhanced executive function, cognitive flexibility, and a delay in the onset of dementia (e.g., Bialystok et al., 2012; Costa & Sebastián-Gallés, 2014).

One strand of research that contributed to the latter discoveries explored extensively the bilingual mental lexicon and language processing behaviour (e.g., Piasecki & Dijkstra, 2023). Combined with evidence from research using brain imaging techniques that explores the neural correlates of bilingualism, the research field started to reveal how bilingual individuals manage and navigate multiple languages, including how the bilingual brain differs structurally and functionally from that of monolinguals (e.g., Beatty-Martinez & Dussias, 2019; Sulpizio et al., 2020).

However, while these theoretical and experimental studies have laid substantial foundations to our understating of the bilingual brain, the application of this knowledge to real-world settings, and hence a focus on translational research, has yet to be established. The proposed symposium addresses this gap.

The focus on translational research in the proposed symposium converges bilingualism with the field of neurosurgery and brain cancer. Brain cancer is a serious issue in the global burden of diseases, with more than 300,000 new cases being recorded each year and mounting (Ilic & Ilic, 2023). Living with a brain tumour increases the likelihood of developing language and cognitive impairments, which adversely affect the quality of life of patients and their overall survival (McGirt et al., 2009). The gold standard surgical technique for tumour removal is awake brain surgery, which relies on the awake patient completing several language tasks guiding the mapping of key brain areas for language and communication, separating those from pathological tumour tissue to be resected. This procedure is key for preservation of language and, in the case of bilingual patients, needs to account for additional aspects that characterise bilingual speakers.

The proposed symposium will present some of the first investigations into bilingual language testing during awake brain surgeries, spanning bilingual contexts where a) two official

languages are spoken side by side; b) there is a high amount of bilingualism at varying degrees of proficiency; and c) a distinctive case of bimodal bilingualism is discussed. While the aim of an awake brain surgery is the safe removal of tumour tissue whilst preserving as much (bilingual) language function post-operatively as possible, this gold-standard technique also offers a unique opportunity to employ, test and adapt our current understanding of the neurobiology of bilingualism. Insights gathered from the presented studies are a case in point and each will in turn present evidence in agreement, or not, with our current theoretical assumptions.

With a concluding discussion, the proposed symposium will offer an opportunity to consider what other facets of bilingualism should be explored in future translational research avenues and encourage more translational research of this or other kind to help us progress our knowledge of the bilingual brain.

How does bilingualism and brain tumours sculpt the brain?

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Bilingualism has traditionally been associated with structural and functional changes that result in a specific configuration of the bilingual brain and consequently define cognitive and language functions. When the brain is affected by an expansive lesion such as a brain tumour, it can also undergo neuroplastic changes, which can modulate the bilingual brain, resulting in a specific cognitive and language performance, both before and after surgery (Boone et al., 2016). Specifically, brain tumours located in the left-dominant hemisphere confer a greater challenge for cognition and language because of the involvement of cognitive processes (e.g., language and executive functions) in brain areas and networks affected by the lesion.

With the objective of disentangling how these processes are impacted when a brain tumour is present, our study at the preoperative stage based on a large sample of 119 Spanish and/or Catalan patients revealed bilingualism as a protective factor for language learning abilities and executive functions, regardless of the type of the tumour diagnosed (Gasa-Roqué et al., in preparation). By contrast, the bilingual effect on specific language-functions, such as semantic verbal fluency, seems to be mediated by the type of tumour.

Despite the consolidated categorical classification of bilingualism, merging evidence defines bilingualism as a learning process within a continuum characterized by contextual variables that define bilingual acquisition (de Bruin, 2019). Within a distinct cohort of 10 Spanish-Catalan bilinguals with a left-dominant hemisphere brain tumour, we assessed the specific contribution of the bilingual context, and we confirmed that it is not only the acquisition of two languages but also the context where it occurs that defines the cognition and language of brain tumour patients. In that sense, language proficiency is relevant in determining lexico-semantic aspects of language, whereas language dominance and immersion are associated with executive functioning.

Not only are cognitive and language performance mediated by bilingualism, but also brain structure and functionality. Therefore, we evaluated cortical language localization in the brain tumour population using electrical stimulation mapping (ESM) during awake brain surgery. Results from 110 brain tumour patients did not reveal any significant association between bilingualism and language-eloquent cortical brain regions but highlighted significant differences between monolinguals and Spanish-Catalan bilinguals for the inferior

frontal gyrus and the superior temporal gyrus when the native language is evaluated (Gasa-Roqué et al., in preparation). In particular, bilinguals presented with a lower representation of L1 in these areas. Moreover, in a study by Fernández-Coello et al. (2017) it is confirmed that the age of acquisition of languages of 13 multilingual patients is significant in determining cortical language localization, as the early-acquired languages had greater cortical representation.

Understanding how cognition, language, and brain functionality of the bilingual brain tumour population are defined will help to define the multifaceted nature of the bilingual brain in this specific clinical population and most importantly, guide a more targeted approach to cognitive assessment and intervention in clinical practice.

To switch or not to switch: Testing and preserving bilingual skills in the OR

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Bilingual people manage two or more languages simultaneously in the brain and alternate between them according to the interlocutors and context of the conversation. This skill, known as ‘language switching’, is crucial for smooth communication, as it allows bilinguals to speak the right language at the right time. Cases of pathological language switching following brain lesions such as strokes or tumours (Abutalebi et al., 2000; Fabbro, 2000) show that the loss of this skill prevents patients to hold a conversation in only one language, hindering their ability to communicate and be understood, thus overall affecting their quality of life.

In patients with brain tumours located in speech eloquent areas, awake brain mapping allows testing and preservation of language skills (Duffau, 2007). However, in bilingual patients, there is still no agreement as to whether language switching should be tested during language mapping to help preserve this skill post-operatively. For instance, some neurosurgeons suggest to test for each language serially (Duffau et al., 2022), while other scholars argue for the inclusion of language switching testing in awake protocols (De Martino et al., 2021). Despite this disagreement, specific intraoperative tasks for language switching have showed the feasibility of such testing in Spanish-Catalan bilinguals (Sierpowska et al., 2013; 2018).

Results from these intraoperative and other neuroimaging studies, identified key brain areas for language switching, such as the inferior and middle frontal gyri, the anterior cingulate cortex, the dorsolateral prefrontal cortex and the supramarginal gyrus. Most of these regions located in the frontal cortex overlap with regions responsible for executive functions and domain general processes, with experiments showing that these regions are sensitive to both language switching and task switching paradigms (Blanco-Elorrieta & Pykkänen, 2016; De Baene et al., 2015). As a result, the specific processes involved in language switching remain uncertain, making it difficult for surgical teams to determine if and how to assess this ability.

To fill this knowledge gap and perhaps instil more confidence in the optimal testing protocols for bilingual patients, the present study focuses on the bilingual population of the United Kingdom. Unlike highly proficient and highly balanced Spanish-Catalan bilinguals, UK-based bilinguals are characterised by varying degrees of proficiency of their two languages. Building on our recent insights from a young Polish-English bilingual patient who successfully performed a language switching task intraoperatively (Barua et al., 2024a), we set out to

investigate language switching in the bilingual population of the UK. To do so, we selected a cohort of Italian-English bilinguals spanning a wide range of ages. Participants will perform language switching tasks and task switching paradigms while electroencephalography (EEG) records their brain activity. Results will clarify whether the processes subserving language switching are similar to those involved in executive functions tasks, by comparing performance and neural activity across conditions. If findings indicate that language switching indeed overlaps with task switching, implications can be extrapolated for clinical testing of language switching in bilingual tumour patients, providing much-needed guidance for bilingual patients based in the UK.

Signing within and beyond the OR: neurosurgical insights into the neurobiology of sign language

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There exist only several case studies on awake craniotomies in users of sign language (SL) (Chen et al., 2020; Martino et al., 2017; Lau et al., 2023; and Metellus et al., 2017). Of these studies, all patients have been d/Deaf native users of their SL, and therefore the present knowledge on both intraoperative language testing and awake craniotomy in SL users is based on data from this single patient profile. However, the signing community is much more diverse than this. In fact, d/Deaf native signers are the exception, not the norm; only about 5-10% of d/Deaf signers are considered native, as 94% of d/Deaf children are born into hearing families (Mitchell & Karchmer, 2004). Additionally, hearing children born into d/Deaf families – or children of d/Deaf adults (CODA) – have a neurological profile different from both d/Deaf signers and hearing nonsigners (Emmorey & McCullough, 2009). Thus, it is evident that the status quo for awake testing for SL does not account for the majority of the signing community. Here, we attempt to reconcile that.

Our study presents the first known case of intraoperative testing of a hearing bimodal bilingual CODA during awake craniotomy. Our patient, a native British Sign Language (BSL) user who reported learning English during childhood, presented with a left temporal tumour resulting in discordant presentation of symptoms. While this patient was observed to have phonemic paraphasias and found word finding, reading, and writing difficult in English, BSL appeared entirely preserved. We separately tested object naming and semantic fluency intraoperatively for both BSL and English, revealing differential language maps for each modality. Post-operative assessment confirmed mild dysphasia for English with BSL preserved. These findings suggest that in hearing people who acquire a SL as a first language, topographical organisation may differ to that of a second, spoken, language (Barua et al., 2024b).

Our work presents a patient profile which is novel in two regards: a hearing signer who is also a CODA. Given this opportunity, we attempted to begin defining intraoperative awake craniotomy assessments for a more diverse and realistic picture of SL users. Though there exist assessments to test children's vocabularies and language development for BSL (Mann & Marshall, 2012; Herman et al., 1999) and other SLs, there are no standardised intraoperative testing batteries for adults in any SL. This prevents adequate intraoperative linguistic testing of patients using SLs, which may lead to misinterpretations of a patient's language ability. Measuring SL ability against frameworks developed for spoken language will not elicit an

accurate measure of language skill, and can lead to SL impairments being overlooked, given that SLs utilise a visual modality with linguistic features cognitively and structurally unlike their spoken counterparts. Thus, our use of BSL and English testing, using BSL frameworks defined specifically for BSL, present a clearer and more accurate picture of SL use and intraoperative data.

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Beyond variety-based approaches: researching Kongish in the postmultilingualism era

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In August 2015, the term “Kongish” was coined and conceptualized as a refusal for the everyday Cantonese-English mixing practice to be validated as Chinglish, which is often seen as learner’s mistakes or as an English “pidgin”. Kongish is an everyday practice owned by multilingual Hongkongers. Kongish Daily, a news-sharing platform hosted on social media, was initially founded as a data collection site for documenting Kongish, viewing it as a type of basilectal Hong Kong English. As a Facebook Fan page, the Kongish Daily considered Hong Kong’s issues from plural viewpoints through the unique practice that belongs to all Hongkongers. Unexpectedly, Kongish Daily struck a deep chord with ordinary citizens of Hong Kong. Within just 24 hours of the launching of the first post, it gained over 15,000 likes on Facebook, attracting over 10,000 subscribers to the page. This recognized Hongkongers’ strong desire for self-expression through their dynamic linguistic identity, deeply rooted, and yet distinct, from China and the rest of the English-speaking world. The phenomenal overnight success of Kongish Daily, enabled by digital technology and social media, filled a void and asserted Hong Kong’s uniqueness during a period of rapid social changes. It also demonstrated how Hongkongers sought means of affirmation by refusing singular stances and embracing complexity through creative identity navigation. The overnight popularity also led to a growing research interests on Kongish, from researching on its variety status (Tai, 2017), the linguistic innovation of multilingual speakers (Sewell & Chan, 2017; Li Wei, 2020; Li Wei et al., 2020), the commodification of Kongish (Lee, 2022), to the identities of Kongish users (Tsang et al. 2024) in the last decade. This symposium aims to critically evaluate Kongish as a sociolinguistic phenomenon in the post-multilingualism era, and explore areas beyond the analyses on different named languages and language varieties in tracing the stories of Kongish from a translanguaging perspective. The symposium will showcase the latest theory-based critiques of Kongish as well as the methodological innovations for studying similar post-multilingualism phenomena.

The making of Kongish and Kongish Daily: An autoethnography of the ‘little editor’

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Since the inception of Kongish Daily, Kongish has been a subject matter receiving immense interest from the general public and the academic community. As a recent topic of inquiry, the study of Kongish has been multifaceted in Sociolinguistics. While many of these works have shared epistemology of social constructionism stipulating ‘a culture or society we construct our own versions of reality between us’ (Burr 2015), most are largely interpretative from the third-party scholars. There lacks an insider story of the founder and development of Kongish Daily and how Kongish has gradually been recognised by the multilingual generations in Hong Kong.

This study is an attempt to fill the gap. I propose an autoethnographic account to study the development of Kongish and Kongish Daily over the decade (c. 2012 – 2024), during which I have been ‘part of [the] culture and/or by possessing a particular cultural identity’ (Ellis 2011 et al.). Using my self-experience as an active user of Kongish, the founder of Kongish Daily and a Cantonese-English-Mandarin multilingual Generation Y Hong Konger, I attempt to present my story to document this very exciting journey:

Stage 1: Pre-establishment of Kongish Daily (before 2014)

- How was non-standard English used and perceived in Hong Kong?
- How was the localised English used digitally?

Stage 2: Birth of Kongish Daily (2015-2018)

- How was Kongish Daily born from a college’s research grant for studying Hong Kong English?
- How were Kongish posts created (e.g. collaboration between ‘little editors’ and our routine publishing)?
- How did I react to the exposure and opportunities given the sudden popularity?
- How did I manage to overcome the conflict arising from my role as ELT/EAP university lecturer and content creator of Kongish Daily?

Stage 3: Kongish gaining wider acceptance (2019-2024)

- How do I witness the use of Kongish from under-the-table to aboveboard with a few years’ efforts in promoting its use with sociolinguistic knowledge?

- How has Kongish Daily been approached by various product manufacturers when the page rose to fame?
- How have I enjoyed my 'stardom' among the Generation Z in university given my role in Kongish Daily? How can I turn Kongish and my Kongish 'editership' into pedagogical resources for ELT?

The autoethnography aims to provide a 'thick description' (Geertz 1973) from an insider perspective to enrich our understanding of the Kongish phenomenon by complementing present analyses such as participatory linguistics, translanguaging practices (Li Wei et al. 2020) and language commodification (Lee 2022).

Expandability and Temporality in Translanguaging Spaces: Researching Kongish with space-centred systematic observations

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Since the early 2000s, translanguaging has emerged as an influential research paradigm in applied linguistics. Translanguaging spaces are interactionally-constructed domains where individuals critically and creatively utilise their full linguistic and other resources to convey meaning, understand, and express their identities in social interactions. While many studies have focused on examining the specific moments when translanguaging spaces are constructed, fewer have paid sufficient attention to other peripheral translanguaging spaces within the same moment or beyond the given timeframe. This paper aims to bridge this research gap by exploring the dynamic and discursive nature of translanguaging spaces, focusing on two key concepts: the expandability of translanguaging spaces during communication, and the temporality of these spaces, which expand only when they remain open. We also attempt to introduce “space-centered systematic observation”: By conceptually borrowing Androutsopoulos’s methodology on systematic observation (2008) and coupling it with Li Wei & Zhu’s LLTT (Looking, Listening, Talking, and Thinking), which are four key elements of ethnographic research (2013), the space-centred systematic observations provide various layers of space observations. This is a methodological tool for researching translanguaging by paying attention to translanguaging actions and the spaces created to uncover new “networks of signification (García & Wong, 2025, forthcoming)”.

These concepts are demonstrated through a case study of Kongish Daily, a Facebook page with over 75,000 subscribers primarily based in Hong Kong. For data collection, we attempt to uncover the networks of signification that are revealed when the whole story behind the interaction in the translanguaging space is told via space-centred systematic observation. Through systematically observing the translanguaging spaces on the two Kongish Daily’s posts and other peripheral but related discussions on similar issues raised in the posts, these cases can demonstrate the two characteristics of the translanguaging space: Expandability and temporality, and show how the affordances of social media in tracing networks of signification when participants’ interactions create a translanguaging space that expands our understandings and links to other meaning-making resources brought into the meaning-making space.

Challenging the variety approach: Insiders' perspectives on Kongish

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In academic discourse, Kongish is subject to multifaceted interpretations, including Hong Kong English and a translanguaging phenomenon. These conceptualisations are grounded in two major theoretical perspectives: 1) the code view of language derived from the World Englishes paradigm (Kachru, 1996; Schneider, 2007), and 2) the behavioural view from a 'linguaging' perspective (Thibault, 1997). However, prior studies primarily analyse screen data from Kongish Daily and may overlook the individuality and reflexivity of its users (Lee, 2023, p. 7).

In light of it, this study explores 1) from a macro-perspective, how Kongish users conceptualise it in relation to Hong Kong English (HKE), 2) how their perspectives evolve between 2016 and 2020, and 3) from a micro-perspective, individuals' lived experiences when using Kongish and the extent to which they align with or diverge from broader trends. Data were collected through two rounds of focus group interviews in 2016 and four in 2020, with 23 purposively sampled participants. Reflexive Thematic Analysis (RTA) was initially employed to identify general themes, followed by Interpretative Phenomenological Analysis (IPA) to explore the complexities of individual experiences.

The findings suggest that Kongish is consistently seen as distinct from HKE across demographic groups. Male participants perceive Kongish as a self-contained humour-infused language that requires substantial cultural knowledge for full appreciation (Li Wei et al., 2020; Sewell & Chan, 2017). Younger participants conceptualise Kongish as a 'modern blend' of languages, assimilating linguistic features from and beyond English and Cantonese, as well as non-linguistic elements. Older participants regard it as a regional sub-dialect closely tied to Cantonese.

Diachronically, Kongish has evolved from online youth slang into a more versatile vernacular, increasingly viewed as a grassroots-driven force that challenges prescribed linguistic standards. In 2016, its status – whether as a variety of English, romanised Cantonese, or a standalone entity – was contentious. By 2020, though views remained divided, Kongish was more recognised as a mature vernacular transcending notions of 'English in Cantonese style' and 'Cantonese disguised as English.' Additionally, Kongish users demonstrate greater reflexivity – focusing on 'how I should be seen by others' – than reflectivity, which concerns 'how I see myself.' Thus, we argue against classifying Kongish as a subset of HKE and confining its developmental trajectory within a 'uniform process underlying all instances of the emergence of new English varieties' (Schneider, 2007).

Researching Kongish in the postmultilingualism era

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García and Wong (2025, forthcoming) discuss the concept of "network of signification," which refers to the complex webs of meaning, understanding and knowledge that speakers/signers are able to draw from through their translanguaging practices. These networks involve not just linguistic elements, but also incorporate speakers' diverse social, cultural, historical and political lived experiences and semiotic resources accumulated over time. Traditional linguistics and the power structures of nation-states have constrained networks of signification by only legitimising singular standardised language practices and monolingual epistemologies. However, through translanguaging, speakers are able to access much broader networks of signification that include understandings and significances rendered "unspeakable/indecible" within dominant paradigms. Tracing these networks through translanguaging practices can help uncover significance within communities that have long been marginalised or excluded.

Kongish cannot be simply defined because it is not a thing-in-itself, but a fluid, creative and critical practice in the post-multilingualism era where the fluidity of such practices was a complex interweaving of named languages (such as Cantonese and English) and other communicative means, without needing to be assessed or adjusted with nation-state but grounded and owned by Hongkongers (Li Wei, et al. 2020). Kongish is also a creative and critical product of the network of signification constructed by the Hong Kong community. As the network involves connections between people's experiences/knowledge across space, time and histories, tracing this network through Kongish usage can provide evidence to model how various resources provided in the network orchestrate as a unique but effectively perceived translanguaging practice by Hongkongers. Tracing the network of signification for Kongish can involve closely examining the types of narratives, stories and lived experiences shared through platforms: the main case - the Kongish Daily community, and other cases (Kongish-related communities). Through the three interrelated Kongish presentations and analysing the interconnected stories behind them, conversations and interactions occurring across communities could provide valuable insights into the breadth and complexity of the network underpinning Kongish. Looking at how community members draw connections

between diverse aspects of their historical, cultural and political backgrounds through the shared practice - Kongish, as well as how these accounts evolve alongside wider social movements, we may reveal the depth of understandings assembled within this network.

Therefore, in this discussion, we will first discuss how Kongish enables flexible navigation beyond named languages for meaning-making, and along dense networks enabling complex community sense-making practices through this network approach in revealing and reviewing stories leading to Kongish as it is today. We will also explore the role of digital social media in the emergence of new translingual practices. In the end, we will discuss how we may model and continue to research Kongish, and indeed other emerging sociolinguistic phenomena, from a post-multilingualism perspective in the future.

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Challenging established family language policy (FLP) paradigms in evolving European minoritised language settings

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Traditionally, conceptualising family language policy (FLP) has been from a dichotomous viewpoint: the languages spoken within the family are seen as either the minoritised language (X) or the dominant language of a particular polity (Y), and an emphasis is placed on ensuring the transmission and maintenance of the minoritised language within the family. This binary X versus Y framework is operationalised not only in academic research but also within state/authority language interventions designed to promote minoritised languages. Our aim within this panel is to question assumptions which arise from this vantage point, and in doing so, raise new questions about the role of language in family-making processes, and how FLP as a field can consider a greater breadth of family experience within its scope, taking into account for example migrants and migrant families moving into autochthonous minority language settings, as has been observed in different settings across Europe (e.g. Madariaga et al., 2016; Smith-Christmas, 2021; Thoma & Platzgummer, 2023). The locus for this panel are two polities in which an autochthonous minority language are spoken: Irish in Ireland and Meänkieli in Sweden. Within these loci, we examine a) emerging multilingual spaces in families with children enrolled in preschools with the displaced language Meänkieli as one of the languages of instruction; b) the interface between Irish and other languages spoken (e.g. German, Italian, Cambodian) in the home due to increased migration to officially Irish-speaking areas and c) the problematic definition of the Irish-speaking family with regards to policy-making.

Parents reclaiming Meänkieli for their children: Navigating historical silence within emerging multilingual family spaces

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The current study engages with the complexities of re-imagining a displaced language for family use by examining the linguistic repertoires of families connected to the national minority language Meänkieli in Sweden. Meänkieli, an autochthonous language part of the Arctic linguistic ecology, was officially recognized as a national minority language in Sweden in 2000, following grassroots initiatives during the 1980s (Lainio & Wande 2015). Despite policies promoting its use, longstanding epistemic invisibilization has rendered families linguistically and culturally vulnerable, disrupting intergenerational language transmission (Hyltenstam & Salö 2022). This study aims to gain insight into the affordances experienced by parents who have their children enrolled in preschools where Meänkieli is one of the languages of instruction, and how these parents conceptualize Meänkieli in their present and desired linguistic repertoires.

Drawing on biographical interviews with parents from four families, the analysis employs Busch's phenomenological conceptualization of linguistic repertoire, emphasizing the emotional connections and identity aspects of language use. Additionally, I use the notion of partially shared repertoires (Purkharthofer 2021) and dialogism (Bakhtin 1981) to explore different family members' agency concerning the idea of language transmission from parent to child.

Preliminary findings suggest that while co-parenting in emerging multilingual families significantly aids in reclaiming a displaced language such as Meänkieli, the linguistic resources of other heritage languages are also considered valuable within these family spaces. Parents without cultural or historical ties to Meänkieli support its transmission to their children and may find themselves better positioned to facilitate their children's language development. The study challenges the view of a dichotomous relation between two named languages often associated with family multilingualism within the Global North (Lexander & Androutsopoulos 2023), by accounting for the repertoires of peripheral populations originating from the Arctic region. Moreover, in some families, the children re-introduce Meänkieli to their parents and grandparents, breaking the intergenerational cycle of silence (cf. Lane 2024).

“It's not so one-dimensional”: Multilingual families in Irish-language areas

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Since the foundation of the independent Irish state, the Gaeltacht has been recognised as the geographical and socio-cultural areas in which the Irish language is spoken. While the dominance of the Irish language in most of these areas has certainly weakened since then, there is still a larger concentration of regular Irish speakers in Gaeltacht areas than in other parts of Irish society. Previous research and previous language planning initiatives in Gaeltacht areas have largely followed a binary logic that implied promoting Irish meant resisting English. It is now increasingly being recognised, however, that not only do Irish speakers in the Gaeltacht want to be at least bilingual with English, but also that their linguistic repertoires and practices may include further languages (Ó hÍfearnáin, 2022). This paper seeks to contribute to this line of thinking by examining the stances that multilingual families in the Gaeltacht take towards their language practices in the home as well as the wider community stances they are met with.

Drawing on in-depth semi-structured interviews with 10 families that live in Gaeltacht areas across the country, and in which at least one of the caregivers speaks a language other than Irish or English to their child or children, we show how these families overwhelmingly constructed their multilingualism as positive and describe similarly positive community stances. Moreover, they do not regard their multilingualism as threatening the status of the Irish language in their home but see it as conducive to it. This challenges discourses which frame autochthonous minority languages in competition with non-dominant languages linked to processes of migration and thus suggests a paradigm shift within FLP.

Defining the Irish-speaking family for future policy purposes

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The continued transmission of Irish within the home to successive generations has been identified as an important element of language policy in Ireland since the foundation of the state, some one hundred years ago. This presentation will draw on archival analysis over that period and on four ethnographic fieldwork projects from 2000-2024 to discuss some key, problematic elements of attempts by the state and other agencies to intervene in and influence the family language practices of those who can speak Irish in both the Gaeltacht regions and the rest of the country. It will draw in particular on an analysis of the discursive construction of the Irish-speaking family for *Scéim Labhairt na Gaeilge* (a grant scheme that operated in the Gaeltacht regions 1933-2011 to encourage exclusive use of Irish in the home) and on the current official definition of the Gaeltacht. It will expand the analysis to discuss calls for the re-introduction of such a scheme in the context of the current definitions and nature of Irish speaking households used by a range of state, semi-state and voluntary actors who seek to support and encourage Irish speaking in the home. It will further argue that the ambiguities in definitions, understandings and constructions of what constitutes an Irish speaking family or household for policy purposes are integral to the mixed results of such policies in favour of Irish and reflect changing social, economic, political and discursive contexts. The paper will conclude with a critique of how local and regional policy actors currently aim to set Irish in local, national and international *societal* context in an era of strong individualistic decision making and dispersed authority.

Discussion

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In recent years, the scope of Family Language Policy has been broadened as a wider range of family types, language repertoires, and geographical settings have been examined (Wright & Higgins 2021). This symposium aims to contribute to the widening of Family Language Policy research by analysing contexts where families encounter complex multilingual realities, such as when migrant families settle in areas and towns where autochthonous minoritised languages like Gaelic and Meänkieli are spoken. Hence, the linguistic repertoires of migrant and autochthonous families may include a range of languages and linguistic practices to be navigated.

In my concluding comments I will explore how analysing Family Language Policy through such a multilingual lens may bring about new insights and enrich our understanding of the linguistic repertoires of multilingual families. I also aim to identify common themes addressed by the presenters, highlight the contributions of the papers in this symposium and engage in a discussion with the panellists on how the papers may contribute to broadening the field of Family Language Policy.

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Cross-disciplinary Perspectives on Code-Switching

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This panel provides three different perspectives on two key issues/questions that arise in the study of multilingual language use: (i) why do multilinguals code-switch, and (ii) how can different patterns of code-switching in different contexts of use be reconciled within an empirically-informed theoretical framework? Both of these questions present unique challenges for scholars trying to offer an interpretive-analytic account that can present a unified answer to the questions. A theoretical unification, unfortunately, is stalled by two confounding variables: (i) empirical: the subtleties of linguistic forms in code-switching often carry complex semiotic functions, making precise form-meaning pairing problematic, and (ii) theoretical: the analytic approaches often become too ideologized, creating paradigmatic fault-lines that become intellectually sinful to cross. The empirical confound is insurmountable as newer data become available necessitating a revision of our understanding of the phenomena. The theoretical confound follows a familiar trope: New constructs are proposed and they are eagerly, often uncritically, embraced by the intellectual community even at the cost of discrediting established constructs that have given sufficient empirical purchase. In relatively recent studies on multilingualism, fixity is replaced by fluidity, linguistic repertoire of discrete codes (e.g., Hindi, Hausa, Hungarian) is replaced by undifferentiated repertoire of linguistic features, multilingualism is replaced by superdiversity, code-switching is replaced by translanguaging, etc. In all of these 'theoretical movements,' it is seldom ever shown 'what new knowledge' do the new constructs offer.

Our panelists present four perspectives that (i) help in creating a polyphonic platform for articulating difference across intellectual paradigms of multilingual language use, (ii) critique new models of multilingualism showing how ideologically entrenched they are, and (iii) present theoretical alternatives to capture sociolinguistically significant generalizations of multilingual language use.

Bhatt offers a restrictive theory of the socio-pragmatics of multilingual language use that exploits the key insight of OPTIMIZATION, that bilingual linguistic choices are outcomes of the interactions (and optimal satisfaction) of five universal socio-pragmatic constraints. MacSwan & Rolstad develop a contrast between grounded and ungrounded language ideologies that guides a description of language ideologies in- and outside the academy, with a specific focus on the history of translanguaging theory. Al-Alawi & Sanei show that a spatiotemporal view of codes can capture instances where named codes are not indexical of

a nation-state, or a rigid speech community, but of self-affirming values of belonging, solidarity, resistance, and survival. Finally, Professor Rajend Mesthrie will formally discuss these three contributions.

Optimizing choices: A socio-pragmatic model of code-switching

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This paper provides a theorized understanding of the key issue/question that arises in the study of bilingual language use: how does codeswitching, via resource-mobility and practices of hybridity, afford the production of (indexical/symbolic) meaning and organize social actions and relations in multilingual contexts? The answer to this question is, arguably, predicated on the key insight of OPTIMIZATION: that linguistic choices are outcomes of the interactions (and optimal satisfaction) of five universal socio-pragmatic constraints—FAITH(FULNESS), PERSPECTIVE (TAKING), FACE, POWER, SOLIDARITY (cf. Bhatt & Bolonyai 2011, 2022). This optimization-analytic structures the core of a restrictive theory of socio-pragmatics of multilingual language use; predicting, significantly, that different permutations of constraint-rankings yield different ‘multilingual grammars’ (cf. Ferguson 1978) that enable/disable code-switching choices.

Optimizing linguistic outcomes, from a rational choice-theoretic logic briefly outlined above, assumes four (empirically attested) sociolinguistic premises: (i) social actors are rational actors, not sociolinguistic dopes (Cameron 1990); (ii) linguistic *codes* are discrete (Bhatt & Bolonyai 2024), referencing indexical biographies (i.e., archives); (iii) language *use* is porous, fluid, and hybrid (Jaspers & Madsen 2019); and (iv) meaning in bilingual language use (code-switching) is constrained by the limits of metapragmatic awareness (Verschueren 2000).

Following these premises that undergird OPTIMIZATION, and based on code-switching data (spoken, textual, and from published sources) collected over two decades, this paper accomplishes three inter-related objectives of a socio-pragmatic theory of code-switching, beyond what has been covered in Bhatt & Bolonyai (2011): (i) provide accounts for intra-community – ‘bi-dialectal’ community – grammars; (ii) replicate (inverse) patterns of socio-grammatical differences observed, as in previous research, between indigenous and transplanted communities in terms of the relative ranking of two constraints (POWER and SOLIDARITY), linked with different indexical potentials for accruing ‘a profit of distinction,’ (Bourdieu (1991); and (iii) presents empirical evidence of a complete dominance hierarchy of constraint rankings, as a theoretical desideratum.

The first objective is accomplished through a reanalysis, within optimality framework, of code-switching between the Cedar Falls dialect of American English and a local Southern standard dialect (Mishoe 1995): the socio-pragmatic grammar that emerges is one that ranks {FAITH and PERSPECTIVE} over {FACE and POWER} that outrank {SOLIDARITY} (cf. Cramer 2015), which captures all of the significant generalization presented in Mishoe (1995). In terms of the second objective, it turns out that the difference in linguistic choices between

indigenous and transplanted communities results from the difference of rankings between two constraints, POWER and SOLIDARITY, yielding critical theoretical understanding of the sociolinguistic effects of human displacement; namely, a change in the relative ranking of two universal constraints (Karimzad 2019). Finally, empirical generalizations captured in the works of Lee (2015) and Karimzad (2019) show a completely dominant hierarchy among Korean Heritage speakers and Azeri, Farsi, English multilinguals. Stitching the empirical generalizations of these works, it makes possible the central claims of a socio-pragmatic theory of code-switching: constraints are universal; constraints are in (potential) conflict with each other; constraints are violable; and the multilingual grammars are organized around OPTIMIZATION of socio-pragmatic constraints.

(Un)grounded language ideology: the convergence of linguistic and educational research

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Linguistics and education converge on social justice. Language has long been a proxy for the most vile racism and classism, and remains today one of the last state-sanctioned justifications for poverty and meritocracy around the world. For example, common views of Black Language as ignorant or “bad English” are used to justify inequality of every kind; these negative language ideologies are continually reinforced in educational settings, pushing views of linguistic correctness which diminish socially stigmatized language varieties. Linguistics has the power to talk back to these doctrines of correctness through rigorous empirical research, replacing the ungrounded “bad English” language ideologies with pluralist language ideologies which affirm linguistic diversity.

In this presentation, the authors develop a contrast between grounded and ungrounded language ideologies, defining grounded ideologies as those which are anchored empirically and ungrounded ideologies as those which are not. This framework guides a description of language ideologies in- and outside the academy, with a specific focus on the history of translanguaging theory, which evolved from early translanguaging theory, which was grounded in empirical research on codeswitching and other scholarship on bilingualism, to late translanguaging theory, which changed under the influence of a postmodernist doctrine known as deconstructivism. The authors further discuss charges of “abyssal thinking” attributed to those who do not accept deconstructivism in García et al.’s (2021) ‘manifesto.’ The authors conclude that late translanguaging theory is at odds with empirical research and holds negative consequences for pluralist language ideologies and civil rights advocacy. The presentation makes original contributions to language ideology, the history of translanguaging theory, and the relationship between language theory and language ideology. It furthermore makes a significant critical contribution to the literature on multilingual language theory by drawing attention to an important limitations of translanguaging theory as a resource for language ideology (MacSwan & Rolstad, 2024).

Spatiotemporal tools and bilingual subjectivities: Perspectives from Bahrain and Iran

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New approaches to the repertoire as unitary propose that the notion of ‘a language’ “has kept us from fully grasping the implications of translanguaging for our understanding of bilinguals” (Otheguy et al., 2015, p. 282). This has consequently influenced approaches and understandings of code-switching, i.e., since there may not be real linguistic systems to switch to and/or from. In this talk, we aim to demonstrate the complex workings of a spatiotemporal lens to not (dis)prove boundedness but to capture its adaptability in bilingual discourse. We show that a spatiotemporal view of codes can capture instances where named codes are not indexical of a nation-state, or a rigid speech community, but of self-affirming values of belonging, solidarity, resistance, and survival (cf. Karimzad, 2021).

The data in this study come from ethnographic research in Bahrain (2018–present) and Iran (2017–2018). The dataset consists of approximately 80 hours of audio recordings of conversations and minimally structured interviews, along with our notes and observations of bilingual/multidialectals of different ages and backgrounds. The majority of data comes from younger participants in their early 20s to early 30s, focusing on the variation in their proficiencies, metapragmatic practices, attitudes, and identities with regard to their language use. Applying a scalar-chronotopic lens, the analysis was carried out to show how (in)discreteness is foregrounded or backgrounded in the participants’ metapragmatic reflections and attitudes towards code-switching.

The findings shed some light on several theoretical constructs with regards to code-switching and bilingual subjectivities. For example, large-scale ‘named languages’ (e.g., Arabic) may suffice at times, whereas at other times, they are dissected into smaller-scale codes for different (real and imagined) speech communities, e.g., Lebanese Arabic, Saudi Arabic, and Sunni Arabic (literally referring to a Muslim sect). As such, the repertoire is not *undifferentiated* but rather *contextually differentiated*. That is, the indexical and ideological entanglements of different codes are embodied in the repertoire, making discreteness possible even in the so-called absence of contextual constraints. Therefore, we call for contextually-sensitive approaches to bilingual subjectivities as to not obscure sociolinguistic phenomena that become illuminated under different contexts of discourse and perceptions of discreteness. Our research has empirical implications by drawing from two underrepresented contexts in linguistic research, as well as theoretical implications for

the question surrounding the reality of linguistic boundaries and their role in code-switching scholarship.

Discussion

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Language-and-identity on display. For a sociolinguistic analysis of multilingual landscapes

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This symposium includes four contributions that explore the language landscape (LL) of diverse geographical settings in Europe, Africa, and Asia. Using ethnographic methods to observe signage practices and their interpretation by the actors involved, the authors analyse visible elements in the public space and their change as a key to understand transformations in the “social order” (Blommaert 2013: 51). They investigate the dynamics between minority and dominant, small and global languages and the way languages are represented, exploited and interpreted, emphasizing two key topics: the processes of folklorization and “tokenistic commodification” (Van Mensel et al. 2016: 436) of languages, typical of peripheral languages in globalised economies especially when linked to tourism (Heller et al. 2014), and the strategic placement of signs which bears a symbolic value and plays a crucial role in their interpretation.

Paper-1 and Paper-2 study contexts where minority languages appear in the LL but are almost confined to a tokenistic use in tourism, their display evoking the local, ‘exotic’ identity of the place. The commodification of language is a central topic in Paper-3, which analyses the presence of Italian in Berlin’s LL, focusing on restaurants managed by individuals who are not Italian. The marketing of a product on menus or billboards as authentic and traditional by individuals who are not speakers of the language or members of the community with which it is associated is revealing of the underlying economic motivation. Paper 4, as well as Papers 1 and 2, deals with language landscape in a minority language context. The author questions how Modern South Arabian Languages are represented in the institutional signage of Dhofar, Oman, where only the official language of the country, Arabic, is displayed. Focusing on toponomastics, he shows how its Arabisation is accompanied by the loss of traditional micro-toponymic systems and the knowledge related to it. The four studies exemplify how the LL approach provides a useful angle to observe and analyse sociolinguistic realities (Blommaert 2013, Kallen 2023).

Music, food and medicine: Multilingual Semiotic Landscapes in Conakry

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Guinea is a multilingual West-African country that is home to 35 languages (Eberhard et al. 2023) and four different scripts (Latin, Arabic, Adlam and N'ko, a writing system developed by Guinean scholar Souleymane Kanté in 1949 (cf. Amselle 1996: 823) to write Maninka and other Mande varieties). Although the official language French dominates most public sectors in education, government and media, indigenous languages are held in high esteem and are used on a daily basis by the majority of the population. The presentation will demonstrate which traces the non-official indigenous languages leave in the linguistic and semiotic landscape of the city. Thus, while official signs, important buildings and street names are predominantly inscribed in monolingual French, other languages become apparent especially in the private sector.

Discussing the results from a most recent field research in Guinea's capital Conakry, the presentation will focus on three domains of signage:

- a) food services in restaurants, market stalls etc. (especially local dishes are presented on the menu with their indigenous names, alongside foods named in French, cf. Fig. 1 below)
- b) medical services, as Wyrod (2008) suggests the use of several linguistic resources in their promotion: "Today traditional healers represent some of the most visible members of the N'ko literacy movement, since their shops and hand-painted cloth signs in N'ko can be found in almost any market in Mande communities across West Africa." (Wyrod 2008:37)
- c) music (the entertainment business shows many instances of bilingualism, as artists promote their music in French, but often use indigenous languages in their songs and album titles, cf. Fig. 2 below).



NOS SERVICES Zion City	
Lundi	- KONKOE - SAUCE DE FEUILLE - LAFIDI
Mardi	- RIZ GRAS - THIEPE - SAUCE YASSA
Mercredi	- SOUPE DE VIANDE - SOUPE DE POULET - SOUPE DE POISSON - BOULETTE (Gbantou)
Jeudi	- CALAMAR AVEC SALADE FRITE - GAMBASSE
Vendredi	- RIZ GRAS - ATHIEKE : POULET, POISSON, FRITE, ALOKO
Samedi	- KONKOE - SOUPE - ATHIEKE
Dimanche	- BROCHETTE DE VIANDE AVEC SALADE ET FRITE - BROCHETTE DE POISSON AVEC SALADE ET FRITE
CONTACTS : 629 91 19 19 / 664 29 29 24	

Fig. 1 – Menu in Zion City, Guinea



Fig. 2 – Music promotion in the streets of Conakry

In all three instances, goods and services are advertised in bilingual or even biscriptual signage, a conscious decision by the sign creators to assure authenticity and localize their products. Next to an analysis of the content, linguistic composition, spatial positioning and materiality of the signs documented, the presentation includes a discussion of the sociopolitical and historical context in which they were created. Additionally, results from several interviews with sign creators will answer questions about the reasons for material, linguistic and placement choices.

Selling authenticity. The linguistic landscape of the hospitality sector in Siwa

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This contribution discusses the linguistic landscape of the Siwa Oasis, a peripheral region of Egypt characterized by Amazigh-Arabic bilingualism, where Siwi, the local Amazigh language, is a minority language, while Arabic is both the official and most widely spoken language in the country. In particular, it focuses on the languages and scripts used in the hospitality sector and their change over the past half century.

While a “cultural tourism” interested in an authentic encounter with local culture began in the 1990s (Battesti 2009), today Siwa attracts a large number of short-term tourists. The tourism sector became an economic pillar and a driving factor in the transformation of the oasis landscape. Domestic tourism has been growing steadily (especially since 2016, El Wakil 2021), and the Egyptian government advocates for the improvement of Siwa’s international reputation as an ecotourism destination.

In the LL of the hospitality sector Arabic is prevalent and English well represented, but there is an increasing use of Siwi (Figure 3), as well as Amazigh names not used in Siwi. Furthermore, besides the Arabic and Latin alphabets, there is a sporadic presence of (neo)Tifinagh (the Amazigh script), though this is almost limited to touristic contexts. Regarding the themes taken up in activities’ names, in the past decades they were mostly past or present toponyms or inspired by glorious historical figures such as Alexander the Great or Cleopatra (Figure 4). More recently, however, alongside the increased use of Siwi, themes related to the local and the traditional are growing.



Fig. 3 – “Adrar Azwar / Big mountain” A resort with a Siwi name written in the Arabic script, with an English translation



Fig. 4 – Hotel named after Queen Cleopatra, who allegedly visited the oasis

This process is not specific to Siwa, rather typical of touristic peripheries. Sociolinguists showed that in post-modern globalized economies, small peripheral languages may capitalize on the concepts of peripherality and authenticity (Pietikäinen & Kelly-Holmes 2013) and that tourism, in particular, encourages “heritage-making” discourses that construct the local as traditional and authentic (Heller et al. 2014) and the use of local languages in the landscape to provide an exotic appeal that increases the touristic value of a place (Cenoz & Gorter 2006, Kallen 2009).

Commodification of Italian in superdiverse linguistic landscapes: The case of Italian Restaurants Managed by Non-Italian-L1 speakers in Berlin

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Numerous studies have analysed the presence of Italian in urban linguistic landscapes outside Italy, especially in the ho.re.ca sector (hotels, restaurants, cafes). In some cases, the visual presence of Italian is not directly connected with the authors' use of Italian-based linguistic practices or familiar connections to Italy (Vedovelli 2005, Melchior 2020). Instead, these are examples of Italian in contexts of superdiversity (Blommaert & Backus 2013) or 'Italian in Transit' (Lupica Spagnolo 2023), characterized by the coexistence of various languages and semiotic codes. This may also be read as an instance of commodification (Heller 2010) of Italian in international scenarios, a tendency whereby (fragments of) languages are displayed in the landscape for their selling power, often in situations where authors and intended recipients do not have personal links to that specific language.

This contribution examines the linguistic landscapes of Italian restaurants in Berlin managed by people whose L1 is not Italian. Data was collected in the Friedrichshain-Kreuzberg neighbourhoods in June 2024 and include photos of signs and menus. These images are triangulated with biographical-narrative video interviews with owners and workers, and with participant observation. The participants, mainly from Eastern Europe or the Maghreb, have learned Italian in Italy or Germany through work in the ho.re.ca sector.

According to a macro-linguistic analysis (Barni & Bagna 2010), Italian is often the most semiotically relevant language. However, more detailed information, such as dish ingredients, is usually provided in smaller characters in German or English (see Figure 5). Thus, German and English are the semantically dominant languages through which communication takes place, while the scope of Italian is in most cases narrowed down to characterising the business's brand identity.



Fig. 5 – Menu signboard of Pizzeria E. in Kreuzberg, Berlin. June 2024.



Fig. 6 – Front view of Pizzeria E. in Kreuzberg, Berlin. June 2024.

On a micro-linguistic level, the signs collected are written in (fragments of) superdiverse Italian. These display typical features of Italian learner varieties, such as the lack of agreement (e.g., *omelette misto* vs *omelette mista* ‘mixed omelet’), misspellings in writing (e.g., *arrabiata* and *polo* vs *arrabbiata* and *pollo* ‘chicken’), and translingual forms (e.g., ‘pizza Spinata’; see German ‘Spinat’ ‘spinach’; and the overall use of upper cases).

Hidden minorities under sight: the case of Modern South Arabian in Dhofar

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The Modern South Arabian languages (henceforth MSAL) are a group of endangered Semitic languages spoken by a number of communities of the southern part of the Arabian Peninsula. There are six MSAL: Mehri, widely spoken in the Mahra province of Yemen, Omani Dhofar and the bordering area of Saudi Arabia; Ḥarsusi, spoken in Jiddāt al- Ḥarāsīs in Oman; Baṭḥari, spoken by few elders on the coast of eastern Dhofar; Hobyōt, found in a small area along the Omani-Yemeni border; Šḥəret (also known as Jibbali), spoken in the mountainous and coastal areas of Dhofar; Soqotri, spoken in the island of Soqatra (Simeone-Senelle 2011). Traditionally, these communities used to live a semi-nomadic lifestyle, practicing mainly camel, cow and goat-herding in the desert areas and on the mountains, and fishing along the coasts. Multilingualism within the MSAL- and neighbouring Arabic-speaking communities is very common, since ‘speakers of an MSA language always had to deal with speakers of other MSA languages, as well as with speakers of various dialects of Arabic’ (Morris 2017:25).

Seismic socio-economic changes in Dhofar (after a failed communist revolution and the unification of the country under the late Sultan Qaboos) together with the effects of Arabisation, have led to a rapid loss of cultural diversity and traditional knowledge (Watson & Al-Mahri 2017; Morris 2017).

This talk wants to deal with the linguistic landscape of Dhofar, Oman, by taking into examination how local toponomastics is represented in official signage practices, and how linguistic landscape practices shape the reality of the local communities.



Fig. 7 – Road sign in Salalah, Oman.

The MSAL are only oral languages, with no writing system officially agreed upon by the community as of today. Furthermore, they are not recognised as minority languages, the only official language of Oman being Arabic. This unbalanced power relation between the Arabic-speaking majority and the MSAL-speaking minorities (which, however, are still the absolute majority in Dhofar) reverberates at all societal levels. At the superficial level, this issue is evident if we examine the linguistic landscape (Blommaert 2013): only Arabic-based toponymy is used in official toponomastics, frequently with Arabised versions of an underlying MSAL toponym, de facto hiding under sight the local minorities. The writing system employed for Arabic does not have a perfect correspondence with the phonological inventory of MSAL languages, leading to the conflation of more phonemes under the same grapheme and the partial blurring of the original meaning of the toponyms. What does not appear in the official toponomastics is even more crucial: memory of the orally transmitted old micro-toponymic systems of reference is progressively being eroded as traditional elements lose their meaningfulness to the urbanised new generations and are eventually forgotten, together with the understanding of their underlying semantics and their relationship to traditional folklore.

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Navigating Identity, Language, and Emotions: The Experiences of Refugees, Asylum Seekers, and Migrant Workers

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This symposium seeks to shed light on the complex and often overlooked experiences of refugees, asylum seekers, and migrant workers in Israel, focusing on the intersection of language, identity, and emotional well-being. Given Israel's immigration policy, which prioritizes Jewish immigration as stated in the Law of Return, these individuals face not only the inherent difficulties of immigration and relocation when coming to Israel but also additional challenges related to their sense of belongingness and their prospects in a place that is often not very welcoming. This population is highly diverse in terms of countries of origin, cultural backgrounds, languages, personal experiences, and more, as well as regarding their official status in the country. Their precarious legal status often locates them in a liminal space, which impacts their employment opportunities, educational access, and entitlement to health and welfare services for themselves and their children (Raijman & Semyonov, 2004; Yaron-Mesgena, 2015).

In terms of language, many members of this heterogeneous group are bi/multilingual, but their language skills are frequently fragmented. They may even lack a dominant language and may not be highly proficient in any one, including in Hebrew, the dominant hegemonic language in Israel (Tannenbaum & Rimon-Stern, 2022).

The symposium will present three studies that researched this population, focusing on different life stages including primary schools, exploring integration issues and the effects of language awareness interventions on literacy and wellbeing and adult life, delving into the interrelationships between language repertoire, self-expression, and personal experiences. These studies explored language and identity issues as conveyed in the daily lives of individuals who are struggling with the complexities of their and their children's everyday experiences.

Insights from this symposium can contribute to a deeper understanding of the multifaceted challenges facing people in these circumstances, not only in Israel. By examining these issues through various perspectives and methodologies and addressing different stages of life, the symposium aims to foster a dialogue on policy implications and support strategies that can better address the needs of this vulnerable population.

Different shades of integration: Linguistic, emotional, and educational aspects among immigrant children in public schools

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In recent decades, hundreds of thousands of migrant workers and asylum seekers have arrived in Israel. Though many of them lack any legal status, their children are integrated into the state education system. In the absence of a uniform official policy, various forms of integration have emerged, raising questions about their respective benefits and drawbacks.

This study, conducted in three schools that differ in the proportion of immigrant children within them and in their students' SES, explored the relationships between different integration patterns and various linguistic, emotional, and academic aspects. School A serves only children of immigrants from very low SES; in School B, about half of the students are children of immigrants studying alongside children of a high SES; in School C, about 25% of the students are children of immigrants, studying alongside local children of low SES. Using a qualitative-ethnographic approach, the research involved in-depth interviews with parents, education staff, aid organizations officials, and decision-makers, as well as classroom observations over one year.

The analysis revealed noteworthy links between integration methods and pedagogical policies in responding to the children's unique needs: the integration approach affected the dialogue between the children and the educators as well as the children's ability to engage with and be influenced by their peers. In School A, differentiated instruction in small groups was notable, fostering a limited discourse exclusively focused on the academic content while ensuring broad participation of the children. School B employed a democratic pedagogical approach, offering choices to the students and considerable freedom in social and academic discussions. In contrast, School C followed a traditional pedagogical model centered on frontal teaching, allowing only limited academic discourse without group work in a way that allowed only some of the children to participate.

Differences were also found regarding language aspects. Only School A related explicitly to the immigrant children's linguistic uniqueness, but none of the schools referred in any way to their home language in the teaching methods and content. Language challenges were primarily framed in terms of difficulties with Hebrew (L2) acquisition and use. Informally, some of the immigrant children in School A conversed in Tigrinya and English during mealtimes. Frequent use of English and minimal Tigrinya were observed in School B, while Ukrainian, Russian, or English were used mainly during recess in School C.

Data analysis at this stage indicates similarities between the schools, reflecting the unique challenges common to this population, but also many differences between the schools,

affecting the children's academic performance and emotional coping, reflecting the various integration patterns. Differences in the pedagogical policies regarding multilingualism also affected the children's overall performance and well-being.

Fostering multilingual awareness among children of refugees, asylum seekers, and migrant workers: Emotional and social aspects

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Like most education systems, the Israeli one operates on two key dimensions: Individualization, striving to foster personal growth and development, and socialization, emphasizing collective values supporting integration into the society. In an educational landscape as diverse as the one in Israel, which includes various minority groups alongside a dominant one, pedagogical approaches must address the specific needs of these groups while maintaining a standardized educational policy and ensuring equitable education.

Children of refugees, asylum seekers, and migrant workers attend public schools under the aegis of the Ministry of Education, and their unique needs are not explicitly acknowledged by the system. Schools are expected to follow the Ministry's guidelines and use pedagogical tools designed for the majority population, creating contradictions due to the lack of a clear policy or permanent status for these children. This approach places a significant burden on schools, requiring educators to find ways of bridging language and cultural gaps.

One way of addressing this complex situation is through innovative bottom-up initiatives developed by school administrations and teachers familiar with these students' unique needs. The current study examined one such intervention within the framework of multilingual education, designed to promote multilingualism in various ways while incorporating principles of justice and equality (Tannenbaum & Shohamy, 2023). The interventions also aimed to enhance the emotional well-being and self-esteem of the students and their families. Accordingly, parallel to teaching the majority language, this approach encouraged maintenance of the mother tongue of marginalized groups, which is mostly ignored within the formal education system.

Conducted over one year, the study employed various multilingual pedagogies through a custom-designed curriculum tailored to the children's needs (e.g., Helot, 2008). Using qualitative tools, the study assessed the effectiveness of the intervention in social, emotional, and academic domains. It was conducted with one class of 31 third-grade children, all children of refugees, asylum seekers, and migrant workers of uncertain legal status. Analysis showed that the intervention had a positive impact: Students felt more included, were better able to manage multiple languages, developed a stronger sense of group identity, improved family relations, and appreciated the recognition of their multilingualism as a key aspect of their identity. These promising findings suggest a potential for broader implementation, and recommendations for further development will be discussed.

Multilingualism, identity, and refugeehood: A study of adult refugees in prolonged displacement

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Immigration entails emotional upheaval, even more so when predicated on fleeing violence to seek asylum in sometimes unwilling host countries. Forced migration undoubtedly involves significant uprooting – a displacement of people, cultures, and languages. The centrality of language and its relationship to identity has been widely researched in immigration contexts, though less so in adult refugee populations affected by prolonged instability. The ability to use and communicate in one's language(s) is closely associated with overall well-being (Dewaele, 2016). Forced migrants such as asylum seekers and refugees who have been displaced for long periods often have a truncated kind of multilingualism, marked by 'messiness' and fragmentation. Their linguistic repertoires can represent entire life trajectories, and examining them in the complicated context of refugeehood can shed light on emotional and expressive aspects of language.

Eritrean and Sudanese nationals are currently the largest groups of asylum seekers in Israel. Many of them have endured harrowing journeys through smuggling routes, torture camps, and detention centers. Although the initial shock of arrival is significant, the experience of living in Israel for over a decade involves additional layers of adaptation. Many Eritreans and Sudanese have reached important milestones, established connections, acquired languages, and become a part of Israeli society in many ways. Nevertheless, without legal recognition as refugees and limited opportunities to progress, many have left Israel. Those who remain are part of a shrinking population living in a precarious state of 'permanent temporariness' – uncertain legal status, lack of rights, and constant threat of deportation.

Within this fraught context, this study aims to explore the complex relationship between language identities, refugee experiences, and emotional expression. The sample includes 19 participants, and data were collected over one year using ethnographic observations, in-depth semi-structured interviews, language memoirs, and language portraits. The presentation will focus on the visualization and externalization of identity vis-à-vis language. Given the small, shrinking, and vulnerable L1 communities considered and the protracted displacement in Israel, where Hebrew is the dominant language, the study examines what happens to an individual's multilingual repertoire.

The findings illustrate the linguistic repertoire in compelling and 'culturally enregistered metaphors' (Busch, 2012), highlighting how language and identity intersect and identifying patterns tied to both personal and collective identity. Asylum seekers and other categories of forced migrants rely immensely on their life stories, not just from the point of view of

psycho-social well-being but also to be legally recognized as refugees. Therefore, the findings of this project can prompt fieldworkers, NGOs, legal representatives, and policy-makers to reevaluate the way that refugee stories and experiences are collected, processed, and understood. Each individual story and portrait is unique, but collectively, these multimodal narratives call attention to the sociolinguistics of the refugee experience and, particularly, to the significance of multilingualism in the social integration of refugees.

Discussion

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The discussion will address each of the three presentations as well as the symposium as a whole, highlighting central insights and exploring how these studies contribute to a deeper understanding of the multifaceted challenges faced by individuals in these circumstances, extending also beyond the Israeli context. It will relate to the specific challenges encountered by individuals at different life stages, and propose ways the symposium can foster dialogue on policy implications and support strategies to better meet the needs of this vulnerable population. The discussion will emphasize how such policies can promote social justice, increase awareness of marginalized groups, and ultimately enhance their well-being.

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Network Analysis in Second and Bilingual Language Acquisition

Chair: He Sun, he.sun@nie.edu.sg

Effects of Network Dynamics on Bilingual Children's Speech Categorization

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Speech is complex, dynamic, and highly variable. However, an essential question in speech perception research is how listeners categorize this highly varied signal into discrete units. Categorical Perception (CP, Liberman et al., 1957) argues that listeners discard variation and only consider information that is necessary to identify the category itself. Tasks that are geared towards assessing this process, such as the two alternative forced choice task (2AFC), have been heavily used in speech categorization research. The results of 2AFC have been interpreted such that a steep slope defines sharp perceptual encoding, and a shallow or gradient slope defines a delay or difficulty in categorizing speech sounds. The use of 2AFC has also established the foundation of bilingual speech categorization research. For instance, bilingual children have been found to have a more gradient or shallow slope when categorizing sounds compared to monolinguals (Bosch & Sebastián-Gallés, 2001; Sundara, Polka, & Genesee, 2006). On the other hand, recent theoretical and empirical advancements in monolingual speech perception research suggest that speech categorization is gradient, and listeners use this gradiency to adjust to subphonetic details, recover from ambiguity, and aide learning and adaptation. Crucially, the limitations of 2AFC have been identified showing that this task cannot capture linguistic diversity (Kutlu et al., 2022). Here, we investigate the underlying mechanism that leads to gradiency in speech categorization in linguistically diverse communities across development and identify limitations of Categorical Perception in understanding linguistically diverse communities' speech categorization. To achieve this, we capture linguistically diverse children's social networks with a social network survey (see Figure 1).

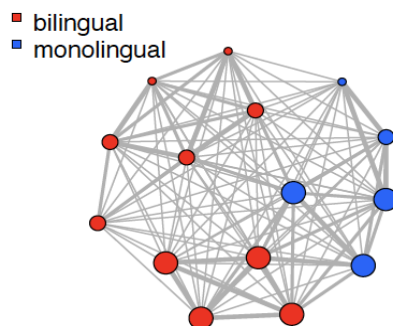


Figure 1. A representative social network graph of one participant that quantifies monolingual and bilingual language use in their network. Each node represents an individual that the participant communicates regularly. The color of the nodes signifies whether these individuals are monolingual or bilingual. The size of the nodes signifies how close they are to the participant (a bigger node means a closer relationship). The ties among nodes represent whether these individuals know one another.

The current study uses the Visual Analogue Scaling (VAS) task (Kong & Edwards, 2016; Kapnoula et al., 2017) to measure speech categorization and a network survey to measure linguistic diversity. Similar to a 2AFC task, participants hear tokens from a speech continuum (e.g., beach/peach). Unlike with 2AFC, participants make continuous ratings about how /b/- or /p/-like the sound is (Figure 2). This continuous structure of the task eliminates the interpretative ambiguity of the slope function (i.e., noisy encoding or true gradiency as a result of adjusting to the subphonetic details).

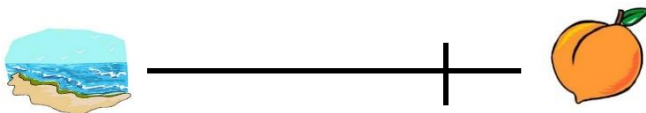


Figure 2. The layout of the VAS experiment where participants first hear the speech continuum. Participants were asked to click on the scale to indicate where they think the auditory stimulus falls. Here is an example of where a participant put their cursor (the vertical line) on the black scale.

School-aged children ($n = 62$, 6-11 years old, $M = 8.4$ years old, $SD = 2$ years old) who come from diverse language backgrounds who are dominant in American English were tested using the VAS task. We measured the language diversity around the children using a diversity index extracted from the social network survey. A latent profile analysis on the VAS responses found three classes (i.e., gradient profile, categorical profile, and noisy profile). Our findings show that increased linguistic diversity led children to be more gradient in their speech categorization which differed from having a gradient slope due to noisy encoding. A follow-up study with adult participants ($n = 138$) resulted in the same findings in which linguistic diversity led to more gradient categorization.

These findings suggest that the development of speech categorization is adaptive to an individual's linguistic environment, and this can be captured through a network approach. Findings here have implications for inclusivity in bilingual language development.

Motif detection and teacher-child interaction in bilingual children's shared book reading

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In Western contexts and languages, teacher comments and questions during shared book reading have been shown to support children's vocabulary development. However, it remains unclear to what extent these findings can be replicated in other cultural and linguistic settings, and the mechanisms behind the potential effects of teacher-child interaction are not well understood.

This study investigates the relationship between teachers' (n = 31) discourse sequences—specifically their questions and comments—and the receptive vocabulary growth of children (n = 505) over two years in Singaporean kindergartens, using mixed-effects models. Additionally, we aimed to explore classroom discourse in greater depth. Through motif detection, a particular type of network analysis, we examined multi-turn conversation sequences to understand the links between teacher strategies and student responses. Previous research typically used an aggregation approach, summing the frequencies of teacher and child behaviors and correlating them. This method, however, does not capture extended interaction patterns between teachers and children. To address this limitation, we employed dynamic motif detection in this study, identifying the transitional probabilities of a teacher's utterance being followed by a child's verbal response. Using an algorithm to detect patterns in teacher-child interactions, we extracted the longest significant sequences in their back-and-forth communication.

We found that lower-level questions and comments, such as labeling and classification, were associated with faster vocabulary growth in children compared to higher-level cognitive questions and comments, such as making inferences and reflections. Additionally, the number of questions and comments, such as asking children to describe an object in the picture book, significantly increased the likelihood of children responding and staying engaged in the conversation.

These findings help identify the conversational strategies that are most strongly linked to language development and offer recommendations for Chinese language instruction in early bilingual programs. To engage students more effectively, teachers might adopt consistent patterns of interactions that elicit regular responses from children. Depending on children's initial language proficiency, teachers can gradually increase the difficulty of their questions and comments to challenge and support their learning.

Examining the Relationship between Singaporean Young Adults' Bilingual Language Network and Psychosocial Development

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According to Erikson's psycho-social theory of development (1968), adolescence is a critical period for exploring and forming self-identity, supported by brain maturation that allows for abstract thinking and self-reflection (Umaña-Taylor, 2023). Successful identity development is linked to positive academic, psychosocial, and mental health outcomes, but bilinguals face unique challenges in this process due to their dual cultural identities (Tafel & Turner, 1986; Hoffman & Umana-Taylor, 2023). While past research has been mixed in their views towards biculturalism and identity development (e.g., Park, 1928), more recent research has suggested the positive impacts of biculturalism on individuals' cognitive, emotional, psychological, and social well-being. Informed by the tenets of positive psychology, a conceptual model has been put forward to suggest that the experiences of being bilingual and bicultural can have beneficial outcomes in Psychological Growth, Cognitive Exploration, Linguistic Awareness, and Social Reinforcement (GEAR model) (Chen & Padilla, 2019). While this framework has been recently suggested, there is less research that has examined this model, particularly with bilingual adolescents' experiences, identity, and psycho-social outcomes. The aim of this research is to examine the GEAR model, and examine the relationship between adolescent bilinguals' language experiences, bilingual identities, and psychosocial outcomes as proposed in the model.

In the ongoing research, approximately 70 bilingual adolescents and young adults (ages 17-25) in Singapore are being evaluated on their bilingual language proficiencies, experiences (e.g., language background, language networks), bi-cultural identities, and psychosocial outcomes (e.g., self-efficacy, well-being, adaptability, resilience, openness to diversity). As a multicultural society, Singapore offers a unique context to explore these relationships. We employed network analysis, a cutting-edge approach in bilingual research, to quantify and capture the nuances of bilingual experiences, proficiencies, and language use (e.g., Tiv, Kutlu, Gullifer, & Ruo et al., 2022). Using a Language Network Analysis approach, the study examines how variations in adolescents' daily language use relate to their bi-cultural identity development and psychosocial outcomes, as outlined in the GEAR model. Network indices such as network diversity (a measure of linguistic diversity within the participant's social

network), strength of networks (the frequency and closeness of interactions), and other centrality measures were extracted. This research provides important insights into the GEAR model using the novel Language Network Analysis approach, with implications to be discussed at the end of the presentation.

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New geographies of language in minority language sociolinguistics: exploring the spatial and temporal dynamics of (new) speakers and new speakerness.

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Globalisation and increased movement of people have changed social interaction and reshaped the values of different languages and way of speaking. It is widely accepted that imperialism in the forms of colonisation and globalisation is a key factor in the dissolution and extinction of minority languages, and there has been vast literature investigating this. However, this complex process does not result in language loss solely, as these languages are often taken up and used by new types of speakers, for new purposes and in new spaces. We find a growing numbers of new speakers of minority language speakers in urban contexts (O'Rourke 2022) as well as vibrant communities in the diaspora and virtual communities of practice across the globe (Cunliffe, 2019). This new dynamic is happening in a context in which "native speaker" communities are declining in traditional strongholds while new networked communities in new places are emerging as a result of globalisation, increased mobility, technology, and language revitalisation efforts. Despite this, some language revitalisation models continue to frame minority languages within the geographical confines of stable communities of place tied to a specific territory, based on face-to-face interaction. While existing research in minority language sociolinguistics on new speakers of minority languages (O'Rourke et al., 2015 inter alia) has hinted at the role played by space, context and environment in relation to language acquisition and use, it has not always explored such themes systematically or with reference to the more contemporary geographical debates concerning these factors (Jones and Lewis, 2019). In this colloquium, we propose a shift in focus in the way in which we understand contemporary minority language revitalisation, moving our analysis from fixed communities of place to mobilities across time and space. In doing so, our colloquium seeks to examine an alternative set of assumptions which can allow us to explore the temporal and spatial dynamics of language revitalisation under changing societal conditions. This involves a fundamental shift in how the geographies of minority languages are theorised as well as a re-assessment of the methodological approaches required. In this colloquium, we examine new and emerging dynamics in contexts of language revitalisation and their potential for the future of these languages and diversity more broadly. We focus on new spaces of interaction in urban contexts, the diaspora and digitally.

Language learning practices among emerging new speakers of Hawaiian in the digital diaspora

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Scholarship on new speakers has documented many aspects of language reclamation, but it has yet to explore the practices that emerging new speakers are engaged in across the diaspora. Whether in Hawai'i or in the diaspora, the majority of Hawaiian language learners can be defined as new speakers, as most have learned Hawaiian outside of the home or community, typically as adults, without intergenerational transmission. This circumstance is due to the loss of sovereignty by Native Hawaiians in the latter half of the nineteenth century. Hawaiian was widely spoken in the Kingdom of Hawai'i, but due to infectious diseases brought by foreigners in the 1800s, the Native Hawaiian population was greatly reduced. Americans residents of the Hawaiian Kingdom came to own large tracts of land, gained political power, and ultimately overthrew the Hawaiian monarchy in 1893. Shortly afterwards, schoolchildren received corporal punishment for speaking Hawaiian, and Hawaiian was officially banned as a medium of education. Hawaiian remained spoken and written, but after Hawai'i was annexed as a U.S. Territory, pressure by schools and the new government to adapt to U.S. norms greatly reduced the transmission of Hawaiian (Baker, 2018). In the 1980s, Hawaiian started to be reclaimed through immersion programs in public schools (Warner, 1999), and adults began learning Hawaiian more frequently at higher education. Hawaiian is now reported to be a home language by approximately 30,000 residents (ACS, 2020). There are also nearly 1000 mānaleo, or native speakers, who speak Hawaiian as a result of uninterrupted, intergenerational transmission (Kneubuhl, 2014).

Due to economic challenges and socioeconomic opportunity elsewhere, there are now more Native Hawaiians living outside of Hawai'i than there are residing in the state. Since the COVID pandemic began, a number of platforms for learning Hawaiian have emerged, and members of the diaspora are participating in these efforts, alongside learners located in Hawai'i. In this paper, we examine the practices that the diaspora engages in to initiate and sustain efforts to learn Hawaiian. Examining data from two popular social media platforms that teach Hawaiian, we first use content analysis (Saldaña, 2011) to code the language queries and discussions among diasporic learners. Translation requests are common, and they are often embedded in diasporic members' efforts to take part in a Hawaiian cultural practice or form of 'ike (knowledge). Within this data, we then focus on a key challenge experienced by new speakers in all contexts (McLeod & O'Rourke, 2015), which is how emerging new speakers navigate the language ideologies framing 'correct' and 'authentic' forms of Hawaiian. Here, our methodology involves coding instructional discourse from posted videos and other content as well as coding of participants' digital comments with

attention to epistemic stance. Our analysis reveals that social media platforms privilege mānaleo forms of Hawaiian as linguistic models, and that new speaker varieties of Hawaiian are rejected if they are found to be unattested in native speaker recordings or usage. We consider the impact of this instructional practice on language learning ideologies for emerging new speakers.

Emerging Linguistic Ecologies: Where and Why New Speakers Use Manx in the Isle of Man

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Manx Gaelic, spoken in the Isle of Man, has undergone extreme language endangerment, and is now being revitalized through a combination of grassroots activism and governmental language policy. The language has a community of around 2200 people who report competence in the language, as of 2021. All members of the Manx speaker community are New Speakers, having acquired this revitalised minority language through means other than first language transmission in the home (O'Rourke, Pujolar and Ramallo 2015: 1). Where Manx differs from other New Speaker contexts is that the New Speaker community is emerging in the absence of existing traditional native speakers, the last of whom passed away in 1974. This paper therefore discusses the varying types of sites at which Manx is being used in this predominantly rural New Speaker community, and the implications of the presence or absence of Manx at key sites for emerging language ideologies in this community.

To explore the above, I will present sociolinguistic data collected through ethnographic fieldwork in the Isle of Man, which served as part of my recently-completed PhD project. The data consists of sociolinguistic interview data, participant observation, and linguistic landscape analysis. The paper addresses the following research questions:

1. Where is (and isn't) Manx used in the Isle of Man?
2. What beliefs do Manx New Speakers have about Manx's use in the Island's linguistic ecology?
3. What role do emerging Manx spaces play in the emergence of the Manx New Speaker community?

This paper will shed light on what happens to linguistic geographies, particularly in rural, island settings, as New Speaker communities emerge. It will also highlight how members of such communities respond to these emerging linguistic ecologies, such as where they feel there to be gaps, and why language hubs may have emerged in certain areas and not others. Finally, it will showcase what can be learnt about the origins of geographies of New Speaker spaces as a consequence of language revitalization having put Manx 'on the map'.

Activating Basque language use in Bilbao: the importance of space

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In Basque sociolinguistics and language policy, as well as in other minority language contexts, there has been a strong focus on the highly Basque-speaking rural territories, following the assumption that these breathing spaces (Fishman 1990), and native speakers, are the ones that best ensure the future of the language. However, the positive development of Basque has brought about a great increase in the number of speakers and a diversification in the profiles of those who can speak the language, a great percentage of whom are new speakers who live in urban environments. Bilbao is the largest city in the Basque country and it is not a traditional Basque speaking environment, despite 90,000 of its citizens being able to speak it. This city provides us with an interesting dynamic and diverse context to examine language practices and ideologies as they have evolved during and as a result of language revitalisation efforts. A myriad of different profiles of Basque speakers come together in everyday life in Bilbao: L1 and new speakers of Basque from Bilbao and from highly Basque-speaking towns who come into Bilbao to study and work. All these types of speakers move across different spaces within the city, negotiating their language preferences and many of them showing similar difficulties to actively use the minority language (Amorrortu et al., in press).

We will present data from a Participatory Action Research project carried out in the context of *Equiling* project (www.equiling.com), which studies language-mediated inequality. The project involved working together with 21 university undergraduate students from the universities of Deusto and BAM Teacher Training University College who wanted to increase their Basque language use in Bilbao. Following a Freirian approach (Freire 1970), we created a *conscientization space* where we could learn together about the sources of their difficulties in using Basque in the context of the university and the city of Bilbao, reflecting on and discovering the type of language ideologies and social norms present in those spaces, and moving then into action through the transformation of those spaces into less hostile for the use of Basque. Young participants showed that that transformation in themselves and in their linguistic practices was possible.

In this communication, we will show that considering the dynamic, socially-constructed, and interrelated nature of space can shed light in the process of activation of Basque young speakers, and can also help to rethink and question traditional assumptions around territory, nativeness, and language.

New Spaces for New Speakers: the role of interactive, digital maps in facilitating the use of Scottish Gaelic in urban Glasgow

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¹University of Glasgow

Whilst attitudes towards a minority language may be favourable in many communities, this does not always result in increased active use, often due to restricted opportunities to speak the language. In the absence of such opportunities, new speakers of minority languages often create and construct their own spaces or report seeking out opportunities to join existing ones (Walsh et al. 2015). This paper reports on an interdisciplinary project which explored the potential of integrated geo-spatial methods as a way of capturing the experiences of multilingual minority language speakers in cities. These experiences were recorded as they were played out in real time and space through a combination of GPS monitoring, the use of the Electronically Activated Recorder (EAR), and map-based ethnographic interviews (O'Rourke et al. 2024). This paper discusses a knowledge exchange and community engagement project emerging from that work where digital tools in the form of an interactive map-based app were developed to enable social networks of minority language speakers in urban contexts to form and grow. The paper also looks at the effect of gamification techniques in which contributors could obtain community-based rewards for use of and engagement with the minority language. These approaches were tailored to the needs of the Gaelic-speaking communities in the city of Glasgow, Scotland's biggest city where there is a significant Gaelic presence through various institutions including the University, Gaelic-medium schools and cultural venues. It is estimated that approximately 10,000 people report varying levels of ability in the language across a range of key skills including reading, writing, speaking, and listening (McLeod, 2020). In our paper we look at the experiences of urban (new) speakers and potential new speakers of Gaelic in using the app and the role (if any) it has in activating their use of a minority language in an urban setting. We also explore the degree to which digital tools such as these promote greater engagement with new and existing Gaelic-speaking spaces in the city.

Discussion

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Ontologies of bilingualism

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Research on bilingualism has played a key role in subverting our ontologies of language. For instance, investigation of bilingual phenomena through the lens of translanguaging has led to questioning the notion of language as bounded, enumerable entity, locating language within the dynamic interactional practices of language users, rather than in structural constructs of language varieties. But what about the very subject of bilingualism research itself, bilingualism — what questions of ontology can we raise for bilingualism? That is: In what sense and in what way does bilingualism exist? What does it mean to say someone is bilingual, and what implication does it have for being in the world? This panel brings together scholars who work across different cultural, political, and social contexts to ask ontological questions of bilingualism. If our understanding of bilingualism still generally centers on a bringing-together of semiotic resources from multiple sources, is there a need to move towards a renewed ontology of bilingualism that incorporates the affective, historical, political economic tensions and struggles that characterize bilingual lives? Also, given the myriad ways in which bilingualism intersects with material human life --- including how it places us in hierarchies of race, gender, class and other systems of differentiation --- should we accept the possibility of many ontologies of bilingualism, where the multiplicity of material and social conditions that shape practices of bilingualism gives rise to multiple ways of being bilingual? Contributors to the symposium will consider these and other questions, challenging the field to reflect on more fundamental ontological assumptions of bilingualism that avoid our scrutiny.

Undoing (human) development: Racial, linguistic and gendered entanglements

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In *Histories of the Transgender Child*, Jules Gil-Petersen traces the emergence of binary gender within normative theories of human development (Gil-Petersen, 2018). She pays particular attention to the work of psychologist John Money who in the 1950s sought to explain the limits of various medical therapies in being able to move intersex patients into the sex that he had deemed was their true biological sex through the introduction of the concept of “gender role.” Gil-Petersen critically examines the role of race in shaping the theories of human development that informed Money’s conceptualization of gender role with white children being the only children who could ever achieve the normative human development necessary for the emergence of normative gender role. This argument parallels the recent conceptual shifts within a raciolinguistic perspective towards considering ontological questions related to the role of language in producing racialized populations deemed outside of what it means to be fully human (Flores & Rosa, 2023).

Bringing these two arguments together, I seek to explore the co-naturalization of race, language and gender in the construction of modern theories of human development. I first situate this co-naturalization within the emergence of contemporary theories of human development in the 1800s that sought to universalize the trajectory of individuals within broader societal trajectories. At the core of these theories was the ideology that racialized populations lacking the capacity to reproduce sexual differentiation because of innate deficiencies (Schuller, 2018) and to fully develop language (Rosa, 2016). I use this as a point of entry for examining the crucial role that contemporary theories of language development had on Money’s theorization of gender role with him arguing that like native languages gender roles can “become so deeply ingrained that not even flagrant contradictions of body functioning and morphology may displace it (Money, 1955, p. 1955). I juxtapose his assumption of everybody having a native language with contemporary verbal deprivation theories that suggested that racialized bilingualism might prevent children from developing native proficiency in any language (Flores, 2024). I then trace these racial, linguistic and gendered entanglements in contemporary theories of human development pointing to the ways that these theories continue to reify longstanding colonial logics under the guise of objective descriptions of what is deemed a universal human trajectory.

Civilizationism and ontologies of bilingualism in Canada: Science and the reproduction of an unjust world

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In 1950, the United Nations recommended that its United Nations Educational, Scientific and Cultural Organization “consider the opportunity to propose and recommend the general adoption of a program of scientific facts destined to counter what is generally called racial prejudice” (my translation, UNESCO 1951: 6). Apparent in this recommendation is the belief that science can counter prejudice and produce a just social world (Foucault 1978; Piller 2016). This text is amongst of corpus of documents circulated internationally in policy circles in the 1950s, as member states of the United Nations outlined policies meant to ensure fair treatment of minorities. They mark an epistemological change in the management of difference in the aftermath of the Second World War, the transformation of European imperialism and the emergence of post-colonial states. This epistemological turn served to enshrine northern scientific ontologies about bilingualism, race and groups. It reproduced rather than challenged raciolinguistic ideologies (Rosa and Flores 2017).

In Canada, these texts were central in the definition of “official bilingualism.” I mobilize a critical historical sociolinguistics framework to investigate the body of work mobilized by scientists charged with defining how French-English bilingualism should be implemented in Canada. Adopting a situated materialist approach, I draw on the texts cited by the scientific committee of the Commission to understand how science served to imagine a “linguistically just” world. Imagining languages as belonging to separate cultures, the commissioners both challenged and reproduced some of the raciolinguistic ideologies of the time. I focus especially on the “civilizationist” bias that pervaded these texts, one that held that if all bodies were equal, “some civilizations were greater than others” (Comas 1951: 5). I follow how the definition of bilingualism was constrained by the social scientific knowledge of the time, in ways that served to reproduce deficit understandings of speakers, bilingualism and multilingualism. This body of knowledge continues to have an effect today, as the Official Languages Act continues to guide linguistic policy. Further, policy makers regularly consult with social scientists to this day, in ways that reify the understandings of bilingualism enshrined in the Act. While situated in the realm of studies of language ideologies, this paper aims to dis-invent language (Deumert 2023), or at least resituate “science” as an ontology amongst others in the definition of bilingualism.

Mobility and ontologies of bilingualism: Experiences of international students in their transition to employment in Canada

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With the global competition for highly skilled migrant workers in late capitalism, recruiting international students in Canada is increasingly framed as part of a broad strategy to manage highly skilled migration. Yet, international student's transition to quality employment in Canada is not widely successful and universities are faced with challenges of framing the support to these diverse students at the intersection of internationalization, inclusion, and racialization (Kim, Buckner, and Montsion, 2024). To better grasp on the ways in which language practices are socially and politically embedded in mobility trajectories of the international students in their transition to work, this paper adopts an understanding of bilingualism as a variety sets of sociolinguistic practices related to the construction of social difference and inequality within the context of contemporary intertwining of capitalism and colonialism (Heller, 2007; Heller & McElhinny, 2017).

Data are drawn from two different sociolinguistic ethnographic studies on international university students at a Canadian prairie province with particularly high levels of English monolingualism. The analysis highlights ways in which racialization is shaping the student's migration experiences and post-graduation pathways in similar or different ways across different groups of international students, how the policing of "non-standard" language practices further complicates their racialized experiences, and how the students navigate shifting material conditions of their lives.

The case of international students in Canada illustrates how the renewed understanding of bilingualism is better positioned to explain the complexities and heterogeneity represented in language data produced by the students. The students' stories also tell us about language and social relations which inform the material conditions of their lives with respect to the transformation in the global economy where universities are held accountable to the labour market demand for "standardized" language skills. This, in turn, points out how the contemporary condition of globalized mobility in late capitalism renders the question of ontologies of bilingualism at the forefront of economic, political, social, and educational concerns.

Bilingualism as doing: Ontology of value in the political economy of fansubbing

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In capitalism, bilingualism is attributed value, as it is seen as a way of mediating between distinct language regimes that enables unimpeded global circulation of capital, which, in turn, opens the door for commodification of language (Cameron 2005, Heller 2010, Petrovic and Yazan 2021). Critical study of bilingualism thus needs to ask ontological questions of bilingualism: To what extent is the value of bilingualism “real”? Where does such value come from? How is this value appropriated by capital for profit? Answering these questions requires more than treating bilingualism as a semiotic convergence of distinct linguistic regimes; instead, we need to approach bilingualism in terms of materially grounded actions of communicating subjects in political economic context. For this, this paper relies on an understanding of bilingualism as doing. In John Holloway’s (2010) interpretation of Marx’s theorization of the commodity, doing replaces the notion of concrete labor, to refer to the creative, transformative, and self-determined action that underlies human social life, which capital strives to subsume and exploit for profit. Approaching bilingualism as doing, then, means seeking the ontology of bilingualism in the productive communicative action of people and its material consequences, instead of the purported sources of the semiotic resources involved in such acts of communication.

As an illustration of this, this paper considers the case of fansubbing — unauthorized, fan-translated subtitles for global media products — to argue that fansubbing is not merely a cognitive or technical process of bilingualism by which a media text is converted into another language variety, but a case of bilingual doing through which political economic change is enacted and brought about in the material world. Fansubbing is a practice wrought with great tension, for on the one hand, it is clearly identified as an infringement of copyright in intellectual property law, but on the other hand, it is widely known to contribute to the expansion of media markets, as it facilitates consumption of the media products in question even before formal channels of consumption becomes available. Thus global media capital may tolerate or in some cases appropriate the work of fansubbers as a way of maximizing its market reach. But subtitles become valuable not simply as freely available subtitles that facilitate consumption; rather, their value to the market resides in the fact that they constitute affective communicative acts that give rise to well-integrated fan communities, in which communal sharing of experiences and information about media texts serve as a materially real foundation for further economic activities (Dwyer 2017, Lee 2011, Park 2019). The case of fansubbing, then, points out how recognizing the ontological

grounding of bilingualism in material social action offers a crucial vantage point for critical analysis of language in capitalism.

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Parents' management of multiple languages, media and modalities and actual practices in England, Finland and Luxembourg

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The development of multilingualism requires input in multiple languages and opportunities for meaningful interaction with people in culturally relevant situations (Baker & Wright, 2021). Interactions in transnational families are likely to involve people of various social and cultural backgrounds, include a range of digital technologies and be embedded in diverse language and literacy practices (Obojska & Vaiouli, 2023; Palviainen & Räisä, 2023). While parents have been shown to play a crucial role in children's language socialization through planning their home language and literacy environment such that children can engage with multiple languages, media and modalities (Curdt-Christiansen & Huang, 2020), the role of digital technologies for language and literacy learning and in relation to family language policy (FLP) only begins to be explored.

The present symposium with contributions from the UK, Finland and Luxembourg examines both the ways in which transnational families manage the digital language and literacy environment, and the rich practices that help children develop language and literacy skills in a heritage and/ or dominant languages. The authors in the UK analyse the digitalscapes of two Chinese families and show why it is crucial to incorporate digital communication and literacy within FLP. The researchers in Finland investigate the ways in which two families manage and negotiate digital literacy practices, explore the challenges and showcase the complex multimodal web of language and digital practices. Similar to the children in the UK, those in Finland influence their parents' practices, for example, by engaging in alternative practices. Children's agency within family literacy practices is further explored in the final two papers from Luxembourg. The third paper focuses on the diverse multiliteracy practices in which a boy engages at home and in ECEC and the ways he manages to connect them. The final paper provides insights into the complexity of digital literacy learning practices of two transnational families and the changes of the parents' management over time owing to children's developing competence and interests.

Using a wide array of methods and working with multilingual speakers of different ages, cultural and social backgrounds, we provide new knowledge on how multilingualism and multiliteracies come into being in transnational families, shedding light on the nexus of parental management efforts and child agency. By offering various lenses for studying digital home literacies, this symposium advances our understanding of the power and affordances of digital media in multilingual and multiliteracy practices in transnational families.

“Of course, Chinese people must know Hanzi”: Two case studies of multilingual literacy practices in Chinese transnational families in the UK

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Given the increasing availability and accessibility of digital technologies, many transnational families incorporate digital media into their daily communication practices. Some studies suggest (e.g., Little, 2019) that the diverse affordances of digital media can be leveraged for a range of language and literacy practices across various modalities and languages within transnational families. Yet, there is little knowledge on how digital media are used by transnational families to facilitate language and literacy learning in the context of migration (Obojska & Vaiouli, 2023), and there have been few efforts to connect the role of these technologies in family language policy (FLP) (Palviainen & Räisä, 2023). The present study is underpinned by the theory of digitalscapes to gain a new perspective on FLP in a technology-driven world. Specifically, it aims to explore (1) how digital heritage literacy is practised and used in families, and (2) how parents and adolescents manage heritage literacy in digital communication spaces.

Involving a Chinese immigrant family and a Chinese-English family, each with two adolescents, this ethnographic case study delves deeper into the within-family communication apps and multilingual literacy practices. Data were gathered through semi-structured interviews, observations of digital communication apps at home, and informal follow-up discussions involving all parents and adolescents. Each family was interviewed twice, with each session lasting between 30 minutes to one hour. The interviews focused on the perceptions and ideologies of parents and adolescents regarding digital communication apps and their impact on the development of the adolescents' heritage literacy. Biweekly home observations and follow-up discussions were conducted to examine diverse digital communication dialogues and languages choices within the families.

Our findings reveal that parents held paradoxical ideologies towards literacy practices in digital communication spaces. However, adolescents were able to influence the parental strategies, ultimately leading to harmonious digital literacy practices in home space. The data also illustrate that adolescents' heritage literacy practices in the digital communication space have enabled them to improve their heritage language proficiency, thus, encouraged them to further develop their cultural and linguistic identities.

Our study demonstrated that digitalscapes within the field of FLP can provide a comprehensive theoretical framework to study a variety types of literacy practices among family members. Parents and children influence each other in different ways when exploring multilingual literacies at home. Our findings indicate that it is essential to incorporate digital

literacy and digital communication spaces when investigating FLP. The findings may be of interest to migrant families, researchers, and policymakers concerning HL in the UK and globally.

“Yes, she’s certainly digitally native”: Family negotiations of language and digital practices

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Although digital technology is integral to contemporary multilingual families’ lives, its role in family language policy (FLP) and its impact on children’s literacy and language development remain underexplored (Palviainen & Räisä, 2023). Little (2020: 257) proposes a “digital addendum” to FLP, incorporating “family digital literacy.” To understand how FLPs are constructed—and their effects—we need insights into how family members, both parents and children, navigate daily language and digital practices, and how they exercise agency.

This study focuses on two multilingual families in Finland—speaking Swedish, Finnish, and English—with school-aged children. The Taylor family’s children (aged 6 and 8) attended an international English-medium school, while the Johansson family’s boys (aged 8 and 11) went to a Swedish-medium school. The data are drawn from a larger ethnographic study and focus on two semi-structured interviews with each family, conducted three months apart in the spring of 2020, along with three longitudinal WhatsApp family chats.

Based on the family members’ co-constructed descriptions of ‘what’ they do, we first map out these families’ multimodal language and digital practices, identifying the languages used online and offline, with whom, for what purposes, using what tools, and through which modalities. We then examine instances of parental management, or the deliberate planning of language use and digital technology, followed by identifying tensions or disagreements about how these practices are (or are not) performed.

Our findings show that language and digital practices shifted over time due to the COVID-19 pandemic and subsequent school lockdowns (e.g., the adoption of new digital platforms). Parents articulated clear goals for managing their children’s bilingualism and literacy development using digital tools, such as educational games and messaging apps. Tensions arose regarding topics such as screen time, where parents’ authority was challenged, as well as in digital literacy, where children surpassed their parents in skill. Another challenge to parental authority occurred when parents encouraged the use of a specific language and written modality in WhatsApp to support their child’s literacy, but where children chose other options. We thus observed how agency was exercised in a digital FLP environment.

The co-constructed FLPs in these families revealed a complex, intertwined web of language and digital practices, which defy simple dichotomies like speech vs. writing or online vs.

offline. Instead, we propose that multimodality offers a useful analytical lens for capturing this complexity.

Embracing multilingual practices at home and in ECEC: a case-study of a two-year old in Luxembourg

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In multilingual Luxembourg, many young children develop language and early literacy skills in several languages both at home and in early childhood education (ECE). The National Youth Service found that a third of children from birth to four were reported to speak one language, a third two, and a third three or more, with the home languages not always being the three official languages - Luxembourgish, French and German. Based on a survey with 350 parents, I found that 46% of the participants reported that their children used digital media to watch videos in English, Luxembourgish and French daily or every other day. In addition, 13% of the children were reported to use digital technologies daily or every other day to engage with literacy. Owing to the multilingual education programme in ECEC, children familiarize themselves with Luxembourgish and French while also encountering their peers' home languages. Furthermore, they engage in a range of literacy activities, though more rarely in digital ones.

The present paper focuses on the multiliteracy experiences of two-year-old Etienne and analyses the ways in which he navigates between and across the diverging multilingual literacy practices at home and in ECEC. The data are drawn from 10 months of observations in a day care centre, 18 self-recorded documents of home (digital) literacy activities, and four interviews with Etienne's mother and educators. Based on the continua of biliteracy (Hornberger, 1987), I will explore the media and content of biliteracy and examine similarities and differences between the contexts. I thereby draw on the adults' understanding of bilingualism and literacy which inform their language management and practices.

The findings show that Etienne primarily speaks French with his parents and communicates in French and Luxembourgish in ECEC. He also encounters German and English in both contexts as well as Portuguese in the centre. He experiences strict language separation at home and flexible language use in ECEC. Additionally, Etienne participates in literacy activities, some digital, in both contexts (e.g., looking at books, shared reading, identifying letters, writing). These are framed, on the one hand, by his parents' skills-based approach and, on the other hand, the educators' view that literacy involves skills and is a cultural practice. I show that Etienne meaningfully connects these diverse language and literacy experiences and provide examples of his language-based agency, for example when he refuses input in Luxembourgish at home and positions himself as a knowledgeable bilingual in ECEC. I argue that the macro and micro contexts, the sociocultural practices, and the rich

interactions between the educators, parents and child, not only shape the child's multilingualism and language behaviour, but also influence his attitudes towards languages and literacy (Curd-Christiansen & Huang, 2020; Kirsch & Hornberger, 2024).

‘Teams came and stayed’ – agency and parental mediation in language and literacy learning activities with digital media in multilingual families in Luxembourg

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Considered mobile learning communities, transnational families offer their members unique safe spaces for language and literacy learning. With the growing availability and accessibility of digital technologies, many of these families draw on digital media not only in their daily communication practices but also in their language and literacy learning endeavours. Yet, as of today, there is little systematic knowledge on how digital media are used by transnational families to facilitate language and literacy learning in the context of migration. Focusing on the context of multilingual Luxembourg, the present paper addresses this knowledge gap by exploring how language and literacy learning practices with digital media come into being and develop over time in two transnational families in Luxembourg. In particular, we aim to examine how the parental language and media management efforts evolve over time to accommodate the children’s growing multimodal, multilingual and multimedia competences.

Our participants are two multilingual transnational families in Luxembourg, with migration background from Turkey and Cape Verde and focal children aged 6-11. Both families use multiple languages daily, with Turkish and Portuguese as the respective home languages and German, French, Luxembourgish and English used and learnt in different domains of work, school and free-time contexts.

Collected over the period of one year, our data set consists of interviews with parents and children, screenshots of participants’ digital practices and recordings of the language and literacy learning activities in the two participating families. In the present paper, we first provide the results of a qualitative content analysis performed on the whole dataset. The analysis shows that language and literacy learning practices with digital media are complex, happen in several types of interactions, using a host of different media and modalities, and are modulated by fluctuating level of agency of the research participants. Thereafter, zooming in on interviews and recordings provided by the participating families, we illustrate in detail how the parental language and media management efforts change overtime, moving from high parental mediation levels at the beginning of data collection, to allowing more child agency toward the end of the fieldwork. The qualitative data is triangulated with the results of a survey conducted among 200 parents in the first phase of our project to provide broader context for our analysis. Finally, we discuss the triangulated result of our work against the backdrop of current research on digital languaging in multilingual families.

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Talk Abstracts

Access to Heritage and Majority Language Education in Multilingual Families amid the COVID-19 Pandemic: Emerging Experiences and Opportunities

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During the COVID-19 pandemic, as schools transitioned to remote learning, parents became primary educators for their children (UNESCO, 2020). While some research indicates positive conditions for heritage language (HL) learning during lockdowns (Afreen & Norton, 2021; Sheng et al., 2021), little is known about the effects on multilingual families and the interaction between HL and majority languages (ML). This study aims to enhance understanding of families' experiences in HL and ML use and learning during the pandemic lockdown, focusing on language maintenance in crises. Conducted in Cyprus, Estonia, Germany, Israel, and Sweden, this research investigates the pandemic's impact on language learning dynamics in multilingual families. Analyzing 50 in-depth interviews from spring 2022, the study uses a comparative approach to explore language practices across five countries, particularly in HL-Russian environments. Results indicate significant changes within multilingual families, with some reporting increased HL use and others expressing concerns about ML development due to reduced HL exposure. A common theme was the adoption of innovative technological solutions for language learning, with parents primarily responsible for HL and ML education. The findings highlight new opportunities for child agency, as children sought to improve their digital literacy and engage in HL learning and online communication. The online environment fostered the development of HL linguistic and cultural identity, helped maintain ties with friends and relatives in the home country, and contributed to overall well-being. Future research should explore government policies and support structures in maintaining HL and ML in multilingual families during crises. Larger, more diverse samples and mixed-methods approaches could further elucidate these issues.

Afreen, A., & Norton, B. (2021). COVID-19 and heritage language learning.

Sheng, L. et al. (2021). The bilingual home language boost through the lens of the COVID-19 pandemic. *Frontiers in Psychology*.

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A corpus study of multilingual practices in Northern Belize

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In Northern Belize, the frequent mixing of English, Belizean Kriol (an English-based Creole), and Spanish provides a unique opportunity to examine sociolinguistic interactions. This linguistic landscape enables the study of individual language use through a sociolinguistic lens, using models like the Matrix Language Frame (MLF) (Myers-Scotton 2002), which posits that a dominant language provides the morphosyntactic frame of a clause (Matrix Language), and the other language(s) involved (Embedded Language(s)). Based on Carter et al. (2011), we might expect that factors such as speaker proficiency, ethnic identity, and social networks would influence individuals' preference for one language as the Matrix Language over the other(s). Using this framework, we analyzed code-switching patterns among 17 young adults (age 18-25, 8 females, 9 males), and one older speaker (age 76, male), who participated in 15-minute paired video-recorded conversations. We examined the proportions of multilingual versus unilingual clauses, the location and nature of switches, and whether any Matrix Language preference emerged in our dataset. Of 4,010 clauses, 632 (16%) were multilingual. Participants showed a slight preference for unilingual English/Belizean Kriol (1921 clauses, 60%) compared to unilingual Spanish (1293 clauses, 40%). However, in 549 (87%) of the multilingual clauses, Spanish was the preferred Matrix Language. Despite this, we did not observe a clear relationship between the self-rated Spanish proficiency and this Matrix Language preference. In our presentation, building on Carter et al. (2011), we will further explore if the social networks and code-switching attitudes of these speakers might explain the strong preference for Spanish as the Matrix Language.

Myers-Scotton, C. (2002). *Contact Linguistics: Bilingual encounters and grammatical outcomes*. Oxford: Oxford University Press.

Carter, D., Davies, P., Deuchar, M. & Parafita Couto, M. C. (2011). A Systematic Comparison of Factors Affecting the Choice of Matrix Language in Three Bilingual Communities. *Journal of Language Contact*, 4(2), 153-183

Acoustic detail and phonetic categories in L2 speech perception: the challenge is in the mapping

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Learning second language (L2) phonological contrasts absent from the L1 can be difficult, leading to L2 phonological knowledge that has been characterized as imprecise or lacking robustness. Nevertheless, asymmetries in word recognition and other tasks suggest that learners can leverage variable goodness-of-fit between L2 and L1 categories to gain a foothold on difficult L2 contrasts, implying substantial sensitivity to acoustic detail (e.g., Darcy, et al., 2013). We studied this in late Spanish-English bilinguals with high-intermediate to advanced English proficiency (n = 86, plus 55 L1 English listeners). We compared 5 English vowels, /ɛ/, /æ/, /oʊ/, /ɔ/, /ʌ/, which instantiate some difficult L2 English contrasts. These vowels' multi-way assimilation to Spanish /e/, /a/, /o/ should provide useful information for learning the underlying categories. We constructed a 72-item continuum encompassing bet-bat-boat-bought-but by varying vowels' F1, F2 (6 steps each), and durations (two steps). Participants rated how well each item matched each target word using a Variable Analog Scale (Apfelbaum et al., 2022). Unlike forced choice, this paradigm is sensitive to both phonetic category structure and acoustic detail. K-means clustering strongly supported 5 underlying vowel categories for most L1 and L2 English listeners, though some listeners in both groups exhibited fewer categories. While L2 listeners' categories tended to be more diffuse, gradient response patterns in both groups indicated robust sensitivity to acoustic detail. Thus, apparent difficulty in perceiving L2 contrasts arises from mapping acoustic information to abstract phonetic categories, rather than from reduced sensitivity to acoustic detail or from imprecise category representations.

Apfelbaum, et al. (2022). Don't force it! Gradient speech categorization calls for continuous categorization tasks. *The Journal of the Acoustical Society of America*, 152(6), 3728-3745.

Darcy, et al. (2013). Asymmetric lexical access and fuzzy lexical representations in second language learners. *Mental Lexicon*, 8(3), 372–420.

Acquisition of Existential Definiteness by Italian speakers of L2 Spanish

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Existential sentences, in several languages including Spanish (Ex.1: "Hay {*las/unas} llaves encima de la mesa") and English (Ex.2: "There are {*the/some} keys on the table"), obey the Definiteness Effect (DE), a constraint restricting the use of Definite Phrases (DP) in thematic position. Other languages including Italian do not obey DE apparently (Ex.3: "Ci sono {le/delle} chiavi sopra il tavolo"). In Spanish, DE intersects with restrictions in copula selection (presentational "haber" (have) vs. locative "estar" (be)). In contrast, Italian generally employs only 'be' copula ("essere/stare" according to regional variation) for existential and locative constructions. Although these differences can significantly impact the acquisition of L2 Spanish by L1-Italian speakers, L2 research has rarely investigated DE acquisition. We here analyze the production of existential sentences in 33 L1-Italian young adult speakers of L2 Spanish at the upper-beginner (N=14) and upper-intermediate (N=19) level in Rome, compared to 22 Spanish monolinguals. L2 proficiency was measured through DELE tests. An original elicited oral production test consisting of a 'spot-the-difference' task was administered. Native speakers showed a robust DE, whereas 41% productions of upper-beginner L2 speakers employed "estar" as a presentational verb, and 14,5% violated the DE. Response analyses suggest a transfer of the Italian auxiliary "stare", typically used in Rome, to Spanish, resulting in pseudo-existential sentences with locative predication, as confirmed by co-presence of deictic expressions. DE violations overextended definiteness rather than indefiniteness, suggesting speakers use specific referents that they consider hearer-old, as their knowledge is shared with the interlocutor (the test administrator). Our results argue in favor of DE as a language universal, which is syntactically marked by copula selection in Spanish but not in Italian, where it is recognizable through semantic and contextual means. Its acquisition in Spanish by L1-Italians requires an upper-intermediate level, as it assumes reassembling owned language features at the pragmatic-semantic-syntactic interface.

A Cultural Translation Practice: Robert Morrison's Construction of Equivalence to Facilitate Communication between Chinese and English in the Early Nineteenth Century

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Robert Morrison is generally recognized in contemporary scholarship as the first British protestant missionary to preach in China and the first professional British sinologist who composed the earliest Chinese language textbooks in English. However, his equally prominent identity as a pioneering sinologist-translator who made the earliest attempts to establish equivalents between Chinese and English, thereby contributing to the early British understanding of China through literal translations of Chinese texts, has received less recognition. This paper, therefore, aims to explore the translation practices of the sinologist-translator in the context of early nineteenth century. It specifically examines his translation manuscript of Honglounmeng produced in his early stage of learning Chinese language and culture (1812). Positioning the study within the frame of cultural translation, I identify a domestication strategy adopted by the sinologist to manage and control the complete foreignness of the cultural other, which not only leads to distortion of the meaning of the original text but also misrepresentation of the cultural reality of China. Rather than attributing the distortion and misrepresentation to an orientalist discourse, I perceive Morrison's translation practice as a manifestation of the British fantasy of China which cannot be simply explained as resulting from linguistic and cultural inequalities between China and Britain, as postcolonialists most often seek to expose. Instead, I contend that the fantasy disclosed here is an inherent part of the human cognitive mechanism and thus an inevitable phenomenon in cultural translation.

Adaptation of a German screening (BIAS R) to Russian, piloting validation studies, and evaluating bilingual aphasia

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Topic: Germany has a broad Russian-speaking community (Anstatt, 2015) with about 1.54 million people speaking mainly Russian at home (Statistisches Bundesamt, n.d.). In the case of stroke, Russian-German speech therapists have little knowledge about assessing aphasic symptoms in Russian or analysing symptoms of bilingual aphasia. In addition to that, diagnostics from Russia miss normative data or other statistical requirements (Ivanova et al., 2021). Methods: The Bielefelder Aphasia Screening Reha (BIAS R) (Richter & Hielscher-Fastabend, 2018) was adapted to Russian (BIAS R Ru). 34 neurologically healthy people with high proficiency in Russian completed a questionnaire about their demographic data and were assessed by the BIAS R Ru. A detailed item analysis led to a revision of items. Correlations and linear regression between results from the questionnaire and the BIAS R Ru were computed. Three people with potential aphasia in the late acute or early post-acute stage participated in the single case study. Two participants were evaluated in German and Russian using the BIAS R, the BIAS R Ru and analysing their spontaneous speech. The Ukrainian participant was assessed solely in Russian. Results: Item design, instructions, and duration of the BIAS R Ru were adequate. The revised BIAS R Ru contains items with low and medium difficulty. Correlation analysis and results from the linear regression imply that self-evaluated reading competence and age are relevant predictors regarding the total score in the BIAS R Ru. In the single case studies, all three participants experienced aphasic symptoms in spontaneous speech and in the BIAS R Ru and BIAS R, confirming aphasia in the German language. Results from the German and Russian BIAS showed similarities between the aphasic symptoms of both languages. The severity of those symptoms differed between Russian and German. Two participants experienced code switching and code mixing during the assessment.

Adapting the MacArthur-Bates CDI into a minority indigenous language: Some challenges

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The MacArthur-Bates Communicative Development Inventory (CDI) (Fenson et al. 2007) was originally developed for (monolingual) English acquisition, and vocabulary check lists in the CDIs typically consist of a fixed set of expected shared vocabulary. However, the CDI has been adapted into multiple languages, including minority languages in bilingual contexts. CDI adaptations to minority languages such as Irish (O'Toole & Fletcher 2008) and Maltese (Gatt et al. 2008) have reported some challenges concerning majority language impact on the vocabulary development of bilingual children. This paper focuses on vocabulary choices made when we adapted the CDI into a minority language acquired exclusively in a bilingual context: North Sámi (NS), an indigenous language spoken in northern Norway, Finland, and Sweden. All children acquiring NS simultaneously acquire the majority language of their area/country, and they range from Sámi-dominant to balanced to Non-Sámi-dominant. NS is spoken across three countries and is traditionally grouped into three or four mutually intelligible main dialects (see Aikio & Ylikoski 2022). Still, there are important dialectal differences in the core vocabulary. Loanwords come from any of the state languages. Moreover, due to unstable language planning infrastructure, new loanwords can differ between areas, families and even individuals. Spontaneous borrowing from state languages is also widespread (Helander 2016, Antonsen 2021). Thus, there is extensive diversity in everyday vocabulary. In this presentation we discuss methodological challenges and choices we made in the adaptation of the CDI into North Sámi.

Fenson et al. (2007). The MacArthur-Bates Communicative Development Inventories.

Gatt et al. (2008). Lexical mixing in the early productive vocabularies of Maltese children: Implications for intervention. *Clinical Linguistics & Phonetics*.

O'Toole & Fletcher (2008). Developing assessment tools for bilingual and minority language acquisition. *Journal of Clinical Speech and Language Studies*.

Adaptive control in Korean-English bilinguals: Examining switch costs across linguistic tasks and complexity

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When bilinguals switch between two languages, they experience processing costs known as switch costs. Interestingly, past studies found that it is typically more taxing for bilinguals to switch to their dominant language than to the non-dominant language. This switch cost asymmetry attests for the concept of inhibition in bilingual language control, which is stronger on the dominant language. One gap in the current literature is the limited understanding of how bilinguals control language across different linguistic tasks (e.g., reading vs. speaking) and whether varying levels of linguistic complexity influence such control mechanisms. This study aims to address this gap and enhance the understanding of bilingual adaptive control. In two separate picture naming blocks (Korean vs. English), 27 Korean-English bilinguals (Korean dominant) switched between read-aloud and picture naming tasks, with two manipulations on the read-aloud task: language (same as picture naming language/non-switch vs. different/switch), and linguistic complexity (wordlist vs. sentence). We analyzed the picture naming RTs by the preceding read-aloud types in each block. The asymmetric switch costs were replicated: bilinguals were slower to name pictures in Korean after reading in English, but not the other way around. A significant effect of linguistic complexity was also found, with bilinguals slower to name pictures after reading a sentence compared to a wordlist. Furthermore, bilinguals who completed the English block first showed increased switch costs in the Korean block. The current study showed that inhibition of dominant language persists across different linguistic tasks and is influenced by multitude of factors, including switch direction, linguistic complexity, and prolonged use of one language. These findings suggest that the bilingual brain adapts and adjusts its control processes depending on the linguistic context, providing striking evidence for adaptive control in bilingual language control.

Advancing Bilingual Narrative Assessment: Enhancing NSP Measure for Fair and Effective Evaluation of Natural Language Use

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This study aims to develop a structured Narrative Story Production (NSP) measure to assess natural language use in Spanish-English bilingual students in school settings. Although NSP tasks are frequently used to diagnose language delays, their potential as screening tools for reading difficulties remains underexplored, despite evidence linking narrative skills to reading comprehension (Winters et al., 2022). Our NSP task is designed to elicit naturalistic language samples in both English and Spanish through culturally relevant video prompts. An initial version of the measure included a nine-component scoring system that evaluated key story elements and introduced a unique "translanguaging" score. Structured for ease of administration, the task could be implemented widely by teachers with minimal training. A total of 1,246 kindergarten and first-grade students completed two videos in both English and Spanish. Psychometric analysis identified seven core story elements consistently measurable across languages and videos, supporting the development of distinct English and Spanish NSP scales. The low correlation between the scales (.22) suggests that they measure independent constructs, affirming the task's potential as a dual-language assessment that reflects each language's unique narrative structure. However, this measure may contain cultural biases. For instance, it emphasizes chronological order, a macrostructural component that is not consistently present in the narratives of African American and Latino children (Mills et al., 2014; Uccelli, 2008). We are currently collecting data with a revised, macrostructure-oriented scoring schema to ensure fair assessment. Additionally, we have incorporated translanguaged instructions for bilingual students to examine potential variations in narrative length, complexity, and accuracy. Our hypothesis is that translanguaged prompts may better support natural language patterns. These adjustments aim to refine the NSP as a culturally responsive tool for assessing bilingual narrative abilities and screening for reading-related risks.

Advancing SLA research and education: Bridging skill gaps with the UPSKILLS project

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Over the past decade, the field of second language acquisition (SLA) has seen an increasing focus on methodological awareness, often referred to as a "methodological turn" (Byrnes, 2013). Emphasis has been placed on improving research quality, particularly regarding study design, quantitative analysis and reporting of results. Alongside this, efforts have been made to enhance researcher training through workshops, summer schools and academic publications (Plonsky, 2015, 2020). In response to these trends, this paper presents the outcomes of the Erasmus+ project "UPgrading the SKILLS of Linguistics and Language Students" (UPSKILLS), a three-year higher education partnership between institutions from Austria, Croatia, Italy, Malta, the Netherlands, Serbia and Switzerland, completed in August 2023. The project aimed to address skill gaps among linguistics and language students, aligning their education with modern job market demands and research trends. The project was driven by insights from both academia and industry regarding the impact of big data and artificial intelligence on language studies. The paper presents a collection of open access teaching and learning materials developed to address identified skill gaps. These resources can be integrated into existing undergraduate and master's programmes or introduced as new curriculum components. Special emphasis is placed on materials developed to enhance students' abilities in designing linguistically grounded experimental tasks in SLA. These materials, gathered in a learning block "Collecting language data from human participants", are of particular interest to university instructors and researchers in SLA. The paper also reports on the piloting of these materials during the UPSKILLS summer school in 2023.

Byrnes, H. (2013). Notes from the Editor. *The Modern Language Journal* 97(4). 825-827.

Plonsky, L. (Ed.) (2015). *Advancing quantitative methods in second language research*. Routledge.

Plonsky, L. (Ed.) (2020). *Professional development in applied linguistics: A guide to success for graduate students and early career faculty*. John Benjamins.

A Dynamic Network Approach to bilingual child data

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Usage-based paradigms have shown that children's early language is remarkably restricted and constructed around lexically specific frames showing an intimate relationship between linguistic knowledge and input (e.g. Tomasello 2003). Most children growing up in a multilingual environment produce code-mixed utterances, e.g. German-English utterances like *was ist dein picture* 'What is your picture' (Fion, 03;02.12). To systematically detect patterns in bilingual children, we used an exploratory data-driven method namely Ibbotson et al.'s (2019) dynamic network model (DNM), which uses simple frequency measures to detect networks of co-occurring words from the data. The DNM combines two measures: word frequencies and transition probabilities, gradually building up a network of patterns of use based on distributional information. This allows for identifying 'communities' in the data, showing that the emerging patterns cluster together, which in turn might facilitate language acquisition. In this paper, we model the early language of a German-English bilingual child aged 2–3 years ($n = 65,473$ utterances) to detect patterns based on transitional probabilities and we relate those patterns to the child-directed speech he heard from his caregivers ($n = 140,387$ utterances). We broke down the data into bigrams and identified 'communities' in the data drawing on the Louvain method (Blondel et al. 2008). Results show that there are some hubs in the network (Figure 1), from where different clusters branch out, these are typical examples of what Tomasello calls pivots, items around which early language is organized. These hubs are also visible in the code-mixed data and show how the code-mixing patterns change over time. Taken together, the DNM can provide a detailed and nuanced, data-driven picture of the complex relationship between the linguistic input children receive, the patterns they rely on in the use of their language(s), and the ways they combine these patterns in code-mixed utterances.

Affective modulation of cross-language activation is domain general: evidence from event-related potentials in Chinese-English bilinguals

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Previous studies have shown that negative words in a second language (L2) can block automatic access to first language (L1) representations (Wu and Thierry, 2012; Zhang et al. 2023). It is unknown, however, whether such emotion-driven inhibition is limited to linguistic processing or whether it extends to domain-general cognition. To test this, we engaged 25 Chinese-English bilinguals in an implicit translation priming paradigm, in which the emotional context was set by a picture. In each trial, participants reported whether either of two L2 words related semantically to the preceding contextual picture, whilst being unaware that some of the word pairs concealed a sound repetition in L1. Remarkably, negative –but not positive– pictures prevented access to L1 translations. Chinese control participants, on the other hand, showed repetition priming in Chinese irrespective of image valence. These findings show that emotional modulation of language non-selective lexical access in bilinguals can be triggered equally effectively by nonverbal cues since negative pictures produce an inhibitory effect similar to that observed for negative prime words. This suggests, at variance with a traditionally modularist and encapsulated view of language (Fodor, 1984), that interactions between language and other aspects of higher human cognition are reciprocal (word meaning triggers emotion, emotion regulates access to word meaning) and highly integrated.

1) Fodor, J. A. (1983). *The Modularity of Mind*. MIT Press.

2) Wu, Y. J., & Thierry, G. (2012). How reading in a second language protects your heart. *The Journal of Neuroscience*, 32(19), 6485. <https://doi.org/10.1523/JNEUROSCI.6119-11.2012>

3) Zhang, W., Jończyk, R., Wu, Y. J., Lan, Y., Gao, Z., Hu, J., Thierry, G., & Gao, S. (2023). Brain potentials reveal how emotion filters native language access when bilinguals read words in their second language. *Cerebral Cortex*, 33(13), 8783–8791. <https://doi.org/10.1093/cercor/bhad161>

Age and language dominance at the crossroads of bilingual processing: codeswitching in Gibraltar

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Codeswitching involves the simultaneous activation of the two languages of the bilingual and, as such, it has been used as a linguistic context to explore how grammatical features are represented in the bilingual mind. Furthermore, this speech style is characteristic of bilingual communities such as Gibraltar where English is in contact with Spanish. Investigating linguistic codeswitching in these habitual codeswitchers allows us to gain further insight into language processing mechanisms. In this spirit, we investigate how Spanish grammatical gender features are perceived by bilinguals from Gibraltar in the case of determiner-noun switches (1) and subject-adjectival complement switches (2). We formally explore directionality (1a vs. 1b; 2a vs. 2b) and the gender agreement mechanisms when the determiner or the adjective are in Spanish (i.e., 1b vs. 1c; 2b vs. 2c).

- (1) a. the lluvia FEM.
b. la FEM. rain SPANISH FEM. congruent
c. el MASC. rain SPANISH FEM. non-congruent
- (2) a. la casa FEM. is white
b. the house SPANISH FEM. es blanca FEM. congruent
c. the house SPANISH FEM. es blanco MASC. non-congruent

Data have been elicited via an acceptability judgment task from 36 bilingual adults and 33 bilingual children with different dominance profiles. Results show that, regarding directionality, switches where no gender agreement mechanisms can be enforced (1a, 2a) are favored by all groups. Yet, there seems to be a continuum in terms of how sensitive each group is to this preference. When it comes to gender agreement, differences arise based on the structure. While congruent subject-adjectival complement switches (2b) are given higher scores by the adult groups—behaving like L1 Spanish-L2 English bilinguals as per previous works—, masculine as default determiner-noun switches are preferred (1c and 2c). Therefore, it seems that age, dominance and the type of structure may play a role in how Spanish grammatical gender features are represented in the mind of these bilinguals from Gibraltar.

Agents of Change? How Basque New Speakers Negotiate Agency and Responsibility

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New speakers of minority languages have garnered research interest in recent decades, including in the Basque context. While many studies rely on interview content analysis, my PhD research combines interactional sociolinguistics, conversation analysis, and linguistic ethnography to investigate Basque speaker identities. This study analyzes 19 hours of semi-narrative interviews with 13 Basque new speakers in Donostia-San Sebastián, focusing on the discursive negotiation of speaker categories and subjectivities. Drawing on McNamara (2019) and Pujolar (2022), I adopt a poststructuralist view of speaker and language learner identity as discursively shaped. My approach examines subject positions within interviews, focusing especially on the local co-construction of agency (Parish and Hall 2021). This allows for a nuanced understanding of how Basque new speakers both reproduce and transform local speaker labels, revealing their appropriation strategies of these categories. Results indicate that speakers employ recurring discursive devices—such as pronominal shifts, constructed speech, and modality—to position themselves as agents or non-agents in the interaction. Further, they exhibit different types of investment in active language use depending on the degree and type of agency they ascribe to themselves. Common among participants is a critical engagement with local speaker labels (e.g., native vs. non-native speaker), which they frequently deconstruct, as well as a positioning as responsible agents for the maintenance and use of the minority language.

McNamara, Tim. 2019. *Language and Subjectivity*. Cambridge: Cambridge University Press.

Parish, Ayden and Hall, Kira. 2021. Agency. In Stanlaw, James: *The International Encyclopedia of Linguistic Anthropology*, Online Version. New Jersey: John Wiley and Sons, Inc. <https://doi.org/10.1002/9781118786093.iela0008>

Pujolar, Joan. 2022. "New speakers: New linguistic subjects". *The Changing Face of the "Native Speaker"*, ed. by Nikolay Slavkov, Sílvia Melo-Pfeifer and Nadja Kerschhofer-Puhalo, Berlin, Boston: De Gruyter Mouton, pp. 71-100.

A LONGITUDINAL STUDY OF THE USES AND FUNCTIONS OF ARTICLES IN SPOKEN ITALIAN BY PHILIPPINE MIGRANTS IN NAPLES.

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The study presents the results of a longitudinal investigation on L2 Italian of a sample of Filipinos migrants (differing in age, length of stay in Italy, migratory flow) who immigrated to Naples starting from the 1990s. The research involved three survey stages (2012, 2016 and 2022) collecting texts using free and semi-structured interviews, integrated by ethnographic observation. We focused on the uses of articles, examining morphological and semantic-pragmatic characteristics of the definite and indefinite articles on one hand, and the presence and distribution of any anomalies in form and use as well as omissions of articles on the other. The study was conducted based on the multifactorial approach proposed by Han and Odlin 2006 and is inspired by the principles of variation of complex systems dynamic analysis by de Bot, Larsen-Freeman 2011. While this is an area characterized by the presence of strong variability and instability, the analysis allowed us to identify some trends. In some aspects of article management (omissions, overuses, misuses) the migrants showed a behavior that seems to be associated with different sociolinguistic characterizations, and which confirmed the hypothesis of a possible relationship between migratory styles / flows and this area of nominal morphology. Some trends have emerged which characterize the acquisition paths of all our migrants and highlight, within the same sector, the coexistence of areas of uncertainty together with areas of safer management (situational use vs textual or anaphoric use).

De Bot, K., Larsen-Freeman D. (2011), "Research Second Language Development from a Dynamic System Theory perspective", in M. Verspoor, K. de Bot (eds), *A Dynamic Approach to Second Language Development*, 5-23.

Han, Z., & Odlin, T. (Eds.). (2006). *Studies of fossilization in second language acquisition* (Vol. 14). Clevedon: Multilingual Matters.

A longitudinal study on the effects of L2 exposure at school on the cognitive skills of children from monolingual backgrounds

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This study tracked the cognitive development of Spanish-L1 children from monolingual backgrounds attending schools with different English exposure levels (13%-83%), to explore whether children with higher L2 exposure revealed advantages over time. 231 children completed background and experimental tests at the beginning of Year1 (T0) and end of Years1 (T1) and 2 (T2) of Primary Education. Background measures included NonVerbalReasoning, WorkingMemory, L1Vocabulary, L2Vocabulary. For cognitive skills, children completed an attention test with 7 measures assessing 4 attention types: SkySearch (selective), SkySearchDT (divided), CreatureCounting1 (switching), CreatureCounting2 (switching), WalkDon'tWalk (inhibition), OppositeWorldsCongruent (switching), OppositeWorldsIncongruent (switching). Parents completed a socio-economic/immigrant status and language background/exposure questionnaire. Data was analyzed using GLMMs. Separate models were fitted for each background and experimental measure, including co-variables, for T0 data and for T0 vs T1 (T2 data is under analysis), with L2 exposure level at school as IV. T0 results confirmed that participants started Primary matched for all background measures except for L2Vocabulary, which was significantly higher for children with higher L2 exposure ($\beta=0.025$, $SE=0.002$, $z=9.187$, $p<.001$). Models comparing T0 vs T1 revealed a significant improvement over time for all background measures. No significant differences were found for NonVerbalReasoning, WorkingMemory, or L1Vocabulary, but higher L2 exposure led again to significant differences in L2Vocabulary ($\beta=0.025$, $SE=0.002$, $z=10.865$, $p<.001$). Regarding attention, English at school had a significant effect on 6 measures: SkySearch ($\beta=-0.003$, $SE=0.001$, $z=-2.12$, $p=.034$), CreatureCounting1 ($\beta=0.008$, $SE=0.004$, $z=2.620$, $p=.009$), CreatureCounting2 ($\beta=-0.004$, $SE=0.001$, $z=-3.130$, $p=.001$), WalkDon'tWalk ($\beta=0.026$, $SE=0.010$, $z=2.404$, $p=.016$), OppositeWorldsCongruent ($\beta=-0.003$, $SE=0.001$, $z=-5.33$, $p<.001$), OppositeWorldsIncongruent ($\beta=0.001$, $SE=0.000$, $z=2.28$, $p=.023$), with children exposed to higher L2 levels performing better/faster. Findings suggest that children from monolingual backgrounds' cognitive skills benefit from (high) L2 exposure at school. The source of these advantages will be discussed and T2 data presented to see whether differences remain/increase/disappear after two years of different L2 exposure levels.

An EEG Study of Auditory Discrimination in Multilingual Speakers: Comparing Native and Non-Native Phoneme Processing

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The ability to discriminate non-native sounds plays a crucial role in acquiring new phonological systems. However, many aspects of how phonological representations are accessed in second (L2) or third/additional (L3/Ln) languages remain unclear. The current study used event-related brain potentials (ERPs) to explore phoneme processing and Mismatch Negativity (MMN) response asymmetries in multilingual speakers of Polish (L1), English (L2), and Norwegian (L3/Ln). An Oddball paradigm was applied to investigate neural responses during auditory discrimination tasks. Participants were presented with vowel pairs from each language (/e/-/a/ in Polish, /æ/-/ɑ:/ in English, and /ø/-/u/ in Norwegian) across six counterbalanced blocks, with each vowel serving as both the standard and the deviant sound. Twenty-two participants (mean age = 22) completed the study while watching silent cartoons, with EEG recordings capturing their neural activity. Language proficiency and dominance were assessed in a language history questionnaire and two proficiency tests. The analysis revealed a significant three-way interaction of language, sound, and direction, with deviant sounds eliciting more negative amplitudes than standard ones across all languages. Notably, MMN asymmetry was only observed in L3/Ln Norwegian, supporting the perceptual magnet model (Kuhl et al., 1992) and the Natural Referent Vowel framework (Polka & Bohn, 2011). To the best of our knowledge, the study was a first attempt to investigate the MMN asymmetry in multilingual learners, and provided clear evidence for the processing differences in L3/Ln as opposed to L2.

Kuhl, P., Williams, K., Lacerda, F., Stevens, K., & Lindblom, B. (1992). Linguistic experience alters phonetic perception in infants by 6 months of age. *Science*, 255, 606–608. <https://doi.org/10.1126/science.1736364>

Polka, L., & Bohn, O.-S. (2011). Natural Referent Vowel (NRV) framework: An emerging view of early phonetic development. *Journal of Phonetics*, 39, 467–478. <https://doi.org/10.1016/j.wocn.2010.08.007>

An exploratory study on inner speech in bilingual aphasia

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Aphasia is an acquired language disorder, typically caused by a stroke or other brain injury, that causes chronic difficulties with using and understanding language. All individuals with aphasia struggle with overt naming and word-finding, but many describe a mismatch in which they can sometimes say words in their mind even when they cannot say them aloud (Fama et al., 2017). This ability to generate language internally can be referred to as inner speech. A small but growing body of literature shows that many individuals with aphasia have at least some intact access to inner speech (Fama & Turkeltaub, 2020). However, this prior work has been done exclusively in monolingual, English-speaking adults, and no prior studies have examined the experience of inner speech among bilingual adults with aphasia. Most healthy bilingual speakers report thinking in both their first (L1) and second language (L2) (Grosjean, 2010), with L1/L2 inner speech use modulated by various factors including proficiency level, language exposure, and frequency of use (Resnik, 2018). Therefore, we are adapting a set of tasks to characterize inner speech among bilingual adults with aphasia, specifically Spanish-English bilinguals in the U.S. Consistent with prior studies in monolingual adults with aphasia, we are developing both objective and subjective (self-report) measures for assessing inner speech. The battery is currently being normed in healthy Spanish-English bilingual adults (current N=25; 9 male/16 female; average age = 36.1, SD = 14.8). The tasks will then be piloted in a Spanish-English bilingual adult: a 68 year old man with aphasia from left-hemisphere stroke 22 years prior to enrollment. He has already completed the Bilingual Aphasia Test in both Spanish and English. This study will provide novel insights into the nature of inner speech in bilingual speakers with aphasia, which may in turn inform assessment and treatment practices for this population.

An eye on AI: Eye-tracking shows that natural and AI-generated speech in gaming facilitates L2 gender agreement processing

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Prediction allows speakers to process massive amounts of data rapidly and effectively. For instance, Spanish speakers use determiners to predict the gender of upcoming nouns. However, beginning learners struggle to process L2 grammatical gender agreement (see Halberstadt et al., 2018, for a review) and underuse syntactic (articles) and lexical (nouns) gender cues (Hopp, 2016). Digital gaming improved the prediction of verb/noun suffixes based on tones in beginning learners (Schremm et al., 2017; Hed et al., 2019). We investigated whether digital gaming with natural- or AI-generated speech facilitates the prediction of adjective gender-marked suffixes based on syntactic/lexical gender cues, using eye-tracking. English learners of Spanish completed a Spanish proficiency test, an eye-tracking pretest, and an eye-tracking posttest. Between the pretest and the posttest, they played a digital game 10 minutes per day over 8 days: they listened to natural- or AI-generated determiner-noun phrases, chose a masculine or feminine adjective, and received feedback. In the eye-tracking pretest/posttest, participants looked at masculine/feminine adjectives while listening to sentences with gender-marked/unmarked determiners and nouns (e.g., *viejo-vieja* “oldM/F” for *el/su carro/camión viejo contamina el ambiente* “theM/his/her/their carM/truckM pollutes the environment”). The nouns/adjectives of the pretest/posttest differed from those used in the game. The game yielded higher accuracy and faster RTs in all conditions and voices (natural/AI), except with non-gender-marked articles or nouns (*su camión*). Eye-tracking data indicated that training helped participants apply the predictive patterns learned in the game to new instances, except when gender cues were not present. These findings support models claiming that beginning learners’ persistent difficulty with gender processing is associated with their weak lexical knowledge (Hopp 2016) and suggest that beginning learners struggle more with lexical than syntactic gender cues, that lexical gender cues are more resistant to change, and that AI and natural speech are equally beneficial.

A Posthumanist Approach to AI Literacy in Bilingual Writing

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Generative AI technologies hold transformative potential in bilingual literacy education, challenging educators to cultivate critical AI literacies (Gupta et al., 2024; Ng et al., 2021). Existing frameworks often reduce AI to a mere “tool,” overlooking the complex interplay between human and non-human agents. However, posthumanist perspectives in literacy studies and applied linguistics offer alternative approaches that move beyond anthropocentric and binary views (Kuby et al., 2019; Leander & Burriss, 2020; Lewis, 2021; Pennycook, 2018). Posthumanism shifts our attention away from the unproductive framing of the transactional and sometimes antagonistic dichotomy between us, human literacy agents, and the machines. Instead, it focuses on the relationality between actants and the co-production of agency through human-machine intra-actions (Barad, 2007; Latour, 2005; Thiel et al., 2019). As such, posthumanism appears particularly relevant as material agency becomes more expressive during an “AI revolution” sweeping through all educational domains. This presentation investigates how posthumanist perspectives can reframe AI-mediated bilingual literacy practices and considers the implications of this shift for fostering AI literacy in bilingual education. Through a case study of two bilingual undergraduate students’ meaning-making and meaning-negotiation intra-actions with AI technologies in a university writing classroom, we uncover the productive tension between these students’ emergent posthumanist bilingual literacy practices and their entrenched humanistic assumptions. Our findings suggest that rethinking AI literacy through a posthumanist ethico-onto-epistemological lens (Kuby, 2017) offers both students and educators a more relational, nuanced approach to engaging with AI in bilingual literacy education. We will outline pedagogical strategies for cultivating a posthumanist approach to AI literacy in bilingual education.

Are neurodivergent bilingual children more at risk for heritage language attrition than their neurotypical peers?

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It is critical for neurodivergent bilingual children to maintain their heritage language (HL) as family members could be lifelong caregivers and social companions. However, neurodivergent bilinguals are often exposed to the societal language (SL) at a young age through intervention, and their parents are frequently counselled to use the SL more often post-diagnosis (Howard et al., 2020; Sher et al., 2021). This study asked whether neurodivergent bilinguals had decreased opportunities to hear and use the HL compared to their neurotypical peers, thus putting them more at risk for HL attrition. Participants included parents of children (neurodivergent=29; neurotypical=42) aged 4;5-9;3 with 22 different HLs. Neurodivergent children were mainly diagnosed with autism, speech-sound or language disorders. The neurodivergent and neurotypical groups were matched for age and length of SL exposure, but, neurodivergent children had an earlier onset of SL exposure. The Q-BEx (DeCat et al., 2022) was used to gather information on quantity/quality of input/output and parent ratings of proficiency in each language. Data were analysed using linear mixed modelling. Results showed that neurotypical children had more cumulative hours of HL than SL exposure at home, but the neurodivergent children showed the reverse pattern. While both groups experienced richer language environments in the SL than the HL, the neurodivergent children had fewer HL interlocutors, and less communication in the HL with friends and siblings than neurotypical children. Furthermore, parents of neurodivergent children rated their proficiency and willingness to speak the HL lower than parents of neurotypical children, while ratings for the SL were similar between groups. Finally, predictive modelling showed that, with longer exposure to the SL, the input/output gap between the SL and HL widens more for neurodivergent than neurotypical children. We conclude that neurodivergent children are indeed more at risk for HL attrition than their neurotypical peers.

Are pupils with developmental or learning disorders more at risk in immersion education?

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Although immersion education has gained popularity worldwide, it is often regarded as an elitist approach focused on the cognitively most gifted pupils. Hence, the question whether this bilingual education method is also profitable for pupils with developmental disorders, remains largely unanswered. We conducted 2 studies in French-speaking Belgium, within schools providing Content and Language Integrated Learning (CLIL). We investigated whether pupils with dyslexia (study 1) and pupils with AD(H)D (study 2) can also benefit from immersion education or whether their reading or attention problems puts them more at risk. In study 1, 28 5th and 11th-grade pupils diagnosed with dyslexia and 112 matched controls were identified within a sample of over 800 participants. A 1st analysis showed that the prevalence of dyslexia in our immersed sample was comparable to the prevalence amongst the pupils in traditional education. Then, we compared immersed and non-immersed pupils with or without dyslexia (4 groups) in terms of linguistic abilities (in both French and the target language) and acquired academic content. In study 2, we recruited over 70 5th and 6th-grade children with varied attentional profiles, including children diagnosed with AD(H)D. Half the sample was enrolled in an immersion program. We assessed their attentional and executive control abilities in addition to their foreign-language proficiency. Overall, our findings suggest that there is no measurable disadvantage for pupils facing reading or attentional problems to attend immersion education, neither for foreign-language learning, nor for acquiring academic content. Also, we observed that immersion education did not exacerbate the reading or attentional difficulties of pupils with dyslexia or AD(H)D, respectively. These results are not only useful for theorizing about the interactions between bilingualism and learning disabilities, they will also help to guide parents, educators and speech therapists who are confronted with questions about the inclusiveness of immersion education.

A Southern perspective on translanguaging-for-learning

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While the concept of translanguaging has gained significant traction in education in multilingual contexts, it is also debated and contested. Claims are made about the affordances of translanguaging, how it differs from code-switching, whether it arises from a single repertoire of language resources or use of separate languages, and whether it is detrimental to the development and inclusion of marginalised languages. This paper considers what a Southern perspective brings to these debates, as well as how translanguaging is theorised in South Africa (e.g. ubuntu translanguaging, Makalela, 2019) with its particular racialised history of marginalisation of African languages. Drawing on epistemologies of the South, particularly the concept of pluriversality (Mignolo, 2013), we align with the argument that there are multiple multilingualisms. The analysis will demonstrate the hybrid South/North origins of early conceptualisations of translanguaging, and the take up of translanguaging in South Africa. We then present discourse analyses of three examples of translanguaging practices (oral and written) from bilingual classrooms to distinguish between spontaneous translanguaging which describes bi/multilingual interaction in classrooms, and translanguaging-for-learning which involves designed negotiation of meaning drawing on full linguistic and semiotic repertoires. The analysis also draws attention to more fluid (or first order) and fixed (or second order) conceptualisations of language (Lemke & Lin, 2022) in translanguaging-for-learning. We conclude that translanguaging-for-learning requires challenging colonial ideologies of language (Ngũgĩ wa Thiong'o, 1986), a language as resource orientation, as well as planned negotiation of meaning.

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Makalela, L. 2019. Uncovering the Universals of Ubuntu Translanguaging. *Classroom Discourses* 10 (3-4): 237-251.

Mignolo, W. 2013. "On Pluriversality." <http://waltermignolo.com/on-pluriversality/> Accessed 1 June 2022.

Assessing multilingual children's language abilities in authentic communication: The "Wuschel" approach

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This paper examines the validity of the language assessment tool "Wuschel", named after its main protagonist, which is designed for preschool prevention purposes with a special focus on multilingualism. Applying a usage-based theory approach (Tomasello 2005), the tool aims to elicit language production (in German) in authentic communication, integrating empirical findings from naturalistic language acquisition (Behrens et al. 2016). To achieve this objective, the assessment is implemented as an app based on the principles of serious games. Throughout the game, children are asked to use language to complete various adventures: they guide Wuschel by giving action instructions, narrate past events, or describe the position of hidden objects. This approach contrasts sharply with existing assessment tools which capture language in a highly formal setting. To test the assumption of the authenticity of the elicitation method, data from 70 multilinguals and 38 monolinguals aged 4;5 to 6;0 were analyzed for the use of modal particles (MPs), a highly frequent and important linguistic device in German spoken discourse (Diewald 2006). Results show that both groups used MPs productively during the assessment. In my talk, I will discuss how the occurrence and distribution of MPs across the various challenges (i.e., instructing, describing, narrating) shed light on the discourse-pragmatic nature of the task's requirement by reflecting the children's communicative attempts to address an interlocutor.

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Diewald, Gabriele. 2006. Discourse particles and modal particles as grammatical elements. In Kerstin Fischer (ed.), *Approaches to discourse particles*, 403-425. Amsterdam: Elsevier.

Tomasello, Michael. 2005. *Constructing a language: A usage-based theory of language acquisition*. Boston: Harvard University Press.

Assessing the effect of bilingualism on the left frontal cortex connectivity in the CIMAQ cohort.

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Over the years, studies have shown that bilingualism provides an advantage in cognitive performance, more so in aging individuals. By frequently practicing the language control mechanism, bilinguals tend to be faster and more accurate in tasks of attention, working memory, and cognitive control. The bilingual advantage is also evident in the structural and functional differences in the regions related to bilingual language control. The aim of the current study is to examine the effect of multilingualism on the resting-state functional connectivity (rsFC) for the left frontal cortex (LFC) as a region of interest. Thus, explore the role of bilingualism in building cognitive reserve (CR) through the higher LFC connectivity. These bilingualism-related connectivity differences may help build CR that eventually renders the bilingual brain more resistant to age-related cognitive decline. We computed rsFC for the LFC seed and performed seed-based connectivity and graph analysis while comparing group differences for the monolingual and multilingual participants with age, diagnosis, and gender as covariables (N= 119). Seed-based connectivity results show higher strength of functional connectivity between LFC, and right planum temporale and central opercular cortex for the multilingual group compared to the monolingual group. These regions are part of the primary auditory cortex and are also related to stimulus-driven auditory attention and phonological processing. For the graph analysis, the multilingual group showed greater local efficiency than the monolingual group at the cost of 0.45. Contrary to our expectation, we did not find global connectivity differences between the groups. The present results suggest that lifelong juggling with two or more languages may impact the brain at a network level, i.e. LFC connectivity. In the future, however, decomposing cognition and measures of bilingualism into its elementary constituents may allow an in-depth understanding of the mechanisms by which bilingualism may contribute to cognitive and neural advantages.

Assessing the effects of bilingualism on cognition in mild cognitive impairment: a comparison of age of onset and verbal fluency between bilinguals and monolinguals

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Although bilingualism has been associated with a delayed onset in Alzheimer's disease (AD), it remains unclear whether it confers a cognitive benefit in amnesic mild cognitive impairment (MCI) (Brini et al., 2020). This study examined whether bilingualism is associated with a later onset of MCI (aim 1) and a slower decay of verbal fluency (VF) performance (aim 2). Fifteen Spanish-Catalan bilinguals with MCI (B-MCI) and sixteen Spanish monolinguals with MCI (M-MCI) with comparable age, education, cognitive reserve, and baseline global cognition, were prospectively recruited in a memory clinic (Barcelona, Spain) and tested longitudinally (T1= first study visit, T2= 6 months, T3= 1 year). The B-MCI had comparable competence, dominance, and switching patterns across languages. For aim 1, we compared the age of memory complaint onset, the age of the first clinical visit, and the age of MCI diagnosis between both groups. For aim 2, their accuracy and fluency difference scores in three VF tasks with increasing executive function (EF) demands (semantic, phonemic, excluded-letter) (Patra et al., 2019) were compared longitudinally over 1 year follow-up. Independent-sample t-tests showed no difference in age of onset when comparing B-MCI and M-MCI for the measures collected. As for their VF performance, the results analyzed through a series of linear mixed models revealed a significant effect of EF task demand. However, no longitudinal between-group differences were found based on the number of correct responses in VF or fluency difference scores. Therefore, in addition to manifesting similar profiles of MCI onset, B-MCI and M-MCI also showed similar longitudinal patterns of VF performance. These preliminary findings do not support a protective effect of bilingualism in amnesic MCI, as measured by comparisons between bilinguals and monolinguals on MCI onset and verbal fluency performance.

Assessment of working memory in signers and non-signers

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Evidence on the functioning of working memory shows similar linguistic processing in all languages, whether spoken or signed (SL). Current models maintain that this cognitive function consists of a central executive mechanism and two subsystems: the phonological loop and the visuospatial agenda. Previous studies indicate that the time, quality, and quantity of the linguistic input received in the case of deaf children condition the variability observed in working memory assessment (Marshall et al., 2015). In this paper we analyze the use of the phonological loop and the visuospatial agenda focusing on the reading comprehension of deaf individuals, independent of their use of Spanish sign languages (LSE), to verify the possible influence of the first language (L1) and the age of acquisition of LSE, both traditionally significant variables explaining the differences observed in this population. The sample consists of deaf adults and adolescents (n=20) who have acquired or learned LSE as L1 or L2, or who only use Spanish. To assess the phonological loop, we used the Spanish adaptation of the Reading Span Test based on the pictographic version of Vieiro and Quireza (2021). A Digit Span test was used to obtain data on the visuospatial agenda. The results confirm that the two subsystems are affected by the degree of proficiency in L1, regardless of whether it is LSE or Spanish, and in the case of signers, by the age of acquisition.

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Vieiro, P., & Quireza, E. (2021). Reading span test in subjects with speech, language and communication needs (SLCN). *Revista Iberoamericana De Psicología y Salud.*, 1(12), 34-43.

Attenuated native language phoneme discrimination in bilinguals

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To speak and understand two languages, bilinguals must manage two phonological systems in one mind. Abundant evidence suggests that both languages influence one another, leading to transfer of one language onto the other (e.g., Flege et al., 2003). Additionally, evidence suggests that bilinguals are more accepting of variability in pronunciation than matched monolinguals (e.g., Samuel & Larraza, 2015). The current study explored how bilingual perceptual flexibility influences the ability to discriminate phonological categories in the native language, using the mismatch negativity event-related potential (MMN) to index discriminative ability (cf. Getz & Toscano, 2021; Díaz et al., 2016). Forty-five participants (Age 20.3 ± 3.3), divided into monolingual ($n=21$) or bilingual ($n=24$) groups on the basis of language history data (Li et al., 2020), participated in an auditory oddball task while neural responses were recorded via electroencephalography. Auditory stimuli consisted of two English vowels: /ε/ (e.g., BET) and /ɪ/ (e.g., BIT). Participants heard sequences of one sound (standard) followed by the other sound (deviant); each appeared equally often as standard and deviant. Recording was time-locked to 100-250ms after stimulus onset. After excluding eye movement and muscle artifacts and filtering the data, we averaged the data by participant to calculate mean amplitude differences between standard and deviant stimuli over the window for each electrode (Fz, F3, F4, and Cz). A composite index of discriminative ability was derived via principal component analysis on amplitude differences for each of the four electrodes (PC1: 84% of variance). Results of linear regression in R (R Core Team, 2024; v. 4.4.1) indicate that bilinguals had lower discriminative ability than monolinguals ($\beta = -2.7$, $p < 0.05$). We take this as evidence that bilingual phonological categories are blurrier than matched monolingual peers as a result of continued exposure to distinct phonologies, which may facilitate robust speech comprehension.

Basque intergenerational transmission in Finland and in the Basque Country: ideological aspects of family language policy.

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Emigration from the Basque Country has doubled recently (Eustat, 2021), leading to a growing number of families maintaining Basque outside their homeland. While previous research on Basque diaspora communities focuses on the U.S. (e.g., Lasagabaster, 2008), research in Europe is lacking, despite it being the primary destination for emigration from the Basque Country today (INE, 2022). Applying family language policy (FLP) framework for the first time to a Basque diaspora community, this paper compares the ideological aspects of the FLP of Basque-Finnish families in Finland and Basque families in the Basque Country. The data consists of semi-structured interviews with five parents in each location. Using thematic analysis, four ideologies are identified in the interviews: mother tongue ideology, revitalization ideology, ideology of purism and ideology of authenticity. All parents saw their mother tongue, Basque, as a natural choice for communication with their children and considered its transmission a contribution to language revitalization efforts. While the parents in Finland reported more purist tendencies regarding language, such as avoiding Spanish loans when speaking to the children in Basque, the parents in the Basque Country considered mixing an authentic way of speaking with children. The results provide new insights on what kind of language ideologies emerge when Basque is being transmitted not only in its natural territory but also in new multilingual contexts such as Finland where it lacks institutional support. Furthermore, they shed light on how ideologies shape language choice and how these choices differ in the original homeland and diaspora contexts.

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INE. (2022). Emigraciones con destino al extranjero por comunidad autónoma, provincia, año y país de destino [Data set]. <https://www.ine.es/jaxi/Tabla.htm?tpx=61639&L=0>

Lasagabaster, D. (2008). Basque diaspora in the USA and language maintenance. *Journal of Multilingual and Multicultural Development*, 29(1), 66–90.

Better start to bilingual development: an effect of early parental intervention on children's emerging speech

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Rich and diverse input is crucial for children's language development. Parent-directed interventions can improve the input and enhance children's language in later years (Reese et al., 2010). Multilingual children are at risk of limited language input, making bilingual families an important target for parent-directed early interventions (Luk & Bialystok, 2013). To investigate whether we can improve parental knowledge about (bilingual) language development and children's language outcomes, we designed a research-based intervention: an online workshop for expectant Polish-speaking parents living in Norway. We assigned $N = 74$ participants randomly to experimental ($n = 40$) or control ($n = 34$) conditions and assessed their knowledge about language development before and after the intervention. Repeated measures ANOVA showed significant effect of time point ($F(72,1) = 30.27, p < .001$), meaning that knowledge increased during the intervention and a significant effect of time point x group interaction ($F(72,1) = 11.79, p < .001$) showing that the increase was driven by the experimental, but not the control group. All participants reported that by the age of 12 months their children understood some words in at least one language, but only some of them (67%) reported that children have already started to speak. We tested whether children of parents who took part in the intervention were more likely to start to speak by that age. A chi-square test showed no such difference between groups ($\chi^2(1, N = 64) = 0.20$). However this measure may be not sensitive enough to show the effect of the intervention. Our study suggests that providing online intervention is effective in increasing parental knowledge about how to support their children's language development. These results will be accompanied by further (currently being collected) data on children's language outcomes in both Polish and Norwegian using CDIs (Fenson et al., 2007).

Between Acceptance and Resistance: Spanish University Instructors' Responses to Monolingual and Native-Speaker Norms in Language Teacher Education

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Monolingualism, native-speakerism and standard language ideology are prevalent in language teaching and affect teacher identities (Ellis, 2006; Holliday, 2005; Lippi-Green, 2012). Such ideologies offer alleged certainties but also detach teachers from actual uses and value of language in multilingual and multidialectal contexts. Consequently, educators might feel constrained by rigid linguistic norms, hindering their capacity to re-evaluate their approaches to accommodate the diverse linguistic realities and communicative needs of English learners in an increasingly interconnected and multilingual global landscape (Lowe, 2020). In this light, we present findings from the ELFING project (Development of language ideologies in the training of pre-service English language teachers from an ELF perspective), which explores language ideologies, attitudes, and identities of university students majoring in English in two different settings: Universitat de Lleida (UdL) and Universidad de Málaga (UMA). Our point of departure is that the dominant standard language monolingual and native-speaker-centric paradigm in English teacher training fails to cater for the diverse linguistic realities and communicative needs of English learners in an increasingly multilingual world. This paper focuses on the discourses of university instructors who teach in degrees preparing future English teachers. The goal is to understand how they engage with dominant ideologies, namely native-speakerism and standard language ideology and the extent to which they confront it –or not–. The study also attempts to uncover key elements in students' training and potentially contradictory messages received during their education. It draws on data from interviews to 24 university instructors of the BA in English Studies at both universities.

Beyond Language Control: Exploring the inhibitory mechanisms in speech register switching

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The challenge of selecting the required language in language production has sparked extensive research concerning the control mechanisms involved in bilingual lexical access. According to Green's ICM (1998), language control requires tagging systems: each entry in the bilingual lexicon contains a tag defining its belonging to one language over another, which facilitates inhibition of the non-target language. Traditionally, tags are seen as unique to multilingual cognition, solely marking language membership. However, Declerck et al. (2020) suggested that tagging may also operate within single-language contexts for speech register control. If confirmed, this finding could reshape views on the overlaps between bilingual and monolingual lexical access. To explore this possibility, we compared language and register processing across three tasks: lexical decision, switched picture naming, and discourse production. We focus here on switched naming, investigating control mechanisms in single versus dual language contexts. 63 French-speakers of English, with L2 levels ranging from A1 to C2, named 16 images, alternating a) French and English (homme vs. man) and b) formal and informal French (homme vs. mec), for a total of 336 trials per condition. In both conditions, RTs, switch and mixing costs, along with error rates, were analyzed and compared. A total of 10 (mostly continuous) factors related to the bilingual profile were tested as predictors, including inhibitory skills, L2 proficiency, dominance, and switching habits. Results confirm the existence of switch and mixing costs in the single-language context, suggesting that register control is involved. Switch costs and error rates in this condition did not differ significantly from those in dual-language context, and error rates across conditions were correlated. Interestingly, performance in single-language context was predicted by multilingual practices, and inhibitory skills impacted both conditions similarly. We will discuss how those results suggest potential overlaps in the inhibitory mechanisms involved in language and register control.

Beyond Monolingual Literacy: Engaging CLD Students with Translingual Identity Text Projects

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This study addresses the literacy challenges faced by culturally and linguistically diverse (CLD) students learning Japanese, a language with a complex writing system that includes three scripts, one of which is the Chinese logographic kanji. Very often difficulty in mastering these scripts hinders CLD students' ability to become biliterate, impacting their academic success and multilingual identity development. To support these students, the study introduces the "Translingual Identity Text Project," grounded in the Identity Text projects proposed by Cummins and Early (2011) and Translanguaging Pedagogy by García, Johnson, and Seltzer (2017). The project unfolds in three stages: (1) prewriting activities in which students collaboratively analyse translingual literature, focusing on the writers' multilingual voices as well as the linguistic choices they make to aid comprehension for monolingual readers; (2) creation of students' own Identity Texts in translingual writing where they find necessary or effective; and (3) sharing these texts within the group, along with explanations of their linguistic choices. This approach encourages CLD students to challenge the monoglossic view of literacy, helping them express their voices in unique ways, which in turn fosters positive multilingual identities and deeper engagement with literacy. The paper presents three case studies of "Translingual Identity Text Projects" we have conducted in three different contexts and writing prompts: (1) Japanese heritage language (JHL) writers in Bolivia, focusing on haiku due to its cultural significance; (2) JHL writers and their parents in Europe writing personal narratives about multilingual experiences; and (3) CLD students in a Japanese high school creatively retelling folk tales from their heritage cultures in Japanese. Through the description of the outcomes of the workshops and the participants' reflections, this study demonstrates how the project fosters multiliteracies and positive multilingual identities of the participants, and highlights the adaptability of Translingual Identity Text Projects across diverse educational settings.

Bilingual emotion through a multimodal lens: a study of speakers of Germanic languages in conversation

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While facing emotion, bilingual speakers experience less emotional arousal in their L2 (Caldwell-Harris, 2015) vs. their L1 and employ emotional dissociation in emotionally loaded communication (e.g., Dewaele & Costa, 2013). While existing literature relies on introspection, questionnaires and fixed laboratory settings, emotional dynamics in conversations remain largely unexplored. The present research investigates bilingual emotion processing and production via a multimodal approach employing dyadic conversations between bilingual speakers of highly similar languages. 10 bilingual speakers of Germanic languages (German/Dutch/English) will interact in emotional (high/low + arousal/valence), L1/L2-alternating conversations with speaker/listener interchanging roles. Emotion will be triggered via visual and situational procedures. Using mobile eye-tracking, EEG and skin conductance, participants' psychophysiological responses to emotion will be measured across language and emotion condition. Audiovisual recordings will inform about participants' bodily animacy, speech variables (e.g., F0), and linguistic production. If emotional responses in L2 are processed to a lesser extent than in L1, we expect to find evidence corroborating the emotional distance theory (Dewaele, 2008), with lower emotional arousal in L2. Decreases in theta, gamma, and alpha power bands, blinking rates, fixation durations, and skin conductance responses are expected, with additional undetermined outcomes for bodily animacy and linguistic speech features. These outcomes may vary due to L2 proficiency, a known modulating factor; lower-proficiency L2 speakers are expected to show higher arousal levels, potentially even exceeding those in L1 (cf. Harris et al., 2003). Additionally, bilinguals may show distinct emotional cues in L1 vs. L2, like sentence structure and vocabulary, though shared culture among Germanic speakers may minimize these differences. As this study is currently underway, we expect forthcoming results to reveal to which extent the linguistic and non-linguistic patterns of emotion vary as a function of emotion manipulation, between a speaker's L1 and L2 and across languages.

Bilingual language control during free sentence production

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Language control is the mechanism responsible for minimizing cross-language interference in bilinguals. As such, it contributes to bilinguals' unique ability of shifting between languages in adaptation to their linguistic environment. For a long time, language control has been investigated through language switching paradigms relying on cued picture naming, by which participants are indicated what language they must use to name a picture that is usually out of context. While this line of research has expanded our understanding of bilingual language control, language choice is not always imposed (cf. cued) in real life situations. Furthermore, natural language production relies on the use of multiple word categories other than concrete nouns as well as varied syntactic constructions beyond the single word level (cf. picture naming). In this study we asked 38 French-English bilinguals to switch between languages between sentences parting from an action description task. Crucially, participants did not have to follow a specific syntactic construction but were free to produce any construction of their own choosing as long as it described the action in question. All participants performed a voluntary version of the task, where they could choose when to switch, and a cued version, where a visual cue indicated the language they had to use for each trial. Our reaction time analyses reveal no significant switch costs in the cued version of the task. However, in the voluntary version, we encounter significant switch costs in L2 and a repetition cost in L1. These findings contrast with those from previous studies focused on single-word production and highlight the effect of contextual factors on bilingual language control.

Bilingual outcomes, plurilingual repertoires: Knowledge production at a Canadian college

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In the ‘global knowledge economy’, plurilingual scholars increasingly face pressure to disseminate their work in indexed academic journals (Amano et al., 2023). Comprehensive work in applied linguistics and education has outlined how plurilingual scholars are dealing with these pressures, highlighting their research writing beliefs, practices, and outcomes (Flowerdew & Habibie, 2022). However, despite some notable exceptions (e.g., Gentil & Séror, 2014; Payant & Belcher, 2019; St-Onge et al., 2021), this body of work has rarely focused on plurilingual scholars in Canada. In response to this obvious gap, we present findings from a sequential mixed-methods case study (Yin, 2014) seeking to better understand knowledge production and dissemination practices of faculty at a bilingual college in Canada (CFC). Findings derived from multiple data sets — semi-structured interviews (n = 7) analytically informed by results from an online survey (n = 42) — elucidate the ecology of languages and genres at CFC, what motivates CFC scholars’ language and genre choices, and how they navigate writing for publication (often) in an additional language. Survey results depict a predominantly bilingual landscape of knowledge production dominated by two main genres: research articles and conference presentations. However, qualitative data paint a much more nuanced picture of plurilingual scholars’ academic language choices, repertoires, trajectories, and ideologies. Drawing on a plurilingual orientation (Corcoran & Englander, in press), analysis of these mixed methods findings brings to the fore the complex, dynamic, and often idiosyncratic nature of plurilingual scholarly writing practices at bilingual institutions such as CFC. Ultimately, this investigation advances understanding of this under-researched, semi-peripheral population of scholars while adding to a growing global body of work in from a range of disciplines that raises pertinent questions about plurilingual scholars’ advanced literacy practices. This presentation concludes with discussion of implications of study findings for a range of educational stakeholders.

Bilingual upbringing by non-native parents: nativeness revisited

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The definition of the native speaker and its impact on the field of Applied Linguistics has been a subject of controversy for decades (Kiczkowiak & Lowe, 2024; Lowe, 2020) due to the implications for bilingual development. More recently, some studies have begun analyzing the impact of bilingual upbringing by non-native parents (Lozano-Martínez, 2019) as a widespread sociolinguistic phenomenon that has generated new research interest in the area of family language planning, and which has not yet been adequately represented and analyzed. The purpose of this presentation is to explore perceptions about the concept of native speaker in relation to the bilingual upbringing by non-native parents, examining how it may influence decision-making and the use of a foreign language. To this end, 2010 families in Spain were surveyed about their experiences, perceptions, myths and concerns regarding their non-nativeness. Thus, 838 families with non-native parents were identified to have enrolled in bilingual upbringing in English as a Foreign Language. The results of the analysis suggest that the decision to pursue a bilingual upbringing for these families is neither easy nor free from controversy. Their perceived insecurities and beliefs about language nativeness may influence their choices regarding the use of a foreign language. This presentation will explore this complex issue and its implications for families.

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Lowe, R. J. (2020). *Uncovering ideology in English language teaching: Identifying the 'native speaker' frame* (Vol. 19). Springer Nature.

Lozano-Martínez, L. (2019). Myths and Challenges Raising Bilingual Children in English by Non-Native Parents in Spain. *ELIA: Estudios de lingüística inglesa aplicada*, (Mon. 1), 235-264.

Bilingual vocabulary development in Mexican Indigenous infants: the effects of language exposure at home

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The present study evaluates how the exposure to Spanish and an Indigenous language at home relates to infants' early bilingual vocabulary development. It focuses on a low socioeconomic status (SES) sample from an understudied population: Mexican Indigenous bilinguals. To examine the processes underlying novel word learning, infants' disambiguation ability (i.e., to assign new Spanish names to novel objects in the presence of a familiar object), was investigated through a visual eye-tracking task. Such ability was previously attested at 18 months in non-Indigenous populations (1). Thirty-two mother-child dyads participated in the study. All mothers were bilingual speakers of Spanish and one of Mexican Indigenous languages, including Zapotec, Mixtec, and Otomi. Infants were aged between 16 and 37 months and their vocabulary size was estimated in both languages using the Mexican Spanish version of the MacArthur-Bates Communicative Development Inventory II. Infants' language exposure from home, mothers' bilingual language profile, and their SES were estimated on numerical scales. The behavioral eye-tracking task consisted of the simultaneous presentation of visual (pictures) and auditory (words) stimuli to determine, through the proportion of looks to the named visual stimuli, infants' ability to disambiguate. The results of Spearman correlations showed both infants' Spanish vocabulary size and their total vocabulary growing with age, while their vocabulary size in the Indigenous language depended on relative exposure to this language. Mothers' language dominance, measured via the Bilingual Language Profile questionnaire, also correlated with Indigenous language exposure and infants' vocabulary size in the Indigenous language. Preliminary eye-tracking results (N=25) suggest that Indigenous infants acquire the ability to disambiguate, but the age of onset seems to depend more on vocabulary size and SES than on language exposure alone. These findings are discussed in the context of early bilingual vocabulary acquisition in speakers of minority languages.

(1) Bion et al. (2013). <https://doi.org/10.1016/j.cognition.2012.08.008>

Bilingualism and Contact Linguistics: the Case of Existential Sentence Acquisition

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English-based contact varieties often exhibit realisations other than ‘there be’ structure for Existential Sentence (ES). According to Michaelis (2013), most contact varieties show identity of the existential verb (equivalent to English ‘there is’) and transitive possessive verb ‘have’, leading to the discussion of existential and possessive polysemy under contact conditions. This study examines the pattern within ES production of bilingual children in the early language acquisition period by analysing English utterances of nine Cantonese-English bilingual children (Yip & Matthews 2007) quantitatively and qualitatively. The analysis reveals extensive ES output containing possessive verb ‘have’ being used in an existential function, as illustrated below:

Father: Hey, I can’t see the queen.

Child: There has queen. (Alicia 2;07)

It is found that the use of ‘have’ in ES generally occurs before the age of 3; after 3, bilingual children show clear escalation in the production of ‘there be’ ES. Data from English monolingual children are also analysed as a control group where similar patterns are not attested (Wells 1981; Rowland 2007). The bilingual children thus pass through a developmental stage which monolinguals do not. The results to date show that Cantonese-English bilingual children generally show existential use of possessive verb ‘have’ in ES at the earlier developmental stages (before 3), exhibiting resemblances to the patterns discovered in contact varieties (Michaelis 2013). These results imply that bilingual children are re-creating the properties of contact languages in terms of the possessive and existential polysemy. The aforementioned parallel developments demonstrate how research on bilingual development could shed light on contact linguistics, as proposed in Szeto et al. (2019).

Bilingualism and Developmental Language Disorder: identification challenges at school setting

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Background: 2 out of 30 students have Developmental Language Disorder (DLD) (Norbury et al. 2016), but current means do not permit to check if those numbers are also reflected in the school setting of the Basque Autonomous Community (BAC) Aim: To single out the challenges that hindrance DLD identification in L1 Basque bilingual students. Being aware of these challenges will shed light on preventive measures. Methodology: Participants are primary education professionals: teacher (n=4), therapeutic educator (n=2), counsellor (n=2), speech therapist (n=1) and BeA (n=1). They belong to a school where the vehicular language is Basque, and they have been interviewed either in a focus-group session or individually. Responses have been analysed in two phases: (1) to recognize a common ground with previous studies; (2) to identify challenges more specific to the education setting in the BAC Results: Participants admit dealing with DLD identification obstacles mentioned in previous studies and they acknowledge two other hindrances more specific to the socio-educational setting in the BAC. Firstly, teachers recognise having difficulties to determine whether a grammatical error is subject to a language disorder or to low proficiency in Basque. Low proficiency in Basque has frequently been linked with students who limit interaction in Basque to the school setting (Huarte 2021). The interviewees, however, claim that nowadays many L1 Basque bilinguals exhibit poor linguistic abilities in this language. The lack of output is, according to them, one factor triggering this linguistic phenomenon. That is, intrafamilial communication has changed significantly: (i) parents interact less with their kids; (ii) children are overexposed to screens. Thus, despite language input being guaranteed, there is no output. Secondly, participants convey that some educational methodologies have been misinterpreted, in this way, disregarding language maturation. This has a detrimental effect especially for students with a language disorder, since they need major linguistic assistance.

Bilingualism and Minority Language Dynamics: Monitoring Shifts in Attitudes, Language Use and Proficiency in the Frisian-Dutch Context

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Assessing the vitality of a minority language requires ongoing monitoring of language proficiency, behavior, and attitudes, especially in bilingual contexts where a dominant language can heavily influence language dynamics. By analyzing these elements, we can identify the critical factors that contribute to the language's preservation and transmission (Sallabank, 2013). Research on language attitudes has historically offered valuable insights into the linguistic landscape of Fryslân, a bilingual province in the north of the Netherlands where a minority language (Frisian) is spoken next to the national language (Dutch). Building on previous language surveys in Fryslân (a.o., Klinkenberg et al., 2018), our research explores the potential of the citizen panel, Panel Fryslân, made up of thousands of randomly selected residents, as a platform for in-depth language surveys. By analyzing data from 3,700 participants, the study aims to provide evidence-based recommendations for supporting linguistic diversity and enhancing language vitality. Our research has three main objectives: (1) to assess self-reported language proficiency; (2) to explore patterns of language use across various social contexts; and (3) to examine language attitudes by utilizing modern techniques. The research questions regarding language attitudes can be divided into two key categories: solidarity and status. Initial results suggest that, overall, solidarity is valued more than status, though the latter remains important. Notably, the significance of status appears to be decreasing among younger speakers, while solidarity is gaining importance. These findings underscore the increasing importance of belonging, indicating that this aspect should be highlighted in language promotion efforts to enhance engagement and support.

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Sallabank, J. (2013). *Attitudes to Endangered Languages: Identities and Policies*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139344166>

Bilingualism effects on Executive Function of Cantonese-English bilingual children with Autism Spectrum Disorder

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Bilingualism is generally acknowledged not to negatively impact Executive Function (EF) in typically developing (TD) children. However, its effects on children with Autism Spectrum Disorder (ASD) are less clear, raising concerns among parents and professionals about potential exacerbation of existing cognitive difficulties. This study examines how bilingual exposure, along with maternal/paternal education and nonverbal IQ, influences two components of EF (i.e., working memory and inhibitory control) in 5- to 8-year-old Cantonese-English bilingual children with ASD, compared to age-matched bilingual TD children. Forty-two bilingual children with ASD and 31 bilingual TD children participated in this study. Diagnoses of ASD were confirmed using the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2). All participants were born in Hong Kong, acquiring Cantonese as first language and English as second language before age three. We assessed their working memory through the backward digit span task, inhibitory control through the Flanker task, and nonverbal IQ through the Primary Test of Nonverbal Intelligence. Parents were asked to provide their education level, and their children's Cantonese and English exposure at home, school and community. Statistical analyses showed no significant differences in working memory or inhibitory control between groups. In autistic children, working memory significantly positively correlated with Cantonese exposure at home and age, while in TD children, it was significantly positively correlated with nonverbal IQ and age. The Flanker reaction time did not significantly correlate to any measures in autistic children, although it was marginally correlated to paternal education in TD children. Our findings suggest that bilingual exposure has no detrimental effect on EF of autistic children. The results also indicate that bilingual exposure differentially affects different components of EF in autistic children. Our study has the potential to provide essential guidance to parents and professionals to make better-informed decisions for autistic children in bilingual communities.

Bilingualism in the balance: Supporting students' bilingualism in contested educational spaces

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Research on bilingualism in education highlights the valuable, yet contested, role of marginalized languages in supporting bilingual students' learning, language development, and wellbeing (e.g., Flores et al., 2020; García & Wei, 2014). To explore student and educator decision-making around this balance, we compare studies drawing on postcolonial and language policy and planning perspectives in two educational contexts: French-Arabic bilingualism in French secondary education, and English-Spanish bilingualism in U.S. postsecondary education. Utilizing comparative case study methodology (Bartlett & Vavrus, 2017), our work illuminates institutional practices and sociopolitical discourses that were both explicit/implicit, micro/macro, and formal/informal (Ricento & Hornberger, 1996), constraining learning opportunities and agency for bilingual youth and educators. The first study presents an ethnography of Franco-Maghrebi students in a rural French high school. Drawing on classroom observations and student interviews, analysis highlights how youth resisted exclusionary language education policies and cultivated their French-Arabic communicative resources through extracurricular biliteracies, while grappling with language shift and discrimination. The second study examines language decision-making at an English-dominant, de facto bilingual U.S. university. Drawing on classroom observations, educator interviews and questionnaires, and linguistic landscape photographs, analysis highlights the juxtaposition of available Spanish-English bilingual resources and imagined institutional monolingualism, where the absence of explicit language policy resulted in educator uncertainty, disparate classroom practices, and tension. Findings from both studies indicate the importance of affinity spaces and counter-narratives for supporting bilingualism in contested educational contexts.

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Bilingualism, Inhibition Skills and Referential Ambiguity in Children's Statistical Word Learning

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Cross-situational word-learning (CSWL) – the ability to track co-occurrence statistics of words and referents over time – is a fundamental mechanism underlying lexical learning. This study examined the relationship between CSWL and executive functions (EF) in monolingual and bilingual children. Fifty English-monolinguals and 45 Spanish-English bilinguals ages 5 – 9 learned five novel words in two conditions in a within subject's design: (1) Low Complexity (one exemplar of each object labeled by one speaker); and (2) High Complexity (three exemplars of each object labeled by ten speakers). Children also completed a Dimensional Change Card Sort task (DCCS) which indexed task-shifting (shifting costs), inhibition (switching costs), and monitoring skills (mixing costs). Results revealed that children learned words above chance (i.e., .50) in the Low ($M = 0.77$, $SD = 0.22$; $t(94) = 12.02$, $p < .001$) and High ($M = 0.70$, $SD = 0.21$; $t(94) = 9.47$, $p < .001$) Complexity conditions. Logistic mixed effects models revealed significantly better word learning in the Low compared to the High Complexity condition ($ps < .05$). A significant interaction between Switching Costs and Condition demonstrated that children with robust inhibition skills outperformed children with weaker inhibition skills in the High Complexity condition ($B = -0.31$, $SE = 0.14$, $z = -2.02$, $p < .05$), and this effect was stronger for bilinguals than monolinguals ($B = -0.58$, $SE = 0.29$, $z = -2.01$, $p < .05$). This study is the first to link children's inhibition skills to CSWL performance and suggest a role for interference management in resolving referential ambiguity. Together, our results align with emerging evidence that explicit mechanisms may complement statistical learning processes. These results also contribute to our understanding of how bilingualism and EF intersect to influence language learning.

Bilinguals exert less effort rejecting non-targets compared to monolinguals in a novel auditory stochastic figure-ground task

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Understanding speech in noise is so ubiquitous that it is often taken for granted—until it requires unexpected effort. For bilinguals, this is often compounded by proficiency in their non-native language. Because clinical measures of speech-in-noise comprehension strongly rely on linguistic stimuli, there is a need for a non-linguistic measure of auditory processing deficits that make speech-in-noise listening more effortful. Promising candidates to address this are tasks employing stochastic figure-ground (SFG) stimuli, which consist of a background of spectrally random pure tones overlaid with a repeating inharmonic chord (figure). Critically, SFG stimuli engage the same neural mechanisms required for speech-in-noise recognition. 18 native and 23 non-native English speakers completed a SFG task while pupil size—an index of listening effort—was recorded. 80% of stimuli were targets containing a figure and 20% were non-targets without a figure. Participants pressed a button if they believed the stimulus contained a figure. Participants also completed a battery of cognitive, English proficiency, and clinical speech-in-noise tasks. Binomial logistic mixed-effects regression indicated that monolinguals and bilinguals did not significantly differ in their accuracy to targets or non-targets. A generalized additive mixed-effects model was used to analyze the time course of the pupil response. Bilinguals and monolinguals had similar pupil responses to targets; for non-targets, however, monolinguals had significantly larger responses, suggesting greater listening effort. This was modulated by both speech-in-noise comprehension and working memory: the difference in pupil responses between monolinguals and bilinguals was larger with better speech-in-noise performance; likewise, this difference increased as working memory increased. That bilinguals performed as well as monolinguals suggests that SFG stimuli may be suitable to assess the mechanisms underlying speech-in-noise comprehension. Likewise, bilinguals exert less effort than monolinguals to achieve this same level of performance—a finding that would have been obscured using language-dependent measures of speech-in-noise comprehension.

Bilinguals Recall Code-switched Information Better than Single-Language Information

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Bilinguals often code-switch between languages during conversations, which research has shown can impose processing challenges for listeners (e.g., Altarriba et al., 1996). However, recent studies suggest that hearing a switch may also provide benefits in comprehension—for example, enhancing predictive processes and word learning (e.g., Blair & Morini, 2022; Tomić & Valdés Kroff, 2022). In this study, we examined whether bilinguals show better encoding and recall of information they heard in code-switched contexts, compared to single-language contexts. Such an effect may arise because bilinguals learn through experience that switches carry communicative significance (Myslín & Levy, 2015; Gumperz, 1982), and thus, they better attend to and encode code-switched information. Therefore, we also predicted that bilinguals with more code-switching experience would show a stronger recall advantage for code-switched information. In this pre-registered study, 177 Spanish-English bilinguals from the United States (primarily English dominant but with diverse bilingual backgrounds) listened to short vignettes and verbally recalled each as accurately as possible. Each vignette contained 14 details, and responses were coded for gist accuracy (Fraundorf & Watson, 2011). Participants heard three single-language vignettes (two in English, one in Spanish) and two vignettes containing English-to-Spanish switches for 7 of the 14 details. Results confirmed our hypothesis: Bilinguals recalled code-switched details ($M=54.59\%$) more than single-language details ($M=45.41\%$; $p=0.02$). An exploratory correlation analysis revealed that bilinguals with greater code-switching experience (measured with BCSP; Olson, 2022) showed a larger recall benefit from switches ($r=0.46$, $p<0.01$). These results suggest that, despite prior work emphasizing comprehension difficulty, hearing code-switches may actually enhance memory due to bilinguals' understanding of their communicative value. Our findings suggest that code-switching may serve as a tool to enhance learning and retention, leveraging the principles of active recall to reinforce memory more effectively.

Bilinguals' referential choice in intra-sentential code-switching

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Appropriate references are a prerequisite for successful communication, but bilingual speakers may differ in their choice of referential expressions depending on the language selected in a specific context, such as in a unilingual vs. codeswitching context. The present research examines referential choice in intra-sentential code-switching in Spanish-English bilinguals when the language of production is Spanish. Different referential expressions are available to Spanish-English bilinguals: null/overt pronouns and noun phrases in Spanish; overt pronouns and noun phrases in English. In an on-going experiment, participants (N=30) read aloud a sentence fragment including two referents and completed the fragment orally either using the same language (fragment=Spanish; completion=Spanish) or code-switching (fragment=English; completion=Spanish). The code-switching condition may be more cognitively effortful because the speaker has to inhibit the language just used, incurring into a processing cost (Meuter & Allport, 1999). Under cognitive load, bilinguals may experience decreased activation of the referents in their discourse model, determining an increased use of null pronouns that are more economical for the speaker. Alternatively, code-switching may determine increased cross-linguistic interference from the language just used (English), with an increase in the production of noun phrases and overt pronouns, the forms used in English in the same contexts. Bilinguals produced fewer null pronouns in the code-switching condition compared to the same-language condition ($p < 0.0001$). In addition, they produced significantly more overt pronouns and full noun phrases when they code-switched compared to staying in the same language (all $ps < 0.0001$). We found that bilinguals' referential choice is sensitive to the demands of code-switching, and participants are more explicit in their choice of referring expressions when they switch language (i.e., producing more overt pronouns and noun phrases in Spanish). The results also suggest that intra-sentential code-switching may determine cross-linguistic interference, with an increase in referential form use typical of the language recently inhibited.

Biliteracies and literate subjectivity: insights from a bilingual learning materials project in primary science

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Southern schooling has been described as beset by coloniality including in the area of language policy (McKinney, 2017). In South Africa the majority of schoolchildren who are African language dominant experience a switch to monolingual English language of instruction and assessment in content subjects such as science from their fourth year of school, resulting in widespread epistemic exclusion (Kuchah et al, 2022). To counter the effects of this, teachers and learners engage in innovative bilingual practices in the oral mode. Given the lack of official support for simultaneous biliteracy, there is little research evidence to date of the use of bi/multilingual practices in learning materials, student writing or assessment. However, this paper presents data from an intervention project in a Grade 4 Natural Science classroom in Cape Town where pedagogy and assessment were built around specially designed bilingual learning materials: iSayensi Yethu (Our Science). Bilingual data in isiXhosa and English is presented from the classroom intervention, as well as the materials themselves. The biliteracies (García & Kleifgen, 2020) in which the children engaged extend from wall displays to the learning materials and bilingual writing in classwork and formal testing. Both parallel biliteracy and translanguaging literacies are evident, giving children multiple opportunities to engage in knowledge-making. I argue that these practices can be expanded as part of a decolonial approach to developing a literate subjectivity in children.

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Biliteracy Development in Turkish-German and Arabic-German Bilingual Students: Exploring the Impact of Heritage Language Education in Primary Schools

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In Berlin, nearly half of primary school children grow up bi-/multilingual. Many attend heritage language (HL) classes at school, with Turkish and Arabic among the most common. Within the evaluation of HL instruction, conducted in 2023-2024, 214 Turkish-German and Arabic-German bilinguals were assessed in both languages at the end of grades 3 and 4, with third-graders retested a year later to track their development. To measure literacy in German, a reading comprehension test on word, sentence, and text levels (ELFE II, Lenhard et al., 2012) and a spelling test (HSP, May, 2018) were conducted. Comparable assessments were created for Turkish and Arabic. The present study focused on bilingual literacy development and factors impacting students' literacy skills, especially those related to learning conditions in HL classes and biliteracy. Results of the crosssectional analysis showed that in German, both bilingual groups performed similarly in grade 3, whereas in grade 4, Turkish-German bilinguals outperformed Arabic-German ones in all literacy domains except text-level reading comprehension. Both groups performed significantly better in grade 4, though Arabic-German students's gains were lower in text-level reading comprehension and spelling. In HL assessments, Turkish-German bilinguals scored significantly higher than Arabic-German bilinguals in all reading comprehension domains across both grades. While both groups performed better in grade 4, Arabic-German bilinguals showed less progress in sentence- and text-level reading comprehension. The longitudinal analysis revealed significant gains in word- and sentence-level reading in German, but no spelling improvement. In HLs, only word-level reading comprehension improved significantly; Turkish-German bilinguals also improved at the sentence level. Differences in literacy development between Turkish- and Arabic-German bilinguals likely reflect varied literacy acquisition conditions, such as length and amount of exposure, HL class duration per week, the more complex writing system of Arabic, etc. Further analysis of factors impacting biliteracy development will be presented at the symposium.

Biliteracy in the Early Stages of Literacy Acquisition: German-Turkish Bilingual Children Writing in Their Languages

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In early primary school, children's writing is still developing and has not yet reached an automatic level. At this stage, their writing exhibits characteristics of learner varieties, displaying systematic yet unstable patterns similar to those found in second language acquisition (Weth, 2010; Caravolas, 2005). According to Cummins' (2000) Interdependence Hypothesis, literacy skills acquired in one language can transfer to another. For bilingual children, this suggests that orthographic rules and regularities learned in their language of schooling may influence their writing in their heritage language, and vice versa. This raises two key questions: (i) to what extent do children transfer the orthographic regularities between their languages, and (ii) how do their orthographic practices evolve as their bilingual literacy progresses, particularly considering the role of heritage language education? To answer these research questions, we analyzed and systematically compared the orthographic practices of 21 German-Turkish bilingual primary school children in both languages at two key time points: the end of second grade and the end of third grade. All children receive intensive schooling in German, while thirteen also attend Turkish heritage language classes. Following Fuhrhop (2009), we conducted detailed analyses at segmental-phonological, syllabic, morphological, syntactic, and textual levels. Our findings point to systematic cross-linguistic transfer of orthographic regularities from German, the majority language, into Turkish, their heritage language. Specifically, we identified transfer effects in phoneme-grapheme correspondences (segmental level), representation of vowel lengthening (syllabic level), and capitalization strategies (morphological and syntactic level). HL education does not seem to hinder the frequency of transfer effects, but it does seem to change its quality. Our findings provide valuable insights into the nature of biliteracy development during the early stages of literacy acquisition.

Bridging language barriers: evaluating a receptive bilingual Dutch-English course for academic meetings and administration

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The internationalization of Dutch universities has highlighted significant language barriers for international students and staff, especially in participatory bodies where Dutch is the primary language. In response, a receptive Dutch course focusing on reading and listening skills for administrative language has been developed and optimized. This course enhances the ability of international students and staff to understand Dutch in written and spoken forms, while using English for production. This solution is based on the concept of receptive multilingualism (Backus et al., 2013). This study explores the effectiveness of this receptive multilingual approach within the context of second language learning. Using an Educational Design Research methodology (McKenney & Reeves, 2012). In this presentation, we will examine the first round of data collection, including document analysis, classroom observations, audio journaling, and interviews. We will compare the vision and ideas of the original course designers and policymakers with the teacher's experience and actual operationalization of using a receptive multilingual approach for learning a second language. Comparing the intended and implemented curricula will provide insights into the course's effectiveness, using the curriculum representations framework (Van den Akker, 2003). This study contributes to the overall research aimed at identifying key characteristics of effective teaching approaches for receptive language use, fostering a more inclusive academic environment.

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Bonjour, bilingual baby? French parents' beliefs about learning two languages in early childhood

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Myriad factors - from societal influences to individual family contexts - influence parents' decision to raise a child bilingually or not. In this study, we examine parenting beliefs and practices related to children's early language development in families living in France. We administered a questionnaire to 551 parents of children aged 12 to 36 months, asking about parents' language backgrounds, their language practices with their children (e.g. frequency of reading to their child), their children's language experience (e.g. where and what language(s) they are learning) and the Parental Beliefs About Fixedness scale (Muenks et al., 2015). Further, we interviewed a subsample of 20 parents, exploring parents' beliefs about language learning and second language acquisition and investigating factors that support or challenge their language-related choices for their children. Our qualitative data revealed notable variation in not only why parents choose to teach their children a second language (or not) but also how they pursue that goal. Analysis of our quantitative data is underway, and we are running multiple regression analyses to examine the relationships between parents' beliefs about the malleability of their children's verbal abilities, the frequency of their language-related activities with their children, and their knowledge of child development. We posit that greater knowledge of child development is associated with a stronger belief that children's abilities are malleable and higher engagement in language-related activities. Our mixed-methods approach serves to provide a deeper understanding of the interplay between parental beliefs and language-related choices and practices with their young children. Taken together, our findings have important implications for the design of policy and programs related to family language practices, allowing for more effective strategies that consider varied family contexts and preferences.

Can bilingualism facilitate L3 acquisition? Evidence from primary and secondary schools in the Basque Country

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Studies on the acquisition of a third language (L3) in a bilingual context suggest that knowledge of two languages generally facilitate the acquisition of an L3 by enhancing metalinguistic awareness, cognitive abilities, and specific language skills (Park & Starr, 2016; Salomé et al. 2021; Sanz, 2000). However, there is great diversity in terms of the individual characteristics of the learners and the sociolinguistic and pedagogical contexts in which the L3 is learned (Cenoz & Gorter, 2022). This presentation aims to contribute to this line of research by investigating the acquisition of English as an L3 by Basque school learners. The study analyses the influence of various individual and contextual factors on the level of proficiency obtained in English as a foreign language in primary and secondary education in the Basque Country, a bilingual community in Spain in which two official languages, Basque and Spanish, coexist. Data were collected from a large number of pupils (N=approx.. 10,000) in the fourth year of primary education (8-9 years old) and the second year of secondary education (13-14 years old). Our results show that bilingualism does indeed have a positive effect on the acquisition of English as L3, with statistically significant differences manifested in several aspects, such as the use of the different languages at home (Basque and Spanish vs Spanish). In addition, we found that there are other factors that have an impact on the outcomes, such as the socio-economic level of the families.

Castilian-Quechuan Contact: Ideophones from the Andean-Amazonian interface

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A major word class exhibiting iconicity (non-arbitrary sound-meaning mappings) is ideophones, which are imitative words featuring linguistic sounds, bodily gestures and intonation depicting sensory perceptions, emotions, et cetera (Dingemanse, 2019). Ideophones may be fragile in contact situations, especially with European languages (Childs 1996). Pastaza Kichwa has a rich ideophone inventory (Nuckolls, 1996). The fragility of ideophones in bilingual Ecuadorian Spanish-Kichwa environments has been highlighted with Nuckolls et al., (forthcoming) hypothesising the relationship of certain forms of bilingualism/language contact to the language-specific features of (Amazonian) Kichwa, such as ideophones and reported speech, with the more Spanish contact leading to fewer ideophones. Some speakers believed this lect had lost these ideophones, resulting in a diminished poetic culture. I look at newly collected video data and observations of San Martín Quechua/Kichwa speakers in the Peruvian provinces of San Martín and Loreto in settlements where Spanish is dominant. This paper presents the linguistic context, some novel examples of ideophones and ideophone-like words in both the speakers' repertoires. Initial observations confirm Childs (1996). However, Peruvian Amazonian Spanish is replete with ideophone-like utterances (Chirif 2016). A complex picture of ideophone maintenance is emerging, in bilingual speakers where languages are in contact in both society and speakers' cognitive systems.

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Chirif, A. (2016). Diccionario amazónico. Voces del castellano en la selva peruana. Lima:

CAAAP Centro Amazónico de Antropología y Aplicación Práctica, Lluvia Editores.

Dingemanse, M. (2019). "Ideophone" as a comparative concept. In Kimi Akita & Prashant

Pardeshi (eds.), Ideophones, Mimetics, Expressives: Iconicity in Language and Literature Vol. 16, 13–34. Amsterdam: John Benjamins.

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Cerebral Networks of Bimodal Extreme Language Control: Functional Imaging of Sign-Oral Interpreting

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Multilingual language control involves selecting and using the appropriate language while inhibiting interference from other acquired languages and depends upon cortico-subcortical networks implicated in cognitive and behavioural control. Neuroimaging of simultaneous interpreting (SI) has been used to explore the cerebral mechanisms of ongoing multilingual language (Hervais-Adelman & Babcock, 2020). However, existing work has focused on unimodal (oral) SI, whereas the mechanisms of multilingual language control in bimodal (sign/oral) bilingualism are thought to present a different category of challenge due to their minimally interfering production and comprehension channels (Emmorey et al., 2016). To investigate the cerebral mechanisms of bimodal language control, we used functional magnetic resonance imaging (fMRI) to measure brain activation in early bimodal bilinguals simultaneously interpreting (SI) between Turkish and Turkish Sign Language (TID; N=18, all with interpreting experience). Conjunction analysis examining SI (Turkish to TID and TID to Turkish) reveal significant activations in cerebellar, cortical, and subcortical (thalamic and putaminal) motor and cognitive control networks, compared to passive baseline (watching sign or listening to speech), comparable to previous findings in unimodal interpreting (Hervais-Adelman et al., 2015). However, when comparing with a shadowing task (matched for input), our results demonstrate that qualitatively similar networks in uni- and bimodal language control are employed during SI. Overall, our findings provide new insights into the neural mechanisms of bimodal language control and lay the groundwork for further investigation in this domain.

Emmorey, K., Giezen, M. R., & Gollan, T. H. (2016). Psycholinguistic, cognitive, and neural implications of bimodal bilingualism. *Bilingualism*, 19(2). <https://doi.org/10.1017/S1366728915000085>

Hervais-Adelman, A., Moser-Mercer, B., Michel, C. M., & Golestani, N. (2015). FMRI of simultaneous interpretation reveals the neural basis of extreme language control. *Cerebral Cortex*, 25(12). <https://doi.org/10.1093/cercor/bhu158>

Hervais-Adelman, A., & Babcock, L. (2020). The neurobiology of simultaneous interpreting: Where extreme language and cognitive control intersect. *Bilingualism*, 23(4). <https://doi.org/10.1017/S1366728919000324>

“Chinese is at my fingertips”: Using a digitalscapes lens to explore networked FLP in heritage language development in multilingual transnational families in the UK

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The rapid development of digital media in language learning has driven the importance of networked family language policy (FLP) in the maintenance of heritage language (HL) in multilingual families in which children play a crucial role in making language-related decisions. This study introduces the notion of familyscapes and suggests extending it to the digital field. It aims to investigate how preadolescents and adolescents participate in HL practices through various multimodal digital resources and activities across diverse digital spaces, shaping their networked FLP within familyscapes. This research proposes an innovative concept of ‘digitalscapes’ (a part of familyscapes) as referring to ‘a ubiquitous, real-time and mobile digital language(s) environment’ and integrates a more dynamic model of FLP established by Curdt-Christiansen and Huang (2020) when investigating networked FLP. This study involves 10 preadolescents and adolescents (ages 8-18) from six Chinese-English multilingual transnational families in the UK. We analysed ethnographic data, including semi-structured interviews, home observations and follow-up discussions, online and offline audio and video recordings and field notes. The results show that with the high visibility of HL exposure in five spaces within digitalscapes at home, preadolescents and adolescents intentionally or unintentionally participate in formal or informal digital practices, facilitating their HL and literacy skills and developing heritage-related factors including ‘culture, identity, emotion and knowledge’ in networked FLP. Our study finds that digitalscapes can be regarded as the product of the networked FLP and also function as the digital environment for networked FLP and digital HL and heritage-related practices.

Curdt-Christiansen, X. L., & Huang, J. (2020). Factors influencing family language policy. In A. C. Schalley & S. A. Eisenclas (Eds.), *Handbook of Social and Affective Factors in Home Language Maintenance and Development* (pp. 174-193). Berlin: Mouton De Gruyter.

Choice and Reward in Language-Switching: A Pupillometry Study on Spanish-Basque Bilinguals

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Switching between languages has been shown to incur cognitive costs for bilinguals. The extent of such costs, however, seems to at least partly depend on whether speakers are forced to switch languages or given the choice of when to switch. While prior research has primarily focused on language-switching in production (e.g., Gollan & Ferreira, 2009; Meuter & Allport, 1999), studies on language-switching in comprehension remain scarcer (e.g., Abutalebi et al., 2007; Fernández et al., 2019). Additionally, the potential effect of reward incentives on language-switching costs remains unknown. We addressed these gaps by exploring language-switching costs among Spanish-Basque balanced bilinguals in a two-sentence perception task. Participants were presented with different language combinations under cued (i.e., forced), voluntary, and incentivised (i.e., different language combinations rewarded with bonus money each trial) switching conditions. Although voluntary language-switching does not occur in real bilingual interactions, it may still provide valuable insights into how speakers process language alternations. In our study, language-switching costs were measured using the task-evoked pupil response, a well-known index of cognitive effort (Beatty, 1982). The results showed a switch effect across conditions, as trials involving language switches elicited a larger pupil response overall; the magnitude of this switching effect varied by condition. Additionally, the monetary reward incentives appear to have conditioned participants to exert greater effort: the overall pupil response amplitude was greatest in the incentivised block (followed by the cued and voluntary contexts). Finally, we present evidence of a relationship between individual differences in daily language-switching habits and cognitive load during language switching. Altogether, our findings align with previous language-switching effects – suggesting that the circumstances prompting language-switching may impact switching costs.

Code-switching in bilingual children with ASD: Evidence from two studies

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Bilingualism plays a central role in the lives of many children, both autistic and non-autistic (Prévost & Tuller, 2022). Children in bilingual settings often demonstrate language contact phenomena, such as code-switching, mirroring the multilingual practices of their communities. However, research on code-switching in autistic children remains limited (Cohen et al., 2023; Yu, 2016). This research addresses this gap by examining language use in bilingual autistic children. Study 1 analyzed code-switching in 10 autistic and 10 non-autistic Russian-Hebrew-speaking children, aged 5;03–10;00, during Autism Diagnostic Observation Schedule (ADOS-2) sessions. Code-switching rates varied from 0% in monolingual sessions to 50% with a bilingual experimenter, with both groups showing more frequent code-switching in the bilingual setting. Study 2 investigated 44 bilingual Russian-Hebrew children, aged 5;00–9;00, using the LITMUS-MAIN narrative task in both languages. Participants mainly used the session's target language, with minimal code-switching (1–4%). Two-way ANOVAs found no main effects of language or group and no group-language interaction, indicating that autistic children code-switched as much as their non-autistic peers. A qualitative analysis across both studies showed that autistic and non-autistic children predominantly code-switched nouns, full phrases, and discourse markers (e.g., "and"). These findings suggest that code-switching in autistic children, like in non-autistic peers, reflects common bilingual communication practices rather than confusion, shaped by social and linguistic factors within their communities.

Cohen, S., et al. (2023). *Hablando at home: Examining the interactional resources of a bilingual autistic child*. JCL.

Hantman, R. M., et al. (2023). *A systematic review of bilingual experiences in ASD research*. Front. Psychol.

Prévost, P., & Tuller, L. (2022). *Bilingual language development in autism*. Ling. Approaches Biling.

Yu, B. (2016). *Code-switching as a communicative resource in bilingual family interactions for a child with autism*. Perspect. ASHA SIG.

Code-switching in Italian-English bilingual dialogue: An experimental investigation

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Introduction: Corpus studies on bilingual dialogue find that speakers are more likely to code-switch if one's conversational partner has code-switched on a preceding turn (i.e., priming) and that this effect is modulated by the presence of a cognate. To our knowledge, Kootstra et al. (2020) were the first to provide experimental evidence for these effects in Dutch-English bilingual dialogue. Current study: We set out to determine whether these effects also hold between non-typologically related languages. Method: We tested 28 native Italian speakers (MeanAge 26), who reported to use English and code-switch daily between English and Italian. In a dialogue game participant and experimenter sat across from each other and took turns describing pictures. On experimental trials, the experimenter described the pictures with active sentences (NP, V, NP, PP), uttered either entirely in Italian or containing a code-switch into English on the PP. To describe their pictures, participants were asked to use a similar sentence structure and use Italian, English or both languages. On filler trials participants were asked to use English throughout. This was a slight modification of Kootstra et al., who asked that at least one word be in English. Results and discussion: Responses were transcribed and scored as either CodeSwitched or NotCodeSwitched. Mixed-effects logistic regression analysis were performed on the data. The best fit model was: Response ~ CodeSwitching + Trigger + (1 | Participant) + (1 | ItemNo). We found a positive main effect of code-switching priming (10%, $p < 0.001$), and a negative main effect of cognate status (-6%, $p = 0.045$), however, the priming x cognate interaction was not significant. We therefore confirm and extend previous experimental findings to different language pairs. We will discuss the differential effects of cognate status in this study compared with previous studies in the context of current models of bilingual production and language control.

Code-switching in Welsh-English Bilinguals with Dementia

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Dementia is a progressive disease characterised by impaired memory, comprehension, and language, and affects social behaviour (Denig et al, 2015). Bilingual dementia cases are increasing (Abutalebi & Weekes, 2014), yet there is limited research on how bilingual-specific communicative functions, such as code-switching, are affected. While recent research has investigated the use of code-switching to make interactional adjustments in bilinguals with dementia (Schneider & Bos, 2024), macro-level implications, such as shared community norms between speakers, remain unexplored. The markedness model (Scotton, 1980) is equipped for macro analysis, proposing six maxims that, when flaunted, signal a change in social negotiations. Using this model, alongside conversation analysis, this research aims to investigate how and to what extent Welsh-English bilinguals with dementia code-switch to negotiate social relationships. Participants with dementia will be audio-recorded conversing with a close bilingual acquaintance for 30 minutes. The data will be compared against recordings from the Bangor Siarad corpus (talkbank.org) as a control. Analysis will focus on maxims flaunted. For example, code-switching from the unmarked, expected code, to a marked, unexpected code flaunts the unmarked choice maxim, increasing or decreasing social distance between speakers (Scotton, 1980). Micro-level implications will be explored using conversation analysis. The results could suggest how the use of code-switching as a communicative function is affected in bilinguals with dementia.

Abutalebi, J., & Weekes, B. S. (2014). The cognitive neurology of bilingualism in the age of globalization. *Behavioural Neurology*, 2014, 1–3. <https://doi.org/10.1155/2014/536727>

Denig, T., & Sandilyan, M. B. (2015). Dementia: definitions and types. *Nursing Standard (Royal College of Nursing (Great Britain) : 1987)*, 29(37). <https://doi.org/10.7748/ns.29.37.37.e9405>

Schneider, C., & Bös, B. (2024). Code accommodation as a measure of inclusion for bilingual people living with dementia of the Alzheimer's type. *Pragmatics and Society*, 15(1), 49–66. <https://doi.org/10.1075/ps.23042.sch>

Scotton, C. M. (1980). Explaining Linguistic Choices as Identity Negotiations. *Language*.

Code-switching is bursty, parallel activation is gradient

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Models of bilingual language and cognition rely on both languages being “always active” (Kroll et al. 2014). We test the time course of multi-word code-switching (CS), putting forward metrics based on Intonation Units (IUs) as the token level for bilingual speech (Pattichis et al. 2023). We compare three bilingual datasets that differ by language distribution (M-Index) and CS probability (I-Index) (adapted from Guzman et al. 2017). In language distribution (proportion of the two languages), the datasets range from a near balance of 45%-55% to a more skewed 77%-23%, while in CS rate (proportion of switch points), they range from 0.03 to fivefold more frequent 0.17. Regardless of such differences, when we plot CS occurrences by distance from the immediately preceding and following CS occurrence, we find that most switches involve few IUs before or after another switch. Thus, CS is intrinsically bursty (e.g., Goh & Barabási 2008). This means that short timeframes of dense CS are interspersed between longer unilingual stretches. The fundamental burstiness of CS indicates that, regardless of context (particular topics, interlocutors), activation of the two languages is not held constant throughout everyday bilingual conversations. Parallel activation is a matter of degree, as bilinguals move in and out of shifting bilingual modes.

Goh KI, Barabási AL. 2008. Burstiness and memory in complex systems. *EPL* 81(4), 48002.

Guzman G. et al. 2017. Metrics for modeling code-switching across corpora. *Interspeech*, 67–71

Kroll JF et al. 2014. Two languages in mind: Bilingualism as a tool to investigate language, cognition, and the brain. *Curr Dir Psychol Sci.* 23(3):159-163.

Pattichis R et al. 2023. Code-switching metrics using intonation units. *Proceedings 2023 EMNLP*, 16840–16849.

Codeswitching as a Tool for Opportunistic Speech Planning

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Language is a form of communicative action, requiring the weighing of alternative picks at different levels (e.g., choices of words, word orders, and sentence structures). What factors influence people's action behaviors in everyday conversation? From a production standpoint, increasing evidence suggests that people's language choices are based on a probabilistic compromise between utility and efficiency (Koranda et al., 2022). Speakers can mitigate the demands of speech planning by exploiting shared linguistic conventions, producing easier over more difficult utterance forms, and making use of previous utterances in a conversation (MacDonald, 2013). Relative to the demands faced by monolinguals, bilingual speech planning introduces added complexity: regulating cross-language interactions to suit the communicative demands at hand. In our previous work, we have proposed that codeswitching functions as an opportunistic strategy, providing communicative precision during speech planning by allowing both languages to remain active and accessible, and providing an alternative means to convey meaning (Beatty-Martínez et al., 2020). Here, we focus on developing this proposal by examining the cognitive mechanisms that support how bilingual speakers adaptively communicate, collaborate, and coordinate with one another. We implemented a classic iterated reference paradigm (a.k.a. the tangrams task; Hawkins et al., 2017), where pairs of bilingual interlocutors must coordinate on how to refer to and match ambiguous stimuli. Data collection has been highly successful, with 46 face-to-face dyadic interactions involving habitual codeswitchers from Puerto Rico; coding of these data is currently underway. Preliminary observations are promising, with elicited codeswitches mirroring a wide variety of established codeswitching practices (Torres Cacoullos & Travis, 2018). Results suggest that, in a manner akin to dyadic interactions with adult monolinguals, bilingual speakers exhibit key adaptive properties of convention formation: arbitrariness, stability, and the systematic reduction of utterance length over time in their unilingual and codeswitched productions.

Cognitive and Literacy Skills in Emergent Bilingual Primary School Children in Wales.

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The investigation into the effects of bilingualism on language and cognitive skills, particularly Executive Functions (EF), has been thorough and widespread, yet one group is frequently omitted from this research: emergent bilinguals. The current study forms an investigation into the effects of minimal exposure to second-language Welsh on the cognitive and linguistic skills of emergent bilingual primary school children in Wales. Whilst Wales is a bilingual nation, Welsh speaker numbers vary depending upon location. The current study focuses on individuals who are learning a small amount of incidental Welsh at school in an isolated educational context. According to the Controlled Dose Hypothesis (Paap, 2018) bilingual advantages can occur at early stages of bilingual exposure, when language management is not yet automated; a population with such little exposure to the second language is therefore likely candidate to demonstrate a bilingual effect. The participants in this study are emergent bilinguals (n= 38) aged four to seven, exposed to less than one hour of incidental Welsh per week during term time, with no Welsh exposure in the community. Their performance on various EF and early literacy measures is compared to a group of monolingual age-matched controls in England (n=25). Groups were also matched on nonverbal intelligence, socioeconomic status and English receptive vocabulary. Emergent bilingual participants exhibited enhanced performance for EF and early literacy measures. This enhanced bilingual performance was observed in the two youngest groups of participants, with no differences in the oldest group. Longitudinal data revealed the development of these skills within each group. Findings provide support for the Controlled Dose Hypothesis, and theoretical and practical implications are discussed.

Paap, K. R. (2018). Bilingualism in Cognitive Science: The Characteristics and Consequences of Bilingual Language Control. In A. De Houwer, & L. Ortega, *The Cambridge Handbook of Bilingualism* (pp. 435-65). Cambridge: University Press

Cognitive control modulations of adult novel word learning: Interactions of item and learner-related factors

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Learning novel words is a complex and variable task: Not all words are equally learned and not all learners succeed to the same degree. The present study examined how word-related and learner-related factors interact during novel word-learning. Ninety-four native Hebrew speakers learned 56 Arabic words that were either cognate words, overlapping in form and meaning across languages (e.g., /walad/ in Arabic and /yeled/ in Hebrew, both referring to a boy), false cognate (FC) words, overlapping in form but not in meaning (e.g., /sifr/, refers to 'zero' in Arabic but to a 'book' in Hebrew), or Control words which do not overlap in form. The learned Arabic words were presented auditorily along with their Hebrew translation in one session completed either at the lab or remotely from home, using a learning protocol adapted from previous work (e.g., Degani & Goldberg, 2019). Critically, each learner completed tasks measuring individual differences in phonological short-term memory and language proficiency, as well as cognitive-control, including inhibition, working-memory and shifting (cognitive flexibility). Based on previous work (Elias & Degani, 2022) we expected learning of FC items to be modulated by individual differences, as these items involve both form-overlap and meaning competition across languages. Thus, individuals' ability to negotiate competition and benefit from form-overlap was expected to affect learning of such items. Results show that individuals with higher proficiency in L1 (Hebrew) and L2 (English), as well as those with stronger cognitive-control abilities, were more successful in learning novel words. Further, as expected, Cognate and FC words were learned more accurately and more quickly than Control words, and the FC advantage was modulated by shifting abilities, such that learners with stronger shifting abilities exhibited a larger advantage. Finally, the overall pattern of learning was comparable across lab-tested and remotely tested participants, underscoring the generalizability of the findings.

Community language exposure affects voice onset time patterns in Spanish-English bilingual children and functional English monolingual children

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While many studies have compared bilingual children's speech productions to those of monolingual children (e.g., Fabiano-Smith & Bunta, 2012; Stoehr et al., 2022), the two groups of children tend to reside in different communities, with monolinguals growing up in environments without language contact. No prior work is available in which the speech productions of monolingual and bilingual children from the same bilingual community are compared. The present study aimed to address this gap by examining English voice onset time (VOT) in voiced and voiceless word-initial bilabial and coronal stops produced by 37 Spanish-English bilingual children and 37 age-, gender- and SES-matched functional monolinguals, all aged 3-6 years, from the same Latinx community in Southern California, using a picture-naming task. The latter were classed as functionally monolingual as they were linguistically naïve to Spanish, despite some exposure to it in the community. The study also assessed the bilingual children's Spanish stop productions and investigated the effects of age and language exposure on their VOT productions. The data were analysed acoustically in Praat software (Boersma & Weenink, 2023), with statistical analyses involving Bayesian linear mixed effects modelling (Bürkner, 2018). The results revealed credible between-group differences on English voiced, but not voiceless stops, with shorter VOT values for the bilingual than the monolingual children. However, both groups exhibited similar prevoicing levels which may suggest an effect of the community language not only on the bilinguals' English VOT patterns, but also the monolinguals. The study also found cross-linguistic differentiation of voiceless stops, but not voiced ones, in the bilinguals' productions, and revealed effects of age and exposure not only on VOT in Spanish, but also in the majority language, English. These findings have important implications for the conceptualisation of monolingual-bilingual comparisons in settings where the community and majority language coexist.

Comparing Online and Face-to-Face Testing for Assessing Grammatical Skills in Multilingual and Monolingual Children

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Online data collection has many advantages. It is important, however, to verify whether remote testing yields results comparable to face-to-face (f2f) settings. Our study aimed to assess the reliability of online versus f2f administration of the Polish LITMUS Sentence Repetition Task (SRep; Przygocka et al., 2021) in evaluating grammatical abilities in multilingual and monolingual children. The SRep is widely recognized as an effective screening tool for identifying language difficulties in children (Polišenská, et al., 2015). We tested 93 multilingual children (aged 4;5–7;5) and 55 monolingual Polish-speaking children (aged 5;0–7;0). Each child completed the SRep twice—once online and once f2f—approximately two weeks apart. The testing sequence was counterbalanced to control for order effects. In the f2f setting, children were tested at home, either in their country of residence or during family visits to Poland. Online sessions took place remotely via a video conferencing app. An ANOVA-type analysis indicated a significant effect of test type ($F(1, 1) = 6.91, p = .009$) and an interaction with test order ($F(1, 1) = 39.14, p < .001$). The study revealed significant performance differences, with higher scores in f2f settings for both groups. Monolingual children performed significantly better in the f2f condition ($Mdn = 19.0$) than online ($Mdn = 16.7$), $Z = -2.94, p < .005$, independently of the test order. For multilingual children, f2f test revealed higher results ($M = 15.7$) only after their initial online test ($M = 13.5$), $Z = -3.12, p < .001$. These findings suggest that the mode of administration may play a role in the participants' performance and should be accounted for when interpreting results. The results will be further analyzed by adding exposure as another explanatory variable (measured by PaBIQ, Tuller, 2015; coding currently in progress).

Comparing the Processing of Wh-Questions in Japanese-English Bilinguals: A Cross-Linguistic Eye-Tracking Study

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Research has shown that L1 English speakers typically favor the main clause interpretation (i.e., the “telling” location) over the embedded clause interpretation (“catching” location) when processing wh-questions like “Where did Lizzie tell someone that she was going to catch butterflies?” (Omaki et al., 2004). However, less is known about how L2 English speakers process such questions. In particular, it remains unclear how bilingual’s L2 processing is influenced by strategies from their L1, especially when the two languages are typologically different. Using the visual world eye-tracking paradigm, this study tested Japanese native speakers who study English as their L2, examining their processing of English sentences (Experiment 1) and their translated Japanese counterparts (Experiment 2). Experiment 1 showed that L2ers actively resolve filler-gap dependencies by prioritizing the first verb phrase they encounter, similar to native English speakers. This challenges the Shallow Structure Hypothesis (Clahsen & Felser, 2006), which suggests that L2ers rely more on global sentence parsing strategies and delay interpretations. In contrast, Experiment 2 revealed that, when processing sentences in their L1 Japanese, participants did not resolve filler-gap dependencies at the first verb. Instead, they waited until the end of the sentence, likely because Japanese relies on particle information to determine whether the wh-indeterminate functions as a wh-phrase (Saito, 2017). These findings suggest that L2 processing is not directly influenced by L1 strategies but rather adapts to the grammatical structure of the target language. They also underscore the universality of incremental processing as a fundamental mechanism in language comprehension, whether in L1 or L2. This suggests individuals at different stages of language learning and proficiency rely on similar cognitive processes to navigate complex syntactic structures, such as wh-questions, as long as the grammar of the language allows it. The results will be discussed alongside data from Japanese-speaking children processing Japanese sentences.

Competition of Discursive Power: The case of a journalistic translation classroom

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Translation constitutes one phase of multifaceted bilingualism on the ground that language taken as a dynamic concept fully reflects the state of a society, in which many factors may cause its significant modifications. In recent years, translation has caught more attention of communication scholars for the fact that it constitutes an integral part in global news production (e.g., Kalantari, 2022; Valdeón, 2020, 2023). Taking “coding/encoding” by Hall (1980) in news consumption and further developed by Conway (2017) as the theoretical framework, this study delves into the case of a translation class by examining the process in translating a political text. Data set of the study consists of two parts, i.e., one is the source text from the Economist whose content is related to the Asian Infrastructure Investment Bank (AIIB), another the translations of 185 MA students spanning over three years. Contexts of both the source text and the translated target text are the focus of study. Sentiment analysis using NVivo has been employed as one of the methods, as the source text is centered on the sentiment of ‘confidence’ in AIIB. Focus groups and critical discourse analysis have also been conducted to triangulate the result. Sentiment polarity classification in students’ work reflects their perception towards the Chinese initiative, which has been a product of negotiation between the powers of ideological competition between the discourses. It has concluded that translation of media text would not only present the meaning embedded in the text per se, but would also be re-constructed according to individual’s perception of a targeted context. The translation process has experienced negotiation and competition between ideologies: one that has been acquired through education in the given context, the other introduced from outside their perceived knowledge.

Complexity indices as markers of proficiency in L2 Russian and HL Russian

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Linguistic complexity has served as an important measure of second language (L2) writing development and an important construct in language assessment (Verspoor et al., 2012). Complexity indices, however, rarely feature in the studies of less-studied languages as well as Heritage Languages (HLs). Additionally, studies assessing complexity have been criticized for the lack of consistency in defining proficiency (Gablasova et al., 2017). We address these gaps by exploring writing development in learner Russian, both the L2 and the HL variety. The study is based on a corpus of essays written by L2 and HL learners of Russian with English L1 at different proficiency levels, operationalized as ratings on a standardized writing proficiency test. Following previous research (e.g., Díez-Ortega & Kyle, 2023) we explored a set of lexical indices: token length, vowel count, morpheme count, unique tokens/text, content/function words proportion, unique lemmas/text, and type-token ratio. Based on the results of the ANOVA tests followed by the Games-Howell Posthoc test, we found that all but one lexical index exhibited significant correlation with proficiency levels. The findings align with patterns identified in previous L2 complexity research: overall lexical complexity increased with increased proficiency. Importantly, the study shows that the same measures can effectively differentiate between language learning backgrounds (HL vs. L2). The study adds to the better understanding of linguistic correlates/predictors of proficiency in both the L2 and HL varieties.

Díez-Ortega, M., & Kyle, K. (2023). Measuring the development of lexical richness of L2 Spanish: A longitudinal learner corpus study. *Studies in Second Language Acquisition*, 1-31.

Gablasova, D., Brezina, V., & McEnery, T. (2017). Exploring learner language through corpora: comparing and interpreting corpus frequency information. *Language Learning*, 67(S1), 130–154.

Verspoor, M., Schmid, M. S., & Xu, X. (2012). A dynamic usage-based perspective on L2 writing. *Journal of Second Language Writing*, 21(3), 239–263.

Conflict or Collaboration? Understanding Parental and Teacher Expertise in Multilingual Child Development

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Research on multilingualism at the intersection of family and educational institutions indicates that children's linguistic experiences at home are primarily recognized as educational assets in schools when they are congruent with the majority language (Curdts-Christiansen, 2022). This trend devalues the linguistic repertoires of multilingual children and reinforces prevailing societal and institutional language ideologies, which are particularly reflected in the attitudes of teachers (Pulinx et al., 2015). As acknowledged experts, teachers often feel empowered to offer guidance to families regarding their children's multilingual upbringing (De Houwer, 2020). Consequently, teachers' beliefs can play a role in shaping parents' efforts to transmit heritage languages (Bezcioglu-Göktolga & Yağmur, 2018). In this paper, we highlight the perspectives of parents who are professionals in multilingualism, emphasizing how they challenge the monolingual mindset of teachers. These parents have a deep understanding of language ideologies and prestige, as well as an awareness of the school's responsibility to recognize all linguistic competencies as educational resources. The study addresses the following questions:

- How do parents with professional expertise in multilingualism describe their experiences with teachers regarding their children's multilingualism?
- How do parents perceive their role as experts on multilingualism in relation to teachers?
- How have these parents adapted their family language policies in response to their children's experiences at school?

To answer these questions, we discuss data from six semi-structured interviews with both parents in multilingual families. In these families, at least one parent is an expert in multilingualism and/or language acquisition. The findings suggest that conflicts often arise when parents' expert knowledge of multilingualism clashes with the monolingual perspectives prevalent among both majority and heritage language teachers. Furthermore, while these expert parents are aware of their expertise and recognize the conflicts that arise, they are not always able to act effectively on this awareness.

Constructing and Developing Bilingualism in Taipei and Shanghai: How Distinct Are the Experiences for Chinese Language Learners?

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Recently, the landscape of study abroad for learning Chinese as an L2 has shifted substantially due to evolving geopolitical factors. Unlike in the past, when American college students primarily studied in Mainland China, students now travel to Taiwan to study Chinese. Nevertheless, the two locations differ profoundly in their social environments, cultural contexts, and ideological perspective, which may lead to distinct pathways of development of English-Chinese bilingualism and biculturalism. Adopting the discursive-constructionist approach (Bucholtz & Hall, 2010) and language contact analysis perspective (Freed et al. 2004), this study selects two popular study-abroad locations—Taipei and Shanghai—to examine how their differential contextual affordances may interact with bilingual identity construction and development among American college students. This study addresses two questions: 1) What types of language ideologies and identities do American college learners construct and develop during their time abroad in Shanghai and Taipei, respectively? 2) How do these language ideologies and identities affect learners' language use and development in each study site? Five English-Chinese bilingual college learners enrolled in a semester-long study-abroad program in Taipei and Shanghai, respectively, participated in this study. A language study questionnaire, a language contact profile (Freed et al. 2004), and semi-structured interviews were used to explore how students positioned and perceived themselves in these new environments, evaluated their language and cultural experiences, and reflected on their identity development. In addition, sample audio recordings of classroom sessions and pre- and post-simulated oral proficiency interviews were conducted to observe proficiency gains during students' time abroad. The results suggest that students in the two locations held different opinions on the authenticity of local language use and their identity development displayed both site-specific and individual patterns, which related to students' domestic language study experience. The study offers insights into how study-abroad regional variations can influence the experience of bilingualism.

Contrasting implicit and explicit attitudes in a minority language through data triangulation: the case of the Galician language (Spain)

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The number of native Galician speakers (northwest Spain) has steadily declined since the mid-twentieth century due to the enduring legacy of the dictatorship alongside socio-economic and educational factors in their coexistence with the Spanish language (Monteagudo et al. 2018). In this complex scenario, language attitudes play a fundamental role in the transmission, revitalization, and survival of a minority language. This presentation provides a novel approach to investigating implicit and explicit attitudes towards Traditional Galician (TG) and Galician Spanish (GS) by means of data triangulation. For the first time in the Galician context, the Implicit Association Test (Greenwald et al. 1998) was used to determine participants' implicit language biases. Then, four semi-structured interviews and a focus discussion group with six participants – selected according to the biases obtained in the IAT – were conducted. Results indicate that implicit attitudes are less homogeneous than explicit ones, confirming the indexical value of the two languages in this context. Moreover, IAT biases correlate with linguistic variables (rather than social ones), particularly family language and everyday language in different contexts. These results highlight the relationship between language attitudes and language use. At an explicit level, the discourse is quite homogeneous, generally favorable to Galician, but primarily indeterminate. However, we detect the maintenance of certain prejudices among L-1 Castilian speakers; prejudices that L-1 Galician speakers are unable to challenge, placing themselves in the same framework as the former.

Greenwald, A.G., McGhee, D.E., and Schwartz J.L. 1998. Measuring Individual Differences in Implicit Cognition: The Implicit Association Test. *Journal of Personality and Social Psychology* 74: 1464–1480.

Monteagudo, H. Loreda, X., and Vázquez, M. 2018. *Lingua e sociedade en Galicia. Resumo de resultados 1992 - 2016*. A Coruña: Real Academia Galega.

Constructing participation: Bilingual language policy in Dutch university meetings

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When Dutch is the main language of administration in universities in the Netherlands, international students and employees may be excluded from decision-making processes in participatory body meetings. Meeting groups are often challenged with choosing to meet in either the local language (Dutch) or a lingua franca (English). One possible solution for linguistic diversity in meetings is receptive multilingualism (Backus et al., 2013), whereby a participant speaks their preferred language while understanding the language of their interlocutor. This study compares the communication in a council and an inter-faculty team at a Dutch university with a bilingual Dutch/English language policy. It shows how receptive multilingualism is used for achieving mutual understanding and constructing participants' discursive capacities (Messelink & ten Thije, 2012). The data consists of 28 hours of meeting recordings, supplemented by participant interviews. Bilingual interactions in the meetings are analyzed using discourse analysis through a sociolinguistic lens (e.g., Mortensen et al., 2024). Results show how Dutch speakers maintain or stray from their meeting group's language policy, in order to accommodate English speakers or to construct a particular social identity. Investigating how interlocutors collaborate in two languages contributes to insights on inclusive meeting participation.

Backus, A., Gorter, D., Knapp, K., Schjerve-Rindler, R., Swanenberg, J., Thije, J.D. ten, & Vetter, E. (2013). Inclusive Multilingualism: Concept, modes, and implications. *European Journal of Applied Linguistics*, 1(2), 179-215.

Messelink, A., & Thije, J.D. ten. (2012). Unity in super-diversity: European capacity and intercultural inquisitiveness of the Erasmus generation 2.0. *Dutch Journal of Applied Linguistics*, 1(1), 80- 101. <https://doi.org/10.1075/dujal.1.1.07mes>

Mortensen, J., Hazel, S., & Brandt, A. (2024). The emergence of language policy as practice in transient social configurations. In F. Bonacina-Pugh (Ed.), *Language policy as practice: Advancing the empirical turn in language policy research* (pp. 223-248). Palgrave Macmillan.

Creaky voice as a sociophonetic marker in bilingual speech

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Previous studies suggest that creaky voice may function as a sociophonetic marker (Dallaston & Docherty, 2020). However, this line of research has primarily focused on intonational languages, which do not use voice quality to contrast lexical meaning. This is in contrast to some tonal languages where creaky phonation may be perceptually relevant for tonal contrasts (Yu & Lam, 2014; Zhang & Kirby, 2020). While bilingual speakers' voice has been found to remain relatively constant across languages (Johnson & Babel, 2023), whether and how bilingual speakers of intonational and tonal languages may use creaky voice as a sociophonetic marker in the production of both types of languages remains unclear. Higher-educated female speakers of Hong Kong English have been found to adopt a disproportionately low pitch floor and produce creaky voice in English (Fung & Lee, 2019). To examine whether creaky voice also functions as a sociophonetic marker in their Cantonese production, we analyzed the production of monosyllabic and disyllabic cross-language near homophones (e.g., 碩士 "Master's" [sɛk22si22] and sexy ['sɛksi]) recorded in two reading tasks on separate days by 16 higher-educated female Cantonese-English bilingual speakers living in Hong Kong. Near homophones were used to control for factors that could affect f₀ such as word length and syllable structure. Tokens were embedded in a neutral carrier phrase in each language. Participants' language attitudes were quantified using a detailed questionnaire. Consistent with previous findings, these speakers adopted creaky phonation in English. A mixed-effects logistic regression analysis revealed that more positive attitudes toward Cantonese significantly increased the probability of the occurrence of creak in Cantonese. Speakers with more positive attitudes toward Cantonese implemented bigger acoustic differences between the tonal categories by lowering the pitch floor. These results suggest that creaky voice may also carry social information in tonal languages in bilingual speech.

Cross-language activation of figurative meanings of idiomatic expressions during reading

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Cross-language activation has been observed when bilinguals process congruent idioms (“play with fire”-“jouer avec le feu”). However, it remains unclear whether the locus of this activation is primarily lexical (translation), conceptual (activation of figurative meanings of idioms), or both lexical and conceptual (as represented in dual route models, e.g., Van Lancker Sidtis, 2012). Different experimental paradigms used to test cross-linguistic activation of figurative meanings have produced conflicting results (Jared et al., 2023; van Ginkel & Dijkstra, 2020; Carrol & Conklin, 2014; Carrol & Conklin, 2017). Primed lexical decision studies (but not eye-tracking studies) offer evidence of conceptually driven activation. To study the nature of first-language activation in second-language idiom reading, we created a novel idiom-priming paradigm that tested cross-language activation of idioms’ figurative meanings on meaning probes embedded in the text. Sixty-six translated Chinese idiomatic expressions were presented in English passages, as word-by-word (original) translations or paraphrased translations retaining the original figurative meaning but not the exact form. Three counterbalanced experimental conditions were created, such that the meaning probe (e.g., “perfection”) was preceded in the text by an original translated idiom (e.g., “clear water contains no fish”), a paraphrased translation (e.g., “fish do not like clear water”), or an unrelated phrase (e.g., “get to know your team”). The data were collected from 105 participants (35 Chinese-English bilinguals in an English-speaking country (ESL), 42 Chinese-English bilinguals in China (EFL), and 28 English speakers with no knowledge of Chinese). The two groups of Chinese-English bilinguals had similar lexical proficiency in English and Chinese, but different exposure to English. Mixed-effects regression analysis was used to compare early and later eye-movement measures on the probe in the related and unrelated conditions. We found very different processing patterns for EFL and ESL readers, on the early (predictive) and later (word-to-text integration) processing measures.

Cross-linguistic effects in the priming of novel grammatical structures and the psycholinguistic mechanisms of language change

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Bilinguals can be agents of language change, because cross-linguistic influence causes transfer of properties from the other language. Bilinguals may also accelerate the subsequent diffusion of linguistic innovations, especially when these correspond to structures in their other language. We tested the mechanisms by which cross-linguistic influences promote the diffusion of change using (cross-linguistic) structural priming. In four experiments, we investigate novel uses of double-object (DO) structures (*donate the man the book) with non-alternating verbs permitting the prepositional-object structure only. Specifically, we test whether innovations occur when the L1 DO structure with these verbs is high-frequency (German) or low-frequency (Swedish). In within-language priming in Experiment 1, unlike English natives (n=80), L1 German and L1 Swedish speakers (n=96) showed abstract priming of novel English DO datives. L1 German speakers primed more than L1 Swedish speakers. In cross-linguistic priming in Experiment 2, neither L1 German nor L1 Swedish speakers (n=96) showed priming of novel DO datives from the L1. To increase L1 activation, Experiment 3 presented L2-to-L1 primes next to the experimental L1-to-L2 primes. Still, L1 German speakers (n=48) did not show priming of novel DO datives from German. In Experiment 4, we adapted Experiment 3 by introducing four novel English DO datives in the fillers. This led to the emergence of cross-linguistic priming of novel DO datives in English from German. Cross-linguistic influence via structural priming can accelerate the diffusion of linguistic innovations when the use of novel L2 structures is supported by a high-frequency L1 analogue. Conversely, corresponding low-frequency L1 structures mitigate their diffusion. Cross-linguistic priming boosts innovations once bilinguals encounter individual models of them in the target-language input. Then, bilinguals diffuse change through priming more than monolinguals. Accordingly, cross-linguistic priming scales up to be a mechanism of language change, rendering bilingual speakers drivers of change because they accelerate its diffusion.

Cross-linguistic influence across three languages and three domains: Is there a domain-specific primacy of L1 or L2 transfer?

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The study of cross-linguistic influence (CLI) in L3 processing has yet to determine whether the impact of L1 and L2 is uniform across language domains, or whether transfer patterns are domain-specific. Here we address this question among 105 trilingual speakers of L1 Arabic and L2 Hebrew in their comprehension of L3 English across domains. Trilinguals completed lexical, phonological and syntactic comprehension tasks, and overlap of L3 stimuli with the L1, the L2 or both languages was manipulated. Lexical processing was measured using a semantic relatedness judgment; phonological perception was indexed by a phonological oddity task, and syntactic processing was measured using eye-movements and grammaticality judgments of English sentences. Previous analyses have shown equal facilitation from all cognates in the lexical domain documenting CLI from both L1 and L2 (Elias et al., in press). The phonological oddity task showed facilitation from L1 but not from L2 (Norman et al., under review). In morpho-syntax, interference was marginally evident for L1 and substantial for L2, but depended on task demands (Abbas et al., 2021). The current study investigates possible alignment or differences across these domains, focusing on the extent to which CLI and internal L1/L2 dynamics remain consistent within a given individual. Testing for within-individual correlations is expected to shed light on whether CLI is domain-specific or varies based on individual characteristics.

Abbas, N., Degani, T., & Prior, A. (2021). Equal opportunity interference: Both L1 and L2 influence L3 morpho-syntactic processing. *Frontiers in Psychology*, 12, 673535.

Elias, M., Van Hell, J. G., Prior, A., & Degani, T. (in press). Cognate facilitation in different-script trilinguals as a function of task demands. *Journal of Experimental Psychology: Learning, Memory & Cognition*.

Norman, T. Prior, A., & Degani, T. (in press). Contribution of prior linguistic knowledge to L3 phonological perception and production. *Journal of Memory and Language*.

Cross-linguistic Influence in Norwegian-English Bilinguals Learning L3 Spanish, French, or German

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This study explores cross-linguistic influence (CLI) in Norwegian-English bilingual secondary school students learning Spanish, French, or German as a third language (L3) in regular and international schools. We focus on adverb placement, which varies across the five languages, creating distinct patterns of overlap between L1, L2, and L3. The research question is whether CLI occurs from one or both previously acquired languages in L3 acquisition. The current L3 acquisition models differ: The Linguistic Proximity Model (LPM) proposes that both languages are co-activated and CLI occurs on a property-by-property basis, while the Typological Primacy Model (TPM) suggests wholesale transfer of the typologically closer language. To examine this, we conducted a gap-filling task with 373 students aged 12-15 from Norwegian schools, testing four conditions: (1) main clauses with copular verbs, (2) main clauses with lexical verbs, (3) subordinate clauses with copular verbs, and (4) subordinate clauses with copular verbs. Participants, ranging from beginner to intermediate levels, completed the task in Spanish, French, or German, alongside English and Norwegian proficiency tests and a background questionnaire. Results for L3 Spanish and French reveal a preference for target order in each respective language (i.e. Adv-V for Spanish, and V-Adv for French), indicating learning. However, students also differentiated between clause and verb types, suggesting CLI from both Norwegian and English, consistent with the LPM's predictions and contradicting models that assume transfer from only one language. Furthermore, the degree of CLI from English was modulated by L3 proficiency as well as Norwegian dominance, indicating that those students who were less dominant in Norwegian (mostly international school students) exhibited a sharper distinction between verb types. Ongoing analyses of L3 German data will further clarify whether the specific L3 affects CLI patterns and whether CLI is facilitative.

Cross-linguistic influence in the acquisition of grammatical aspect by Croatian-German and Croatian-Italian bilingual children

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The grammatical aspect has been found to be vulnerable in heritage language acquisition (Polinsky, 2008), but not to the same extent for all languages (Minor & Mitrofanova, 2024). This study investigated the role of cross-linguistic influence in the acquisition of grammatical aspect by 6–12-year-old Croatian heritage speakers in Germany and Italy. We hypothesized that the Croatian-Italian group would outperform the Croatian-German group due to the structural similarities between Croatian and Italian, which mark grammatical aspect in contrast to German. The Croatian-Italian (n=29) and Croatian-German (n=38) groups were closely matched for age, and children's overall exposure was measured. We adopted the experimental design of Minor et al. (2022). Children selected pictures that matched sentences with verbs in Imperfective or Perfective aspect. We assessed the accuracy of responses based on the selection of Ongoing and Completed event pictures for the Imperfective and Perfective aspects, respectively. The accuracy scores follow a bimodal distribution in both groups of participants. We applied finite mixture models to analyze between-speaker heterogeneity (McLachlan et al., 2019) using the flexmix package in R (Grun & Leisch, 2007). We identified two clusters (sub-populations): a high-accuracy cluster (81.3% predicted accuracy), and a low-accuracy cluster (55.9% predicted accuracy). We next fit a logistic regression predicting the probability of belonging to the high-accuracy cluster by Group, cumulative length of exposure to Croatian, and their interaction. We found a marginally significant positive effect of cumulative exposure to Croatian ($B=0.04$, $z=1.81$, $p=0.07$), and a significant effect of Group ($B=1.81$, $z=2.25$, $p=0.02$), with Croatian-Italian bilinguals significantly more likely to belong to the high-accuracy cluster. Between-speaker heterogeneity in accuracy scores indicates categorical acquisition of verbal aspect in heritage Croatian (versus incremental item-by-item acquisition). Croatian-Italian bilinguals seem to be more likely to achieve higher accuracy, which is consistent with the prediction of facilitative cross-linguistic influence from Italian.

Cross-Linguistic Influence on L2 Syllabification: Effects of L1 Phonology and L2 Proficiency in Word Segmentation

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This study investigates how L1 phonological structure and L2 proficiency affect L2 learners' intuitions about word syllabification. Previous research suggests that L1 phonology influences L2 syllabification, with L1 speakers of "stress-timed" languages having difficulty establishing syllable boundaries in a "syllable-timed" L2, likely due to ambisyllabicity. However, variability in boundary identification has been noted even among L1 speakers of "syllable-timed" languages, which is potentially due to the differential detectability of syllable onsets versus offsets, as onsets may serve as alignment points in word segmentation (Content et al., 2001). This study examines whether L2 learners process syllable onsets and offsets differently in Spanish and English, and how L1 type and L2 proficiency shape these intuitions. Seventy-four L1 English-L2 Spanish learners and fifty-four L1 Spanish-L2 English learners completed two auditory syllable judgment tasks, in Spanish and English. Participants listened to isolated words while they saw two syllables on-screen (CV and CVC). In part 1, they identified the first syllable of the words, and in part 2, the ending syllable. Stimuli began with either a CV or a CVC syllable. Proficiency was measured via vocabulary size using the LexTALE (Lemhöfer and Broersma, 2012) and LexTALE-ESP (Izura et al., 2014). Bayesian multilevel logistic regression models revealed that syllabification choices varied based on L1 type, target language, and L2 proficiency. L1 English speakers showed variability in syllabification in both languages, but with higher Spanish proficiency, ambisyllabic responses decreased. L1 Spanish speakers were consistent across both languages, preferring CV syllables overall. Additionally, L1 English speakers more reliably identified syllable onsets than offsets. This study has important implications for the Syllable Onset Segmentation Hypothesis (Content et al., 2001), highlighting cross-linguistic interactions in syllabification and the role of L2 proficiency in word segmentation.

Cross-linguistic lexical activation: Benefits or competition during L2 syntactic processing?

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We investigated cross-linguistic influence in the comprehension of wh-questions and relative clauses among adolescent low-intermediate L1 German learners of L2 English. Specifically, we examined whether cross-linguistic lexical activation via cognate words induces facilitation or competition in grammar. Lexical overlap could either facilitate grammatical comprehension as lower lexical retrieval demands for cognates free resources for computing the target-language syntax (Lexical Bottleneck Hypothesis; Hopp, 2018) or it could impede sentence comprehension if the L1 word form triggers activation of the corresponding L1 syntax (Sharwood-Smith & Truscott, 2014). We tested the comprehension of wh-questions and relative clauses in English, for which subject-first orders overlap in word order with German object structures, thus potentially creating grammar competition. In two visual world studies, a total of 306 participants (12-14 years) selected target scenes for auditorily presented wh-questions (Which animal hugs the mouse/duck? – Which animal does the mouse/duck hug?) and relative clauses (Where is the animal that hugs the mouse/duck? – Where is the animal that the mouse/duck hugs?). The animal name was either a cognate with German (mouse-Maus) or a noncognate (duck-Ente). In a preceding elicited production task, participants produced these cognate animal names at higher accuracy than noncognate names, thus demonstrating cognate facilitation in production. Study 1 comprised high-frequency animal nouns and yielded a subject-over-object advantage in accuracy, reaction times, and eye movements, but no effect of cognate status or L1 grammar competition. Study 2 contained lower-frequency animal names and, besides a subject-over-object advantage, revealed a main effect of cognate status in all measures, indicating overall better performance for sentences with cognate names. There was no indication of L1 grammar competition. The findings corroborate that beneficial cross-linguistic influence spreads from lexicon to grammar in developing learners and, particularly for more taxing lower-frequent items, it can act as a catalyst in the acquisition of complex syntax.

Cross-linguistic priming of structural innovations in a language contact setting: Evidence from Canadian French

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Language contact in bilinguals often contributes to the emergence of innovative structures in one language which are grammatical in the other language, potentially leading to long-term language change (Kootstra & Muysken, 2019). In a self-paced reading experiment with Canadian French-English bilinguals, we investigate the possible role of cross-linguistic structural priming of innovations in this process. Seventy-three bilingual adults were recruited via Prolific. As targets, we presented French innovative ditransitive sentences such as (1), which correspond to an English double-object structure. These targets were preceded by either (2a) an English double-object prime (The man / sells / the actor a ring), (2b) a canonical prepositional-object prime (/a ring to the actor/) or (2c) a scrambled prepositional-object prime (/to the actor a ring/). All sentences were presented region-by-region in a moving-window-display. Reading times (RTs) in milliseconds for the innovation (*la femme une jupe*) and the post-innovation (*dans le parc*) regions were compared across prime conditions. If the processing of the innovative French structure is influenced by the English prime, both target regions should be read faster after English primes with the same structure (2a), followed by primes with the same word order (2c), followed by control primes (2b). While there were no RT differences in the innovation region, the results showed a priming effect in the post-innovation region, with significantly faster RTs after (2a) and (2c) than after (2b). This suggests that word order overlap between prime and target rather than structural overlap facilitated reading of the innovative structure.

(1) Le sorcier / vend / *la femme une jupe / dans le parc / de la ville.

‘the sorcerer / sells / the woman a skirt / in the park / of the city’

Kootstra, G. J., & Muysken, P. (2019). Structural Priming, Levels of Awareness, and Agency in Contact-Induced Language Change. *Languages*, 4(3), 65.

Cross-linguistic structural priming in bilinguals of typologically-different languages

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Structural priming, the tendency to use previously heard structures, has been shown to occur in bilingual speakers of typologically-related languages. This has been taken as evidence that the mental representation of syntax is shared between languages (Hartsuiker et al., 2004) or at least directly connected (van Gompel & Arai, 2018). As typologically-related languages share similar morphosyntactic properties, the extent to which cross-linguistic priming occurs in languages that are typologically more diverse is unclear. In three pre-registered experiments (Ns = 59, 57, 52), we investigated priming of the English active-passive alternation when adult speakers of two Austronesian languages (Tagalog or Standard Indonesian: SI) were asked to describe action pictures in English (all participants were highly proficient based on LexTALE, Lermhöfer & Broersma, 2012). Tagalog and SI were chosen because of their differing word order: Tagalog is verb initial but SI's word order is (on the surface) identical to English. Prime sentences were either in English or in the L1 (Tagalog/SI). Order of thematic roles in the primes was manipulated. Primes were presented in Tagalog agent voice in Exp. 1, Tagalog patient voice in Exp. 2, and in SI in Exp. 3. Using Bayesian logistic mixed-effects models, we modelled participants' tendency to use passives after exposure to a patient- or agent-initial prime. In all experiments, we found substantial priming effects for English primes but smaller cross-linguistic priming for Tagalog. However, cross-linguistic priming for SI remained substantial. Our results show that, for highly-proficient L2 speakers, priming is retained across languages that differ substantially in typology and grammar, in line with Hartsuiker and Bernolet (2017). We also found that cross-linguistic priming is stronger when languages share the same word order. Overall, these results indicate the existence of connected structural representations across typologically-unrelated languages of bilingual speakers. The nature of these connections will be discussed.

Cross-regional analysis of visual linguistic landscapes: A longitudinal study in the Basque Country and Galicia

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Several scholars have explored visual linguistic landscapes (LL) as a method to analyze linguistic hierarchies in multilingual communities (e.g., Basterretxea Santiso, 2023; Cenoz & Gorter, 2006; Daveluy & Ferguson, 2009; Gorter & Cenoz, 2024). In Spain, the majority of publications have focused on intra-regional analyses of the LL, with a particular emphasis on urban areas (e.g., Cenoz & Gorter, 2006; Colomé & Long, 2012; Henricson et al., 2024; Bruyèl-Olmedo & Juan-Garau, 2015). Nevertheless, few studies have examined linguistic hierarchies through LL over time. With this research gap in mind, this project compares the visual LL of two towns in bilingual areas in Spain over time (2019 vs 2024): Ondarroa (Basque Country) and Foz (Galicia). Data for the present study were gathered during Summer 2024 on the main shopping street of the two aforementioned towns (about 200 meters). In order to conduct a longitudinal study, results from 2024 are compared to the analysis conducted in the same area in 2019 respectively by Basterretxea Santiso (2023) and Ornelles et al. (2019). The unit of analysis is understood as each sign that was present in the main shopping street (Basterretxea Santiso, 2023; Comajoan Colomé, 2013). Descriptive (including top-down vs bottom-up signs; Ben-Rafael et al., 2006) and statistical analyses (t-test) have been conducted for comparison purposes (longitudinal and cross-regional). Results suggest that in Ondarroa, although Basque monolingual signs constitute the majority, their presence has decreased over time in favor, particularly, of monolingual Spanish signs. Specifically, the biggest change is observable among top-down signs, in detriment to Basque monolingual signs. In Foz, despite some monolingual Galician found among new locales' principal signs, monolingual Spanish was still more frequent. Overall, both bilingual and monolingual Galician signs have decreased in favor of monolingual Spanish. Impact of the minoritized languages' oral use, migration, and tourism are considered as possible predictors of the change.

Crosslinguistic Effects in the Parallel Development of Subject Pronoun Expression in Basque-Spanish Bilingual Children

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Children must acquire the ability to use language to refer to entities around them through pronominal subjects, a common universal device that establishes anaphoric pronoun-antecedent dependencies to make languages economical. How children learn to use these referential devices felicitously in null subject languages (henceforth, NSLs) has been an enduring question in language acquisition research. The Interface Hypothesis (Sorace & Filiaci, 2006; Sorace, 2011) predicts the overextension of overt pronouns among bilinguals, which stems from interface constraints and processing limitations. However, recent research with adults (Giannakou, 2018) found that the predictions of the Interface Hypothesis were not supported by bilingual performance in contact situations between two NSLs. This study investigates the acquisition and development of pronominal expression in 196 school-age Spanish monolingual and Basque-Spanish bilingual children (ages 6-12), as well as adults, through a pronoun elicitation task in both languages. Overall, the acquisition of pronominal subjects in NSLs is a prolonged process: it is not until age 12-14 that monolingual and bilingual children use pronouns like adults do. Results by age groups showed parallel and age-appropriate development in the two languages and do not support the predictions of the Interface Hypothesis, as monolinguals produced more redundant overt pronouns than bilinguals. Instead, results point to crosslinguistic influence from Basque on Spanish and microvariation with third-person pronoun features in Basque (*bera*) and Spanish (*él/ella*). Findings underscore the importance of analyzing bilingual populations with different language pairs, particularly genetically unrelated pairs, to test and further extend current theories.

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Crosslinguistic interactions in reading English as a foreign language: from a central to a dual processing model

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The central processing hypothesis posits that there is a relationship between L1 and L2 reading proficiency because they share a common cognitive origin. To deepen our understanding of this issue, the following study examines the development of English word reading in Spanish-speaking (L1) children (2nd n = 26, 4th n = 33, and 6th n = 33 grades) learning English as a foreign language (EFL). We wanted to analyze whether there is a correlation between reading proficiency in L1 and L2, to investigate the predictors of reading in EFL, and to consider which strategy (lexical or sublexical) readers use in EFL. The experimental tasks consisted of word and pseudoword reading, a sociolinguistic questionnaire, and a battery assessing the English language skills on which literacy relies (auditory discrimination accuracy and time, phonological awareness, phonological memory, semantic fluency, lexical access speed, and vocabulary). To analyze cross-linguistic relationships, each task was administered in both English and Spanish. Partial correlations, linear regression analyses, and generalized mixed effects models (GLMM) were conducted. Results indicated that reading speed was strongly correlated across languages, but reading accuracy was not. This suggests dual EFL reading processing rather than central processing, as shared cognitive factors appear to determine only reading speed, but not reading accuracy. Interestingly, out-of-school English exposure correlated with reading accuracy but not with reading speed, supporting this division of reading skills. Language tasks proved to be better predictors of reading accuracy than reading speed, especially English language tasks. However, English reading speed was strongly predicted by Spanish reading speed and English vocabulary tasks. Finally, Spanish-speaking children were found to read sublexically in English, although there is reason to believe that the lexical path is not completely deactivated.

Cue Strength in Predictive Processing in Child Turkish Heritage Speakers: Case vs. Prosody

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In heritage language (HL) bilingualism, offline comprehension and production methods have shown that inflectional morphology (e.g., overt morphological case) and prosody are vulnerable for child heritage speakers (CHSs) across languages, which has been argued to be one source of difficulties CHSs have with non-canonical word orders (e.g., Chondrogianni & Schwartz, 2020). Recent studies using online methodologies tapping into the use of different (non-)linguistic cues in real-time suggest that CHSs use morphological cues online although this does not translate into offline comprehension accuracy (e.g., Hao et al., 2024). However, available online processing studies mostly examined languages where morphological system is relative deprived (e.g., Mandarin). Additionally, whether CHSs use prosody as a cue online and offline to interpret non-canonical structures has not been examined. Using the visual world eye-tracking paradigm, the current study investigates if and how Turkish CHSs living in Norway (N=31, Mage = 11.84 in year) use prosody and morphological case marker (overt accusative) respectively to comprehend and process verb-medial (non-canonical) sentences. Importantly, we also included 18 adult HSs (AHS), 52 age-matched monolingual children (Mage=9.42) and 46 monolingual adults. In the experiment, four conditions were included, i.e., no-cue (neutral), NP1 accusative, NP2 accusative and prosody (accusative-marking realised on NP1 and VP). The results showed that four groups use overt accusative case marking successfully online and offline to the same degree. However, only monolingual adults used prosody online and/or offline. Taken together, our study showed that richer morphological paradigm may facilitate the development of case marker and the processing of non-canonical structures. Additionally, the unsuccessful use of prosody in children does not arise from unsuccessful integration but rather reflects that prosody, as a less valid cue, may require more input.

Dealing with systemic barriers in education of Anangu children in South Australia.

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Author 1 and Author 2 present a review of selected documents by the South Australian Department for Education in their descriptions of Anangu students and Anangu communities. These are presented as a foil to highlight the inaccuracies of the perceptions and the ways departmental documents conform to northern colonial perspectives of Aboriginal peoples in South Australia and in English Medium of Instruction schools. Perspectives and actions of Anangu community members permit a reframing of the terms of the documents. A case study is presented from Central Australia in which an Anangu collaborator, Debra (pseudonym) shares her family's lived experiences of multilingual awareness across vast geographical spaces, in English Medium of Instruction schools, bilingual schools and remote multilingual Aboriginal communities. Debra's reflections, recorded in Armitage's fieldnotes, critique the developing agency and voice of her daughter and her grandchildren through the advantages provided to them of multilingualism, combined with mobility between centers of familial and linguistic connections. The paper is in keeping with southern research, where the necessity for respectful listening, relationships and understandings may develop, and where northern universalities of language and power, education and prioritizing academic knowledge over local voices are dislodged by Anangu community members. Recentring Debra's voice provides directionality to critical multilingual awareness in the educational settings of local schools across layers of actors, including teachers, students and families.

Decentring from the capital: Multilingual repertoire and linguistic practices in social domains

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The Philippines has always been regarded as having a multilingual ecology. Ethnologue (2024) reports that it has 184 living languages including 175 indigenous and 9 non-indigenous languages. However, much of the research work done thus far has been largely focused on the capital city, Manila, and there is minimal account of how multilingual practices look like on the ground (but see Lising, 2024; Lising, 2023; & Lising & Bautista, 2022). This research enriches the current investigation and refocuses the attention on Cebu City and its multilingual practices. Cebu is one of the largest cities in the country and is situated in the south-central Visayas region in the Philippine archipelago. Using data from a pilot study conducted in 2023 which employed a sociolinguistic questionnaire with 63 participants, findings from this study reveal the language repertoire of Cebuanos and outline their language choices in personal and social domains. The importance of these preliminary findings is crucial as we embark on a larger scale study beginning in 2025 investigating in finer detail the multilingual practices, beliefs, and choices of a larger cohort of Cebuanos.

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Declining Use of Mayan Language by Children in Yucatec Communities: A pilot longitudinal study

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Yucatán indigenous communities are a unique bilingual context in which Spanish is the colonizing language and today constitutes the formal oral and written language, while Yucatec Mayan is the heritage oral language, only recently becoming a written language (Osorio-Vázquez, 2017; Padilla-Iglesias et al., 2020). Yucatec Mayan use is rapidly declining, particularly among children (INEG, 2018). The current study aims to expand our knowledge of young Mayan children's language by examining the language used at home by mother-child dyads in rural Yucatec Mayan communities and measuring children's language in Spanish and Mayan. Forty-six Yucatec Mayan mothers completed questionnaires, and their children completed Spanish and Mayan vocabulary assessments at two timepoints. Mayan assessments were developed by the research team in collaboration with local organizations. All mothers reported they understood and spoke Spanish, understood Mayan, and 89% spoke Mayan and that their children spoke and understood Spanish, 82% understood Mayan, and 33% spoke at least some Mayan. However, 59% reported they only spoke Spanish to their child and 76% percent of children spoke only Spanish to their mothers. Children scored within average range in Spanish receptive vocabulary in the Test de Vocabulario en Imagenes Peabody (TVIP), with a mean standard score of 102.47 (SD=13.94; n=36). Children's raw scores for receptive vocabulary were significantly lower in Mayan (M=6.35, SD= 6.99, n=17) than Spanish (M=19.59, SD=9.20), $t=3.97$, $p<.001$, $d =.96$. Ongoing data collection will allow evaluation of children's receptive vocabulary in Spanish and Mayan longitudinally and expressive vocabulary in both languages. Our results reflect the declining use of Mayan in Yucatec communities by describing the amount of language used at home by both mothers and children and using newly developed Mayan language assessments to measure children's language. Understanding language dynamics in this community is important to better design interventions and prevent language and culture loss.

(De)constructing language barriers in bilingual education

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The term 'language barrier' is used across professional discourses to characterize communication between users of mutually unintelligible languages. In the field of education, the construct of a language barrier has been proposed to explain the academic performance of migrant students in Chile (Romo López et al., 2020), Spain (Garreta-Bochaca & Llevot-Calvet, 2022), and the United States (Rosa & Flores, 2023). This construct is widely assumed and seldom questioned. For example, the U.S. Equal Educational Opportunities Act of 1974 requires schools to address 'academic deficits incurred as a result of language barriers', and bilingual education programs were conceived as strategies to 'overcome' the barrier of not knowing English. This qualitative study addressed two guiding questions in the context of Spanish/English bilingual schooling in central Texas: 1) How does the construct of a language barrier shape the work of bilingual learners and bilingual educators? 2) How are language barriers enacted, practiced, and contested in educational settings serving emergent bilingual learners? Data included participant observation in bilingual classrooms, school libraries, and teacher preparation programs; conversations with bilingual students, teachers, and school librarians; and school language policies. Findings reveal that (1) educators begin teacher preparation with the notion of a language barrier firmly established; and (2) the use of educational technology can reinforce or challenge the idea of a language barrier.

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“Default lo” in Zapotec Spanish: Now you see it: now you see it... less

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As inanimate nouns are not classified according to grammatical gender in Zapotec, it is legitimate to wonder whether the quantity and the grammatical and structural contexts where “lo” is used as a substitute for “la” is determined by the bilinguals' dominant language (Zapotec or Spanish). We have analyzed data from 40 adults, 20 Spanish monolinguals and 20 Zapotec/Spanish bilinguals in San Cristóbal Lachirioag, Oaxaca, Mexico. The participants were administered three experimental tasks: (i) a Classification of Nouns according to Grammatical Gender (GG); (ii) a Fill in the Blank task (FB); and (iii) a Force-Choice Task (FC). Data collection was carried out through oral recordings using a portable device. The tasks were administered individually in the place chosen by the participants (their house, the Community Center, the library...). The data analysis carried out shows the following: (a) no difference was detected between monolinguals and bilinguals in the GG task as the percentage of expected responses with respect to standard Spanish was almost at ceiling; (b) with respect to the FB and the FC tasks and regarding the directionality of pronominalization, a greater tendency to use “default lo” is observed in the case of backward pronominalization, although the parameters are similar: bilinguals use “default lo” more than monolinguals. As for the difference between nouns of transparent gender and opaque gender, the results show that there are more cases of “default lo” with nouns of opaque gender and that this is the case in the different positions and for both bilinguals as well as monolinguals. Another relevant finding relates to the differences between the first task and the second task, which leads us to propose that the two groups of participants have more problems with gender agreement than with gender assignment.

Detection and educational management of language and learning disorders in bilingual/multilingual children: Exploring the needs of kindergarten and primary school teachers

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The increasing number of bilingual/multilingual students with language and/or learning disabilities (LLDs) in Europe has made it imperative to accurately identify these students in educational settings. Tools for assessing bilingual students with language disorders are scarce and are designed for use by clinicians for diagnostic purposes. The present study, part of an ERASMUS+ KA210 project, aims to investigate the difficulties of teachers in kindergartens and primary schools in distinguishing LLDs from language differences due to reduced exposure to L2. A questionnaire was developed using the K.A.P. method (Knowledge, Attitudes, Practices) (Andrade et al., 2020), which was distributed and completed online to approximately 150 teachers in Greece and Cyprus (data is currently being collected in France for comparison with a still different context) and includes the following sections, which reflect our research questions:

1. The ability to distinguish between LLDs and language differences (similarities and differences).
2. The existence of tools for teachers to determine if there is a language/learning deficit in bilingual/multilingual students.
3. How informed they are about bi-/multilingualism and LLDs.
4. What educational management do they follow when there is a bilingual/multilingual student in their class.

Initial data show that teachers are not able to distinguish between LLDs or language differences. Furthermore, they are not familiar with the existing assessment tools for bilingual/multilingual students nor with the multilingual reality in their classrooms. Regarding lifelong learning, most of them have only been trained on LLDs in the monolingual population. Their educational approaches for bilingual/multilingual students with LLDs are the same as those for monolinguals. Finally, it is concluded that the valid and timely detection and assessment of learning difficulties or language disorders in bilingual/multilingual populations will result in appropriate intervention by educators and clinicians.

Developing a matched Communicative Development Inventory (CDI) across three languages: English-Spanish-Mandarin (ESM)

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The large number of dual-language-learners (DLLs) calls for effective vocabulary assessment tools for bilingual children. The MacArthur-Bates Communicative Development Inventories (CDIs) are widely used caregiver-report tools for assessing infant/toddler vocabulary development, available in multiple languages. However, since the original CDI forms were created with monolingual samples, with separate word lists for each language, they do not consist of fully matched items across languages. Researchers typically administer multiple CDI forms separately, which can over-/under-estimate vocabulary by ignoring cross-language equivalents and are an undue time burden on parents. To address this need, we built upon the English-Spanish Inventories (DLL-ES; Tamis-LeMonda et al., 2024) to develop a fully matched form across three of the most spoken languages (English, Spanish, and Mandarin)—the DLL-ESM. A team of twenty English-Spanish and English-Mandarin bilingual researchers compared the American-English (Fenson et al., 2007), Mexican-Spanish (Jackson-Maldonado et al., 2003), and Beijing-Mandarin (Tardif et al., 2008) CDI Words and Gestures short forms (89, 104 and 100 words, respectively) and CDI Words and Sentences short forms (100, 100 and 113 words, respectively). The DLL-ESM retained all culturally relevant words on the original short forms—to allow researchers to generate percentile scores—and added additional translation equivalents in each language (with a few exceptions). Several challenges arose in identifying translation equivalents across three languages: different linguistic structures (e.g., final particles in Mandarin); culturally specific words (e.g., children’s games); and, dialect variants. We will discuss the challenges, decisions made, and lessons learned from developing the DLL-ESM and how this process can be adapted for different bilingual populations (e.g., English-Cantonese-Mandarin). Item-Response Theory analyses applied to Wordbank/Web-CDI data (n=6722 for E-S; n=2548 for E-M) showed near-perfect associations between DLL-ESM and CDI long-form scores, and DLL-ESM pilot data (n=60) indicate similar distributions compared to dual administration of the English-Spanish/English-Mandarin CDI short forms.

Developing TESOL Students' Understanding of Bilingualism Through Collaborative Online International Learning (COIL)

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This paper explores how a Collaborative Online International Learning (COIL) project enhanced TESOL students' understanding of bilingualism, cross-cultural awareness, and interpersonal dynamics. Conducted between universities in the US and Colombia, the project engaged students in literature reviews, personal interviews, and cross-border discussions to investigate bilingual education practices in both countries. The paper has two main objectives: (1) to analyze participants' reflections on bilingualism, using pre- and post-COIL surveys and joint project posters, and (2) to outline the phases of the project - including research, interviews, analysis, and reflection - to provide a practical guide for implementing similar COIL initiatives focused on bilingualism. Data were collected through anonymous open-ended survey responses and analyzed using NVivo 14, with a focus on students' evolving understanding of bilingualism in the Colombian and US contexts. Preliminary findings reveal three significant areas of growth. First, pre-COIL responses primarily centered on learning objectives, while post-COIL reflections emphasized personal growth and deeper engagement with cross-cultural perspectives. Second, post-COIL feedback revealed a stronger emotional connection to the bilingual experience and increased satisfaction with the collaborative process. Finally, students demonstrated a more nuanced understanding of bilingualism, particularly the interaction between dominant and native languages in educational and societal settings in both Colombia and the US. Collaboration also emerged as a central theme. While pre-COIL feedback focused on preparation for teamwork, post-COIL reflections highlighted the value of cross-cultural collaboration in enriching students' understanding of bilingualism and its role in their future teaching practices.

Development of Metalinguistic Awareness through a DLC approach in Teacher Training

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Multilingualism is a complex, dynamic, shifting, and multidimensional phenomenon (Ibrahim, 2022). Arts-based approaches to multilingualism encompass creativity, awareness development, and sensory exploration of linguistic repertoires and cultural identities (Busch 2018). This approach prioritizes personalization of the learning process and inclusive education, emphasizing self-expression and affective domains. The visual turn in education necessitates innovative methods of research and data collection (Kalaja and Melo-Pfeifer, 2019), which can include a range of creative approaches such as drawings, photos, objects, artefacts, linguistic and cultural identity, plurilinguality, translingual practices, translanguaging, and semiotic resource analysis. According to Aronin (2019: 21), a Dominant Language Constellation (DLC) is ‘the group of a person’s most expedient languages, functioning as an entire unit and enabling an individual to meet all his/her needs in a multilingual environment’. Dominant Language Constellations (DLCs) is a research and pedagogical approach that acknowledges the complexity and multidimensionality of multilingualism (Aronin and Vetter, 2021). This study investigated DLCs and visual representations of multilingualism of future EFL teachers in Cyprus, their metalinguistic awareness, linguistic and cultural identities, attitudes towards multilingualism and multiculturalism, linguistically and culturally responsive pedagogy. The participants in the study were 62 university students, future EFL teachers, who participated in focus group discussions and DLC mapping activities during their teaching practicum course. The analysis of the data showed that, overall, their DLCs comprised 2-9 languages, with their first language and English being vehicle languages. These DLC activities raised future teachers’ awareness about multilingualism, diversity and inclusivity and their positive effect on English language teaching and learning. The findings of this study suggest that the students generally had a positive view of multilingualism, multiculturalism, and linguistic diversity in EFL classrooms. However, there is a need for both the theoretical and the practical preparation of future teachers with a focus on multilingual pedagogies for inclusive education.

Dialogic Literary Gatherings as Environments for Effective Language Modeling and Learning

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Globally, most classrooms and schools now include students from diverse cultural and linguistic backgrounds (Gogolin, 2002). This diversity presents a challenge for teachers, who must effectively address varied student needs and implement educational strategies that are inclusive and impactful. Extensive literature supports the use of Dialogic Literary Gatherings (DLGs), a dialogue-based intervention recognized as a Successful Educational Action within the INCLUD-ED project (Flecha, 2015). DLGs enable students from different backgrounds to engage with classic literary texts in the school's medium of instruction through egalitarian dialogue. In preparation, students read the text and select excerpts that they consider interesting to share with peers. During the DLGs, students explain their choices, and the teacher, acting as the moderator, invites others to respond. Decades of research on DLGs demonstrate that this approach fosters communication skills, social competencies, self-esteem, and motivation (Morlà-Folch et al., 2022; Ruiz-Eugenio et al., 2023). While DLGs have been studied with teenage students learning in an additional language (Santiago-Garabieta et al., 2023), there is limited research on their impact on language learning in younger students, specifically those under 12. This study addresses this gap by analyzing four groups of students aged 8-11, with a particular focus on the role of modeling in DLGs and its effect on language learning. Research underscores that scaffolding is critical for language learning, and modeling is an effective scaffolding strategy. Using a qualitative, communicative approach, this study involved 20 interviews with students and teachers, three focus groups, and observation of 25 DLG sessions. Findings suggest that additional language learners benefit from engaging with language-rich texts and participating in dialogic interactions within a supportive environment where language modeling plays a central role. These results indicate that DLGs are an effective intervention for fostering additional language learning in school settings.

Dilemmatic aspects in approaching linguistic and cultural diversity in mainstream preschool education

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With the increasing number of linguistically and culturally diverse children (LCDC) in preschool communities globally, there is a pressing need for proactive initiatives to address this diversity and engage with parents. In recent years, language education policy in many countries has emerged as a significant force in supporting the well-being of LCDC; however, translating policy into practice requires preschool teachers to enhance their knowledge and reconsider their attitudes toward diverse children in their classrooms. This study asked: (1) What are the challenges of translating language education policy at the macro level into practice to support LCDC and their families? (2) What practical solutions do teachers propose? The study draws on the theory of teacher agency, the dilemma of implementing language education policy at the micro level, and the role of reflection in teachers' professional development. The study was conducted in a small city in northern Israel where the preschool classrooms exhibit significant linguistic and cultural diversity. Teachers' agency was explored through their reflections on classroom language education policies and practice changes. The study data was based on seven individual interviews and observations of the teachers' discussions during 12 video-recorded workshops of professional development meetings. The interviews were conducted by the researchers via Zoom and were recorded. We analyzed the data using qualitative methods, applying theory-driven thematic analysis. The analysis revealed three dilemmatic aspects: (1) Family language policy regarding home language versus socially dominant language support; (2) Language education policy in the classroom: The role of and space for home language and culture; (3) Teachers' self-efficacy in recognizing home languages and cultures. We found that the implications of state language education policy can be realized only by allowing teachers to critically reflect on their everyday dilemmas to improve their self-efficacy in working with LCDC and their families.

Disentangling Language Impairment and Bilingualism in Spanish Morphosyntactic Development

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Spanish-speaking children with developmental language disorder (DLD) present similar morphosyntactic profiles as bilinguals with typical development (TD), complicating the distinction between the effects of bilingualism and language disorder in bilinguals. The present project examines the productive morphosyntactic skills of 116 Spanish-speaking children ages 4;0 to 6;11: 33 bilinguals with TD (BL-TD), 33 bilinguals with DLD (BL-DLD), 25 monolinguals with TD (ML-TD), and 25 monolinguals with DLD (ML-DLD). Comparisons of the ML-DLD and BL-TD groups are key in disentangling the relative effects of bilingualism and DLD. Participants completed a production task regarding article and adjectival agreement, direct object clitics, verbal agreement, and subjunctive, which are vulnerable to DLD and bilingual effects (e.g., Castilla-Earls et al., 2023; Cuza & Pérez-Tattam, 2016; Dracos & Requena, 2022; Shin et al., 2019). Results, supported through binomial logistic regression, indicated that the ML-TD group outperformed the ML-DLD group, and the BL-TD outperformed the BL-DLD group. ML-TD and BL-TD children differed in adjectives, articles, and clitics, but not verbal agreement or subjunctive, implying that nominal morphology is more impacted by bilingualism effects than the verbal domain. Finally, the BL-TD group outperformed the ML-DLD group with clitics, verbal agreement, and subjunctive. Together, these results suggest that the effects of DLD are more pronounced than those of bilingualism. Beyond theoretical contributions, these findings have the potential to reduce the misdiagnosis of bilingual children, which has social justice implications for meeting this group's clinical needs.

Disentangling the Effects of Biculturalism on Bilinguals' Executive Functions: A Study of Cultural and Linguistic Switching

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The cognitive effects of learning multiple languages have garnered the attention of bilingualism researchers for the past two decades. Yet, inconsistent findings regarding the existence and reproducibility of the expected bilingual advantages in Executive Functions (EFs) have led scholars to scrutinize how variability within the broader social and interactional environment might obfuscate the effects of bilingualism on cognition (e.g., Chung-Fat-Yim et al., 2022; de Bruin, 2019). While many studies have explored the contributions of various socio-demographic (e.g., socio-economic status, immigrant status) and linguistic (e.g., age of acquisition, language dominance/proficiency) variables, research on cultural factors as potential confounds remains scarce (Grosjean, 2015, 2024; Xie et al., 2022). This paper examines the effects of biculturalism on bilingualism. Specifically, our goal is to explore the extent to which the frequency of switching between cultural frames in daily life contributes to EFs typically associated with bilingualism. We recruited 250 Mandarin-English bilinguals (mean = 24.8 years) from Singapore and China completed a non-verbal IQ task, a battery of language proficiency assessments (LexTALE, LexCHI, picture naming) and an extensive socio-demographic questionnaire. Additionally, participants completed code-switching and cultural behaviour-shifting role plays/scenarios, allowing us to assess the frequency of their linguistic and cultural switching behaviours. A total of 218 participants (nSingapore =117, nChina =111) who met our inclusion criteria then completed a battery of EF tasks. This paper presents the findings from three Executive Control tasks (Simon, Flanker, AX-CPT), with a total of 29 linguistic and socio-demographic variables modelled using Random Forest analysis and Linear Mixed Effects Regression models. Our results suggest a graded association between cultural switching behaviour and EF performance on some tasks, even after controlling for the effects of variables such as language proficiency, dominance, and code-switching type/frequency. The implication of these findings are discussed in relation to the broader 'bilingual advantage' debate.

District Leaders as Language Policy Arbitres in the Provision of Bilingual Education in New York City

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New York City (NYC) is the largest school district in the U.S., with about half of its students coming from homes with a primary language other than English. Nearly half of these students are classified as “English language learners” (or multilingual learners, MLLs) and must be placed in either a bilingual education or an English as a New Language program. Research on language education policy has highlighted the role of school principals and teachers in interpreting, implementing, or challenging top-down policies (De La Cruz Albizu, 2020; Morita-Mullaney, 2019). However, school district leaders have received less attention in policy processes, despite being “key arbiters” (Johnson & Johnson, 2015) in language policymaking. This presentation shares results from a mixed-methods study with the following research questions:

- 1) What is the availability of bilingual education for MLLs across NYC’s 32 geographical districts?
- 2) In what ways do NYC school district leaders influence bilingual education program availability in their districts?

The study employs: a) Geographic information system (GIS) analysis to map the location of bilingual education programs by student demographics in each geographical district, and b) Semi-structured interviews with 31 NYC school district leaders. While focused on NYC, this research provides insights into how local agents shape specialized programs for MLLs. The question of MLLs' access to bilingual education is a social justice issue that demands attention from multiple perspectives.

De La Cruz Albizu, P. J. (2020). Exploring New York City elementary school principals’ language ideologies. *Language and Education*, 34(6), 503–519.

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Morita-Mullaney, T. (2019). Intersecting leadership and English learner speciality: The nexus of creativity, resistance, and advocacy. In L. C. de Oliveira (Ed.), *The Handbook of TESOL in K-12* (pp. 423-439). Wiley.

Do bilingual children with stronger home literacy environments in their heritage language have a stronger language network?

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This novel study examines the neural basis of bilingual language development and its relationship to dual-language competence and experiences among Spanish heritage language (HL) learners in the U.S. Midwest. This context highlights the experiences of select bilingual children who are able to develop linguistic and literacy skills in both Spanish HL and the majority language, English. Unlike monolingual research, the variability across HL children poses challenges in establishing clear connections between emerging neural circuits for language and the home literacy environment (HLE). This exploratory study is the first to address this complexity using a naturalistic listening paradigm with functional near-infrared spectroscopy (fNIRS) to examine the neurobiology of language development in young HL learners. Thirty-eight children (ages 7-10) participated in the study. During fNIRS neuroimaging, the children listened to a fictional story in English. The analytical method uses surprisal effects, focusing on words that are difficult to predict based on the previous context. The children also completed standardized tests, including the BESA-ME for morphosyntax and TOWRE for word reading efficiency. We then analyzed children's linguistic and literacy competence in relation to neural predictive coding during story listening and HLE factors. The new brain-behavior approach revealed activation in left frontal and temporal regions associated with language processing, which provides proof of concept for the neuroimaging method. Findings showed positive associations between brain activation and dual-language morphosyntactic competence, with stronger within-language than between-language associations. Additionally, results from Pearson partial correlations showed that HL children with more Spanish-language books at home scored higher in English morphosyntax and word reading, even after controlling for English books. The findings: (i) suggest links between bilingual HL environments and brain development for language; (ii) advance leading theoretical perspectives on brain, language, and literacy development; and (iii) support conceptual frameworks such as Simple View of Reading.

Do non-native speakers predict cognates more than non-cognates?

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Bilinguals predict semantics when using their non-native language (L2), but it remains unclear whether they predict phonological form, and whether they predict in their native language (L1) when using their L2 (Ito et al., 2018). We address this question by asking whether prediction on the phonological level is language selective, involving (pre-)activation of representations in only the target language, or also in the non-target language. Using a visual world paradigm, we investigated whether bilinguals are more likely to predict cognates than non-cognates in L2 comprehension. Cognates are translation equivalents that share form across languages and their processing times are usually facilitated relative to non-cognates. We hypothesised that if prediction of form is language non-selective, a cognate advantage should be observed. Forty Dutch-English bilinguals listened to L2 sentences (e.g., The man wanted to buy a new pipe), whilst viewing two target (e.g., a pipe and a wallet) and two distractor (e.g., a priest and a plumber) objects. The target objects' names were cognate or non-cognate with their Dutch translations (*pijp* and *portemonnee*, respectively). Targets had a significantly higher proportion of looks than distractors in the predictive time window, suggesting that participants predicted the meaning of upcoming words. However, we found no evidence that the cognate status of the upcoming input affects its predictability, as there were no significant differences between looks to cognate and non-cognate targets. Our results provide further evidence that bilinguals predict the meaning of upcoming words in L2 comprehension, but that prediction of phonological form may be language selective and is not aided by form overlap across languages.

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Do you hear how I feel? Melodic patterns of happiness and sadness expressed by Chinese learners of Spanish

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Conveying one's emotions is a crucial sociopragmatic aspect of communication but might be more challenging in second language (LX) contexts (Dewaele 2018). In this paper, we focus on the pragmatic function of melodic cues. Misunderstandings may arise when melodic cues are not used according to the melodic patterns typically used in a language and/or culture. For instance, LX Spanish speakers who were unfamiliar with Spanish politeness intonation codes have been perceived as impolite, contrary to their communicative intentions (Lorette & Dewaele 2020). In this study, we investigated which melodic cues contribute to the (mis)perception of the speaker's intended emotion (happiness or sadness) in LX Spanish spoken by Chinese L1 speakers. First, we conducted a Melodic Analysis (Cantero & Font-Rotchés 2020) of 200 utterances of acted joy (100) and acted sadness (100) in LX Spanish spoken by 10 Chinese learners of Spanish and compared these LX melodic patterns to the melodic patterns of sadness and happiness in L1 Spanish (Hidalgo 2020). Then, 50 L1 Spanish speakers rated the valence, arousal and specific emotion they perceived in each LX utterance. Comparing our Melodic Analysis with our perception data allowed us to identify the melodic patterns that contribute to (mis)perception of the emotion the LX speaker intended to convey. The findings thus help clarify which melodic aspects of speech should be introduced in the LX classroom when teaching how happiness and sadness are typically expressed in Spanish.

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Documenting the Home and Community Storytelling Practices of Mexican-American Emergent Bilinguals Labeled as Disabled

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We all use language to tell stories relevant to ourselves and our cultures, yet people with disabilities may experience impaired language skills that impact their narrative abilities. Current language assessments often rely on Western, Educated, Industrialized, Rich, and Democratic norms, overlooking the rich storytelling traditions of linguistically minoritized communities. This deficit approach fails to leverage the linguistic strengths of multilingual children, contributing to educational inequities. This study will employ Yosso's (2005) Community Cultural Wealth framework, focusing on linguistic capital to recognize the diverse storytelling repertoires of children from linguistically marginalized backgrounds. The purpose of this study is to document the storytelling practices of Mexican-American emergent bilinguals labeled as disabled (EBLAD, Cioè-Peña, 2020). Participants will include 10 elementary-aged Mexican-American EBLADs and their families in Southern California. I will employ an ethnographic approach, conducting participant observations of target students in educational and home settings, focusing on the storytelling traditions and characteristics they and their families engage in. I will also facilitate parent focus groups using photovoice methodology (Catalani & Minkler, 2010; Javier & Swistun, 2012; Sutton-Brown, 2014) in which participants can represent their storytelling values through multimedia, such as photographs and video recordings. Data collection is currently in progress. The analysis will use a grounded theory approach (Charmaz, 2012), identifying storytelling practices and characteristics from the data rather than a priori theory. Pending data collection and analysis, emerging themes may include multimodal storytelling traditions, such as video games, television, and family-centered talk. This research has the potential to find harmony between home and school literacy practices, providing insights into how community storytelling traditions can inform language and literacy interventions for EBLADs. By highlighting these strengths, this study seeks to inform more equitable assessment and intervention strategies, ultimately supporting the educational success of EBLADs.

Does code-switching modulate the resolution of ambiguous pronouns? Insights from Italian-English bilinguals

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Code-switching (CS) is the common bilingual practice of alternating between languages within a single interaction [1]. While CS was found to facilitate low-frequency word prediction [2], no study has explored its effects on vulnerable structures in bilingual processing, such as syntax-pragmatics interface phenomena [3]. We aim to do so by focusing on the processing of ambiguous pronouns in Italian-only and English-to-Italian code-switched sentences. While English typically resolves ambiguous pronouns to the subject of the previous sentence, Italian, a pro-drop language, tends to resolve null pronouns to the subject and overt pronouns to the object [4]. We investigate whether CS modulates ambiguous pronoun processing regarding antecedent selection and RTs. Proficient Italian-English bilinguals heard sentences introducing two characters, followed by a sentence in Italian with an ambiguous pronoun referring to the initial part. Half of the sentences were in Italian, half with CS, and each condition had equal numbers of explicit and implicit ambiguous pronouns. Preliminary results from 14 participants show no effect of CS on antecedent selection or RTs. Instead, the ambiguous pronoun condition significantly influenced antecedent selection, with null pronouns more often resolved to the subject [4]. Additionally, RTs were significantly shorter when ambiguous pronouns were resolved to the subject (i.e., the overall preferred option in Italian).

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Dominant Language Shift and Bilingual Autobiographical Memory: Reduced Memory Detail in Memory Narratives

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Recent research has shown that L1 attrition might negatively affect memory phenomenology in bilingual speakers: memories encoded in the attrited language exhibit lower vividness and confidence ratings (Sorokina, 2024). While these findings indicate some form of memory deterioration due to L1 attrition, more research is needed regarding the content of these memories. To address this research gap, the present study analyzed memory narratives qualitatively and quantitatively, focusing on pre-immigration memories and using an autobiographical memory interview protocol (Levine et al., 2002). The memory narratives were elicited from balanced Russian-English bilinguals ($n=11$) and speakers who exhibited Dominant Language Shift or DLS ($n=11$). DLS represents severe first language loss cases when an L2 replaces L1 (Cummins, 1994). These participants presently function completely in their L2 despite learning and being immersed in another language some time ago. Multiple negative effects of DLS have been reported on the sense of identity, academic achievement, and L2 attainment (Bradley, 2018). The present study examined whether DLS affects the content of autobiographical memories. A total of 99 memory narratives were analyzed with the help of ANOVA for three conditions: pre-immigration memories told in Russian by balanced bilinguals; pre-immigration memories told in English by balanced bilinguals; and pre-immigration memories told in English by speakers who experienced DLS. The results were statistically significant $F(2, 96) = 20.20, p < .001$. The Post hoc Tukey test revealed that balanced bilinguals recalled the most detailed memories. The memories recalled by the DLS group were the least detailed even though these participants were relying on their strongest language, L2 English. These findings provide further evidence for the negative effects of L1 attrition on bilingual autobiographical memory, especially concerning the content of memories in speakers who experienced Dominant Language Shift.

Dynamic Assessment of Word Learning and Grammatical Rule Learning in Spanish-English Speaking Children

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There is substantial evidence that dynamic assessment (DA) can be a valuable tool for diagnosing developmental language disorders (DLD) in children from linguistically diverse backgrounds. In school-age children, most studies have focused primarily on narrative skills (Peña et al., 2006, 2014; Petersen et al., 2017, 2018; Kramer et al., 2021) and report high classification accuracy. For younger children, research has targeted children's ability to learn new words (Gray, 2005; Kapantzoglou et al., 2012; Peña et al., 2001) and novel grammatical rules (Anderson, 2001; Connell & Stone, 1992). The present study examined the classification accuracy of DA for word learning and grammatical rule learning in a 5- to 7-year-old Spanish-English speaking group, considering the diversity of profiles (i.e., different strengths and weaknesses) in children with DLD. Children's language status for the criterion (DLD and typical language development/TLD classification) was determined based on parent report, a standardized test, and language sample analyses. Fifty-eight Spanish-English speaking children, aged 5 to 7, participated in this study, including 38 with TLD and 19 with DLD. All children were recruited from kindergarten and first-grade Spanish dual immersion programs in public schools in a metropolitan area in the northwestern United States. Children had no history of hearing loss, sensorimotor or neurological problems, severe psychological disorders, or health problems, and all passed a hearing screening. DA of word learning (Kapantzoglou et al., 2012) and grammatical rule learning (Anderson, 2001) was conducted in each child's strongest language. Logistic regression analysis indicated that word identification and grammatical rule production made significant, unique contributions to predicting language ability. Based on ROC curve analyses, the sensitivity estimate was .84, and the specificity estimate was .87. Overall, there was a good balance between sensitivity and specificity estimates, with moderate positive and negative likelihood ratios.

Dynamic Patterns of Plurilingual Children's Literacy Development

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Children who develop their “pluriliteracies” (García, Kleifgen & Barlett 2006) due to migrational multilingualism are often affected by “silenced multilingualism” (Pelemann 2023), which is based on the tension between Germany's diverse linguistic landscape, shaped by migration, and the prevailing “monolingual habitus” (Gogolin 1994) in schools which undervalues and underutilizes migrant students' multilingual repertoires for learning and educational success. The development of literacy involves individual learning processes which, according to Street (2008), are influenced by the social environment and social practices. Employing the Complex Dynamic System Theory (CDST) (e.g. de Bot 2017) as a meta-theory, the present contribution investigates children's development of pluriliteracies as a non-linear process (e.g. de Bot 2008; Van Gelder & Port 1995). The data for the study is derived from a sample of 10 migrantized children living in Germany and attending primary school. The data on which this study is based comes from the ‘Rucksack Schule’ evaluation study. The sample comprises 60 narrative texts (in Turkish and German) from these plurilingual children, collected over a period of three years as well as information on family literacy practices gathered from parent questionnaires. The study uses a transdisciplinary and multi-level methodological approach, combining inductive and deductive techniques to adopt a resource-oriented framework to analyze the writing samples and literacy practices and to describe the childrens' individual literacy profiles. Examples of “dynamic patterns” (Van Geert, 2008, p. 184) of literacy development resulting from the literacy profiles will be presented and interrelated factors that contribute to childrens' pluriliteracy development process will be discussed. The profiles are based on the triangulation of the written narrative texts and the evaluation of the parental questionnaires revealed by the qualitative data analysis (Creswell & Creswell Baez 2021).

Early bilingualism induces the hemispheric rebalance of resources when processing complex phonological stimuli.

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This research investigates whether the early acquisition of two phonological systems impacts the organisation of the left hemisphere (LH)-dominant ‘phonological mind’. We hypothesize that, to cope with demanding dual-language contexts during early language acquisition, bilingual individuals engage more resources from, and connectivity between, their two hemispheres, eventually leading to a rebalanced and less-lateralised phonological network. To explore this, the dichotic listening task - participants hear different syllables in each ear simultaneously and report what they hear best - is central in our approach. This task measures the LH dominance for phonology, indexed by more right ear syllables reports. Importantly, left ear report accuracy reflects how well left ear syllables (sent to the right hemisphere) are transferred to the LH for linguistic processing. We hypothesise that reduced laterality indexes (enhanced left ear reports in particular) will be associated with higher exposure to early bilingualism/dual-language contexts, consequence of the rebalance of hemispheric resources when dealing with complex phonological situations. Two complementary studies were conducted, one in Spanish-Basque early bilingual and Spanish monolingual adults (n=50/group), and one in Spanish-Basque early bilingual children assigned to two groups based on their exposure to dual-language contexts (high versus low exposure; n=30/group). Participants were tested on the same dichotic listening task, where the level of competition (difficulty) between dichotic syllables was manipulated. Overall, both bilingual adults and children highly exposed to dual-language contexts (compared to their peers) showed reduced laterality indexes on the most complex dichotic conditions. This suggests that, when faced with phonological complex tasks, individuals with an early exposure to complex dual-language contexts rebalance their phonological resources across hemispheres, possibly supported by enhanced interhemispheric connectivity. We propose that this reflects a compensatory mechanism that could also boost resilience to difficulties affecting the development of phonological and speech processing skills.

Early Oral Language as a Predictor of Reading Comprehension in L2 German Bilingual Children

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Background: Oral language is crucial for reading comprehension according to the Simple View of Reading (SVR; Gough & Tunmer, 1986; Hoover & Gough, 1990). However, longitudinal links between early oral language and reading comprehension have been rarely investigated in bilinguals, especially for languages other than English. Moreover, research on the language-reading connections in bilinguals at risk for reading difficulties has been limited. This study examined (1) the contribution of kindergarten oral language skills to Grade 2 reading comprehension for L2 German bilinguals and (2) how this relationship varies for children with poor vs. good levels of reading skills. Method: Participants were 59 Russian-German and Turkish-German bilingual children, who were followed from kindergarten to Grade 2. Oral language skills, namely receptive vocabulary and morphosyntax, were assessed in kindergarten (Mage = 54.7 months, SD = 6.38), while phonological short-term memory (STM) and reading comprehension measures at sentence and text level were administered in Grade 2 (Mage = 96.9 months, SD = 4.66). Approximately 61% of the participants met criteria for good sentence comprehension and 56% for good text comprehension, based on standardized reading assessments. Results: The Russian- and Turkish-German groups performed similarly on all measures. Generalized mixed-effects analyses indicated that kindergarten vocabulary was uniquely predictive of Grade 2 sentence and text reading comprehension after controlling for age, language group, and phonological STM. Vocabulary was a strong predictor for sentence and text level in good readers, while morphosyntactic skills were predictive for text comprehension in good readers only. No effects were found for poor readers. Conclusions: Findings highlight that early vocabulary is the strongest predictor of later reading success in L2 German, supporting the SVR theory. This study suggests that early vocabulary support may benefit bilingual children's reading development and help reduce the risk of developing potential later reading difficulties.

Ecological Perspectives on Teacher Agency in Addressing Emergent Multilingualism in Polish Schools

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The main assumption of our presentation is that teachers play a crucial role in the lives of pupils with migration backgrounds and may have a tangible impact on these pupils' linguistic capital. Despite this potential impact, little attention has been paid to how the admission of larger groups of such pupils affected schools, specifically regarding the role and response of teachers in this context. Our research examines the response of Polish teachers to the substantial increase in refugee pupils in Polish schools following the 2022 war in Ukraine. From February to May 2022, Poland received 3.37 million refugees, diversifying the traditionally monolingual environment of Polish schools. Given this context, our study aimed to understand how teachers' agency was activated during this crisis and the factors influencing their actions. We adopt an ecological approach (Bronfenbrenner, 1992; Schwartz, 2024) and draw on the Ecological Model of Teacher Agency (Priestley et al., 2016). Our qualitative study involved three focus groups and ten individual interviews, surveying 37 school staff and education professionals. Using situational analysis, we found that while Polish teachers are largely unprepared for multilingual classrooms, they responded swiftly to new challenges by collaborating in designing resources and attending courses on migrant students' linguistic, educational, and emotional needs. The ecological framework highlighted that teachers' agency in this situation was shaped by personal values, ambitions, resources, and their specific experiences within this rapidly changing educational context.

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Effects of Bilingual Exposure and Socioeconomic Status on Infant Word Recognition

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Monolingual English-exposed infants recognize the names of common objects in their environment (Bergelson & Swingley, 2012; 2015). Here, we examined this ability in bilingually exposed infants in Singapore in a socioeconomically diverse sample. In this study, 82 Singaporean infants were tested between 6 and 12 months in a replication of Bergelson & Swingley, 2012. All infants sampled in our study were bilingually raised (English-Malay/English-Mandarin). Using an eye-tracking paradigm, infants were presented with paired visual displays of familiar objects that were deemed early-acquired words on a Singaporean adaptation of the MacArthur Communicative Development Inventories (Singh et al., 2022). When viewing the paired displays, one of the visual displays was labelled in a carrier sentence, such as “Look at the apple!” while viewing an apple alongside another familiar object (e.g., a mouth) (see Bergelson & Swingley, 2012). Analyses examined effects of bilingual exposure and SES (and their interaction) on infant word recognition. Cluster-based permutation models revealed effects of SES and of bilingual exposure (degree of English exposure), but adding interaction terms did not improve the predictive models. Interestingly, there were variable effects of bilingual exposure depending on how it was operationalized: when the degree of English exposure was dichotomized via a median split, English exposure predicted English word recognition, whereas when it was analyzed as a continuous variable, there was no significant effect of English exposure. Effects of SES remained consistent whether it was treated as a continuous or dichotomous variable. Results indicate that SES is a robust predictor of infant word recognition in bilingual infants in Singapore. In contrast, relative exposure to English, was a less consistent predictor. The interaction of these predictors did not add explanatory power. This study points to the need to characterize and analyze relevant sociodemographic variation (e.g., SES; language exposure) when defining emergent language abilities.

Effects of bilingualism on autistic children: Evidence from acoustic measurements of prosodic focus

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It is widely acknowledged that bilingualism does not negatively impact typical language acquisition. However, bilingualism effects are less clear in autistic children, whose language development is often impaired and delayed. Considering the existing language difficulties in autistic children, parents and professionals often wonder whether bilingual exposure would exacerbate the impairments. Previous research primarily focused on autistic children in bilingual communities with English as the dominant language. It is unclear how bilingualism impacts autistic children's language acquisition in other bilingual environments. This study investigated the effects of bilingual exposure, bilingual proficiency and age of acquisition on the acoustic realisation of prosodic focus in 5- to 9-year-old Cantonese-English bilingual autistic children. Participants included 46 bilingual autistic children, 60 bilingual typically developing (TD) children and 28 adults. The two groups of children were matched in nonverbal IQ, working memory, receptive Cantonese vocabulary, and maternal education. They participated in a picture elicitation task, and their production of prosodic focus was first audio-recorded and then analysed by ProsodyPro. Parents were asked to provide their children's bilingual exposure, proficiency and age of acquisition. Results showed that TD children used on-focus raising of median fundamental frequency (f_0), longer duration, and increased intensity to mark prosodic focus, whereas bilingual autistic children and adults primarily used duration. Autistic children exhibited smaller degrees of on-focus expansion and did not use f_0 and intensity as their TD peers did. Increased Cantonese exposure at school correlated with better modulation of pitch and intensity in autistic children, while English proficiency and exposure had no significant effect. These findings suggest that bilingualism does not impede language acquisition in autistic children and may even enhance certain prosodic features. This study highlights the importance of rich bilingual environments in supporting language development in autistic children.

Effects of infant bilingual exposure on visual attention

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Recent research has suggested that bilingual exposure appears to tune infants' visual preferences more towards novelty (D'Souza et al., 2021; Kalashnikova et al., 2021; Singh et al., 2023). This has been associated with increased attentional switching between competing visual stimuli in bilingual infants (D'Souza et al., 2021). In this study, we examined how bilingual exposure influences infants' visual-exploratory behaviors and in particular, whether bilingual experience was associated with an orientation towards novelty. Two-hundred-and-four Singaporean infants were tested between 9 and 11 months of age. Socioeconomic status was collected via maternal and paternal education. Being raised in a multilingual, multiracial environment, infants received varying exposure to a range of second languages (English; Mandarin; Malay; Tamil). Bilingual exposure was collected via locally-adapted language exposure questionnaire. Infants were tested on a visual recognition task where they were presented with two side-by-side displays over 10 trials. As each trial progressed, one display stayed the same and the other changed subtly. Infants' relative attention to the changing trial (i.e., novelty preference) over the experiment was logged. We investigated whether bilingual exposure in infancy was associated with a novelty orientation in the visual memory task. We also investigated the role of attentional switching in the visual memory task as a predictor of a novelty orientation. A linear regression demonstrated that bilingual exposure predicted a novelty preference independent of participant age, gender, maternal, or paternal education ($R^2 = .05$, $F(2, 173) = 4.09$, $p = .01$). However, bilingual exposure did not predict attentional switching ($p = .90$), nor did attentional switching predict a novelty orientation in the visual memory task switching ($p = .31$). Findings are discussed in the context of specific components of bilingual experience that may lead to an adaptive orientation towards novelty.

Effects of non-verbal working memory and spoken first language proficiency on sign language acquisition by deaf second language learners

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A substantial number of deaf and hard of hearing (DHH) people learn a sign language for the first time as a second language (L2). Research shows that first language (L1) proficiency and working memory (WM) both relate to L2 learning outcomes. However, these relationships have not been studied for DHH people who acquired a spoken L1 and subsequently learned a sign language for the first time as an L2, a learning context where early, full language access is not guaranteed. This study investigated whether DHH adults' receptive L2 American Sign Language (ASL) proficiency relates to English L1 reading proficiency and non-verbal WM, as well as a possible relationship between L1 proficiency and WM. Participants ($n = 59$, age range 20-73, age mean 35.5) were recruited across the US using social media and run using an online experiment platform and Zoom. All were prelingually DHH, learned English as a primary L1 (AoA range 0-3, age mean 0.4), and learned ASL as a late L2 (AoA range 14-27, age mean 18.1). Participants had an average of 15.8 years of experience using ASL, ranging from 2 - 46 years. They completed measures of English reading comprehension (PIAT-R), ASL comprehension (ASL-CT), and WM (backwards Corsi block-tapping task). There were significant positive correlations between reading and WM scores, $p(47) = 0.31$, $p = .03^*$, and between WM and ASL scores, $p(53) = 0.35$, $p = .008^{**}$. There was no correlation between reading and ASL scores, $p(51) = 0.04$, $p = .76$. The results suggest that WM skills relate to both L1 English reading proficiency and L2 ASL receptive comprehension. These findings highlight the pertinence of strong WM skills to language across modalities. Future research should investigate the directionality of effects between WM, early, and later language learning.

Effects of psychological trauma on second language acquisition in Ukrainian refugees

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For refugees and other immigrants, acquiring the language of their new environment is vital. Yet, refugees often experienced traumatizing events impacting their cognitive skills and their socio-emotional wellbeing, which might impact second language acquisition (SLA). Little is known about the effects of trauma on SLA. The few empirical studies investigating the relation suggest that presence and degree of trauma [2,4] and lower socio-emotion wellbeing [3] in refugees correlate with less successful SLA. Yet unclear are the scope of trauma effects on SLA and the mechanisms underlying it. In our project [1], we examine how trauma symptoms affect linguistic and communicative L2 skills in child and adult refugees. We will introduce the model of Trauma and Second Language Acquisition (TSLA), which proposes an indirect relation between trauma and target language proficiency, mediated by socio-emotional wellbeing, memory, language learning skills, and social participation. We will present results of a study with 30 child (10-12 years) and 30 adult Ukrainian refugees enrolled in Dutch L2-classes in the Netherlands. By means of standardized and specifically developed questionnaires and tasks, we investigated their psychological trauma symptoms, socio-emotional wellbeing, memory-skills, social participation in Dutch society, and knowledge of Dutch, as well as novel word-learning skills and emotion recognition in Dutch. The results will provide insights into the complex interplay between cognitive and socio-emotional variables and SLA, and how this may differ for adult and child refugee populations. We will discuss implications for tailoring language education to the needs of language learners with psychological trauma symptoms.

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[4] Söndergaard, H. P. and T. Theorell. 2004. doi: 10.1159/000078849

EFL Education in a Multilingual Binational Context: Analyzing Language Practices and Ideologies

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This study examines a Shared Education program in Israel that unites Jewish and Arab students from separate school systems to study English together. In Israel, a multilingual society with about 20% Arabic speakers, education is traditionally divided, limiting interaction between Hebrew-speaking and Arabic-speaking communities. Modeled after Northern Ireland's Shared Education initiative (Gallagher et al., 2022), this program promotes peace by fostering collaborative ties between Jewish and Arab schools. Since 2019, an ethnographic study has assessed the program's linguistic, academic, and social impacts, focusing on how societal conflicts manifest in language practices. The research investigates instructional content in shared EFL lessons and multilingual communication among teachers who navigate Hebrew (dominant) and Arabic (minority). This analysis draws on teacher training interactions, highlighting multilingualism's role in shaping identity and power dynamics. Findings reveal complex language practices involving Hebrew, Arabic, and English, with instances of translanguaging. Five conflicting ideologies emerge, framed within Cooke & Simpson's (2012) concepts of mono/multilingual ideologies and English as cultural discourse (Awayed-Bishara et al., 2022). The talk will also discuss the potential to adapt the Shared Education model to other conflict-affected areas, emphasizing language as both a tool and a site of ideological struggle in multilingual education.

Awayed-Bishara, M., Netz, H. & Milani, T. (2022). Translanguaging in a Context of Colonized Education: The Case of EFL Classrooms for Arabic Speakers in Israel. *Applied Linguistics*, 43(6), 1051–1072.

Cooke, M. & Simpson, J. (2012). Discourse about linguistic diversity. In M. Martin-Jones, A. Blackledge, & A. Creese (Eds.), *The Routledge Handbook of Multilingualism*, Routledge, pp. 116-130.

Gallagher, T., Duffy, G. & Robinson, G. (2022). Turning research into policy: the experience of shared education in Northern Ireland. In Yitzhaki, D., Gallagher, T., Aloni, N. & Gross, Z. (Eds.), *Activist Pedagogy and Shared Education in Divided Societies: International Perspectives and Next Practices*, Brill.

Embracing Inclusion: Probing into the Relationships between Bilingualism, Biculturalism, and Openness to Diversity

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Research in social psychology has demonstrated that cross-cultural experience (e.g., immigration, international exchange) is associated with more positive perceptions toward cultural diversity and dimensions of “universal-diverse orientation”, an inclusive attitude toward others while recognizing similarities and differences (Miville et al., 1999). As such, bilinguals who likely have long-term and intense exposure to two (or more) cultures through their language practices may exhibit similar inclusive attitudes. However, there has been relatively little focus on personality traits and other psychosocial variables such as openness to diversity in bilingualism research. For instance, positive relationships have been found between multilingualism and greater cognitive empathy as well as higher tolerance of ambiguity (Dewaele & Li Wei, 2012a; Dewaele & Li Wei, 2012b), while cultural identity strength has also been shown to influence code-switching preferences and multicultural attitudes (Yim & Clément, 2021). The present paper further elucidates the reciprocal relationships among language and cultural identity, and seeks to disentangle their respective contributions to openness and inclusive attitudes. A heterogeneous sample of 107 bilingual bicultural individuals (39 male, 66 female, 2 other) completed a series of online questionnaires on language, identity, and openness to diversity and multiculturalism (e.g., Bicultural Identity Orientation Scale, Multicultural Personality Questionnaire, Miville-Guzman Universality-Diversity Scale). The sample consisted of bilinguals ($n = 47$) and multilinguals ($n = 60$), with participants considering themselves as having a high level of bi/multilingualism ($M = 4.4$, $SD = 0.8$). Significant positive correlations were found between bicultural identity and various aspects of inclusion such as openness to diversity and cultural empathy. Moreover, bilingualism also showed a positive association with openness to diversity. The findings conclude that higher levels of bilingualism and bicultural identity integration are associated with greater openness and more inclusive attitudes. Implications and recommendations on considering diversity and identity in studies of bilingualism are discussed.

Emergent Translanguaging Ideologies Grounded in Experience: A Focus on Dutch Teachers Working Migrant Youths

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Over the past decade, the Netherlands has seen a significant rise in young migrants, including expatriates, asylum seekers, refugees, and other non-elite groups. This demographic shift has impacted the Dutch educational system, particularly transitional international schools, which serve as temporary (6 to 24 months) spaces for newcomer youths to acquire Dutch language skills and integrate into mainstream education. These schools predominantly serve non-elite students, resulting in highly diverse classrooms, linguistically, culturally, emotionally, and socioeconomically. Although these institutions officially advocate a "Dutch language only" policy, research suggests that teachers often adopt flexible strategies leveraging students' linguistic and semiotic repertoires. Little is known about these schools or the strategies of teachers working with older newcomer youths (14–16 years). This study adopts a phenomenological approach, integrating interviews and nine hours of classroom observations, to examine three secondary school teachers. It explores their evolving ideologies about their multilingual students and how these shifts promote classroom translanguaging. The findings reveal a transformation in how teachers perceive their students—from Dutch learners to agentive multilingual individuals—prompted by key classroom moments. Despite lacking formal training in translanguaging, the teachers recognized their students' linguistic practices as valuable assets with implications for social justice and transformation. The study highlights how the teachers' critical growth was driven by their reflections and classroom experiences, leading them to view translanguaging as a tool for redistributing power and fostering inclusivity. By recognizing the value of students' emergent behaviors, even when these counter hegemonic language policies, the teachers positioned translanguaging as a mechanism for social justice. The findings underscore the need for newcomer teacher preparation that places translanguaging at its core, a crucial yet understudied area in education.

Emerging New Speakers in Kazakhstan: Family Language Policies and Multilingual Development in Interethnic Families

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Family Language Policy links research on children's language acquisition, early second language acquisition, bilingualism, and broader language policy (Spolsky 2021). It specifically examines how family language practices are influenced by, and interact with, the larger societal and governmental language policies (Schalley & Eisenclas, 2020). In this study, the emergence of "new speakers" — children who acquire multiple languages within interethnic families — becomes a key focus. These children navigate complex linguistic and cultural landscapes shaped by diverse parental backgrounds, offering insight into how they develop multilingual identities. As O'Rourke and Pujolar (2013) discuss, new speakers actively engage with language policies by negotiating, adapting to, or resisting them, thereby influencing the development of their own linguistic identities. A sample of 25 interethnic families, with native languages including Kazakh, Russian, and others, is examined using a multi-method approach. Interviews allow parents to reflect on their language choices and strategies in depth, while surveys gather direct insights into children's language preferences, offering quantitative data on their multilingual experiences. Complementing these methods, observations capture real-time language interactions, providing a grounded perspective on daily language use and interaction patterns. Data are analyzed using MaxQDA software, employing thematic coding across key categories such as family language practices, parental strategies, and societal influences. Through thematic analysis and systematic coding, patterns of language choice, adaptability, and identity formation are examined. The findings suggest that children's language choices extend beyond parental influence, shaped by educational resources, peer interactions, and media exposure. These children exhibit linguistic adaptability, often developing bilingual or trilingual skills that highlight the role of family policies in fostering flexible language identities. Families actively promoting multilingualism positively impact children's linguistic resilience and cultural awareness. Future research could examine the role of urban versus rural settings or explore longitudinal impacts of family language policies on children's language trajectories.

Emotional Word Processing in Bilinguals' first and second language: A Multi-measure investigation of Subjective, Behavioural, and Pupillary Responses

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Bilinguals often perceive their second language (L2) as less emotional than their first language (L1), a phenomenon consistently observed in subjective questionnaires (Dewaele, 2008) and physiological measures (Toivo & Scheepers, 2019). However, affective ratings (Winkel, 2013) and cognitive-behavioural tasks (Ponari et al., 2015) frequently show similar emotional responses in L1 and L2. Whether these discrepancies arise from the different emotional components assessed by each measure or from variations in bilingual characteristics across studies remains unclear. Our study addresses this by using a within-subject design that uniquely integrates meta-cognitive, physiological, and cognitive-behavioural measures. It is also the first to investigate lexical access to emotionally arousing words in L2. Fifty-four French-English bilingual adults performed lexical decision tasks in both L1 and L2, while reaction time (RT) and pupil dilation were recorded. The words were divided depending on emotional arousal (high, low), but matched on valence and linguistic characteristics. Arousal ratings for these words were assessed, along with the subjective feeling of emotional distance in L2 using the RER-LX questionnaire (Toivo et al., 2022). Despite a reported feeling of emotional distance in L2, faster RTs were observed for highly arousing words regardless of language. Arousal ratings were also comparable across both languages. Pupil dilation, however, was slightly larger for highly arousing words, only in L1. These findings suggest that emotional distance in L2 variably affects the different dimensions of emotional word processing, underscoring the importance of multi-measure designs. While L2 appears emotionally resonant enough to reflect knowledge of word emotionality as measured by affective ratings and to influence lexical access, it may lack the physiologically embodied emotional response of L1 (Barsalou et al., 2008; Pavlenko et al., 2012). Since the physiological effect was, however, weaker than expected, pupil dilation is being currently collected during a semantic go/no-go task that minimises motor task demands.

Encountering Multilingual Minds: The Effect of Awareness of the Self on Plurilingual and Creative Growth

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This study further elaborates on the plurilingual creativity paradigm (Kharkhurin, 2021) and explores the impact of the phenomenon of Encounter (Rogers, 1967) in daily life on plurilingual, pluricultural, and creative competencies. Pilot data were collected from 18 participants, classified through in-depth interviews (Pasechnik-Lyle & Kharkhurin, 2024) into three levels of knowing the encounter (organismic, bodily, and mental), which reflect an individual's awareness of the Self. Participants completed the Emotional Intimacy Scale (Sinclair & Dowdy, 2005), the Short Scale of Creative Self (Karwowski, 2011), and the Plurilingual and Pluricultural Competence scale (Belova & Kharkhurin, 2024). Additional measures included questions on the frequency of encounter experiences, the number of languages participants spoke, their language proficiency, and duration of residence abroad. A series of ANOVAs revealed significant main effects of the level of knowing the encounter on emotional intimacy ($F(2,15)=4.56$, $p<.05$), creative self-efficacy ($F(2,15)=6.80$, $p<.01$), and plurilingual cognition ($F(2,15)=8.03$, $p<.01$). These findings highlight three insights. First, emotional intimacy may reflect individuals' level of knowing the encounter, which has implications for developing the assessment tool for everyday encounters. Second, the level of knowing the encounter influences creative self-efficacy, indicating that deeper awareness of the Self may enhance one's perceived ability to navigate creative challenges. Finally, the level of knowing the encounter affects plurilingual cognition, suggesting that participants' plurilingual capacities are bolstered by their nuanced understanding of the Self. These findings underscore the role of Encounter in shaping plurilingual and creative capacities, emphasizing the need for further investigation into how experiences of Encounter can foster plurilingual and pluricultural competencies. This work has implications for educational and cultural programs aiming to enhance intercultural understanding and creative growth in multilingual contexts.

English-Estonian code copying in oral speech: a comparative perspective

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The synchronic research on English-Estonian language contacts has been focusing on the language use by women in blogs and vlogs (Kask 2021). The paper examines language contacts in male speech, for which Lars Johanson's (2002) code-copying framework (CCF) is used. In CCF, the mental mechanism leading to the impact of one variety on another is copying. Longer, syntactically autonomous stretches in another variety are labeled as code-alternation (CA). Other than that, a linguistic item has four types of properties: semantical, material, combinatorial and frequential. If all properties are copied, it is a global copy (cf. borrowing). If only some properties are copied, it is a selective copy (cf. loan-translations, structural borrowing). If a compound or multiword item combines global and selective copies, it is labeled as mixed copy (English *hard-working*, Estonian *hard-töötav*). The data comes from podcasts: 17 males/6 podcasts, 8 hours of footage (69,000 tokens). This is compared to the data from 10 female vloggers, 10 hours of footage (117,000 tokens). The data suggests that the share of different types of copies is similar in the speech of males and females; global copies prevail in both. The type of global copies differs: males copy items with specific meaning, while females, copy also items with expressive and figurative meaning. The number of copies per 1,000 words is two times higher in female speech (20 vs 11) and the number of CAs is ten times higher (3.2 vs 0.35). Female speech is richer, containing language play, explanations and repetitions in both languages etc.

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English proficiency, self-efficacy and academic experiences of home and international university students in the UK

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Despite some international students ranking among top performers at UK universities, as a group, they perform less well than home students (HESA, 2023; Trenkic & Warmington, 2019). This study explored the relationship between English language proficiency and the academic experiences of university students in the UK. We conducted a large survey (N=1,161) where participants self-rated their a) English skills (reading, writing, speaking, listening), b) language-related study difficulties, and c) academic self-efficacy. Participants also completed the LexTALE vocabulary task (Lemhöfer & Broersma, 2012) to assess English proficiency. Unlike prior research, we separated the effects of domicile status (home vs international) and language status (English as the first language, L1E, vs English as a foreign language, EFL). Specifically, we compared L1E home students (n=623), L1E international students (n=118), EFL Chinese students (the largest international group, n=150), and other EFL students (n=270). We found no difference in vocabulary knowledge between home and international L1E students, but both L1E groups outperformed the two bilingual EFL groups, with Chinese EFL students scoring the lowest. Vocabulary knowledge was strongly correlated with self-rated English skills, and both were negatively correlated with difficulties experienced in studying in English. Additionally, students who struggled more linguistically exhibited lower self-efficacy. Surprisingly, home students reported more difficulties with academic English and lower self-efficacy than the mixed group of EFL students. Our findings show that international EFL students start university with significantly weaker English skills than both home and international L1E students. Chinese EFL students had the lowest vocabulary knowledge and experienced the most study-related difficulties. However, despite strong vocabulary scores, UK students reported more challenges with academic English and lower self-efficacy compared to both international L1E students and the mixed EFL group. This highlights the need for tailored language-related academic support for all student groups, regardless of bilingualism status or domicile.

English Sentences Are Longer but Mandarin Sentences Are More Complex: The Development of Syntactic Complexity in Mandarin-English Bilingual Preschool Children

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Complex syntax is as important as morphology and vocabulary but less studied in developmental research. Studies show child second-language learners use complex structures like monolingual peers, modulated by age, input and cognitive factors (Paradis et al. 2017; Witkowska et al. 2022). However, little is known about bilingual children's expressive language in both languages, especially typologically distant ones (Hao et al. 2019), and how individual differences shape syntactic complexity across languages. To address these gaps, we examined syntactic complexity in oral narratives of 21 Singaporean Mandarin-English bilingual children (4;5-6;5), in relation to age, language exposure and working memory. We elicited narratives in each language using two wordless frog stories and analysed the following: total word types/tokens, and mean length of utterance (MLUw). We calculated the number of clauses per utterance (clausal density) and identified clauses in utterances containing lexical/copula verbs (and adjectival predicates for Mandarin). Working memory (forward/backward digit span) was assessed in each language. Results showed bilingual children produced longer stories and utterances in English but greater clausal density in Mandarin ($p < .05$). This difference likely stems from typological distinctions: Mandarin's null arguments and serial verb constructions contrast with English's richer morphosyntactic marking, making complex sentences shorter in Mandarin, potentially overlooked if measured only by MLUw. Mandarin's clausal density explained 20.8% more variance than MLUw in predicting age, indicating older children use more complex, not just longer sentences. Controlling for age, Mandarin exposure predicted clausal density in Mandarin, while working memory did so in English ($\beta > .4$). These effects suggest that in multilingual societies like Singapore, input is crucial for developing syntactic complexity in home languages like Mandarin, while working memory influences languages requiring functional marking like English. Our study showed that syntactic complexity goes beyond utterance length, varies between a bilingual child's languages, and is shaped by exposure and working memory.

Enhanced auditory statistical learning in Unexpected Bilingual autistic children

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Early onset and life-long atypicalities in socio-cognitive skills is a core characteristic of autism. Language disabilities and delays are very frequent in autistic children, and are often linked to socio-pragmatic disabilities. However, there is also evidence that some autistic children acquire language despite socio-communicative challenges (Ellis Weismer & Kover, 2015; Kissine, 2021). Another kind of evidence that language acquisition can occur with little reliance on socio-communicative interaction is the phenomenon of Unexpected Bilingualism (UB) in autism, where autistic children acquire advanced language skills only from mere screen exposure (Abd El-Raziq et al., 2023; Dumont et al., 2024; Vulchanova et al., 2012). However, the mechanisms enabling such atypical language acquisition remains unknown as current descriptions of UB are limited to case studies. One hypothesis could be that autistic-UB children rely more on mechanisms that do not require social interaction, such as statistical learning. A particular type of statistical learning is nonadjacent dependencies AXB structures, where the B-element can only be predicted based on the A-element. Such dependencies are thought to be fundamental for syntax acquisition. In this study, we used an artificial language paradigm to explore whether autistic children, with or without UB profile, have intact or even enhanced statistical learning abilities, which would enable them to acquire language from exposure to screens. 47 9-16 years old autistic children, among which 11 with an UB profile (parental report confirmed by the CELF-V) and 47 age-matched non-autistic children were exposed to an artificial language. The artificial language was composed of three-words sentences, with some including nonadjacent dependencies. Reaction time were collected, and linear mixed effect regressions revealed that UB-autistic outperformed both groups showing faster responses and higher sensitivity to nonadjacent dependencies. These results seem to indicate a distinct cognitive profile that may underly the phenomenon of UB.

Enhancing Language Proficiency for Foreign-Trained Physicians

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This paper aims to demonstrate how research findings are translated into a language course tailored for foreign-trained physicians. It provides an overview of the course structure, contents and the research foundation underlying the curriculum choices. Given the global shortage of physicians, many of them change their country of practice and operate in a second language. Even if recruited to countries where the majority of the population speaks English, such as Scandinavian countries, the physicians still need to learn the local language (1). Research (2) indicates that the intensive linguistic training these physicians undergo before relocating is often insufficient. The foreign-trained physicians' lack of everyday vocabulary to articulate complex complaints or procedures, is echoed by the physicians themselves, as well as by their colleagues and patients (3). Developing a research-based curriculum is essential to address this challenge.

The course described in this paper is informed by the findings of the ***-project (Szymanska, 2021-2023), which investigated the language skills and communication practices of foreign-trained physicians in Norwegian outpatient settings. The curriculum integrates real-life medical interactions, role-playing scenarios, medical texts, patient records, and patient blogs.

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2. Skjeggstad E, Gerwing J, Gulbrandsen P. (2017). Language barriers and professional identity: A qualitative interview study of newly employed international medical doctors and Norwegian colleagues. *Patient Education and Counseling*, 100(8), 1466-1472. <https://doi.org/10.1016/j.pec.2017.03.007>

3. Cano-Ibáñez, N., Zolfaghari, Y., Amezcua-Prieto, C., & Khan, K. S. (2021). Physician–patient language discordance and poor health outcomes: A systematic scoping review. *Frontiers in Public Health*, 9, 629041. <https://doi.org/10.3389/fpubh.2021.629041>.

Equity in Representing Literacy Growth in Dual Language Immersion for Emerging Bilingual Students

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Recent research findings on the cognitive and academic advantages of bilingualism (Adesope et al., 2010; Lindholm-Leary & Block, 2010) have contributed to the proliferation of dual language immersion (DLI) programs in the United States. Despite their integrative and additive nature, concerns have been raised about lack of equity in their implementation (Cervantes-Soon, 2014). In this article, we argue that the fact that DLI research almost exclusively focuses on English outcomes contributes to inequity. In order to represent the full achievements of emerging bilingual students, we designed a longitudinal study to examine the biliteracy growth rates of third grade minority and majority language students enrolled in all of the DLI programs that had longitudinal achievement data in the two program languages in one state in the U.S. Results of the three-level linear growth model estimated on participants' reading scale scores, while controlling for their demographic characteristics, show that while both groups made progress in reading achievement in both languages over time, majority language students exhibited faster growth rates in Spanish than minority language students and minority language students had faster growth rates in English than majority language students. However, the difference in growth rate between the two groups was only statistically significant in Spanish. The implications of having only considered outcomes in English are discussed in light of the study findings.

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Cervantes-Soon, C. G. (2014). A critical look at dual language immersion in the new Latin@ diaspora. *Bilingual Research Journal*, 37(1), 64–82. <https://doi.org/10.1080/15235882.2014.893267>

Lindholm-Leary, K., & Block, N. (2010). Achievement in predominantly low SES/ Hispanic dual language schools. *International Journal of Bilingual Education and Bilingualism*, 13(1), 43–60. <https://doi.org/10.1080/13670050902777546>

Ergative case in Spanish-Basque code-switching: evidence from a judgement task

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Psycholinguistic studies in Basque children's and adults' production and comprehension have revealed difficulties for Basque bilinguals to use ergative case, especially L2-Basque speakers (Ezeizabarrena, 2012; Zawiszewski et al. 2011, a.o.). However, little attention has been paid to case-marking in Spanish-Basque code-switching (CS). The goals of this study are: (1) to explore the relation between ergative case-marking and CS in Spanish-Basque bilinguals, and (2) to observe whether case-marking preferences differ and if such differences are motivated by the participants' L1. To this end, 40 proficient Spanish-Basque bilinguals (20 L1-Basque, 20 L2-Basque) participated in an online acceptability judgement task where they had to rate 128 Spanish-Basque CS sentences in a 4-point Likert scale. In the 64 experimental sentences the language of the subject and the predicate (Basque-subject/Spanish-predicate vs Spanish-subject/Basque-predicate), the type of verb (transitive vs intransitive) and the case-marker (ergative -k vs Ø) were manipulated. Results revealed that L1-Basque speakers rated CS sentences higher than L2-Basque speakers (2 vs. 1.47, $p < .001$). However, both L1 and L2 speakers revealed similar preferences regarding case-marking (despite being more noticeable in L1 speakers): Basque subjects were preferred with ergative case in transitive sentences and without any overt case-marker in intransitives, whilst sentences with Spanish subjects obtained the highest scores with no overt case-marker. These results suggest that the case-system of the language of the subject regulates the preferred case in Spanish-Basque CS sentences. The implications that these findings have for the understanding of the grammatical constraints in CS are discussed.

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Zawiszewski, A., Gutiérrez, E., Fernández, B., & Laka, I. (2011). Language distance and non-native syntactic processing: Evidence from event-related potentials. *Bilingualism: Language and Cognition*, 14(3), 400-411.

Examining Bilingual Language Production and Control Through Enhanced Linguistic and Non-Linguistic Contexts

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Research has demonstrated that the languages of bilinguals are actively competing to be used (Dijkstra & van Heuven, 1998). Nevertheless, many studies on bilingual switching typically use one-word utterances in static laboratory environments (Meuter & Allport, 1999). Two theories have suggested that the ability of bilinguals to transition between languages comes from various forms of inhibition (Green & Abutalebi, 2013). We investigated if previous theoretical perspectives applied to more realistic scenarios. In contrast to previous experiments, our participants a) used complete sentences, b) conversed with a relevant addressee, c) applied a relevant message, and d) in a more realistic setting. Study 1, Exp. 1 evaluated Dutch-English participants using colors as linguistic cues in a static laboratory setting. In Study 1, Exp. 2, we used Virtual Reality methodology to examine bilingual language with the same experimental design. The results from Exp. 1 replicated many traditional studies in finding switch costs, reversed language dominance, and asymmetrical switch costs in both the RTs and the Error Rates. The results from Exp 2 demonstrated a reversed language dominance throughout the experiment. Moreover, mixing languages came at a cost compared to not mixing languages in the single-language blocks. We saw asymmetrical rather than symmetrical switch costs in the RTs from Experiment 2, which was counter to Exp 1 and the five previous studies on this bilingual population (Peeters & Dijkstra, 2018). To be more specific, switching to the L2 had a greater cognitive cost (i.e., slower RTs) than switching to the L1. This was the opposite of the largely replicated RT pattern seen in many previous studies. In Study 2, we further tested the influence of non-linguistic contexts on language switching by comparing the results of three different experiments: a neutral (Exp. 1), French (Exp. 2), and an English (Exp. 3) context.

Examining language teacher agency and practices using plurilingual, action-oriented, technology-mediated approaches

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Approaches in language education (LE) that value individuals' existing linguistic and cultural repertoires are crucial in promoting inclusive, diverse and democratic societies. Action-oriented, plurilingual and technology-mediated pedagogies offer a timely, innovative vision for LE that can support social justice by encouraging agency, the co-construction of knowledge, and the active engagement of learner and teacher linguistic and cultural identities. Unfortunately, commonly held misconceptions favouring compartmentalised, grammar-based methodologies and monolingual dispositions still permeate teacher beliefs, institutional policies and curricula, impeding the adoption of pedagogical innovation. This presentation reports on the conceptualization, methodology and findings of a Canadian, multi-year, federally-funded study: Advancing Agency in Language Education (AALE). AALE has engaged a range of language teacher participants to examine language teacher beliefs and situated practices in English, French, German and Spanish language education across Ontario, Quebec and Alberta with the goal of developing teacher-driven curricular innovation relevant for today's language learners. The study follows a mixed methods and design-based research methodology, with each phase involving design, enactment, analysis, and redesign based on insights gained from earlier phases. Anchored in Complex Dynamic Systems Theory (Larsen-Freeman, 1997; 2020), findings will be shared from a complementary range of data using Q-methodology, focus group interviews, a Canada-wide landscape survey, classroom-based teacher self-reflections and professional development initiatives. Findings reveal teachers' enthusiasm for innovative, authentic, plurilingual, action-oriented, technology-mediated practices, while highlighting concerns about actualizing such practices. Challenges cited include teacher and learner role redefinition, the need to negotiate agency, and to develop research-informed concrete practices that support digital, plurilingual and action-oriented learning. Findings will illustrate how teachers make sense of their practices, how they creatively navigate contextual constraints, and the contextually mediated nature of teacher knowledge and innovative practice. The research-informed design of a teacher-driven model of online professional development will conclude the presentation.

Examining Macrostructure and Microstructure Elements in Narratives of Japanese-English Bilingual Children

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Purpose: The current study aimed to investigate narrative performance in Japanese-English (JE) bilingual children, exploring how microstructural elements contribute to overall narrative macrostructure within and across both languages. **Method:** Participants were 30 JE bilingual children (Mean age = 6;8; SD = 1;10). The Multilingual Assessment Instrument for Narratives (MAIN Revised; Gagarina et al., 2019) was used to elicit narratives as a story retell task for both languages. The narrative samples were analyzed with Systematic Analysis of Language Transcripts (SALT) analysis to obtain microstructural elements, with a focus on the moving average of number of different words (MANDW) and mean length of utterance in morphemes (MLUm). Narrative macrostructure was evaluated through the standardized scoring procedure provided by MAIN. Age and Heritage Language (HL) parent input were collected through a parent questionnaire and entered as covariates to control for their potential influence on narrative macrostructure. Multiple regression models were conducted to compare the variables within and across both languages. **Results:** The results indicated that MANDW and MLUm emerged as significant positive within-language predictors of overall macrostructure in English, but not in Japanese. Age emerged as a significant covariate in Japanese, but not English. HL parent input was not significant in either language. In addition, Japanese MLUm was a significant positive predictor of English narrative macrostructure; however, English MLUm was a non-significant predictor of Japanese narrative macrostructure. **Conclusion:** This study provides evidence that the relationship between overall macrostructure with microstructural elements manifest differently within languages. Furthermore, there was an asymmetrical cross-linguistic relationship with Japanese MLUm predicting English macrostructure, but English MLUm not. These findings highlight the complex interplay of language-specific and cross-linguistic influences on bilinguals' narrative development, consistent with previous research (e.g., Chan et al., 2023). Clinical implications for speech-language pathologists and educators working with JE bilingual children are discussed.

Examining Morpho-Syntactic Vulnerabilities in Russian-Hebrew Heritage Language Speakers Across Lifespan

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Heritage Language (HL) grammars exhibit differences from baseline grammars, defined as the grammars of monolingual speakers or bilingual speakers dominant in that language (e.g., Benmamoun et al., 2013; Rothman, 2009). These differences suggest potential restructuring in HL grammars, though the mechanisms underlying HL variations remain a topic of debate (e.g., Polinsky & Scontras, 2020). The structural characteristics of Hebrew and Russian offer an informative contrast for understanding how dominant language features influence HL acquisition and maintenance. Both languages share elements of gender and number (nominal morphology) and person (verbal morphology). However, Russian includes complex case morphology and a robust aspectual system, which are minimally expressed in Hebrew. This study assessed the morpho-syntactic abilities of 80 Russian speakers divided into four groups: two monolingual baseline groups (adults and children aged 4-8) and two bilingual Russian-Hebrew groups with bilingual onset before age 5 (adults and children aged 4-8). Participants produced narratives based on a video using the RUEG protocol (Wiese et al., 2022). The focus was on non-target morpho-syntactic responses in Russian, examining nominal and verbal morphology and the use of functional elements (e.g., prepositions, conjunctions). Our findings reveal notable morpho-syntactic differences between monolingual Russian-speaking children and adults and their HL counterparts across nominal and verbal morphology and in the use of functional elements. HL speakers displayed a wider range of non-target responses than monolinguals across all domains, with the most pronounced divergences in nominal morphology among children and functional elements among adults. Despite these structural variations, HL speakers conveyed their overall messages clearly and comprehensibly. These results indicate that HL speakers can communicate complex ideas effectively in their HL, often relying on their dominant language for functional elements like conjunctions/ prepositions. This restructuring, beginning in childhood and extending into adulthood, offers valuable insights into the developmental pathways of HL grammar.

Examining the impact of GenAI-incorporated tasks on English proficiency improvement among refugees: A comparison with human tutoring

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With the recent surge in using generative artificial intelligence-powered (AI-powered) chatbots, such as ChatGPT, for teaching L2 English, researchers have extensively examined its affordances and stakeholders' perceptions. However, less is known about its integration into specific L2 instruction models, moderation of proficiency, or its use with non-conventional L2 English learners. The current project conducted a mixed-methods, quasi-experimental study to examine the impact of using ChatGPT for teaching English to refugees with varied proficiency levels within the task-based language teaching (TBLT) framework, as well as their perceptions. Data were collected from 38 students enrolled in a seven-week English program in a non-profit organization for refugees in Canada, which taught everyday conversations, focusing on expressions and language functions using TBLT. Participants' proficiency ranged from high-beginner to low-advanced, with Arabic being the most common L1. With random assignment, the experimental group participated in ChatGPT-integrated pre-, during-, and post-tasks, while the control group completed tasks with assistance from volunteering tutors. Participants took elicited imitation (EI) tests before and after the program. To examine whether pre-post differences are statistically significant between the groups, multilevel modeling, particularly random intercept model, was used, analyzing 1,241 EI responses, where forty item scores (level 1) were clustered within each individual test taker/participant (level 2). The best-fitting model indicated that pre-post test score changes across individuals and groups were significant, even when controlling for pre-existing L2 English proficiency. However, the group differences were not significant, which means that AI chatbot-incorporated activities were as effective as interactions with human tutors. Follow-up interviews with participants also demonstrated the positive impact of AI chatbot-incorporated activities for their engagement, motivation, and attitude, while pronouncing increased accessibility. The study details AI-enhanced TBLT and supports its potential for L2 English learners in non-school settings such as refugees, making implications for diversity, equity, and inclusion.

Examining the Quality and Efficiency of LLMs in Translating Government Documents

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With the inclusion of translation technologies in language access plans in the U.S. to serve an increasingly multilingual population, there is a need for high-quality machine translation (MT) systems that are suitable for use in public services. The aim of this study is to examine the translation abilities of Large Language Models (LLMs) for vital government-based documents from English into Spanish. Therefore, this study evaluates the quality of LLMs by comparing three different translation modalities, human translation (HT), machine translation post editing (MTPE), and machine translation (MT), while delving into the performance of MT systems, both MT engines (DeepL and Google Translate) and LLM (GPT-4). Translation quality assessment of all three modalities is by professional human annotators using an adapted version of the Multidimensional Quality Metric (MQM) framework (Freitag et al., 2021a). Furthermore, the effort expended in post-editing machine translation (PEMT), a service with the highest growth potential according to language service providers (ELIA et al., 2023), is evaluated (Krings, 2001). The findings reveal that (a) MTPE is faster in duration of task completion than HT; (b) LLM, GPT-4 delivers a higher overall quality score than MT engines, DeepL and Google Translate; and (c) MTPE and HT perform similarly in overall quality.

ELIA, EMT, EUATC, FIT EUROPE, GALA, LIND, and Women in Localization. 2023. 2023 European Language Industry Survey. Trends, expectations and concerns of the European language industry. Technical report.

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Examining the Relationship Between Emotion and Gesture: Insights from Multilingual and Monolingual Speakers

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Studies on gesture use have shown that multilinguals tend to produce more gestures, particularly iconic gestures, compared to monolinguals (e.g., Molnar et al., 2023; Nicoladis et al., 2009). However, most previous research has focused on gesture production in emotionally neutral contexts. Gesture use, however, may be influenced by emotional content, as recalling emotional autobiographical memories can disrupt working memory (Allen et al., 2014). Given the strong link between representational gestures and working memory, it is likely that people produce more representational gestures when discussing emotionally charged content. The current study sought to explore whether emotional contexts (positive, negative, and traumatic) interact with multilingualism to influence gesture use. English monolinguals and multilingual speakers who spoke English as their dominant language were asked to describe life events that evoked happiness, sadness, and trauma in a counterbalanced order. Following each description, they rated their emotional response on a 1–5 Likert scale across three dimensions: valence, arousal, and dominance. Gestures were then coded as either representational (mainly iconic) or beats. Unlike previous studies that tested bilinguals in their non-dominant language (e.g., Özder et al., 2023), our results showed no significant differences in gesture use between multilinguals and monolinguals when multilinguals spoke in their dominant language ($ps > 0.119$). There was also no significant effect of Narrative Type ($p = 0.847$) or emotional valence, arousal, and dominance on gesture use ($ps > 0.080$). These findings indicate that language proficiency, rather than multilingualism itself, may be a more important factor in determining gesture frequency. The lack of a significant effect of emotion on gesture use challenges previous assumptions about the link between emotion and gesture. Future research should investigate how language proficiency, emotional context, and situational factors interact to influence gesture production across different linguistic groups.

Examining the Transfer Calculus in adult L2 learning. The case of NP-V-NP patterns in L2 Spanish

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The Transfer Calculus (TC; O'Grady, 2010, 2013, 2022) hypothesizes that transfer exists to reduce the processing costs involved in speech and comprehension: L2 learners transfer operations/routines from L1 to L2 unless they are more costly to implement in L2 than L1 (i.e., if an initial interpretation requires re-interpretation). While this account seeks to address longstanding weaknesses about how we understand transfer, TC's evidence base is small and limited to a few linguistic patterns (e.g., scope, quantification). Critically, it remains unclear how transfer operates with L2 patterns with multiple interpretations. For example, subject-object information is reliably expressed in English using word order (MacWhinney, 2006), but word order is an unreliable cue in Spanish because SVO and OVS word orders are allowed. Thus, the NP-V-NP pattern is interpreted in English as SVO but in Spanish as SVO or OVS. Per TC's claims for transfer, the L1 English word-order routine for subject-object would not transfer to L2 Spanish because it is more costly to implement in L2 than L1 (i.e., initial interpretation requires re-interpretation). In the current study, participants were English-speaking learners of Spanish, recruited from beginner (n=23), intermediate (n=24), and advanced (n=24) level Spanish language classes at a US university. In addition to a background questionnaire and a Spanish elicited imitation test (Ortega et al., 1999), participants completed a sentence processing test, in which participants heard a Spanish sentence (e.g., *La niña besa al niño*) and selected the image best matching the sentence from two options (e.g., a boy kissing a girl and vice versa). Results showed higher accuracy and lower RTs for Spanish SVO than OVS sentences, with a marginal effect of proficiency, contra the TC's predictions (i.e., transfer despite L1 operations being more costly to implement in L2). Implications of these findings will be discussed with theoretical refinements recommended.

Experiential Salience in Second Language Acquisition: The Role of L1 Morphosyntax

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This study examines the interplay between perceptual salience (derived from physical properties of a linguistic form) and experiential salience (derived from learner's prior linguistic experience) in second language acquisition. We conduct an experiment where participants' attention to, awareness of, and intake of two artificial suffixes – a perceptually high-salient -olp and a low-salient -u – is measured through respectively eye-tracking, an awareness interview and the Grammatical Sensitivity Index (GSI; cf. Granena, 2013). Thirty L1 Basque speakers and 30 L1 Dutch speakers are exposed to 240 sentences in Englara, an English-based semi-artificial language in which we integrated the ergative-absolute alignment found in Basque but not in Dutch, with -olp and -u marking ergative and absolutive cases. Participants engage in a two-phase task while their eye-movements are tracked: a learning phase, with extensive exposure to the target morphemes followed by content-related questions, and a testing phase, in which participants complete a grammaticality judgment task on Englara sentences, half previously encountered and half novel. We hypothesize that the perceptually salient -olp will be more readily attended to (i.e., more/longer eye-fixations) compared to the -u (cf. Simoens et al., 2017). In addition, due to their prior linguistic experience, L1 Basque speakers are expected to attend more to these two suffixes than the L1 Dutch speakers (cf. Sagarra & Ellis, 2013), resulting in greater awareness and intake of the occurrence of the morphemes for L1 Basque speakers, particularly for the -olp form. Consequently, we expect the L1 Basque speakers to learn the rule underlying the -olp vs. -u distinction faster and more accurately than the L1 Dutch learners of Englara, as shown in the L1 Basque learners' GSI scores reflecting slower reading times of ungrammatical instances of -olp and -u compared to sentences with grammatical instances. Note. All data will have been collected by March 2025.

Explicitation in Bilingual Mediation: A Study of Explicitating Behavior in Professional Conference Interpreters

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The aim of our study is to investigate the explicating behavior of professional conference interpreters. In our study, explication is defined as both a translational shift from an implied proposition in the source text to its explicit rendition in the target text, and as a shift from an explicit rendition in the source text to giving it greater prominence in the target text through focus, emphasis, or lexical choice. Our analysis considers the parameters of frequency, consistency, and distinctiveness. Specifically, we seek to determine the frequency of explications in each interpreter's output, whether a consistent pattern of explication emerges across outputs, and the extent to which this behavior distinguishes individual interpreters within our sample. To this end, we will conduct both inter-subject and intra-subject analyses. Additionally, we examine the motivations behind explicating shifts to determine whether they are primarily process-oriented or product-oriented. The data analyzed was collected as part of a larger experimental study conducted under controlled laboratory conditions. The participants include 34 professional conference interpreters who regularly work with Polish as their A language and English as their B language. Each participant interpreted four 18-minute-long English texts into Polish. Each interpreting task was followed by a retrospective session and a structured interview focusing on various aspects of the interpreting process. The results suggest that the explication behavior of professional interpreters differs from that of trainees. Previous research indicates that student interpreters often rely on explication as a process-oriented strategy to manage the cognitive demands of simultaneous interpreting. In contrast, professionals tend to employ product-oriented explication to communicate more effectively with a target audience. Furthermore, we observed fewer intra-subject differences and greater inter-subject variation in the renditions of professional conference interpreters.

Exploring bilingual adults' set for variability in English

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Set for variability (SfV) is an oral language task that requires an individual to disambiguate the mismatch between the decoded form of a word and its correct pronunciation (as one would hear or say it in spoken language). For example, the word “kind” is pronounced to rhyme with “pinned”, and the individual must recognize the correct pronunciation of the word to be /kaɪnd/. While SfV performance has been shown to predict both item-specific and general word reading and spelling variance in beginning and skilled readers, the person-level skills, word-level characteristics, and item-specific experiences that impact SfV performance have only begun to be explained in children. Further, although SfV has been studied in multilingual samples, person-level characteristics associated with SfV performance have been primarily restricted to decoding and vocabulary skills in the same language SfV is tested in. Therefore, we investigated whether Spanish vocabulary knowledge contributes to item-level English SfV performance beyond what can be explained by general English language skills, while controlling for word-level characteristics (e.g., frequency). We administered a SfV task (N = 30 items) and a battery of reading, spelling, and vocabulary measures in both English and Spanish to 62 bilingual adults. Results from crossed random effects models show that with general English vocabulary and reading skill accounted for, variance in SfV performance is uniquely accounted for by general familiarity with the SfV items’ pronunciations in English, the ability to spell these items correctly in English, and general Spanish vocabulary. In a separate analysis, item-level familiarity scores in Spanish and English were both significant predictors of SfV performance. Results suggest that bilinguals’ ability to recognize and correct the mispronunciations of words in English may be impacted by knowledge of words in both languages of proficiency, not just the specific language or items of the SfV task.

Exploring Bilingual and Monolingual Infants' Predictive Abilities: Effects of Language-Specific Cues and Environmental Exposure

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How bilingualism shapes early predictive abilities remains unclear. Previous research suggests that bilinguals may be more successful at updating predictions than monolinguals which has been attributed to enhanced executive functions from managing two linguistic systems. However, more recent accounts propose that when predictions involve encoding language-specific information, bilinguals may form stronger initial associations, which could ultimately affect their ability to update predictions in a dynamic environment. We investigated this using a novel version of a prediction task featuring cues with language-specific information, along with parental questionnaires assessing early executive functioning (EF; Hendry & Holmboe, 2021) and language mixing (Byers-Heinlein, 2013). During the task, 9-month-old Spanish-Basque infants (monolingual=27; bilingual=25) were presented with a cue comprising 4-syllable strings mirroring Spanish or Basque word orders (VO/OV) and prosodic properties (by modifying duration/pitch). Following the cue and a 1 second anticipatory period, a visual reward appeared on one side of the screen for 9 trials (pre-switch), then on the opposite side for 9 trials (post-switch). Each phase presented infants with cues from only one language (e.g., Spanish pre-switch and Basque post-switch). Gaze proportions to the expected target location during the anticipatory period were analysed. Infants accurately predicted the target location, performing significantly better in the pre-switch compared to the post-switch phase, with comparable performance across language background groups. Interestingly, infants' performance remained at chance by the end of the post-switch phase, suggesting that language-specific information may hinder prediction updating with limited exposure. No significant difference was found between groups in EF questionnaire scores, nor was there a significant link between individual performance and EF scores. Lastly, bilinguals' performance showed no significant correlation with the degree of language mixing exposure at home. These findings will be discussed further with respect to the qualitative aspects of the linguistic environments in our monolingual and bilingual samples.

Exploring phonological development in speakers of more than three languages

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Grounded in Complex Dynamic Systems Theory (CDST, de Bot 2007), this study explores cross-linguistic interactions and developmental trajectories in the production of rhotic sounds among five adult multilinguals (mean age: 25 yrs, f=4). All participants were German speakers with intermediate to advanced proficiency in English and newly introduced to Polish as their L3, alongside prior learning experience with just French or both French and Spanish. Over a year, the multilinguals completed four testing sessions involving delayed repetition, picture naming, and storytelling tasks. The study focused on rhotic sounds whose distinct realizations across the multilinguals' linguistic repertoires make them well-suited for examining cross-linguistic interaction. Auditory analyses of the target rhotic sounds in initial and medial positions (n=1595) were conducted by four phonetically trained linguists. The results indicate that overall the multilinguals mostly differentiated rhotics in each language in a target-like direction. Those with prior Spanish, familiar with the alveolar trill/tap, demonstrated enhanced learning development in Polish, which shares these rhotic sounds. Conversely, two multilinguals with French but not Spanish produced Polish rhotics more in alignment with their French rhotics. The developmental data further revealed varied stability across the multilinguals' languages: L2 English rhotics remained fairly stable for most participants, while one individual exhibited notable fluidity in the rhotic productions across all of her languages. Interestingly, L1 German rhotics showed increased variability in three of the five multilinguals by the final session, suggesting a dynamic destabilisation in their primary language. This exploratory study demonstrates how introducing an additional language triggers reorganization within a multilingual phonological system. Initial phonological configurations, including sound repertoires previously acquired across all of a multilingual's languages, should therefore be rigorously considered in the design of future L3 phonology studies.

Exploring predictors of LITMUS-Sentence Repetition in Basque

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LITMUS-Sentence Repetition (SR; COST Action IS0804) is reliable for assessing morphosyntax and identifying language impairment (LI) in bilingual children (Tuller et al., 2018). Optimal interpretation of SR scores depends on information documenting the child's language experience, as low performance may be due to LI or insufficient language exposure and use. However, predictors of SR are still poorly understood. In particular, there is little research on SR in multilingual societies, such as the Basque Country (Pourquié et al., 2024). Here, we report on the performance of bilingual Basque children on a new, Basque version of SR (Etxeberria et al., 2022), exploring predictors of morphosyntactic skills. The task was administered to 98 Basque-speaking participants (age 4-9), with French or Spanish as their other language and no reported LI. Basque SR contains 58 sentences divided in 9 conditions: argument structure (three conditions: transitive, intransitive, ditransitive), object topicalization, subject focus, negation, argument clauses, relative clauses, and wh-questions. Parents completed a questionnaire (HEGA) documenting the child's history of language development, age of onset, early exposure, and quantity and quality of exposure (Pourquié et al., 2024). Linear mixed-effects regression analyses showed that SR performance was significantly predicted by age (mean verbatim repetition rates were 46%, SD=17.1%, at age 4 and 80%, SD=11%, at age 9), the positive development index (which combines age of first word, age of first sentence, and parental concerns for language development), richness in Basque, and the father's proficiency in Basque. Moreover, performance on some conditions (e.g. relatives) was low throughout, which will be subjected to an error analysis. Our findings partly align with Pourquié et al. (2024) where exposure to Basque at school and at home, which could be considered coarse measures of richness, were identified as main predictors of sentence completion in Basque. Clinical implications of our results will be discussed.

Exploring Sociolinguistic Dimensions of Academic Mobility: Identity Negotiation of Bilingual Scholars in Host Universities

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Bilingualism is increasingly recognized as a vital resource in internationalized higher education. However, while research on academic transitions has largely focused on students, the experiences of bilingual scholars—researchers transitioning to host universities—remain underexplored. This study examines how these scholars navigate bilingual repertoires, negotiate professional and linguistic identities, and respond to the sociolinguistic demands of their new academic environments. In the context of global shifts shaped by migration, geopolitical conflicts, and expanding academic mobility, exploring these dynamics is essential for fostering inclusive and equitable higher education. Adopting a comparative approach, this qualitative study investigates the experiences of bilingual relocated scholars at universities in Poland and Spain. Data is collected through semi-structured interviews, ethnographic observations, and reflective journaling, capturing scholars' lived experiences of linguistic integration, identity negotiation, and engagement with institutional norms. Anchored in Wenger's Communities of Practice and Bakhtin's heteroglossia, the analysis explores how scholars navigate language hierarchies, redefine professional identities, and interact with sociolinguistic practices within host institutions. By emphasizing the interplay of individual experiences and institutional structures, this study contributes to a better understanding of the multifaceted dimensions of bilingualism, offering a lens through which to explore its "different faces." Additionally, the findings provide actionable insights for higher education institutions seeking to foster interdisciplinary collaboration and cross-cultural and dynamic environments by addressing challenging practices and hierarchical norms. This research highlights the broader implications of bilingualism for policy-making and institutional behavior in higher education, emphasizing the need for continued inquiry into the sociolinguistic realities of mobile scholars to address existing gaps. Keywords: Bilingualism, identity negotiation, academic mobility, sociolinguistic practices, higher education equity, internationalization of HEIs.

Exploring students' linguistic repertoires with a multimodal digital language journal: A case study from Northern Norway

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The Arctic region is characterised by significant linguistic diversity, with Northern Norway exemplifying this through the presence of historically minoritised languages (Sámi and Kven), Norwegian, and languages spoken by people from over 130 nationalities residing in the region. Within this context, this study explores how students with transnational backgrounds navigate the dual demands of learning local languages while opening up spaces to use the languages that they already know (cf. Hornberger 2002). Based on an 18-month long fieldwork engagement at an upper secondary school in Northern Norway, this study employs a novel biographical, speaker-centred method (Flubacher & Purkarthofer 2022)—a multimodal digital language journal. Analysis of 15 journal entries (composed of photos and texts), supplemented by follow-up interviews, language portrait, and field notes, reveals the evolving linguistic repertoire of a focal participant Jayden, an adolescent from East Africa who had moved to Norway shortly before the beginning of this research project. Jayden was attending a voluntary curricular offering for students who (are deemed to) need to develop their knowledge of Norwegian; his experiences highlight a preference for pedagogical practices that validate the use of multiple languages in the classroom and his awareness of strategic approaches to learning Norwegian he may employ outside school. These findings illuminate the hierarchical structuring of languages within the Norwegian educational system and its impact on students' access to educational opportunities. I discuss these findings in light of broader discourses circulating in Norwegian society, particularly in relation to monolingual language ideologies and to current integration policies that privilege the expeditious insertion of immigrants in the labour market.

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Exploring the Impact of Working Memory on Second Language Sentence Processing: An ERP Study

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It is well known that there exists considerable variation in second language (L2) processing. In attempts to explain this variation, researchers have examined a number of contributing factors, ranging from linguistic-level variables to individual-level abilities and characteristics. One factor that has been extensively explored at the behavioral level, but less so at the neural level, is working memory. Using Event-Related Potentials (ERPs), the current study addresses this issue and tested the hypothesis that working memory resources may be more vital to learners engaging in more computationally demanding cognitive processes during L2 comprehension (i.e., the detection of morphosyntactic conflict and subsequent attempts make sense of such conflict via reanalysis and repair, indexed by the P600). EEG was recorded while 44 English-speaking learners of Spanish completed a sentence reading task developed by Grey (2023). A battery of individual measures was administered to assess working memory, motivation, grammatical knowledge, and language experience. Group-level analyses replicated Grey (2023), revealing no ERP effects for semantic processing, but significant P600 effects for grammar processing. Individual difference analyses revealed that only learners with higher working memory capacity produced P600 effects during grammatical processing. These results suggest that working memory resources may be critical during more demanding and active modes of L2 processing – such as the engagement in structural reanalysis mechanisms that are thought to be reflected by P600. The lack of ERP effects for semantics was surprising, but further individual-level analyses revealed an emerging effect of grammatical knowledge on N400 effects, suggesting that learners in the current study may not have had the necessary linguistic knowledge to reveal strong N400 effects.

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Exploring the role of language proximity in language and domain-general control in multilinguals

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Bilinguals need to constantly choose between the labels corresponding to names in their first and second language. This effort is supported by cognitive control mechanisms which help to resolve interference caused by a constant co-activation of the two languages. However, it is unclear whether dealing with the cross-linguistic competition is modulated by the proximity between the two competing languages. Here, we investigated whether language proximity alters the magnitude of language control and domain-general cognitive control in multilinguals. We recruited three groups of multilinguals: one using two distant languages (Polish-Spanish) and two using closely related languages with the same script (Polish-Czech) and different scripts (Polish-Russian). Across three sessions, participants completed a series of linguistic tasks assessing language control indices (L2 after-effect, switch costs, N-2 repetition costs, reversed language dominance), language co-activation indices (cognate facilitation effect), indices of cognitive control as conceptualized within Attentional Network theory (congruency effect) and within the Dual Mechanisms of Control framework (proactive behavioral index), as well as alerting indices. We hypothesize that CLP bilinguals apply more language control than DLP bilinguals. We base our hypothesis on a premise that higher language proximity leads to increased language co-activation, which finds support in studies of processing of stimuli with varying lexical similarity (e.g., Peeters, Dijkstra, & Grainger, 2013). The increased co-activation should lead to increased competition between language alternatives, which, in turn, lays greater demands on language control processes. Lastly, assuming the interdependence of bilingual language processing and domain-general control that leads to enhanced cognitive control abilities in bilinguals, we expect to observe differences in efficiency of cognitive control indices across speakers of languages varying in proximity. The data collection is set to finish in November 2024. Study hypotheses, design and data analysis have been preregistered and are available at OSF (<https://osf.io/tsk8q>).

Familiarity breeds contempt: Decision-making in multilingual South Africa

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Research on the Foreign Language Effect (FLE) has grown steadily over the past decade, evidenced by an exponential increase in empirical studies and meta-analyses. The findings to date show that decision-making in a non-native language yields predictably different outcomes, ultimately moderated by the speaker's acquisition trajectory. A common denominator of the existing FLE research, however, is that it is concentrated to largely monolingual contexts in the global North. The current study therefore extends research on the FLE to a type of context that, ironically enough, has remained absent on the agenda: multilingual communities. The study is situated in South Africa, which, with 12 official languages and a Linguistic Diversity Index of .87, is among the most multilingual countries in the world. Hundred-and-thirty English speakers of L2 Afrikaans participated in the study. While Afrikaans is only spoken as an L1 by around 12% of the population, it is historically a language of power and still has a strong presence in South African society. Moral judgements were elicited using the footbridge dilemma, with participants randomly assigned to the L1 or L2 condition. The results showed a moderate FLE, with participants in the L2 condition being slightly more likely to make utilitarian decisions. This suggests that in a multilingual setting where the L2 straddles the line between a foreign language and a second language, an FLE may still obtain. However, the present study showed that participants with high L2 proficiency were more likely to make utilitarian decisions than the low L2 proficiency participants. This finding differs radically from previous research, which either shows an inverse relationship (Stankovic et al., 2022), or no effect of proficiency at all (Circi et al., 2021; Del Maschio et al., 2022). The findings are discussed in terms of language emotionality and the history of Afrikaans.

Family Language Policies and emotional well-being in families of children with or without reported language difficulties

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Maintaining a heritage language amid a dominant societal language presents challenges for heritage bilingual (HB) families. This may be even more true in families with children who have language difficulties. In the present study, we aim to investigate the representations of bilingualism in families of children with and without language difficulties (based on parental perceptions) and their emotional state, with particular reference to acculturative stress. The study sample consisted of 73 families selected from preschools in Italy. In all the families, at least one parent had a HL other than Italian, as indicated in a preliminary phase of the research. Parents were interviewed about the FLP in which they were first asked if one or more of their children had language difficulties. Participants were then divided into two groups: families with children with language difficulties (n=18) and families reporting no language difficulties in their children (n=38). The interviews then included a series of questions on FLP, which were analyzed using NVIVO through a top-down coding process, in which a series of reference themes were identified (predominant use of HL or Italian; negative relationship with bilingualism; positive relationship with bilingualism), from which the occurrences were extracted. In addition, parents completed questionnaires on emotional aspects: anxiety, depression, psychological stress and acculturative stress. The differences between the groups in the observed variables were then analyzed. The results show that families with children with language difficulties have a worse relationship with multilingualism and higher levels of intercultural stress than families in the control group. No significant differences were found in language use in the family context and on scales of anxiety, depression and personal stress. Discussions focus on implications for educational contexts, with particular reference to the importance of promoting a positive view of bilingualism among parents of language-impaired children.

Family Language Policies and Heritage Language Exposure in Turkish and Moroccan Communities in Flanders, Belgium

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Despite similarities in migration backgrounds and socio-economic challenges, Moroccan and Turkish families in Flanders generally display distinct patterns in heritage language (HL) maintenance, with Moroccan families showing a faster shift towards the Dutch institutional language. The current study employs a validated survey (Hollebeke et al., 2022) to examine family language policies (FLPs) and HL exposure efforts among 75 Arabic-speaking Moroccan and 76 Turkish families raising young children in Flanders. The findings reveal that first-generation families generally provide more HL input, particularly when parents have lower Dutch proficiency. Turkish parents, however, are more likely to integrate their HL in parent-child interactions and multimedia activities, often blending it with Dutch. In contrast, Moroccan parents more commonly report using only Dutch in these contexts, despite expressing stronger concerns about their children's HL proficiency and reporting greater efforts to pass on the HL. Nevertheless, when Moroccan families do engage in HL use, it appears to be more deliberate compared to their Turkish counterparts. Notably, parental concerns about children's HL proficiency often coincide with worries about Dutch proficiency in both communities, although these concerns do not directly influence parental HL exposure efforts. Moreover, parents in both groups show a strong commitment to exposing their children to Dutch, with advice from early childhood professionals shaping their concerns about Dutch proficiency. As a result, the gradual increase in Dutch usage during parent-child interactions over time is not unexpected. The study uncovers intrinsic differences between Turkish and Moroccan families and highlights the complex relationship between FLP, external influences, and parents' efforts to maintain the HL within a Dutch-speaking context. In the presentation, these findings will be framed in the context of the author's previous research on a heterogeneous group of multilingual families in Flanders.

Family Language Policy and Sociocultural Adaptation: The Repatriation of Ethnic Kazakhs from China to Kazakhstan

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The repatriation of ethnic Kazakhs to Kazakhstan is a significant demographic and migration process, with many repatriates serving as carriers of knowledge about the original culture and language. This cultural and linguistic shift has important sociocultural and political implications, making it a crucial area for study. Among the various groups of repatriates, those from China have played a vital role in the development of new speakers of the Kazakh language. Their sociocultural adaptation contributes to Kazakhstan's linguistic diversity, particularly in promoting the Kazakh language. This study aims to explore the sociocultural and linguistic adaptation of Kazakh repatriates from China, focusing on family language policy. It will examine the language practices and experiences of ethnic Kazakh families who migrated to Kazakhstan in the past 5, 10, and 20 years. The research will address language dynamics within these families, specifically the preservation of Chinese, the reacquisition of Kazakh, and the acquisition of Russian. Data will be collected through interviews, covering topics such as migration history, self-identification, age, employment, education, language proficiency, and family language policies. The study will involve 15 families, including both young families and those with older generations, allowing for a comprehensive understanding of their adaptation experiences. Additionally, the research will investigate how repatriate families navigate language use between home and educational environments, exploring interactions with schools, teachers, and peers. This aspect is critical for developing support systems that facilitate integration while preserving cultural heritage. NVivo software will be used to analyze qualitative data, identifying key themes such as language adaptation, cultural heritage preservation, and family language practices. The findings will provide valuable insights into the adaptation of Kazakh repatriates and inform policies to support their integration into Kazakhstani society.

Family Language Policy in Iranian Kurdish families: A scalar analysis

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In line with the current trend of envisioning family as a dynamic space rather than the outdated and constrained notion of domain (Lanza, 2021), we explain in this paper how Family Language Policy (FLP) can be broadened to capture the boundless and dynamic nature of family space. To this end, we develop our approach by conceptualizing the family space as a chronotope (literally time-space) and utilize the analytical framework of scale to better explain the complexity of language ideologies in the family imbued with power dynamics and inequalities (Bakhtin, 1981; Blommaert, 2010). This fresh theoretical approach allows us to examine family as a space at the crossroads of internal and external factors. A thematic analysis was conducted on data collected from an extremely under-researched area which is Iran's Kurdistan. Seven Iranian Kurdish families were recruited to explore how they frame their linguistic practices by invoking specific chronotopic norms and values from local/regional, national, transnational, and global scales. It was found that the families' linguistic/semiotic choices were congruent and convergent with the different scales that they slipped into in the interviews, with each scale informing their practices according to its associated values, norms and significance. The analysis reveals the dynamic, multilayered, and complex nature of linguistic ideologies and practices within each family in a hierarchically embedded world. The article illustrates how participants' idealized personhood, enriches our understanding of FLP, allowing us to present a fresh theoretical perspective. We seek to contribute to the epistemological use of chronotopes and scales in FLP scholarship by advocating for a shift beyond the static methods commonly used in language planning and policy, as well as FLP studies.

Keywords: Space, chronotope, Kurdish, Farsi, scale

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Family Language Policy of cross-cultural families in Australia and South Korea

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The field of Family Language Policy (FLP), concerned with planning language use within cross-cultural families, gained increased attention due to the growing number of such families worldwide. This study specifically focused on families comprising Korean and English L1 parents and their children residing in South Korea and Australia, a unique combination not previously studied extensively. The research investigated linguistic practices within these families and examined the relationship between language use and various internal and external factors. Employing a mixed-methods approach, the study collected 182 survey responses and conducted 50 interviews across both countries. Data analysis explored the complex interplay of variables within these families within the Interdisciplinary Framework of FLP (Curdtt-Christianses, 2018). Findings indicated that Korean and English cross-cultural families in Australia and Korea tended to prioritize English in their communication practices, irrespective of their chosen family language policy. Moreover, the study revealed that English, being highly esteemed in society, significantly influenced parental language practices, regardless of their country of residence. This study aimed to contribute to the field of FLP by shedding light on cross-cultural families living in different countries.

Fostering cross-language awareness through a cognitive-inclusive didactic approach

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In a constantly adapting modern educational environment affected by globalisation trends such as migration, the importance of multilingual education is becoming increasingly evident. Language, as a mediating tool, influences not only communication and executive functions, but also memory, emotions, perception and human experience. Therefore, targeted linguistic interventions in multilingual classrooms should leverage their diversity to create a more tolerant school community and transform their reality into an advantage and an opportunity. In this article, we present the results of a study conducted in the 2024/2025 school year at six Slovenian Primary Schools with 90 students aged 8 to 13 (4th and 9th grades). The aim of the project was to develop and test a novel cognitive-inclusive didactic model to promote linguistic integration and awareness of the benefits of multilingualism with special focus on the integration of pupils with an immigrant background. The project activities were designed according to three principles: increasing cross-language awareness, considering cognitive differences between languages and integrating cooperative learning. The in-class interventions included twenty learning units in which various language categories were dealt with, including syntactic, semantic, phonetic, pragmatic and non-verbal properties of language use. All data collected were qualitative in nature and were analysed using grounded theory analysis that allowed for a deeper understanding of students' and teachers' experiences and perspectives on linguistic and cultural awareness and increased sensitivity to otherness. The results show that the proposed method deepens cross-language awareness and contributes to transforming diversity in the classroom into a tool for inclusion and mutual respect in primary school. Cooperative learning was crucial in achieving these results and the implementation of the activities confirmed once again the importance of the teacher's role in finding the right balance between active and passive facilitation of the learning process.

Fostering heritage language maintenance in the Polish community in Galicia: An ecological approach

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The presentation delves into the dynamics of heritage language (HL) maintenance among the Polish diaspora in Spain, a significant yet underexplored topic in current literature. Specifically, we analyze the reasons behind and strategies for preserving the Polish language in multilingual families in Galicia, Spain, where at least one parent speaks Polish as their first language. We focus on the relational aspects inherent in HL maintenance efforts and seek to contribute to a deeper understanding of what it means to sustain authentic relationships within the context of HL communities. Adopting an ecological perspective, we examine micro-level factors like family influences, alongside exo- and macro-level elements of the linguistic ecosystem under study, including language policies in Galicia. Our research delves into how children are socialized holistically in their HL, focusing on the Polish community's role and institutional support. Using qualitative triangulation, including focus groups, individual interviews, and ethnographic investigations (online/on-site), we apply Bronfenbrenner's Ecological Systems Theory of Human Development to comprehensively analyze our data. Our findings highlight that children's acquisition of Polish depends on multiple factors. Parents play a critical role in enhancing motivation through contextualized language use and fostering meaningful interactions with first language speakers, often facilitated by extended family and Polish community ties. Community schools also significantly support HL maintenance, especially before adolescence. This underscores the need for the official recognition of the contribution such organisations make to HL maintenance and adding them to language politics as stakeholders at least. In conclusion, our study contributes to the discourse on heritage language maintenance by illuminating the complex interplay of multiple factors influencing language sustainability and diversity among the Polish diaspora in Galicia, offering insights that can inform effective HL maintenance strategies and policies.

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Gender facilitates lexical access similarly for L1 and L2 speakers - Evidence from Swedish

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This study examines the extent to which grammatical gender cues facilitate lexical retrieval in both L1-Swedish speakers and L2 learners of Swedish whose L1 is Finnish, a genderless language. Swedish nouns are classified as either common or neuter. Neuter is the marked gender, as it requires overt inflection on adjectives (konstig/konstigt “strange-COM/strange-NEU”) and accounts for only 25% of the lexicon. In online comprehension, this markedness asymmetry might confer greater predictive strength to neuter cues, since they allow the parser to delimit the lexical search to a greater extent. For example, upon reading/hearing “Jag såg ett fint...” (I saw a-NEU beautiful-NEU), Swedish speakers can discard 75% of the lexicon based on the neuter cues. The present study explored how this markedness asymmetry modulates the facilitative use of gender. Forty-nine L1-Swedish speakers and 47 Finnish-speaking (advanced) learners read grammatical sentence preambles ending in a picture, and named the picture as fast as possible. We measured naming latencies to the pictures. The preambles varied along two dimensions. First, they either did or did not include gender cues (Informativeness). Second, the cues were either for a common or a neuter noun (Gender). In Experiment 1, the gender-informative preambles included only one gender cue. In Experiment 2, they included two gender cues. With only one gender cue, neither group experienced facilitation. With two gender cues, the main effect of Informativeness was significant ($p < .001$) and significantly interacted with Gender ($p = .024$), but not with Group. Follow-ups revealed that both the L1 speakers and the L2 learners named the same neuter nouns faster after informative vs. uninformative preambles. These findings suggest that markedness impacts the facilitative use of gender similarly for L1 and L2 speakers, in line with proposals which assume that predictive mechanisms are modulated by similar linguistic factors in the L1 and the L2.

Grammatical gender processing in multilinguals: Evidence from visual word recognition in L3 Spanish

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While it is increasingly clear that non-selective language activation, commonly observed in bilinguals, also applies to multilingual processing, with learners of a third language (L3) exhibiting influences from both their first (L1) and second (L2) languages (Otwinowska, 2024), the processing of grammatical gender in multilinguals remains unexplored. This study aims to fill this research gap by exploring cross-language gender effects during visual word recognition in L3 Spanish. The study aims to determine whether L1 or L2 exerts a stronger influence on gender processing in L3. To explore this, two tasks were administered: a primed lexical decision task and a go/no-go gender decision task. The participants were 31 adult elementary L1 Polish learners of L3 Spanish, with advanced proficiency in L2 German (Mean age = 21.13, SD = 1.10). Since the three languages belong to different language families, this combination allows for isolating the effects of L1 versus L2, eliminating the potential confound of typological distance. Response times were analysed using linear mixed-effects models, with L1 congruency, L2 congruency, and their interaction as fixed effects, alongside a maximal random-effects structure that successfully converged. The results reveal a consistent gender congruency effect with L1 but not with L2, even after controlling for participants' knowledge of gender in L2 (as assessed by a separate gender decision task in L2 German). These results suggest that when L3 is not typologically related to L1 or L2, L1 has a dominant influence on gender processing in L3. The findings are interpreted in terms of the stability of gender representations in L1 versus L2, and are further contextualised within the parasitic models of vocabulary acquisition.

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Heritage language learners in study abroad contexts: A scoping review

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As study abroad, programs continue to grow in popularity, an increasing number of heritage language (HL) speakers (i.e., early bilinguals who began acquiring a minority language at home but received most of their education in the societal majority language) are choosing to study in regions where their HL is widely spoken. HL speakers frequently encounter unique challenges abroad, often differing from those faced by their second language peers, and research seeking to understand their experiences has been expanding. This study presents a scoping review of this literature, with the goal of identifying key themes, methodological practices, and research gaps. Our review followed a systematic search process across peer-reviewed and gray literature found in major databases (ERIC, ProQuest, LLBA) and the first two-hundred entries in Google Scholar. We also hand-searched three journals. After screening over three-hundred entries, we extracted information from thirty-nine studies that (a) incorporated primary data, (b) considered heritage speakers as participants, (c) focused on study abroad as defined by Kinginger (2009) and expanded upon by Tullock and Ortega (2017) (i.e., a temporary sojourn of pre-determined length, pursued for educational reasons, with the aim of learning language) and (d) were in English or Spanish. Current results indicate that nearly a quarter of the studies lacked a definition of HL learners, with those that did mostly relying on educational definitions following Valdés (2005). Spanish was the most represented HL, followed by Chinese, with participants mostly coming from the USA. Most studies focused on single-semester experiences and adopted a qualitative case-study approach. Identity construction/negotiation emerged as the most prevalent research theme, followed by linguistic development, particularly regarding morphosyntax and pragmatics. Approximately one eighth of the studies measured HL proficiency changes using standardized tests. The review highlights the need for greater definitional clarity and further research into HL maintenance after study abroad.

Heritage Language Processing in Turkish-German Bilinguals: An Eye-Tracking Study on Word Order and Case Morphology

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This study investigates heritage language (HL) competence in Turkish-German bilinguals using an eye-tracking experiment, focusing on comprehension of canonical and non-canonical word order and overt case morphology in Turkish. Participants (N = 227, age 20-50, M = 33.4, F = 143), adult heritage speakers (HSs) of Turkish, were compared to 102 monolingual controls (age 18-45, F = 64). Using the Visual World Paradigm, participants processed sentences with different word orders (verb-medial vs. verb-final) and case marking (nominative vs. accusative). The study found that HSs reliably processed both canonical and non-canonical word order and overt case morphology, but accuracy varied. OSV word order showed significantly lower mean accuracy (M = 0.78) compared to SVO, SOV, and OVS (M = 0.83–0.84), suggesting that non-canonical word orders like OSV are more challenging for HSs. Statistical analysis of heritage language experience, collected via the Heritage Language Experience Questionnaire (HeLeX; Tomic, Rodina, Bayram, & De Cat, 2023), revealed significant effects of language use at home and in leisure activities on language processing. HL use at home showed positive fixed effects for both SVO and SOV conditions ($p < 0.001$), while HL use at work had lower estimates, particularly for OVS and OSV conditions. Eye-tracking results indicated that HSs preferred looking at the target over the distractor in the SVO and SOV conditions, where canonical word orders were used. In contrast, the gaze toward the target in the OSV condition was significantly lower, indicating difficulty processing non-canonical word orders. These findings highlight the influence of language experiences on HSs' processing, with better performance linked to home and leisure use. This study emphasizes the importance of eye-tracking in capturing implicit, real-time processing in HSs and contributes to understanding HL grammars, challenging the ideal native speaker model, and offering new insights into bilingual language processing.

Heritage language variability across phonological and morphosyntactic modules of grammar

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Studies on heritage speaker (HS) bilingualism indicate that the phonological and morphosyntactic modules of heritage language (HL) grammars are susceptible to crosslinguistic influence from the societal language (SL), with phonological processes generally more resistant to SL influence than morphosyntactic phenomena [1]. However, no study has yet investigated phonological and morphosyntactic phenomena in the HL and SL within the same group of participants. This study of Spanish-English HSs facilitates a direct between-module comparison by analyzing their production of underlyingly voiced stops (phonology) and acceptance of differential object marking (DOM) (morphosyntax). In Spanish, intervocalic /bdg/ consistently surface as [+continuant], while in English, they surface as [-continuant] [2]. Additionally, in non-contact varieties of Spanish, direct objects that are [+animate] and [+specific] must be marked with *a*, unlike in English [3]. Thirty-four US Spanish HSs completed HL and SL versions of a delayed repetition task targeting intervocalic stops and a judgment task targeting DOM across animacy/specificity configurations. A logistic mixed-effects model (MEM) on the production data revealed that participants were 100 times likelier to produce a [+continuant] segment in Spanish than in English (Fig.1). An ordinal MEM on the DOM data showed a significant Language*Condition interaction: +DOM items were rated lower than -DOM in English across configurations, while in Spanish, +DOM was rated higher for [+anim, +spec] items but lower otherwise (Fig.2). These results suggest robust crosslinguistic differences in phonological production, with more variability in morphosyntactic distinctions. However, given the greater complexity of DOM compared to intervocalic lenition, data from additional phenomena of varying complexity will clarify whether observed differences are module- or complexity-dependent.

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Heritage Speakers in Focus: Validating the Spanish LexTALE as a Proficiency Tool

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Recent years have seen an increasing reliance on the LexTALE as a tool for assessing overall proficiency in second language acquisition research. While widely used, studies validating the LexTALE have been conducted mainly on second language (L2) learners, leaving heritage language learners (HLLs) under-investigated. HLLs typically acquire their home language in naturalistic settings, making their linguistic profiles distinct from traditional L2 learners with classroom-based and meta-linguistically oriented learning. Because HLLs tend to struggle with grammatical tests due to limited exposure to formal instruction, this study hypothesized that vocabulary-based measures like the LexTALE could offer a more accurate proxy of their functional writing proficiency. We investigate the relationship between Spanish LexTALE scores and functional writing proficiency ratings, measured using official Writing Proficiency Tests (WPT) by the American Council on the Teaching of Foreign Languages in a sample of HLLs of Spanish ($n = 96$). Like most validation LexTALE studies, we also compared WPT results to self-reported proficiency ratings, exploring the relative predictive value of both self-ratings and LexTALE scores. Results show a moderate to strong correlation ($r = .62$, $p < .001$) between the Spanish LexTALE scores and WPT ratings, suggesting that higher LexTALE scores are associated with more advanced writing performance. This finding underscores the potential of LexTALE as a practical tool for assessing functional writing proficiency in HLLs. Self-reported proficiency also demonstrated a moderate correlation with the official writing outcomes ($r = .46$, $p < .001$), albeit weaker than the LexTALE. Results indicate that the Spanish LexTALE is a reliable measure of functional proficiency for HLLs and provide insights into the role of vocabulary knowledge in heritage language acquisition. By addressing the unique challenges faced by HLLs in assessment contexts, this study contributes to the ongoing discussion on inclusive proficiency measures for diverse learner population of bilinguals.

Highly proficient bilinguals compensate language dominance effects with differential attentional resource allocation: Insights from pupillometry

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Studies using cued language switching paradigms usually exhibit a reversed language dominance effect in highly proficient bilinguals. This counterintuitive finding has generally been explained with inhibition processes, where the most dominant language is more inhibited than the less dominant one, leading to slower performance in the dominant language. In this study, a novel measure of switching cost, pupil size, was implemented in a group of highly proficient Spanish-Basque bilingual adults (N = 50). Pupillometry, the measure of pupil diameter over time, has been shown to be a robust measure of cognitive load and attention allocation in a variety of cognitive tasks. Thus, alongside a (classically used) response time measure, it could potentially provide additional insights into the processes involved in bilingual cued language switching. Response times during a cued picture-naming task showed faster responses on non-switch compared to switch trials, and faster responses in Basque than in Spanish, but symmetric switching costs across the two languages. These results point to an overall balanced proficiency across the two languages, with a global slowing effect of Spanish, the dominant language (i.e., a reversed dominance effect). The pupil data analysis revealed similar effects, but with Basque – the non-dominant language – eliciting larger pupil responses than Spanish (where larger pupil response indicates greater cognitive load). Thus, when naming Basque words, the Spanish-Basque bilinguals experienced greater cognitive load despite the words being named faster, pointing to increased attentional allocation or activation of the less dominant language. These findings shed light on the cognitive mechanisms underlying cued language switching in bilinguals. Moreover, they provide evidence supporting the feasibility and value of using pupillometry to uncover processes involved in bilingual language processing.

How acculturation and wellbeing influence English and Arabic proficiency of first-generation Syrian refugee children in Canada

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Research on refugee children's acculturation and wellbeing and their relationship with bilingual outcomes is scarce. Refugee children are first-generation migrants and more likely to have adverse experiences, which pose challenges for their acculturation and wellbeing. Therefore, we need to know more about how these could affect their bilingual development. The current study asks how acculturation and wellbeing were associated with outcomes in English and Arabic of Syrian refugee children 5 years post-resettlement in Canada. Participants were 112 children (mean age = 12). They were asked to self-report on their acculturation (Kukaswadia et al., 2016) and wellbeing (Goodman, 1997). Their outcomes in both languages were measured through multiple language tests. Structural equation modeling was adopted to detect both direct and indirect associations, with language environment as a mediator. Children exhibited an integration orientation of acculturation, showing affiliation with both the host and heritage cultures/languages. By contrast, they showed greater-than-population wellbeing difficulties. Acculturation and wellbeing were both directly and indirectly associated with bilingual outcomes: English proficiency was directly and positively linked to children's Syrian identity ($\beta = .18$, $p = .011$), highlighting the value of heritage culture maintenance in the development of both languages. Wellbeing difficulties were directly and negatively associated with both languages ($p < .001$), highlighting the role of mental health in language development. Children's enjoyment of Arabic activities was negatively associated with English proficiency, mediated by reduced English use with siblings ($\beta = -.06$, $p = .043$). Conversely, children's Canadian identity was negatively associated with Arabic proficiency, mediated by reduced Arabic use with parents ($\beta = -.05$, $p = .075$). Despite these trade-offs, we believe encouraging Arabic activities is essential to maintain the heritage language, while English learning is more broadly supported in Canada. We conclude that refugee children face unique challenges in acculturation and wellbeing, affecting bilingual development.

How do heritage children acquire Spanish in dual language schools? The acquisition of subjunctive mood

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In the United States, dual-language immersion (DLI) programs provide opportunities for acquiring English and Spanish across the elementary school years. This project compares English-fluent heritage speakers (HSs) and L2 learners (L2Ls) of Spanish in their knowledge of subjunctive mood, an area of Spanish grammar prone to variability in bilinguals (e.g. Giancaspro et al, 2022; Montrul & Perpiñán, 2011; Potowski, 2007). 56 children participated, including 10 HSs in the 4th/5th grades, 8 HSs in the 7th/8th grades, 20 L2Ls in the 4th/5th grades, and 8 L2Ls in the 7th/8th grades. All participants were enrolled in a dual language school in which they received between 50% and 90% of instruction in Spanish. Participants completed tasks testing their production and receptive knowledge of subjunctive. Results, supported through binomial logistic regression, reveal that older participants in the 7th/8th grade group produced and selected more subjunctive than younger children ($\beta=1.07$, $p=.011$), and that participants were more likely to select the subjunctive than to produce it ($\beta=2.25$, $p<.001$). Children were more likely to produce and select subjunctive with irregular verbs ($\beta=0.55$, $p=.003$). However, there were no significant differences between HSs and L2Ls ($\beta=0.01$, $p=.973$), arguing against an advantage for HSs as in previous studies (e.g., Potowski, 2007). However, when considering L2Ls' data only, age effects are no longer significant ($\beta=0.20$, $p=.400$), suggesting that older HSs experience considerably greater growth than L2L children. These results suggest that DLI successfully promotes HSs' acquisition and maintenance of Spanish, yet these speakers still experience considerable optionality in production and receptive knowledge of mood. This largely supports accounts of HL acquisition positing a dissociation between productive and receptive knowledge (Perez-Cortes et al., 2019). We discuss implications for heritage and second language acquisition theory as well as implications for instruction.

How do minority language children enrolled in different foreign language programs perform in foreign language listening tests?

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Foreign language (FL) listening skills belong to the basic skills acquired during the elementary school years. However, studies show conflicting results regarding English listening skills of students with minority language backgrounds, for whom English is often the third language. Elsner (2007), for example, suggested that minority language children may struggle in regular FL programs if their first and second language are not developed age-appropriately. To test this, our longitudinal study focuses on English listening skills of third and fourth grade students with and without a majority language background in a German elementary school, who attended either a regular or an intensive bilingual school program. We assessed 100 children (50 students per program, 50% with a minority language background), using the English listening subtest of the Primary School Assessment Kit (Little et al. 2003). These data are supplemented by cognitive measures (e.g., Raven, 1976) and a parent questionnaire. Our results indicate that the student's proficiency level depends on the intensity of the program: fourth graders in the regular FL program reach level A1, while those in the bilingual program attain levels A2/B1. Statistical analyses do not indicate any significant differences between minority and majority language children in either grade and in either program. These findings support the results of previous studies of FL students' reading and writing skills (e.g., Steinlen, 2021) that have shown that minority language students may perform equally well as majority language students in FL classrooms, regardless of program intensity.

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Steinlen, A. (2021). English in Elementary School. Minority and Majority Language Children's Reading and Writing Skills in Regular and Bilingual Programs. Narr.

“How do we say this in other languages?”: Bilingual learning for epistemic access in South African higher education

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Although many South African university students are African language speakers, there is a dominance of English in higher education. There is thus a need to incorporate more African languages in higher education (Webb, Lafon, & Pare, 2010). Drawing on data from lecture hall observations, student questionnaires and semi-structured interviews with lecturers, this presentation explores how the use of multiple languages influences learning and epistemic access at a university in the Western Cape in South Africa. Preliminary findings suggest that rather than using various languages as a resource for learning, the third-year linguistics course under study focuses on different languages as an object of study. According to Foster et al (2023) instructors have an easier time implementing bi/multilingual tasks which use systematic and linguistic functions, in other words, tasks which encourage students to value their language knowledge or tasks of linguistic comparison. As a result, students are encouraged to bring their language knowledge into the lecture hall. However, I argue that although the course uses multiple languages as an object of study, this does not lead to the languages being a constituent of learning. Additionally, some students displayed a resistance to using their African language resources in the lecture hall. These circumstances limit the potential for epistemic access that including multiple languages has (Makalela, 2015) .

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How has mother-tongue instruction in Sweden survived in neoliberal times?

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Publicly funded mother-tongue instruction (MTI) in heritage languages was established within the regular Swedish school system in 1977 as a multicultural policy couched in social liberal ideology. As in many other Western countries, starting in the 1990s the ideological climate in Sweden began being dominated by neoliberalism with its focus on utility. In contrast to other European countries (e.g. Denmark and the Netherlands), the main tenets of MTI have remained intact in Sweden to this day. This paper aims to shed light on how MTI has survived in Sweden in neoliberal times. This will be done through a comprehensive content analysis of the motivations that key policy documents have put forward as justifications for MTI. The material consists of 27 key policy documents from 1974 to 2024. The results show that one of the main changes over time has been a shift from viewing MTI primarily as a facilitator of equality and a prerequisite for normal development in minority children to focusing on its utility for the whole society. A particular aspect of this shift has been termed as the “instrumentalisation” of MTI (Ganuza & Hedman 2018, Bajqinca 2019). This entails shifting the focus from MTI’s contribution to the development of the heritage language itself (i.e. the stated aim of the school subject) to its additional benefits for the acquisition of Swedish as a second language (based on the interdependence hypothesis by Cummins 1979) and to the advantages of utilizing bilingual pupils’ entire language repertoire in their learning (based on translanguaging research, e.g. Garcia & Wei 2014), which together improve the bilinguals’ general school success (cf Thomas & Collier 1997). This shift was accomplished thanks to the unique role afforded to academics in the Swedish policymaking tradition (Salö et al. 2018) and to Swedish academics’ efficient adaptation to neoliberal discourses.

How to Assess Language Development in Bilingual Polish-Norwegian Children using MacArthur-Bates Communicative Development Inventories?

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Parental vocabulary checklists, such as the MacArthur-Bates Communicative Development Inventories (CDIs), are widely used for screening language delays in young children (Marchman et al., 2023). Although CDIs are available for many languages, they are normed for monolinguals, presenting challenges for bilingual assessment. For bilingual children, vocabulary scores from both languages can be combined (total vocabulary, TV, or total conceptual vocabulary, TCV) and compared to monolingual norms. Alternatively, expected single-language scores may be predicted based on regression models using language exposure measures as predictors (Floccia et al., 2018; Singh et al., 2022). The current study compares these approaches, focusing on Polish-Norwegian bilingual children living in Norway. Polish and Norwegian CDI data were gathered on-line from 234 parents of children aged 18–36 months. For 95 children with both CDIs, TV and TCV scores were calculated. Regression analyses were conducted to model language exposure as a predictor of single-language CDI scores. We compared the percentages of children in the sample identified as falling below the 10th percentile (common threshold for language delay) by each method. Using combined scores with Polish norms resulted in identifying 9% children as at risk. However, using combined scores with Norwegian norms resulted in 16%, suggesting potential over-diagnosis when using Norwegian norms. Regression analyses showed that exposure measures did not help in predicting Polish single-language scores. On the other hand, they explained, together with age, over 50% of the variance in Norwegian single-language scores and Norwegian regression-based norms identified 8.5% children as at risk. These findings suggest that using monolingual tools or norms to assess bilinguals is possible but requires population-specific approaches and empirical validation. In particular, for Polish immigrant children in Norway Polish monolingual norms may be used with combined scores and Norwegian single-language scores may be used together with language exposure measures in the regression-based approach.

“I am Joe Biden in Dutch”: Children’s negotiation of the use of English in a Dutch roleplay task

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English has clearly established itself as a global language, cueing a range of social meanings, which children and teenagers all over the world learn to relate to (Peterson 2020). This is also true for the Dutch-English contact setting in Flanders, where children know many English lexemes (Puimège & Peters 2019), produce these lexemes in Dutch (Schuring & Zenner 2022), and show context sensitivity for when and where these lexemes should be inserted (Zenner et al. 2024). This paper investigates how children discursively negotiate this contextualized use of English in Dutch. In particular, given the central position of English as a youth language marker, we study the extent to which children’s knowledge of English and the contexts it should appear in, is made relevant in their Dutch peer interactions. To address this aim, we build on earlier research which implemented a roleplay task with N=26 Belgian Dutch-speaking children (6-13 y/o), 12 boys and 14 girls. In peer groups of 3-5, the participants were asked to perform English-oriented (e.g. gamer) and Dutch-oriented (e.g. farmer) roles (Schuring et al. 2024). The resulting corpus amounts to 9 hours of video data (18,228 utterances) and was mined for English lexemes (N=1,921). Next, the roleplay data were analyzed taking a multimodal discourse analytical perspective. The findings, illustrated by 4 elaborate roleplay excerpts, indicate that children acknowledge English proficiency as a factor for the English-prone roleplays. They also manage to creatively circumvent this factor in their negotiations when needed. For example, less proficient English speakers manage to keep the floor and hold on to English-prone roles by announcing they know English is most appropriate but Dutch is just easier: “I am Joe Biden in Dutch then”. Overall, adding an interactional perspective to children’s metacomments on English in Dutch, this paper reflects on the role of bilingual repertoires in peer-to-peer interaction.

“I do this because I am a good mother”: a qualitative research study on plurilingual, educational practices within Bangladeshi families in Venice.

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The aim of this paper is to present the results of a qualitative research study conducted in Venice within the “CHANGES” project - European Union Next-GenerationEU. We focused on linguistic, cultural and educational practices from Bangladeshi families with children aged between 3 and 6 years old. The Bangladeshi is the most extended migrant community in Venice, and, in specific areas, Bangladeshi children account for 75% of the pre-school population. Given their relevance, teachers often wonder whether there are different expectations and attitudes on the part of Bangladeshi families towards their children’s education and mono/plurilingual language education. Our research aimed to observe specific moments in everyday life at home and at school, focusing on snack and mealtimes, free play and storytelling, to shed light on these particularities and their relevance for pre-school education in plurilingual contexts. We will present results from the analysis of 20 video and audio-recordings and qualitative observations conducted between April and November 2024 in 6 sections of a pre-school institution and within 4 families; as well as data from 3 focus groups with mothers and teachers. The main results relate to different ideas regarding autonomy, care and education between families and teachers, as well as their diverse attitudes toward language education. Finally, we will explain how these differences can influence language education in a plurilingual context and how families’ practices can change in migration. In Bangladesh extended family members are usually responsible for education of children. Storytelling, e.g., is a task conducted by grandparents. Withing the Bangladeshi families in Venice, such figures are absent, and mothers often experience isolation. Hence, it was necessary to rethink together new educational plurilingual practices to foster children's social inclusion.

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Impact of pedagogical translanguaging on third language acquisition: Insights from an intervention study with Korean-Chinese children learning English

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Pedagogical translanguaging refers to the teaching approach that uses learners' whole linguistic repertoire to facilitate language learning and knowledge construction (Cenoz & Gorter, 2021). Despite its fast-growing popularity in multilingual education and research, it is crucial to verify its effects and effectiveness across various social contexts and among learners from diverse backgrounds. This paper presents an intervention study conducted in an ethnic Korean primary school in China. In the translanguaging group, English was taught through systematic use of both Chinese and Korean languages, whereas in the comparison group, only Chinese was used by the teacher, occasionally and spontaneously, as they typically did. Student participants were from two comparable classes in Grade 5, and the English teacher was trained in the implementation of pedagogical translanguaging by the researcher beforehand. Participants were assessed at both pre- and post-intervention stages to evaluate their learning gains in English. The results of the mixed effects models show that, over the 13-week intervention, the translanguaging group ($n=31$) made significantly greater improvement than the comparison group ($n=29$) in textbook-based vocabulary learning ($p<.001$) and morphological awareness ($p<.001$), with both outcomes demonstrating a large effect size in post-intervention comparisons. Moreover, Korean language proficiency was identified as a moderator in the effect on vocabulary learning. Specifically, children with higher Korean proficiency in the intervention group benefited more from translanguaging learning activities. In contrast, a negative relationship between Korean proficiency and vocabulary gain was observed in the comparison group, though this was not statistically significant. In line with previous studies from trilingual contexts, this study confirms the effectiveness of pedagogical translanguaging in language teaching and highlights its effects on vocabulary learning and morphological awareness. It is recommended that practitioners leverage learners' whole linguistic repertoire in their teaching practices, which will ultimately contribute to enhanced learning outcomes for multilingual learners.

Impact of Phonological Short-Term Memory and Working Memory Capacity on L2 Writing Competence Among Advanced English Language Learners. A Longitudinal Study.

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Writing is a complex skill requiring the integration of various linguistic elements and is influenced by individual cognitive differences. Among cognitive factors underlying writing, working memory plays a central role, as it supports the diverse operations essential for constructing written discourse. While some research has explored the effects of working memory on writing, it has predominantly focused on beginner learners (Cordeiro et al., 2020; De Vita et al., 2021; Vasylets & Marín, 2021). To date, no longitudinal studies have examined the connection between working memory abilities and the progression of writing skills in a foreign language among advanced adult L2 learners. This study addresses this gap by exploring the relationship between phonological short-term memory (PSTM), working memory capacity (WMC), and the development of L2 writing skills over two years. Thirty-two Polish university students majoring in English participated in the study. Variables included two WMC tests, one PSTM test, and three measures of writing competence—evaluating content, organization, vocabulary and language use, and mechanics—taken over two years at six-month intervals. Findings show correlations between both PSTM and WMC and writing competence. However, a general linear repeated measures analysis with PSTM and WMC as predictors across three assessment points revealed that higher levels of either working memory component did not contribute to improvements in writing competence over time.

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Impacts of bilingual experience on cognitive control in bilingual speakers' spontaneous language production

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The Adaptive Control Hypothesis (ACH; Green & Abutalebi, 2013) and the Control Process Model (CPM; Green & Li, 2014) propose that bilingual language use across different interactional contexts requires adaptable control processes to meet varying linguistic demands. This study examined how habitual bilingual language use affects cognitive flexibility and inhibition among 41 Chinese-English bilingual adults ($M = 26.17$ years) lived in London, focusing on their language use habits on spontaneous language production and cognitive control performance. Participants' language use patterns were quantified via self-rated code-switching questionnaires (Hartanto & Yang, 2016; Rodriguez-Fornells et al., 2012) and language entropy computations (Gullifer & Titone, 2020). Additionally, two spontaneous language production tasks—a bilingual naturalistic conversation task and a story narration task—were adopted in this study to examine their bilingual language use in practice. Participants' inhibitory control efficiency, both verbal and nonverbal, was measured using a verbal Stroop task and a spatial Stroop task, respectively. Cognitive flexibility was examined using a colour-shape switching task, and their English proficiency was assessed through the LexTALE test (Lemhöfer & Broersma, 2012). Consistent with the ACH and CPM predictions, higher intersentential switching frequency in communication showed significant modulations on participants' verbal and nonverbal inhibitory control efficiency. Moreover, greater L2 environment immersion was significantly associated with reduced response times in incongruent Stroop trials, highlighting its positive impact on bilinguals' inhibitory control. Additionally, participants who demonstrated greater fluency in narrating a story bilingually (i.e., fewer pauses) exhibited faster response times in incongruent verbal Stroop trials, indicating more efficient inhibitory control among habitual code-switchers. In the colour-shape switching task, habitual single-language users (i.e., those with lower language entropy) had smaller mixing costs, reflecting their enhanced proactive inhibition. This study showed the importance of bilingual language experience in modulating bilinguals' language production and their deployments of cognitive control in language processing.

In and out of translations: Translanguaging in workplace meetings

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This paper aims to investigate translanguaging practices in workplace meetings at a company in the Stockholm area. The research will address the following questions: How are various languages and other semiotic resources used in meetings? How can workplace communicative practices be linked to language ideologies? Theoretically, the paper draws on concepts such as linguistic repertoire (Busch 2012; Gumperz 1964), translanguaging (García & Li Wei 2014), translanguaging space (Li Wei 2011), and language ideologies (e.g. Kroskrity 2004). Data were constructed using linguistic ethnographic methods, including interviews and observations during meetings. The findings reveal that professionals use both English and Swedish, either separately or in an integrated manner, i.e., translanguaging (X & X 2020). The decision to use languages separately or integratively is influenced by factors such as the participants present and the objectives of the meetings. Another finding is that both English and Swedish are highly valued in the workplace, with neither language holding a more prominent position. It is the combination and integrated use of languages that characterizes language use at the company, thereby creating a translanguaging space. The data comes from the research project 'Professional Communication and Digital Media: Complexity, Mobility and Multilingualism in the Global Workplace' (Marcus and Amalia Wallenberg Foundation, 2016-2019).

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In-depth Investigation of Narratives by Russian-Cypriot Greek Bilingual Children: Macro- and Micro-structure, Grammaticality and Disfluencies

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According to Yang et al. (2022), children's early narrative abilities can predict their later literacy skills, general academic performance and success in social interaction. Narratives are considered to be an ecologically valid tool for oral speech data collection in a natural setting and the analysis of children's language abilities (Boerma et al. 2016). This study investigated the narrative skills of 60 Russian-Cypriot Greek (CG) bilingual children (whose ages ranged from 4;0 to 6;0) in their heritage language, Russian, and their societal language, Cypriot Greek. The LITMUS-MAIN, the multilingual assessment instrument for narratives (Gagarina et al. 2012, 2015) was used for data collection. Their language proficiency in Russian was measured by the Russian Proficiency Test for Multilingual Children (Gagarina et al. 2010) and in CG by Diagnostic Verbal IQ test (Stavrakaki and Tsimpli 2000; Theodorou 2013). Background information was collected using parental questionnaires and interviews. The narratives were recorded, transcribed and analyzed in terms of macro and micro-structure, grammaticality and disfluencies in relation to factors such as age, language proficiency and modes of narration. The analysis of the data revealed that there is a correlation between the narrative macro- and micro-structure measures, disfluencies and grammaticality scores of Russian-CG children, which is in line with the previous research (Govindarajan & Paradis 2019) regarding the interdependence of grammaticality and micro-structure measures. The results revealed that the mode of narration influenced narrative production as retelling mode elicited longer and more detailed narratives with a more complex story structure than the telling mode (e.g. Maviş et al. 2016; Otwinowska et al. 2020). Furthermore, the ages of the participants and their level of language proficiency appeared to affect their narrative skills for all the measures: micro- and macro-structure, grammaticality and disfluencies, which is in line with previous studies (e.g. Bohnacker 2016; Gagarina 2016; Lindgren 2019).

Individual and community language preferences in voluntary language switching

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Voluntary language switching incurs a smaller production cost than cued-language switching. For example, de Bruin and Martin (2022; henceforth deB&M) examined bilinguals' individual language preferences in a picture naming task and found them to predict voluntary language switching. Although participants' daily language use was related to their language preferences, it was only considered as an individual characteristic. However, we argue that a participant's language preferences must be examined as an extension of the language patterns in their linguistic communities. That is, if we ask bilinguals to name pictured objects, to what extent do they adapt their language use towards a "mutual language preference" in their community for a particular label? Here, we replicated deB&M with Spanish-English bilinguals in Puerto Rico who reported having multi-word codeswitching in their linguistic repertoire. Participants' responses in a social network questionnaire validated their membership in a community that codeswitches across diverse social contexts and interlocutors. Results from a picture naming task revealed that language preferences indeed predicted language selection and language switching, although there were differences in how variables influenced this process. In addition, unlike deB&M, who excluded the pictures with the weakest language preferences from their analysis, we ran an analysis with these pictures and found that reported language preference continued to influence language selection and language switching. Our results suggest that because the participants use codeswitching as a communicative tool in their daily lives, their language preferences are influential in language selection and switching processes even when these preferences are "weak". Therefore, this study supports the findings of deB&M, while advocating for analyses of language switching that consider the participants' interactions within their community.

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Influence of Cue Prominence on Pronoun Interpretation in Monolingual and Bilingual Children

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Research on pronoun processing has shown that an antecedent's prominence as a pronoun referent is shaped by several cues, including thematic role, order of mention, and grammatical constraints. Previous developmental studies investigating how order of mention and grammatical role affect ambiguous pronoun resolution have produced mixed findings (e.g., Arnold et al., 2007; Blything et al., 2021; Brandt et al., 2009). Building on this research, the current study seeks to deepen our understanding of the processes underlying the interpretation of ambiguous subject and object pronouns in German among monolingual and bilingual (Georgian L1) children. Two eye-tracking and sentence-completion studies were carried out, in which participants (N = 24 in each group, age= 5 to 8 years) see a depicted scene (e.g., a hedgehog, a hamster, and a campsite) and listen to German sentences (e.g., *Der/Den Hamster begrüßt den/der Igel an dem Zeltplatz. Er mag das blau Zelt / Ihn ermuntern die Farben*, "lit trans: The hamsterNom/Acc greets the hedgehog Acc /Nom at the campsite. lit trans: HeNom likes the blue tent. /HimAcc encourage the colors.").The morphological differences between the determiners in noun phrases determined both the word order (SVO/OVS) and the grammatical roles in the antecedent sentences. To examine grammatical role effects, we analyzed the resolution patterns toward the subject or object antecedent during pronoun processing in the subsequent sentences. Preliminary results from the sentence-completion studies suggest that both monolingual and bilingual participants' pronoun interpretation was similarly influenced by order of mention. In terms of grammatical role parallelism, monolinguals more frequently selected the subject antecedent for subject pronouns compared to object pronouns, while bilinguals showed a reduced preference for the subject antecedent. These findings, which will be supplemented with eye-tracking data, are discussed with respect to cue weighting during pronoun resolution in monolingual and bilingual children.

Influence of Linguistic and Cognitive Factors on Complement Clause Comprehension in Multilingual and Monolingual Children

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Complement clauses emerge before three years in bilingual children, with patterns similar to those of monolingual peers (Belletti & Hamann 2004). Aspects of the multilingual experience, including cumulative language exposure and proficiency, appear to influence bilinguals' syntactic performance (Blom & Soderstorm 2020), however, how these variables influence complement clause acquisition is less clear. Moreover, linguistic and cognitive factors (e.g. vocabulary, syntax, Working Memory (WM) and Theory of Mind (ToM)) correlate with complement clause acquisition (Delage et al. 2022; Durrleman et al. 2022; Thomsen et al. 2024), but these relations are yet to be explored in the bilingual context, where certain of these factors may be impacted (e.g. WM: Adesope et al., 2010; ToM: Schroeder, 2018). In this study, we investigated complement clause comprehension (e.g., the horse says that the cat is eating the fish) in monolingual and multilingual (bilingual/trilingual) children to examine whether (i) language experience variables (balance of multilingual exposure score since birth and proficiency in the language of testing) and (ii) linguistic (vocabulary and syntax), or cognitive (WM and ToM) variables explained their performance on complements. Seventy children aged 4;0–6;11 were tested through a gamified syntax app on the comprehension of complement clauses in their most proficient language, either English (15), French (20), German (19) or Italian (16). GLMM analyses revealed no significant effect of the balance of multilingual exposure in the comprehension of complement clauses, while proficiency in the language of testing significantly influenced comprehension in all four languages. Furthermore, vocabulary and ToM impacted the comprehension across all languages. Additionally, syntax impacted complement comprehension in English and French, and WM impacted complement comprehension in English. In sum, while multilingual children matched monolinguals on complement clause comprehension overall, proficiency in the language of testing, vocabulary, syntax, WM, and ToM were linked to their performance.

Input overrides attrition: Nominal and verbal agreement of heritage Spanish-English bilinguals in dual immersion

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Spanish present tense verb morphology, gender and number are mastered by age three, but gender assignment/ agreement errors are frequent among heritage language (HL) adults and children (Martínez-Nieto & Restrepo, 2023), resulting in asymmetric competence in early-learned nominal morphosyntax. Our investigation examined nominal and verbal agreement in HL children (9-11 years) in a dual language immersion (DLI) academic setting, shown to mitigate morphosyntactic attrition (Fernández-Dobao & Herschensohn, 2020). RQs: Are DLI children comparable or asymmetric in nominal and present tense verbal agreement to majority Spanish controls? If there are differences, what areas are affected? We examined 36 HL children in their 5th-6th year of Spanish-English 50-50 DLI in the USA, comparing them to 55 age-matched controls raised in a Spanish-majority setting. Emphasizing the importance of developing literacy skills, we used a spontaneous writing production task to elicit data on nominal and verbal agreement. Findings showed that the control group was at ceiling for both nominal and verbal agreement. HL children had mastered nominal number agreement and were comparable to controls in all gender concord measures except for feminine determiner-noun concord. Influenced by the English-majority environment, they overgeneralized the default masculine form. However, they showed verbal accuracy comparable to controls, with no attrition, confirming that early-acquired verbal morphology is more resilient than nominal morphology. We conclude that Spanish morphosyntax was substantially maintained and strengthened, contrary to previous observations for HL adults and children in English mainstream education, thanks to the continuing input and literacy training of the DLI setting.

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Martínez-Nieto & Restrepo (2023). Grammatical gender in Spanish child heritage speakers. *Linguistic Approaches to Bilingualism*, 13(2), 267–297.

Intensification in Miami and El Paso: Structural differences in profile and identity of two southern U.S. communities

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The study presented here investigates the phenomenon of intensification in two speech communities in the U.S. (Miami, Florida and El Paso, Texas) characterized by high degrees of English-Spanish bilingualism. Intensification (e.g. *supernice*, *buenísimo*) constitutes a conflict site between English and Spanish grammar. Whereas English mostly uses lexical-analytic items to intensify (Quirk, Greenbaum, Leech, & Crystal, 2007), Spanish additionally has a rich paradigm of morphological-synthetic intensifying affixes (Lázaro Mora, 1999). Additionally, intensification can express a broad richness of semantic-pragmatic meanings, of both quantitative and qualitative natures. Moreover, the use of specific intensifiers is related to speakers' need to convey their social identity (Roels, 2024). The current study maps the choices bilingual speakers make in terms of the intensifying strategy (analytic vs. synthetic) and the language in which they express the intensifier (English vs. Spanish). A comparison is made between Miami and El Paso to investigate not just the social identity of individuals, but also of each speech community as a whole. The communities are seen to exhibit both similarities and differences; the latter are related to the origins of the speakers (diverse, largely Cuban vs. overwhelmingly Mexican), the dominantly-spoken language (English vs. Spanish) and the prevalence of contact-induced phenomena such as codeswitching (formation of codeswitching isolect in Miami), which influence the intensifying strategies used in both communities. Consequently, intensification can partially be seen as an indicator of community identity.

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Interactive Groups help additional language learners feel more comfortable speaking in the target language

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In multilingual school settings, some students struggle with the language of instruction when it is an additional language. Research suggests the need for interventions that address these challenges. Interactive Groups, which are based on Ramón Flecha's (2015) theory of dialogic learning, provide a dialogic learning environment where students are divided into small groups to complete curricular tasks with the assistance of an adult. It has proven effective in promoting both academic and social success for all students, including enhancing the learning of additional languages (Morlà-Folch et al., 2022). However, it remains unexplored whether Interactive Groups specifically help additional language learners who struggle with the target language feel more at ease in performing school tasks in an additional medium of instruction, especially in ways that reduce language-related challenges and the embarrassment of using the target language with peers. This study addresses this gap by analyzing Interactive Groups in three Basque Country schools where Basque is the medium of instruction. Many students in these schools speak a different language at home and have limited opportunities to use Basque outside of school. Using a qualitative, communicative methodology (Gómez et al., 2019), this study will interview six teachers, conduct six focus groups with students, and observe 18 Interactive Group sessions. Preliminary data collection includes interviews with two teachers, two focus groups, and observations of six sessions. Preliminary findings indicate that additional language learners feel more comfortable speaking in the target language within Interactive Groups compared to other school contexts. Both teachers and students perceive that in Interactive Groups, additional language learners are more motivated, feel more supported, and experience greater learning gains. These results suggest, consistent with prior research, that Interactive Groups are an effective educational intervention for additional language learners, even in multilingual contexts with significant diversity in target language proficiency.

Intergenerational language shift and co-activation effects in Spanish-English bilingual speech: Heritage Spanish speakers in California

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This study analyzes the acoustic realization of Spanish and English voiceless stops by three groups of Spanish-English bilinguals in California to examine the phonetic outcomes of intergenerational language transmission of Spanish in Mexican American communities in California. Because of a well-documented process of language shift from Spanish to English in many Hispanic communities in the U.S., generation of immigration (GI), which strongly correlates with language dominance, is expected to influence patterns of cross-linguistic influence in their bilingual speech. Thirty early Spanish-English bilinguals of Mexican descent residing in California, divided into three groups as a function of their immigrant generation (G1.5, G2, G3), produced word-initial /p, t, k/ in three separate experimental sessions: monolingual Spanish, monolingual English, and bilingual Spanish/English. Results indicate that even though these heritage speakers maintain language-specific VOTs, regardless of their GI, there is evidence of cross-linguistic interactions at the phonetic level, (i.e., “compromise” values), as a function of their language dominance. These findings demonstrate that even though English-dominant G2 and G3 speakers are those who are most likely to exhibit a more English-like VOT in their Spanish voiceless stops, they are shifting both their dominant and non-dominant language in tandem to maintain cross-linguistic contrasts. Finally, the VOT values of the G1.5 and G3 groups revealed that the co-activation effects in a bilingual experimental session was found to only influence the acoustic realization of voiceless stops in the weaker language and not in the bilinguals’ dominant language. These results shed light on our understanding of the effects of intergenerational heritage language transmission at the societal level as well as co-activation effects at the level of the bilingual individual on the pronunciation patterns of Spanish heritage speakers in California.

Intergenerational transmission of Indigenous Sami languages: Ethnic context and Parental input patterns

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Preserving heritage language is crucial for indigenous peoples' integration and identification with their culture. Our study examines the role of ethnic context and parental input in transmission of Sami languages (spoken in Arctic Norway, Sweden, Finland, and Russia) across three generations using data from the population-based MoBa-Study (Magnus et al., 2016). Findings: Both Sami language input and ethnic contexts significantly contribute to transmission of Sami. The main effect of parental input (cf. Paradis 2023) arose from difference between no-ethnic-language-input and other levels, with non-significant difference among low, moderate and high levels (observed in e.g. De Houwer, 2007). Sami-speaking parents in Sami-dominated contexts more often primarily used Sami with their child than those living in Norwegian-dominated contexts, indicating that ethnic context influences parental language choice. Transmission of minority languages often shows gradual language loss between generations (Alba et al., 2002). Interestingly, the likelihood of Sami language transmission from parents to children was notably higher than from grandparents to parents. Our study thus provides insights into the dynamics of indigenous language transmission, and suggests a current potential generational shift in the use of Sami languages.

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Internal and External Factors in the Acquisition of Null Subjects in Slavic Heritage Languages

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The paper investigates the interplay of language-internal and language-external factors in the acquisition of null subjects (NSs) in heritage Russian and Polish in Germany. As an internal factor we focus on the varying degree of consistency in the use of NSs in the two heritage languages (HLs): While Polish is a consistent pro drop-language, Russian allows for a much higher degree of optionality in the choice between overt vs. NS pronouns which makes their acquisition a more complex task for Russian than for Polish HSs (conflicting input hypothesis). The situation is further complicated by the fact that German clearly favors overt subjects (OSs). Our first goal was to check whether adolescent Russian (n=25) and Polish (n=20) HS differ in their distribution of NSs and OSs when external background factors (like family type, amount of instruction in the HL etc.) are controlled for and they are exposed to the same map task eliciting oral production data. As a second step we tested the differential input hypothesis, which attributes non-target-like distribution of NSs and OSs to qualitatively diverging input that HSs may receive from their caregivers (1st generation immigrants). Therefore, we gathered the same type of data from the parents of the HS (one parent per HS). Due to the higher degree of optionality of NS in Russian we expected Russian HS to diverge more clearly from their parents compared to Polish HS and Russian parents to show a higher degree of interindividual variation in the distribution of OSs and NSs leading to more conflicting input for the HS. Both expectations were confirmed by the statistical analysis. In the Russian group we found significant differences between HS and their parents in the distribution of OSs and NSs in the HL while both HS and parents consistently used NSs in the Polish group.

Interpreters' Experiences: Emotional and Professional Challenges Associated with Language Choice. The Case of Ukrainian and Russian in Norway

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When Ukrainian refugees fled the country in 2022, few receiving countries had Ukrainian speaking interpreters ready. Norway was no exception. Even though Norway offers university-level training for interpreters in various languages, the number of trained Russian interpreters far outnumbered the Ukrainian ones. Accordingly, in their communication with refugees, the receiving services would rely on Russian—a language of communication that was potentially associated with language conflict for those involved. Although there are studies on interpreting in conflict zones (e.g., Todorova&Rosendo, 2021) less is known about the challenges experienced by interpreters working in encounters that involve language conflict in a third country. Understanding language conflict broadly to encompass both macro and micro levels of language contact and choice (Pütz, 1994), we address the following question: What linguistic, emotional, and professional challenges, if any, are experienced by interpreters working with Ukrainian refugees in Norway? The study draws on semi-structured interviews with 20 interpreters listed in Norway's Register of Interpreters (www.tolkeregisteret.no) under the working languages Norwegian and Ukrainian and/or Russian. The interviews were conducted via Zoom in 2024, recorded and later transcribed. Reflexive thematic analysis inspired by Braun&Clarke (2022) shows that the interpreters experience various professional and emotional challenges related to language choice in the interpreted encounters. The findings indicate that several factors influence language choice, for instance, the refugee's age, personal history, and bilingual background; as well as interpreter availability; the interpreter's bilingual background; the topic and context of the institutional encounter. The interpreters' reports suggest that they, in order to cope, often rely on strategies acquired through education.

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Intrusive /ε / in Spanish-L1-English-L2 speakers. Perception does not correlate with production.

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We investigated the relationship between production and perception of language specific phonotactic constraints in Spanish-L1-English-L2 sequential bilinguals. de Leeuw et al. (2021) found that Spanish-English bilinguals made more mistakes than English monolinguals in same-different discrimination for non-words pairs (e.g, spi-espi) and a phonemic verbal fluency task. Surprisingly, no correlation was found between perception and production accuracy. Our study investigates a new group of Spanish-English bilinguals using different behavioural perception and production measures, and neurophysiological measures of perception (ERP). 17 Spanish-L1-English-L2 bilinguals and 21 English monolinguals performed a monitoring task while listening to blocks of isolated non-words (e.g. sma vs esma) with concurrent EEG recording. Participants pressed a button when they heard a deviant trial (e.g., an /esC/ against a background of /sC/ or the opposite). For production, participants read three customized short texts involving /sC/ consonant clusters in English. Our behavioural data showed significant differences in perception accuracy between groups, although some bilinguals performed within the monolingual range. Bilinguals performed above chance in production but significantly worse than English monolinguals. No significant correlation between perception and production accuracy was found, aligning with de Leeuw et al (2021). Most notably, some participants had high production accuracy, but low perception accuracy, suggesting ability to perceive a contrast is not necessary to produce it. Analyses into bilingual individual differences, as well as the EEG (MMN) component are ongoing and will be presented together with the behavioural data, to provide a fuller picture of bilingual listeners' speech perception and production.

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Investigating the role of language dominance in between-language priming of ungrammatical structures in Irish-English bilingual children

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BACKGROUND This study investigates the effects of language dominance on between-language priming of ungrammatical structures in Irish-English bilingual children. Structural priming is a robust phenomenon in mono- and bilingual language development (Kumarage et al., 2024, <https://doi.org/10.1016/j.jml.2024.104532>). Between-language priming is commonly interpreted as evidence for shared structural representations, but few studies to date have tested between-language priming of structures that are not shared. Recent evidence points towards the bidirectional priming of ungrammatical adjective-noun structures in Spanish-Dutch bilingual children and suggests this might be lexically driven and mediated by language proficiency, fitting an error-based learning account (Van Dijk & Unsworth, 2023, https://doi.org/10.1162/opmi_a_00105). The present study will expand on those findings and investigate the relationship between language dominance and between-language priming in two non-shared structures. **PARTICIPANTS AND METHOD** Sixty Irish-English bilingual children attending Irish-medium primary schools (age 5-10) will be recruited to participate in the study. Data collection is expected to be complete by March 2025. The children take part in a child-friendly priming task paradigm (following Branigan et al., 2005). The priming task is completed four times (twice Irish-to-English and twice English-to-Irish) and targets two structures: adjective placement (N-Adj in Irish – “madra sásta”, Adj-N in English – “happy dog”) and double-noun compounds (left-headed in Irish – “siopa leabhair”, right-headed in English – “book store”). Furthermore, children’s dominance in both languages is measured in the LITMUS Crosslinguistic Lexical Task and Sentence Repetition Task and the Q-Bex questionnaire. **EXPECTED RESULTS AND CONTRIBUTION** We predict that bidirectional priming will lead to ungrammatical productions in both languages, and that target language dominance will negatively correlate with ungrammatical productions, as predicted by the error-based learning account. The results of this study will provide novel insights into the role of language dominance in between-language priming of ungrammatical structures from a Celtic to a Germanic language and vice versa.

Involvement of domain-general control during language switching? Insights from evoked and induced neural processes

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It has been proposed that daily practices of language switching could benefit domain-general shifting and inhibition skills (e.g., Prior & Gollan, 2011). But it is still unclear to what extent processes underlying language switching are similar to domain-general shifting and inhibition processes (Branzi et al., 2016). We investigated the similarity of non-verbal inhibition (in a Flanker task) and shifting (in a Colour-Shape switching task) with language switching (in a cued picture-naming language switching task). We correlated behavioural and electrophysiological responses (evoked and induced activity) of 85 highly proficient bilinguals speaking a Romance language and English on these tasks, and explored the qualitative similarity of the electrophysiological responses between them. Evoked neural responses to non-verbal and language switching demonstrated qualitative similarity in markers of rule activation and goal maintenance, while induced neural responses to inhibition and language switching showed qualitative similarity in markers of inhibition and resource reallocation. However, there was no evidence for between-task correlations, neither for behavioural, nor for neural responses. These results present only weak evidence that verbal and non-verbal control mechanisms overlap. The lack of correlations is rather in line with non-inhibitory language control accounts (Dijkstra & Van Heuven, 2002) than inhibitory ones (Green & Abutalebi, 2013; Green & Wei, 2014).

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Is there a bilingual advantage in word learning? A meta-analysis

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The existence of a bilingual advantage (i.e., better performance for bilingual than monolingual participants on a specific measure) has been hugely debated, with a majority of recent studies questioning its existence. For word learning, a bilingual advantage was observed multiple times with different types of bilinguals, paradigms, outcome measures, and age groups. However, results are overall mixed, with some studies showing that bilinguals have a general advantage over monolinguals, while other studies show differences only under specific conditions, no differences at all or even a monolingual advantage. In addition, existing meta-analyses on the bilingual advantage typically do not include word learning studies. As a result, it is not clear whether bilingualism impacts word learning ability and, if a bilingual word learning advantage exists, under which conditions it can be observed. In this meta-analysis, we, therefore, aim to understand the presence and strength of the bilingual advantage in word learning by collecting all the existing literature (systematic review) and performing quantitative analyses on the effect sizes (meta-analysis). We searched five databases for peer-reviewed journal articles and proceedings and identified more than 75 articles that match our inclusion criteria. We reported and summarised participants' demographics, focusing on language-related characteristics (e.g., language combination and proficiency), sample sizes and specifics of the word learning paradigm. We then performed a main analysis comparing monolinguals' and bilinguals' word learning performance (measured by accuracy), with preliminary results showing a general bilingual advantage. Finally, we performed sub-analyses to characterise the extent of the bilingual advantage, looking, among others, at different paradigms, age groups, and outcome measures. Preliminarily, we found that a bilingual advantage is present in adults but not in children. The results of the meta-analysis will be finalised in the next two months, with additional data points being added.

L1 Attrition in Spanish-English bilinguals: Evidence from visual world eye-tracking data

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Bilingualism research has shifted from focusing mostly on how bilinguals' first language (L1) may influence their second language (L2), to also exploring how L2 use and exposure may, in turn, impact their L1, i.e., L1 attrition. Traditionally, L1 attrition studies have exclusively focused on immigrant bilinguals who have been extensively immersed in an L2-speaking environment, yet little is known about potential L1 attrition effects on other L2 exposure contexts, such as bilinguals exposed to the L2 in a classroom setting. This study examines L1 attrition in L1 Spanish-L2 English bilinguals who live in Spain and study the degree of English Studies. L1 attrition is investigated regarding their strategies to resolve relative clause attachment (RCA) ambiguities, as preferences for high attachment (HA) or low attachment (LA) vary cross-linguistically. In (1), who could refer to either student (HA) or scientist (LA). Spanish tends to favour HA, while English speakers typically prefer LA.

(1) Look at the student of the scientist who reads a book carefully

Three groups were tested: instructed L1 Spanish-L2 English bilinguals (N=47), Spanish monolinguals (N=50), and English monolinguals (N=49). They completed a visual-world eye-tracking experiment to address their preferences in real-time processing. All participants were tested in their L1, and target sentences were manipulated to create forcing-HA, forcing-LA and ambiguous condition by a gender-marked relative pronoun. Participants listened to and interpreted sentences while viewing two images: a HA-biased and a LA-biased image. Linear mixed-effects models explored the relative bias toward each image in the ambiguous condition for all groups. Crucially, results show that bilinguals significantly differ from Spanish monolinguals, with fewer looks at the HA-image among bilinguals. Overall, English natives favour LA, while Spanish natives tend to favour HA. However, the L1 HA-preference is mitigated in bilinguals, indicating an influence of L2 instructed exposure in bilinguals' L1 processing.

L1 support for Ukrainian refugee children: Relationships with wellbeing and majority language proficiency

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Researchers recommend L1 maintenance to support refugee pupils. However, studies testing the effects of L1 support on refugees' wellbeing and majority language (ML) development are scarce. We aim to determine how L1 use by teachers and peers is related to wellbeing and ML performance of Ukrainian refugee children in the Netherlands. We also study the relationship between their ML skills and predictors of L2 performance identified in research with other refugee groups (age of acquisition, amount and length of exposure, reading, wellbeing, trauma, SES). The participants were 41 Ukrainian refugees (mean age 9;1, range: 5;11–12;6) in the Netherlands. Their skills in Dutch (ML) were tested with the PPVT-IV-NL, Litmus Sentence Repetition Task (SenRep) and the Multilingual Assessment Instrument for Narratives (MAIN). The narratives were analysed for fluency, lexical diversity, syntactic complexity and grammatical accuracy. A parental questionnaire was administered to obtain information on language exposure and use, L1 support at school, traumatic experiences, parental education and child's wellbeing. Data were analysed using multilevel linear regression analyses. L1 use at school negatively predicted performance on PPVT and SenRep. Follow-up analyses revealed that receptive vocabulary was positively predicted by L1 use with classmates in the first six months but negatively by current L1 use with classmates. Length of ML exposure was positively associated with vocabulary outcomes and grammatical accuracy (measured with SenRep and MAIN). Age of onset positively predicted vocabulary and syntactic complexity of narratives. Reading in Dutch at home was a positive predictor of SenRep scores and narrative fluency. Finally, trauma was negatively associated with vocabulary outcomes. Children whose teacher spoke their L1 in the first six months and children currently receiving L1 support at school were more likely to have higher wellbeing scores. Child wellbeing was positively related to all ML measures except syntactic complexity and accuracy of narratives.

L2 speakers recruit predictive mechanisms when the context encourages prediction: An ERP study

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We investigated lexicosemantic prediction amongst L1-Swedish L2-English learners in an ERP study focusing on the N400, an ERP component that reflects the ease of lexical retrieval. Participants read prime-target pairs, word by word, and monitored for animal words. Some of the pairs were semantically related (trousers-pants), which reduces N400 amplitude for related targets via priming. Critically, the proportion of related pairs increased from 10% to 50% in the second experimental block (via fillers), which was expected to encourage participants to use the primes predictively. This should yield a larger N400 reduction for related targets in the high vs. the low-proportion block. Each block encompassed 40 related pairs, 40 unrelated pairs, and 40 (unrelated) animal probes (paddle-bull). The low-proportion block also included 280 unrelated filler-pairs. In the high-proportion block, 160/280 fillers were related. All related pairs had a forward association strength over 0.5, suggesting that >50% of L1 and L2 speakers would associate the target to the prime. Analyses on related/unrelated targets (trousers/cathedral-pants) from 36 L1-English speakers and 53 L1-Swedish advanced L2-English learners (Lextale, $M=91$; $SD=6$; AoA of English, $M=8$ years; $SD=2$) showed a significant Relatedness*Proportion interaction in the N400 time window (300-500ms) ($p=.026$), not qualified by Group. Follow-ups revealed significant N400 effects within each block ($p<.001$) (related less negative than unrelated). Crucially, this N400 effect was larger in the high-proportion block, driven by a larger N400 reduction for related targets in the high-proportion block ($p=.022$). Moreover, the N400 effects in the two blocks showed different topographies (broad vs. posterior) ($p=.001$), suggesting that they reflect partly qualitatively different mechanisms (priming vs. prediction). Results suggest (1) that both groups engaged prediction when the primes acquired predictive value; (2) at an advanced proficiency level and for strong lexicosemantic associations, lexicosemantic prediction is qualitatively and quantitatively similar in the L1 and L2.

Language and Literacy Practices in Secondary Education: A Mixed Methods Approach

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Literacy as the cognitive competence underlying all reading and writing abilities is an important skill for educational success and social participation (Farrell, 2009). Many studies report that multilingual pupils show lower literacy abilities in the school language than their monolingual peers (Krompàk, 2017). However, these studies mostly consider primary school settings and perform only binary comparisons (monolingual – multilingual). The present project investigates how multilingualism influences literacy abilities within secondary education, and attempts to find further predictors relevant for literacy competence. For this, a mixed methods explanatory design is employed consisting of two studies in Germany. Study 1 investigates literacy abilities of 279 pupils in the NEPS-corpus (NEPS-Netzwerk, 2024) in grades 5, 7 and 9, focussing on language background (operationalised as family language use and AoO in German). Linear mixed models show that cognitive and socio-economic factors as well as reading habits are important predictors for literacy performance, while language background is not. Study 2 analyses literacy abilities of 11 fifth-graders and 12 ninth-graders while considering a more detailed language background through deductively constructed and inductively developed categories. It is found that family language use becomes less important for literacy in secondary education. Both studies indicate that the various predictors under investigation influence individual literacy abilities in complex ways, which calls for further research in this field.

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Language and teaching ideologies among pre-service English teachers in Catalonia

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Language ideologies may be studied from the perspective of language users, in relation to communicative practices, or teachers and learners, concerning teaching methodologies and learning goals. This paper addresses overt and covert ideologies regarding teaching and learning English as an additional language among pre-service teachers in Catalonia, where the secondary education curriculum includes two local languages, one compulsory foreign language, and another non-compulsory foreign language. The choice of English as the compulsory language is unquestioned due to its massive recognition as the functional global lingua franca. However, such recognition often fails to prompt changes in the learning goals and teaching priorities (Rose & Galloway, 2019) of teachers who were trained in, and often remain attached to, monolingual, standard language and native-speakerist ideologies (Ellis 2006, Lippi-Green 2012, and Holliday 2005, for further discussion). The paper analyses interviews with 6 MA in ELT students at a Catalan university, and 3 of their full-time instructors. The interviews search into how language, and English in particular, is conceptualized and how participants position towards the idea of teaching a de-centered language detached from a strong and rigid standard, as well as to how they conceive of monolingual vs. plurilingual uses of languages in education. The results show how the instructors' agenda towards uncovering monolingual native-speakerist ideologies impacts on pre-service teachers' attitudes in complex ways, and how the latter partly resist and object to new critical ways of conceptualizing language. The paper provides guidelines to help understand the complexities of deconstructing pervasive language ideologies and suggest further lines of enquiry.

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Language Attitudes and Integration Pathways for Ukrainian Refugees in Lithuania

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In Eastern Europe, language attitudes are often shaped by complex historical and political legacies, and Lithuania is no exception. Recent years have brought increased immigration to Lithuania due to economic improvements, but the influx of war refugees from Ukraine presents a unique challenge and for both government and non-governmental organizations, as well as for Lithuanian society at large. Despite this, Lithuania's deep-rooted historical ties with Ukraine and broad-based support have created a generally welcoming environment for integration. One central challenge in this process, however, is language. Lithuanian, while not typologically distant from Slavic languages, is morphologically complex and belongs to a different branch. For Ukrainian refugees, this linguistic barrier is partially mitigated by the older Lithuanian generation's proficiency in Russian and temporary employment exceptions waiving language requirements. This paper explores the integration of Ukrainian refugees in Lithuania, focusing on those settling in smaller, linguistically homogeneous communities. Based on qualitative data gathered during in-depth interviews, the study examines how war trauma, attitudes and ideologies toward the Russian language, lead these refugees to varying levels of willingness of linguistic integration in the host country. The results of this research offer insight into the nuanced language dynamics within refugee integration in Lithuania and suggest the possible steps to be taken in the nearest future.

Language contact in Peru and Argentina: a study on yes/no-questions in bilingual Quechua and Spanish

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This paper examines neutral information-seeking yes/no-questions in bilingual Quechua and Spanish in Cusco (Peru) and Santiago del Estero (Argentina), with particular attention to intonation. Quechua and Spanish mark yes/no-questions differently. In Quechua, yes/no-questions are marked morphologically and not prosodically; both statements and questions end in a fall (Cerrón-Palomino, 2003). In Spanish, however, yes/no-questions are marked prosodically and typically end in a rise in Peruvian Spanish (O'Rourke, 2005), unlike statements. Santiago del Estero Spanish is underexplored. Given the cross-linguistic differences, the research questions of this study are: (1) Do bilinguals use intonation and/or morphology to mark yes/no-questions in Quechua and Spanish? And (2) Are there any differences in the outcomes of language contact in Peru versus Argentina? The data come from an interactive task with 16 adult Quechua-Spanish bilinguals from Peru, and 20 adult Quechua-Spanish bilinguals and 8 adult Spanish monolinguals from Argentina. In the task, participants took turns asking and answering questions. Participants also completed a sociolinguistic background questionnaire. The analysis is based on 30 yes/no-questions per participant per language. Nuclear pitch accents and boundary tones were analyzed in Praat (Boersma & Weenink, 2024). For Quechua, morphology was also examined. For monolingual Spanish, predominantly rising contours were found. For Quechua, both final falling and rising contours were observed. Falling contours typically co-occurred with an interrogative suffix, unlike rising contours, which were more frequent. For bilingual Spanish, rising contours were most common. Some variation was observed based on language dominance: Quechua-dominant speakers used morphological marking in Quechua and falling intonation contours, whereas Spanish-dominant speakers tended to use rising intonation contours in both languages. Moreover, cross-linguistic influence was more prevalent in Argentina, due to its social context. The paper will discuss what the findings mean for the interplay of linguistic and social factors in the outcomes of language contact.

Language Control over Structural Representation in Bilinguals

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In daily life, bilinguals sometimes speak each of their languages in situations where the other language cannot be understood (e.g., English with an English monolingual co-worker, or Spanish with a Spanish monolingual family member). To avoid saying words in the wrong language in such situations, bilinguals inhibit lexical representations from the non-target language (Green, 1998). But do they inhibit structural representations? English-dominant Spanish-English bilinguals described pictures in English (Phase 1), then in either Spanish or English across participants (Phase 2), and again in English (Phase 3). We focused on the English dative alternation, because the surface form of one of its variants - double objects - is not shared with Spanish. If structural inhibition exists, speaking Spanish in Phase 2 should inhibit English double objects, which should subsequently be slower to access when needed in Phase 3 (as numerous studies show happens for single words, e.g., Costa & Santesteban, 2004) – and hence be used less often than in Phase 1. In Experiment 1 (N = 108), Phase 2 consisted of monotransitives, to test if English double objects would be inhibited by producing any Spanish structure (language-wide inhibition). In Experiment 2 (N = 93), Phase 2 consisted of ditransitives, which in Spanish can only be expressed with prepositional datives, to test structure-specific inhibition. Neither experiment showed the predicted effect: Double object production after speaking Spanish did not decrease more than double object production after speaking English. This result does not support the existence of structural inhibition in bilinguals. In an ongoing follow-up study, we are further testing this hypothesis looking at naming latencies for picture descriptions in both a blocked and mixed design.

Language development in Portuguese and English multilingual immigrants in Switzerland: bridging sociolinguistic narratives and psycholinguistic models of attrition

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This talk focuses on the language development of 46 long-term bilingual immigrants around retirement age (55-75 years old) in French-speaking Switzerland. More specifically, this presentation investigates the role of typology in multilingual attrition, i.e., do speakers of typologically different languages like Portuguese and English experience language attrition differently when immersed in a French-speaking context? Therefore, this presentation focuses on attrition as a function of typological differences between languages and takes a holistic approach to attrition by 1) framing attrition as clearly embedded in the broader realm of multilingualism; 2) moving away from the categorization of individual versus community and with that language shift versus attrition. Individual multilingual narratives are greatly informed by the community and environment in which they are nested, and 3) using linguistic features to illustrate how sociolinguistic information can influence psycholinguistic outcomes (cf. Wirth et al. 2023). Although past attrition investigations that focused on the changed repertoire of given linguistic features have adopted sociolinguistic background measures, notably attitudes, motivation and age of onset/return (cf. Matos and Flores 2024), a holistic approach where both life narratives and psycholinguistic attrition outcomes are directly related has not been attempted. Thus, a methodological framework that allows for the bridging of socio- and psycholinguistic approaches to attrition will be discussed and preliminary results of my PhD thesis will be presented.

Duarte Wirth, Beatriz, Auer Anita & Keijzer Merel. 2023. First language attrition: Bridging sociolinguistic narratives and psycholinguistic models of attrition. In Li Wei, Zhu Hua & James Simpson (eds.), *The Routledge Handbook of Applied Linguistics: Volume Two, Second Edition*, 243–253. London and New York: Routledge Taylor and Francis Group.

Matos, Joana & Cristina Flores. 2024. More insights into the interaction between age, exposure, and attitudes in language attrition and retention from the perspective of bilingual returnees. *International Journal of Bilingualism*, 28(1). 24–42

Language Education and Social Distinction in Brazilian-European transnational Educational Spaces. Perspectives from a German School Abroad

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In Brazil, social segregation shapes the field of education. For elites, international private schools provide a way to maintain social distinction (Almeida 2015). These schools offer multilingual education and award certificates that represent cultural capital and open up participation in transnational education (Carnicer & Fürstenau 2021). In our paper, we look at the role of multilingual education for social positioning in the privileged context of a German School Abroad (GSA) in a Brazilian city. The Federal Republic of Germany promotes 136 GSA worldwide. Most of them offer multilingual education in at least three languages (the language of the host country, German and English). We explore the role of the “multilingual”, “German” and “international” education in the school community, in the Brazilian society and in transnational contexts. The case study of multilingual education in the GSA is part of a research project on educational transnationalisation between Brazil and Germany which followed an ethnographic approach (ibid.). On the basis of around ten qualitative interviews with school management, teachers, parents and (former) pupils as well as observations, we reconstruct experiences and interpretations of those involved. The theoretical concept of transnational educational careers and orientations was the guiding principle (ibid.). The results show that language education influences class dynamics and that the school population comprises various social groups that pursue different goals with multilingual education.

Almeida, A. M. F. (2015). The Changing Strategies of Social Closure in Elite Education in Brazil. In A. van Zanten, S. J. Ball, & B. Darchy-Koechlin (Eds.), *Elites, privilege and excellence: The national and global redefinition of educational advantage* (S. 71–81). Routledge.

Carnicer, J. A., & Fürstenau, S. (2021). Transnational mobility, education and social positioning between Brazil and Germany. In D. Cairns (Hrsg.), *The Palgrave Handbook of Youth Mobility and Educational Migration* (S. 107–117). Palgrave.

Language Ideologies, Practices, and Identity Construction among Turkish Immigrants in Hungary

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Numerous studies have focused on the Turkish language use and attitudes towards the mother tongue in Turkish communities in Europe (Yagmur, de Bot & Korzilius, 2010; Yagmur, 2015). However, it remains unclear whether the same results hold in smaller contexts where no institutional support is available, such as Hungary. This study investigates how Turkish speakers' language ideologies shape their practices and influence identity construction, with a particular focus on language maintenance. Data were collected through 50 in-depth ethnographic interviews within a linguistic ethnography framework (Copland & Creese, 2015), examining participants' language biographies and migration experiences (Busch, 2017). Findings reveal a functional bilingualism: Turkish is prioritized for cultural continuity and emotional expression, while Hungarian dominates in daily interactions and professional contexts. However, a notable trend toward language loss is evident, with many participants reporting difficulties recalling Turkish words, particularly within exogamous families. Participants exhibit contextual language switching, viewing Turkish as essential for cultural identity while considering Hungarian necessary for integration. This pluralistic language ideology values both multilingualism and cultural preservation but also highlights the need for integration. Many participants advocate for institutional support for Turkish language education, underscoring a belief that the mother tongue is crucial for cultural continuity. The pragmatic adaptation of prioritizing Hungarian for daily communication reflects a flexible language ideology shaped by practical needs in the host country. This study contributes to the literature on bilingualism by illuminating language ideologies, maintenance, and identity formation within a small, low-support diasporic setting

Language Learning in Multilinguals – the Effect of Variability in Language of Instruction

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Multilingualism is known to facilitate novel word learning (Hirosh & Degani, 2018). The current study explores whether this advantage stems from the multilinguals' ability to associate new words with translations in multiple known languages, creating translation variability. Previous research shows that stimulus variability enhances learning by leading learners to ignore the non-target dimension of the stimulus that is being varied and focus more on the shared information of the target (Barcroft & Sommers, 2005; Bradlow & Bent, 2008). Similarly, we suggest that the variability of translations may promote novel word learning. As a proxy, we used variability of the Language of Instruction (LOI), that was previously shown to affect word learning (Hirosh & Degani, 2021). 96 adult Hebrew-English bilinguals learned 50 novel German words in a single lab session in one of three conditions: in association with their Hebrew (L1) translation; their English (L2) translation; or with both Hebrew and English translations (variable LOI). Participants first learned the German words auditorily and then performed three tests: a familiarity judgment test assessing recognition of the novel word form, a picture matching test examining learning of the word's meaning, and a translation recognition test evaluating the association acquired between the novel word and its Hebrew and English translations. Results showed that the variable group responded faster in picture matching and translation recognition tasks, though the effect was only marginal in the familiarity judgment task. These results suggest that LOI variability can facilitate word learning in multilinguals, presumably by allowing learners to focus less on the specific form of the translation that is varied across both languages and extract the shared aspect – the meaning. This variability effect may shed light on the mechanisms underlying the multilingual advantage in novel word learning and offer valuable insights for optimizing language instruction in multilingual education.

Language Learning in the Mid-Sixties: How Variable Is the Bilingual Advantage?

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¹ University of Zurich

As socially engaging and cognitively challenging life experience, multilingualism has been found to contribute to cognitive reserve later in life and to more efficient additional language learning (Bak et al. 2014; Bialystok, 2012). However, while empirical research has hypothesized that the effects of multilingualism can vary over time due to evolving linguistic and cognitive demands (De Bot & Verspoor, 2019; Herdina & Jessner, 2002), little is known about how the effect of prior knowledge/use of previous languages may change over time in older adult English-as-a-foreign-language (EFL) learners, mediated by potential shifts in cognitive resources. We therefore address the following RQ: When, how, and for which older adults do knowledge-based, usage-based, and attitudes-based multilingual experience variables affect EFL learning over time? 44 healthy German-speaking individuals in Switzerland (aged 63-66), who participated in a 2-year-long English course, were assessed biweekly on written and oral EFL measures, cognitive parameters (working memory, executive functioning), and socio-affective variables (e.g., wellbeing). The data were analysed using generalized additive mixed modeling and visual-quantitative analyses for significance testing to detect potentially temporally limited non/linear effects. The quantitative part of this study was complemented by qualitative content analyses. We found a stable positive linear effect of cumulative language proficiency – rather than a variable and potentially nonlinear effect – across all previously known languages on both written and oral EFL performance (Gallo et al., 2022). Multilingualism effects were stronger in the initial stages of EFL learning (e.g., Anderson et al., 2020), and cognitive resources were positively associated with certain multilingual experience variables (e.g., Ihle et al., 2016). Because the lives of older adults are often full of reorganization and changes (e.g., due to retirement) and language learning in this age group is still under-researched, this study can contribute to a better understanding of the constraints operating on the contested bilingual advantage.

Language learning never gets old: Comparing the effects of lifelong multilingual experiences to later life language learning on the cognitive and psychosocial health of older adults

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In 2019, we started a 5-year project with the aim of comparing the cognitive and psychosocial effects of lifelong multilingual experiences in aging to those induced by learning a new language in older adulthood. We set out to investigate the effects of these differential experiences in relation to other sustained life experiences that are known to impact cognitive and psychosocial health, most notably musical training. We conducted an epidemiological study where we collected multilingual experience data from 11.000+ older individuals and related that to their cognitive functioning using Lifelines, a population-based cohort study comprising 10% of the Northern Dutch population (Sijtsma et al., 2021). We additionally conducted a randomized control trial intervention of three months where the effects of an English language course were compared to those of a guitar course and lecture series. We included healthy older adults and those with cognitive problems or past depression. In this talk, we present the main findings of the project, including 1) the cumulative advantages that were found for language and music experiences in the epidemiological study; 2) the lack of significant differences in cognitive and psychosocial health following a three-month language or music intervention; 3) the different domains impacted by language versus music training, and 4) the markedly larger improvements of learning a new language in older adults with (a history) of cognitive problems or depression. We discuss the implication of these results for models relating bilingualism to cognitive flexibility and wellbeing. Since the start of the project the subfield of later life language learning has grown exponentially. We therefore end by presenting the results of a recent meta review in our lab directly comparing the brain and cognitive reserve findings of lifelong multilingualism versus later life language learning on the basis of available studies to date.

Language proficiency and code-switching in English-Spanish autistic bilinguals

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Research on bilingualism in autism is limited, but shows that bilingualism does not negatively affect language. This study uses naturalistic language sampling to observe bilingual dynamics in autism in a more ecological context. Sixteen 2- to 31-year-old English-Spanish autistic bilinguals participated in two Brief Observation of Autism Symptoms (BOSA) sessions, one in each language. The language context (English vs. Spanish) of the BOSA, a 14-minute semi-structured interaction, was established by the examiner. Video-recordings of the BOSAs were transcribed using SALT conventions. Utterances were then coded as (a) 'target language' (matching the context), (b) 'inter-sentential code-switching' (using the non-contextual language), or (c) 'intra-sentential code-switching' (mixing both languages). Language proficiency in each language was measured as number of utterances (nUtt), mean length of utterance in morphemes (MLUm), and number of different words (NDW). Linear regression models, controlling for age, revealed that English proficiency was higher than Spanish for nUtt ($\beta = -54.06$, $SE = 22.19$, $p = .02$) and NDW ($\beta = -57.94$, $SE = 24.8$, $p = .03$), but not for MLUm ($p = .05$). Pearson correlations showed strong positive associations between English and Spanish proficiency (nUtt: $r = .82$, $p < .001$; MLUm: $r = .88$, $p < .001$; NDW: $r = .89$, $p < .001$). Pairwise comparisons on a linear regression model with the Code-switching behavior x Language context interaction as fixed effect, controlling for age, found higher rates of target language utterances in English vs. Spanish contexts ($\beta = .26$, $SE = .06$, $p < .001$), and more inter-sentential code-switching in Spanish vs. English contexts ($\beta = -.19$, $SE = .06$, $p < .01$). No difference was found in intra-sentential code-switching ($p = .6$). Overall, participants were proficient in both languages, but English appeared stronger. Code-switching occurred more frequently when participants used their weaker, culturally non-dominant language (Spanish).

Language Science Needs Network Science

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Most of the world's population is bilingual, but the circumstances that give rise to bilingualism are diverse. Several metrics have been developed to characterize diversity in language experience. Notwithstanding, a limitation of existing tools is that they fail to capture interpersonal dynamics of everyday language use. Here, we capitalize on Network Science metrics to quantify and evaluate how bilinguals (egos) differentially distribute their languages across people (alters) and different communicative contexts (home, social, etc.). We collected personal network data from Spanish-English bilinguals across two different language ecologies (Spain $n = 34$; Puerto Rico $n = 49$) and examined the association between network composition and structure and bilinguals' codeswitching tendencies. Relative to Spain bilinguals, Puerto Rico bilinguals reported a higher proportion of bilingual alters and codeswitching on average more often across all communicative contexts. This suggests that bilinguals are more likely to switch languages when surrounded by other bilinguals. Critically, we observed differential patterns of association between ego codeswitching tendencies, the strength of ego-alter emotional closeness, and communicative context for the two groups. For Puerto Rico bilinguals, codeswitching tendencies differed by ego-alter tie strength, where bilinguals reported codeswitching more with emotionally closer alters. For Spain bilinguals, language use was predominantly associated with less emotional closeness in school settings, suggesting key differences in how codeswitching practices are perceived and experienced. Overall, these findings highlight the importance of characterizing interpersonal and ecological language dynamics, beyond individual- and group-level measures of language experience.

Language universals vs. crosslinguistic influence: The case of morpheme-ordering biases

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Artificial language learning (ALL) experiments often seek to elucidate cognitive universals, but can overlook effects of crosslinguistic influence. Saldana, Oseki, and Culbertson (2021) showed, for instance, that English and Japanese speakers favor placing number markers closer to noun stems than case markers in artificial languages (e.g., NOUN-PL-ACC or ACC-PL-NOUN). Since these orders comport with semantic scope, this was taken as evidence of a universal bias for “scope-isomorphism”. Yet, structures in both English and Japanese might predispose speakers to scope-isomorphic orders in the form of transfer effects from their L1. The present study used an extrapolative ALL design to compare the ordering preferences of 41 English speakers and 50 Polish speakers. Notably, case and number marking fuse into a single suffix in Polish (e.g., ‘nauczyciel-i’ teacher-MASC.PL.ACC). Truly monolingual Polish speakers should thus not be inclined towards specific orders of case~number morphemes based on their L1. If they did favor scope-isomorphic morpheme orders, this would more concretely support a universal bias. We replicated the earlier findings that English speakers prefer scope-isomorphic case~number morphemes. However, our Polish speakers displayed this bias only postnominally and to a weaker degree than our English speakers. One possibility is that, in the absence of a genuine scope-isomorphism bias, the Polish speakers turned to their knowledge of other languages: Though they all resided in Poland and self-identified as Polish monolinguals, they also reported familiarity with a diversity of languages, particularly English. It could be that familiarity with English(-like) plurals led to their stem-number ordering preferences postnominally, but that they didn't quite know what to do prenominally. Importantly, our non-straightforward findings lay bare the interesting and consequential question of how crosslinguistic influence might complicate the appearance of cognitive universals in ALL experiments—and how tricky this is to gauge.

Language-Switching and Language-Proficiency Costs: Challenges in Bilingual Mathematical Learning

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Multilingual learning often requires learners to switch languages between learning and retrieval or to connect new knowledge in language A to prior knowledge in language B. According to the encoding-specificity hypothesis, this language-switching induces cognitive costs, known as language-switching costs (LSC). Additionally, in multilingual education, learners often operate in a language they are still acquiring, leading to language-proficiency costs (LPC), which interact with LSC. Our study is the first to examine LSC, LPC and their interaction all together. We conducted this study in a multilingual school setting using authentic learning material to assess conceptual understanding in bilingual mathematics learning. 120 students enrolled in a French immersion program at a German high school were instructed in six statistical concepts that were novel to them. To examine LPC, half of the participants learned in French (L2), the other half in German (L1). Afterwards, each participant was tested in both languages, thus allowing to determine the impact of language-switching when the test items were incongruent to the language of learning. The test included problems on three different cognitive levels (reproduction, near-transfer, and far-transfer) and two follow-up tests were conducted after 1 and 4 weeks to examine the stability of the observed effects. Analyses revealed significant LPC, demonstrated by reduced accuracies for the group that learned in L2 and reduced accuracy for all items in L2. Additionally, LSC appeared for students switching into L2, but not for those switching into L1. This directionality likely results from the overlaying dominant impact of LPC. Also, more demanding problems increased the impact of LSC, especially far-transfer problems due to their high intrinsic cognitive demand. Additionally, both LSC and LPC remained stable in the follow-up tests. These results provide theoretical and practical implications to address language-related cognitive challenges of multilingual education in school and beyond.

Large-scale investigation of the white matter structures associated with reading gains in typical and struggling bilingual readers

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Although predominantly left-hemispheric pathways have been linked to reading abilities in monolingual children, emerging evidence suggests that reading gains in monolingual struggling readers are associated with putative right-hemispheric compensatory mechanisms. However, the unique patterns of brain development in bilingual children in relation to reading abilities have either not been taken into account or been explicitly excluded from existing work. Leveraging the large-scale longitudinal data set from the Adolescent Brain Cognitive Development study, this study examined white matter (as measured by fractional anisotropy) in relation to reading gains over time in bilingual and monolingual typical and struggling readers. Initial analyses from 450 bilingual children (ages 9-12) and matched monolingual peers reveal a complex association between language, reading, and cognitive control pathways in relation to reading gains. In monolingual typical readers, we find that bilateral dorsal pathways (i.e., SLF) are associated with reading gains. Reading gains in bilingual typical readers at the group level were not only associated with the same bilateral dorsal pathways, but also with left-hemispheric cognitive control pathways (parahippocampal cingulum) and ventral language pathways (left-IFOF and right-ILF). Further investigation based on bilingual language exposure revealed distinct effects: For simultaneous bilinguals, bilateral ventral pathways (i.e., ILF) were differentially associated with reading gains in typical vs. struggling readers. By contrast, reading gains in sequential bilinguals were associated with widespread white matter pathways in ventral language-related and cognitive control pathways in typical readers but not struggling readers. Overall, initial findings suggest that language exposure and the context of that language exposure may uniquely impact the underlying brain structures associated with reading gains in children who use more than one language. Additional analyses will be conducted to determine other ecological factors that may influence the association between white matter pathways and reading gains in these groups.

Learnability Challenges in L2 Learners' Weighting of Acoustic Cues to Lexical Stress

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Second-language (L2) learners' perception of lexical stress is shaped by the functional weight of acoustic cues in the first language (L1): The more important a cue is for recognizing L1 spoken words, the more listeners rely on it for perceiving L2 lexical stress (Tremblay et al., 2021), even if the same cue does not signal lexical stress in the L1 (Qin et al., 2017) or the L1 lacks lexical stress (Kim & Tremblay, 2021; Qin et al., 2017). What is less clear is how a highly weighted acoustic cue in the L1 impacts the perception of lexical stress in the L2 when the directionality of the cue differs between the two languages, and whether High-Variability Phonetic Training (HVPT) can help listeners adjust this directional effect. To answer these questions, we investigate the perception of English lexical stress by highly proficient Mexican Spanish L2 learners of English. English lexical stress is signaled primarily by vowel quality and secondarily by pitch and duration (Tremblay et al., 2021; Zhang & Francis, 2010). In contrast, Spanish lexical stress is not signaled by vowel quality cues, and pitch accents in Mexican Spanish are often post-tonic, leading to lower pitch on stressed syllables compared to unstressed syllables (contrary to English; Hualde & Prieto, 2015). Participants completed Tremblay et al.'s (2021) cue-weighting stress perception experiment (e.g., desert-dessert) as pre- and post-tests, and HVPT on stress contrasts (e.g., record [n.] vs. record [v.]) over 8–10 days (eight 30-minute sessions) with explicit accuracy feedback. Preliminary results suggest that Spanish listeners rely less on vowel quality than English listeners and use pitch in an L1-like manner (low-high as desert, high-low as dessert). Use of vowel quality improves with English proficiency and training, but use of pitch does not, suggesting that learning new cues is easier than unlearning established ones.

Learning by doing: ERP analysis of L2 acquisition of stress-suffix associations

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Despite the rapid pace of spoken language, comprehension remains remarkably efficient. This efficiency arises from language users processing input incrementally as it unfolds and actively predicting upcoming information. Native speakers and advanced L2 learners use prosodic cues like tone and stress to predict word endings, but beginner L2 learners do not. Although low-proficiency L2 learners struggle using prosodic cues predictively, research indicates that training can improve sensitivity to the predictive functions of tone in learners with non-tonal L1s (Schremm et. al 2017). However, it remains unclear whether training can facilitate prediction with L2 suprasegmental cues that carry different weight in the L1. The present study addresses this question by investigating whether beginning English learners of Spanish benefit from digital training on stress-suffix associations and are able to extrapolate the knowledge to new instances. Importantly, lexical stress is used more frequently in Spanish than English to differentiate words. Participants played the training game for 10 days, 10-15 minutes daily, and completed a Spanish proficiency test, a Spanish use questionnaire, and a working memory task. Before and after training, learners completed an EEG pretest/posttest: listening to verbs with valid/invalid stress-suffix combinations and deciding the tense (present/past). Game data revealed higher accuracy and faster RTs during gameplay. In contrast with the EEG pretest, the EEG posttest indicated slower RTs along with a P600 and LAN effect for invalid stimuli, suggesting that learners acquired the stress-suffix association. Finally, higher working memory yielded higher game accuracy and stronger LAN effects. These findings support phonology models suggesting L2 learners can acquire suprasegmentals that differ from the L1 and psycholinguistic models positing that L2 processing of inflectional morphology is cognitively demanding. Schremm, Andrea, et al. "Training predictive L2-processing with a digital game: Prototype promotes acquisition of anticipatory use of tone-suffix associations." *Computers & Education* 114 (2017): 206-221.

Learning Dutch in a multilingual context

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Dutch can be a language barrier in the workplace for proficient non-native English speakers learning Dutch in the Netherlands. One solution to this is to adopt a receptive L2/FL learning paradigm (Ellidokuzoğlu, 2017), which makes use of receptive multilingualism (Backus et al., 2013). This means that Dutch learners train their listening and reading skills in Dutch, while using their preferred language for speaking and writing (i.e., English). This study asks to what extent this L2/FL learning approach affects word recognition in L2/FL learners of Dutch. To answer this question, we examine their recognition of Dutch-English cognates. In an ongoing experiment, we randomly assign participants to either receptive or non-receptive Dutch L2/FL training. Subsequently, we test them with a Dutch-only auditory lexical decision task. We manipulate the cognate status of the words, the semantic relatedness of a preceding prime, and the listening conditions in which the cognates are presented. Preliminary descriptive statistical analyses show lower accuracy ($M=76\%$, $SD=42$) and longer RTs ($M=1770\text{ms}$, $SD=561$) for cognate recognition in the receptive L2/FL group compared to the non-receptive group ($M=83\%$, $SD=37$; $M=1536\text{ms}$, $SD=349$, respectively). When cognates are presented under noisy vs. clear conditions, a semantically related prime leads to shorter RTs in both receptive and non-receptive groups, with only the former showing an increase in accuracy. The results obtained will contribute to methods of L2/FL teaching and learning, as well as to the discussion of cross-linguistic influence and bilingual models of word retrieval.

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Ellidokuzoğlu, H. (2017). Towards a receptive paradigm in foreign language teaching. *Turkish Online Journal of English Language Teaching*, 2(1), 20–39.

Levelling the playing field in higher education: The role of language and literacy skills

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UK higher education attracts diverse groups of students, but persistent degree awarding gaps exist along the dimensions of domicile (UK vs non-UK) and ethnicity (white British vs ethnic minority), both of which intersect with language (English native vs non-native). We sought to understand differences in English proficiency, reading, and writing profiles—and their impact on academic performance—across three groups: international students with English as a foreign language (EFL), home students with English as an additional language (EAL), and students with English as their first language (L1E). We recruited 182 participants (L1E=63; EAL=59; EFL=60) and used psychometric tests to compare their cognitive, linguistic and literacy profiles. Their average grades served as a proxy for academic performance. English language proficiency. The L1E students demonstrated an advantage over both the EFL and EAL students in vocabulary (PPVT, Dunn & Dunn, 2007) and grammar (Hartshorne et al, 2018). Reading. The EFL and EAL students read at a slower pace compared to the L1E students, resulting in lower comprehension of the text. This was particularly evident in timed reading (Nelson-Denny Reading Test; Brown et al., 1993). On untimed tests, there were no group differences in reading comprehension, suggesting that additional time in assessment could create fairer conditions for bilingual students. Writing. The L1E students had a significant advantage on writing speed (number of words in a two-minute summarization task), text length (a ten-minute essay-writing task), and essay quality. Vocabulary, grammar, and processing speed in English were the major contributors to essay quality. Academic grades mirrored group differences on language and literacy skills, and showed a close association with them. This indicates that even in higher education, language remains crucial for understanding disparities in academic performance. Results highlight the importance of recognising and supporting additional linguistic needs of all students, irrespective of domicile.

LexEn: A research-optimised English proficiency test for native and foreign speakers

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4 Pompeu Fabra University

5 University of Houston

6 Ghent University

Efficient proficiency assessment is crucial for investigating language processes in psycholinguistics. The LexTALE (Lemhöfer & Broersma, 2012), a yes/no lexical test, has become a popular, rapid tool for L2 proficiency assessment. However, as Puig-Mayenco et al. (2023) report, many studies have used the test indiscriminately across the proficiency levels, overlooking that it was originally recommended for testing advanced L2 speakers. Furthermore, the LexTALE's sensitivity to typological variation raises questions about its universal applicability (Puig-Mayenco et al., 2023). Importantly, despite critical improvements in similar tests across other languages (e.g., Brysbaert, 2013), no enhanced English version exists. To address this, we introduce the LexEn, a new proficiency test that expands the LexTALE's applicability across proficiency levels. LexEn also incorporates key methodological advancements: (1) enhanced word selection, (2) exclusion of cognates, (3) item validation via item response theory, and (4) inclusion of words common to British and American English varieties. Moreover, the LexEn is designed for L2 learners but also for L1 speakers. Currently data collection is underway, and we expect to present full results by the time the conference takes place. These include (i) a pilot with 500 items and 400 L2 participants (L1 Dutch, L1 Spanish, L1 Chinese) and 200 L1 English speakers of British and American varieties, and (ii) a validation of a refined 120-item version with the same participant profile. The LexEn's construct validity will be evaluated against the Oxford Placement Test, the MINT (Gollan et al., 2012), and the original LexTALE, among other tests. The LexEn aims to become a reliable, freely accessible, and an efficient proficiency assessment tool for L2 and L1 speakers, contributing to greater methodological consistency in psycholinguistics research.

Lexical access and inhibition in Ukrainian and Russian: the role of attitudes and trauma

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For many bilingual speakers of Ukrainian and Russian the ongoing war has led to a re-framing of their languages in that Russian has come to be associated with the ‘language of the enemy’, and that even speakers who grew up with Russian as the language of their home have come to reject it and to reclaim Ukrainian as their native language. These findings are, to some extent, reminiscent of reports by German-Jewish Holocaust survivors, who abandoned their L1 in favour of the language of their country of emigration, eventually leading to L1 attrition (Schmid, 2002). We report here on initial findings from a research project that attempts to assess how changing patterns of language attitudes and everyday language use may impact on lexical access and inhibition in Russian and Ukrainian against this background, and how such processes may represent the first step in language development and language attrition. The project which we introduce here will have two data collection phases, and we will be reporting on findings from the first phase, conducted between January and September of 2023 by means of cued picture naming tasks (PNTs) in both languages, along with a survey on attitudes, identification and language background. A total of 100 participants were investigated in this first phase. Preliminary analyses suggest languages remain balanced across speakers, but that the cost incurred by switching and mixing is higher in the Russian PNT than it is in Ukrainian. These initial observations indicate that there may indeed be a stronger inhibition effect when accessing Russian than when accessing Ukrainian. We will employ linear mixed effects regression modeling to assess the impact of language background and use factors and factors relating to attitude and identity before and after the Russian invasion to determine how these factors affect lexical access and inhibition.

Lexical Access in bilinguals. An EEG-FPVS Approach to Measure Lexical Word-Selective Response Across Different Levels of L2 (English) Language Proficiency

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Bilingualism affects lexical processing through language dominance, cognitive control, and frequency of use (Costa et al., 2000; Dijkstra & Van Heuven, 2002). A key question is whether lexical access in bilinguals is language-specific or if both languages are co-activated (Lecerf et al., 2024). To assess this question, we tested 45 participants in their L1 (French) and L2 (English) using an original EEG approach with a Fast-Periodic Visual Stimulation (FPVS) oddball paradigm. Automatic lexical discrimination was assessed by presenting words periodically (1 out of 5) among pseudowords (PW) displayed in a rapid periodic stream (10Hz) and measuring the neural discrimination response for words at 2Hz (10Hz/5). This implicit word-selective response was used to (1) assess lexical discrimination in each language, expecting lexical responses for L2 (English) sequences related to L2 proficiency, and (2) examine cross-language interaction by presenting pseudowords (acting as primes) of the other language (PW-L1 and words-L2, or PW-L2 and words-L1). Preliminary results on a subset of bilingual participants with high L2 (English) proficiency levels (N=21) showed stronger response amplitudes for L1 (French) than L2 (English) sequences, consistent with previous findings (Kroll & Bialystok, 2013; Peeters & Dijkstra, 2015). Language priming effects in the cross-language sequences resulted in lower amplitude for L2 (English) words in L2 pseudowords (intra-language) than L2 words embedded within L1 (French) pseudowords (cross-language). In contrast, L1 (French) words showed no significant difference between cross- and intra-language conditions. We hypothesize that L2 English-specific orthographic cues selectively activate English lexical representations but more subtly in an intra-language context. These first findings could support the view that L1 has an advantage due to automatic lexical activation, while L2, even at high proficiency, relies more on the context of the word-selective response. In-depth analyses will compare lexical responses across L2 proficiency levels in both conditions.

Lexical complexity in informal second language learning: A longitudinal study of L2 English

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Studies on informal second language learning (ISLL) suggest that prolonged exposure to informal L2 input enhances receptive and productive skills in L2 learners (Dressman, Sadler 2020; Toffoli et al. 2023). However, only recently has research began investigating longitudinal development within ISLL, focusing on complexity, accuracy and fluency (CAF) (Kusyk 2020; De Riso 2024). In previous studies on CAF, findings have shown that lexical complexity – as lexical diversity and lexical sophistication – tends to increase throughout development, while being a reliable indicator of L2 proficiency. Lexical diversity measures vocabulary range and is calculated as the ratio of unique words (types) to total word count (tokens) (Malvern et al. 2004). Since the probability of introducing new types decreases with text length, measures such as D have been developed to assess lexical diversity independently of text length (McCarthy, Jarvis 2007). Lexical sophistication reflects the use of less frequent, more advanced vocabulary, operationalized as word frequency lists (Laufer, Nation 1995; Nation 2016). The present study aims to assess longitudinal development among Italian L2 speakers of English who are exposed to the language only informally, mainly through the media. Focusing on lexical complexity as diversity and sophistication, the study will draw on 12 university students' spoken productions, collected through monologic and dialogic tasks over a 12-month period. Additionally, it will compare the monologic and dialogic data to evaluate how different tasks may elicit different degrees of lexical complexity. Initial results suggest a positive progression in both lexical diversity and sophistication over time. However, distinct acquisitional patterns appear to emerge between monologic and dialogic tasks, with the former consistently yielding higher levels of both diversity and sophistication. The paper will discuss the data with reference to weekly informal exposure and other individual differences, highlighting the positive impact of out-of-class L2 experience at advanced stages of development.

Lexical Processing and Executive Function in Bilingual Children with and without DLD: An ERP Study

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This study explored lexical processing and executive function in bilingual children with and without Developmental Language Disorder (DLD) using electroencephalography (EEG). With the growing prevalence of bilingualism and the challenges in diagnosing DLD in bilinguals, this research addresses how DLD impacts cognitive and language functions in bilingual settings, countering assumptions that bilingualism worsens DLD-related difficulties. The study included 36 Spanish-English bilingual children with DLD and 32 typically developing (TD) peers, matched by gender, age, socioeconomic status, and non-verbal IQ. Participants completed two tasks: (1) a Lexical Decision Task to categorize non-words, Spanish, and English words, and (2) a Stroop Task to assess inhibitory control and language interference. EEG recorded event-related potentials (ERPs) to analyze cognitive processing during these tasks. The results revealed that both groups experienced similar difficulties processing non-words, indicated by N400 ERP components, with no significant differences between children with DLD and their TD peers for Spanish and English words. In the Stroop Task, both groups found incongruent conditions more challenging, requiring increased cognitive control as reflected by longer response times and N400 components. This suggests that bilingualism does not exacerbate cognitive difficulties in children with DLD. Contrary to initial expectations, no significant differences in lexical processing or executive function were observed between bilingual children with and without DLD. These findings suggest that bilingual children with DLD may not require distinct interventions compared to their typically developing peers, supporting more inclusive educational approaches. The results provide reassurance to parents and educators that bilingualism does not worsen language challenges in children with DLD and highlight the need for further research on DLD in bilingual contexts.

Lexicon and inhibitory control on the calculation of scalar implicatures: insights from Spanish/English-speaking bilingual children

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One aspect of the ongoing debate on the bilingual/multilingual experience posits that bilingual children may possess smaller single-language vocabularies than their monolingual peers but exhibit superior Executive Function (EF). Previous research has found that both EF and vocabulary are critical for comprehending pragmatically-sensitive interpretations of quantity implicatures, such as the one associated with the Spanish quantifier *algunos* (“some”). This study investigates the relationship between *algunos* implicature interpretations, vocabulary and inhibition in bilingual children and how statistical models relate to three different cognitive models of multilingualism: The Dual Competence, The Unitary, and the Integrated Model. Critically, the Unitary Model holds that all linguistic resources are shared in the bilingual mind, while the Integrated Model of Multilingualism claims that both shared and language-particular linguistic resources are possible. Fifty-two Spanish-English bilingual children participated in this study. Their ages ranged from 5 to 8 years old. They completed a stop-motion video-recorded Truth-Value Judgment Task to measure their interpretations of the *algunos* quantifier. They also completed standardized tests of inhibitory control (Flanker Task), Spanish-only vocabulary (TVIP), Spanish-and-English vocabulary (EOWPVT-SBE), and language experience measures of their Spanish and English richness (ALEQ). Results revealed that bilingual children as young as 5;2 generated implicatures 100% of the time. A significant correlation was found between the Spanish-only vocabulary measure and implicature generation ($r = -.347$, $p < .05$). However, no significant associations emerged for the combined Spanish-and-English vocabulary measure or inhibition, although the two lexical measures correlated with each other, the language experience measure (ALEQ) and with inhibition. Thus, while a single-language Spanish vocabulary measure correlates with implicature generation, a bilingual measure does not. These findings are consistent with the Integrated Model of Multilingualism, and also with the idea that bilinguals have two different sets of hierarchically ordered quantifiers for each language, and not one set that includes both languages

Linguistic diversity in the United States Hispanic/Latino population: Indigenous Mesoamerican peoples in Oregon as a case study

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The United States Census of 2020 reported a population of 331,449,281. Spanish is reported as the most spoken language other than English with 43,369,734 (13%) speakers. The census attributes this to the size of the Hispanic or Latino population: 62,080,044 (18.7%). This correlation along with limiting the number of languages reported by the census gives the impression that the so-called Hispanic or Latino population is monolithic and homogenous. We present data from two projects spanning 4 years of research on Indigenous Mesoamerican peoples from Mexico and Guatemala serving in the forestry and agricultural industries of the US state of Oregon. These populations are often assumed to be Spanish speakers due to their provenance. However, interviews with 300 individuals in 2020-2021 and surveys by 177 individuals in 2023-2024 reveal speakers of 50 distinct Indigenous Mesoamerican languages: Zapotec, Mixtec, Triqui, Otomí languages, and Amuzgo (Otomanguean); Nahua languages and Huichol (Uto-Aztecan), Mayan languages, and isolates such as Purepecha; in addition to Mexican Sign Language. We present the documented languages and ISO 639-3 codes. We also show the distribution of the various language communities across Oregon, specifying highly multilingual towns where some communities have speakers of more than 20 languages. Findings show that individuals live surrounded by members of the same language community and place of origin and have opportunities to use their language regularly. Concurrently, the study shows that access to services and resources critical to people's well-being is conditioned by the use of English or Spanish, notably in the educational, and healthcare systems. Finally, the data also show high rates of bi/multilingualism, with participants having repertoires of two, three, or more languages. In conclusion, the study provides evidence to argue for the need to understand linguistic diversity beyond homogenizing labels as a crucial step in supporting bi/multilingual communities.

Listening to multilingual children's voices: Valorising and expanding sacred language learning through visual methods

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Recent studies have foregrounded issues of knowledge building and representation of multilingual children's perspectives and voices in educational research (Pinter, 2023). Against this background, there is an increased desire to diversify verbal methods and to appraise visual and embodied ones with the purpose of ensuring that children represent their experiences, stories and interpretations in ways that are meaningful to them (Martin-Jones and Martin 2017, Kalaja & Sílvia Melo-Pfeifer 2024). Issues of representation and voice become even more pertinent when researching multilingual children's learning and use of sacred languages, especially since religion is often considered to be a very private matter (Lytra et al 2017). Drawing on a three-year collaborative team ethnography of children's religious literacies and identities in four transnational faith communities in London, UK, we examine the use of scrapbooks and conversations around them that encouraged children to use visual as well as verbal ways of documenting, sharing and representing their experiences of faith literacy learning in their own terms. We discuss examples from scrap books created by multilingual children from the Tamil Hindu/Saiva faith community and from their interviews with the project researcher. Taking a view of religion as socio-cultural practice (Lytra et al 2016, Souza 2016), we argue that scrap books as text making practices along with the conversations around them, opened discursive and symbolic spaces for children to exercise their agency and display their rich and complex multilingual, multiscriptal and other semiotic resources (images, symbols, narratives) associated with the Hindu/Saiva faith. These spaces allowed children to co-construct knowledge with researcher and contributed to building collaborative and ethical relations with the children and their families and the development of a child-friendly and socially just methodological and epistemological stance.

Lithuanian Attitudes Toward the Russian Language: Before and After February 24, 2022

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This paper presents the attitudes of ethnic Lithuanians towards the Russian language. It is mainly based on an online survey conducted in 2024 (N = 200). The findings from open-ended survey responses are compared with data from qualitative, semi-structured in-depth interviews about the Russian language (N = 50), gathered during the project "Linguistic Attitudes and Behavior of the Lithuanian Population" (2020–2021) (Hilbig 2022; Ramonienė 2022). Our content analysis follows Garrett's (2010) tripartite model of language attitudes, categorizing them into cognitive, emotional, and behavioral. Additionally, we classify attitudes by valence as positive, negative, or mixed. We investigate whether attitudes have shifted since the full-scale outbreak of Russia's war in Ukraine and, if so, in what ways. As anticipated, the results reveal that the emotional dimension has become more pronounced, with a shift from positive or neutral to negative or mixed attitudes. Negative behavioral attitudes have also become more visible. Overall, Lithuanians exhibit conflicting attitudes across different dimensions of their linguistic heritage from the Soviet occupation period, particularly middle-aged and older individuals who were growing as early sequential bilinguals in Lithuanian and Russian.

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Longitudinal Speech Graph Analysis of Narrative Retelling in Bilingual Spanish-English Children with and Without Developmental Language Disorder

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Developmental Language Disorder (DLD) affects 7-11% of children, presenting challenges in language comprehension and use. Bilingual children, comprising one in five in the U.S., face heightened risks of both over- and under-identification for DLD due to poor understanding of bilingual language variability (Morgan et al., 2018). Speech connectedness can offer insights into language development. Long-range connectedness in speech samples, for example, can indicate second language fluency progression and relates to syntactic complexity in narratives (Botezatu et al., 2022). The present study examines connectedness over two years in bilingual children with DLD without DLD (typically developing, TD) by assessing narrative performance through three aims: (a) tracking changes in Spanish-English dominance in narrative retelling, (b) comparing connectedness and recurrence patterns in narrative retelling between DLD and TD children, and (c) identifying specific speech graph metrics predictive of bilingual narrative performance across diagnostic groups. Forty-two bilingual Kindergarten children (21 DLD, 21 TD), matched pairwise by age, IQ, and language exposure, completed two subtests targeting semantics and morphosyntax and produced narrative samples from wordless picture books in both languages (BESA, Peña et al., 2014). Narrative data were analyzed with SpeechGraphs software (Mota et al., 2014) to evaluate connectivity between nodes (words) and edges or phrases and recurrences or use of parallel structures. As expected there were significant effects of time and diagnosis on English and Spanish composite BESA semantics and morphosyntax scores. In English, TD children's BESA composite was higher than DLD peers, with a positive, though non-significant, link with connectivity. In Spanish, ability was positively associated with speech connectedness. These findings suggest that speech graph measures offer valuable indicators of language connectedness when measured in narrative and may assist in DLD identification using narrative samples.

Managing (a misplaced) body and language: The tale of three migrant families in Sweden through raciolinguistic lens

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Recent years have seen an increasing body of scholarship that has engaged on the historical and contemporary co-naturalization of language and race (Rosa & Flores, 2017). While many of these scholarly works have overwhelmingly concentrated on the sociolinguistic experiences of various minoritized groups in the North America, there has been little body of research that unpacks the sociolinguistic lives of migrants in Sweden anchoring similar theoretical underpinning. Against this backdrop, by taking specific sociolinguistic stories of three migrant families in Sweden as an empirical point of departure, this study aims to examine whether the racialization of language, identity, and place influences migrant families' language policy decisions, school choice practices to their children and children's multilingual experiences in the home. To this end, this paper draws on a multimodal ethnographic research data taken from a larger study that examine the family language policy (FLP) of nine migrant families of Ethiopian background in Gothenburg, Sweden. The data was collected using a multipronged methodological approach that brings semi-structured interview and participant observation with language portrait (Busch, 2018) and space-mapping methods. The finding shows that racialized ideologies of language and racialized perception of the self and others within a presumed Swedish racial hierarchy informed the families' FLP practices and school choice decision to their children as a way of managing presumed language and identity related problems. The study further illustrates the pervasiveness racialization practices that continue fostering racialized perception of language, identity and place, which are even espoused by racialized subjects despite them being victims of colonially inherited mode of perceptions and identifications.

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Mapping individual differences in cross-dialectal language representation and processing: An ERP study of Norwegian bidialectalism

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This study investigates bilectal grammatical representation and processing using three ERP reading experiments conducted in two Norwegian dialect regions. Northern Norwegian bilectals ($n = 83$) participated in two sessions, reading in both the local Bokmål standard and Northern Norwegian dialect writing. The study focused on two types of grammatical conditions: non-contrastive gender agreement (control) and dialect-specific number agreement (target), which varies grammatically between Bokmål and Northern Norwegian. In the number condition, where the dialect and standard differ, participants showed contrasting processing profiles in both on-line (ERP) and off-line (grammaticality judgment) measures. Specifically, the number condition elicited reversed P600 components and reversed grammaticality judgments, indicating competition between the distinct grammatical representations each bilectal maintains for their dialect and the standard. To examine this interaction further, the Bokmål version of the experiment was also conducted with a control group from Sunnmøre ($n = 73$), where the spoken dialect aligns grammatically with Bokmål for both gender and number agreement. Compared to both the control group and the gender agreement condition, Northern Norwegian participants exhibited significantly attenuated ERP responses and more gradient, less accurate judgments in the number condition, reinforcing the evidence for cross-dialectal influence on processing. Individual differences in bilectal engagement and exposure were assessed using a modified version of the Language Social Background Questionnaire (LSBQ, Anderson et al., 2018), which provided continuous measures of each participant's engagement with Bokmål and their local dialect. These factors significantly modulated the degree of cross-dialectal influence in processing, with higher engagement in Bokmål linked to more accurate judgments and larger magnitude ERP responses in the Bokmål number condition. Together these findings support the idea that bilectalism operates similarly to bilingualism in fostering distinct grammatical representations for narrowly contrasted L1 varieties, modulated by individual language experience.

Mechanisms of Proactive Language Control: Evidence from Cognate Facilitation

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Language control is needed to regulate the activation of known languages. One can distinguish between two types of language control: reactive and proactive. In contrast to the better understood reactive control, proactive language control is thought to be used to adapt language activation in advance—before conflict has arisen. Proactive language control can be investigated by looking at cognate production in different task settings: Cognates are translation-equivalent words that are similar or even identical across languages in phonological and/or orthographic form (e.g., BABY/BABY [English/German]). Due to cognates' high form overlap, language co-activation results in low conflict when encountering them. Previous research has shown that pictures of cognates are more easily named (i.e., fewer errors, smaller RTs) by bilinguals than non-cognates. However, such cognate facilitation may depend on the exact task demands and language control state a bilingual is in. Across two experiments, we thus investigated how proactive language control modulates language co-activation and in turn cognate facilitation in situations of low and high conflict. In Experiment 1 (N = 85, preregistered), we manipulated the frequency of cognates versus non-cognates within blocks of a L2 written picture naming task. We hypothesized that a larger cognate facilitation effect would be found in blocks with more cognates (majority-cognate; low conflict) than in blocks with more non-cognates (majority-non-cognates; high conflict), suggesting that people proactively adapt language activation to optimize ease of language production. As expected, cognate facilitation was higher in majority-cognate than in majority-non-cognate blocks in Experiment 1. In Experiment 2 (planned N = 80; data collection ongoing), we investigate the exact mechanism by which co-activation of translation-equivalent words is regulated. We interleave the L2 written picture naming task with a secondary task, which tests L1 activation of old words (translation-equivalents of previous L2 targets) versus new words.

Mental effort during second language processing in adolescent learners: Evidence from pupillometry

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Research on bilingual language processing has yielded ample evidence that multilingual speakers cannot simply “deactivate” one language while using the other. To examine such language co-activation in bilingual lexical processing, a word type frequently used is cognates. Cognate words are translation equivalents that share meaning and the same/similar form across languages (e.g., German-English Kaffee-coffee) and have been found to be processed faster and more accurately than translation equivalents without such overlap (i.e., noncognates, such as German-English Tasse-cup). This cognate facilitation effect is considered evidence for language co-activation in bilinguals and has been demonstrated in both children (Gastmann & Poarch, 2022) and adults (Dijkstra et al., 2010). However, one population that has been studied comparatively less is adolescents. Thus, this study aimed to examine language co-activation in adolescent learners, by using pupillometry as a psychophysiological measure of cognitive effort during language processing. Forty-seven L1 German low-intermediate learners of L2 English (mean age = 13.5) performed an English Lexical Decision Task on cognates and noncognates. Beyond decision accuracies and RTs, changes in participants’ pupil dilations were measured to assess cognitive effort during word recognition. Specifically, larger pupil dilations indicate higher mental load (Mathôt, 2018). We predicted smaller changes in pupil dilations for cognates compared to noncognates (Guasch et al., 2017) as form overlap between languages should facilitate cognate processing and thus cause less mental effort. Mixed effects analyses yielded cognate facilitation effects in both accuracies and RTs, with cognates being processed more accurately and faster. Similarly, cluster-based permutation analyses revealed that cognates induced smaller changes in pupil dilations, and thus less mental effort, than noncognates. We posit that applying pupillometry to L2 lexical processing provides a valuable addition to the current literature on cross-language activation and applying pupillometry particularly to adolescent L2 processing research fills a hitherto existing research gap.

Migrant languages as an multifaceted phenomenon of bilingualism

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Nevertheless migrant languages (ML) are defined as a type of heritage languages next to indigenous and colonial languages (Fishman 2001), they remain outside of contact linguistics' mainstream. This paper aims to fill this gap by examining sociolinguistic and linguistic specifics of MLs in the conceptional framework of contact linguistics, focusing on Russian in Germany across generations. Due to migration, MLs change their administrative status and operational range. Whereas societal languages dominate in the majority speakers' community, MLs are acquired and used in family contexts. As a result, the multilingual variation becomes a distinctive feature of language use in ML speakers (Vanhove 2012). Their repertoire comprises varieties within the same language as well as two or more typologically different languages (Francescini 1998). This situation provides a fertile ground for contact-induced language shifts, especially in the subsequential generations born in Germany and acquired Russian in a family context. The 1st generation comprises immigrants in narrow sense born in Russia and acquired Russian in a societal context. Against the background of other cases of multilingualism such as pidgins and creoles, the paper examines qualitative and quantitative differences in multilingual variation between 1st and 2nd generation of ML speakers potentially leading to a transgenerational language shift. We focus thereby on morphosyntactic variation, partially provoked by borrowings from the societal language (Gardani 2015). The empiric data were collected through semi-structured interviews with different questions regarding to official as well as unofficial spheres of everyday life in Germany (N=80 à 30-45 minutes, n=40 for each generation). Based on the evaluated data, the paper will discuss the interplay of language attrition in heritage speakers, dominant role of the societal vs source language (German), and internal (systemic) specifics of the target language (Russian) (Grant 2020, Matras 2020, Thomason 2017).

Mind the Gap: Exploring L2-French Retention After Instructional Gaps Following Early Bilingual Foreign Language Education

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Our study follows up on students in a Bavarian Bilingual Primary School Program, in which French is taught for four years, either in extracurricular learning groups who receive two regular French lessons per week or as part of a more intensive German-French bilingual program (cf. Uhl et al. 2023). Previous findings show that students in both the regular and the bilingual program develop basic L2-French skills, ranging between A1.1 and A1.2 of the CEFR. In our study, we examine whether these competencies are retained or attrite (cf. Weltens 1989) after a one-year gap in French language instruction that typically occurs in grade 5, when students usually continue with English as their first foreign language in secondary school and only resume French a year later in sixth grade. We present first descriptive findings on the retention or attrition of L2-French listening, reading, writing and speaking skills, comparing the results of participants who experienced a one-year hiatus in French language learning with results obtained for students who continued to learn French without any interruption after primary school. Additionally, we analyze the data in terms of potential differences between the students from the regular early French program and the bilingual program to assess the long-term sustainability of different approaches to French instruction in primary school. This research will contribute to understanding the long-term impact of early (bilingual) foreign language education and provide insights into the possible effects of a one-year hiatus in French language education on the development of students' L2-competencies, their motivation and educational needs.

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Minority language happiness: The link between social inclusion, well-being, and speaking a regional language in the northern Netherlands

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Group-membership is often determined by similarities between members and is associated with higher levels of (social) well-being [1]. A strong marker of group membership is language [2]. Most linguistics research about group membership and well-being focuses on migrants and refugees [3]. However, associations between regional language use and well-being are under-researched. This is surprising, as regional languages index a strong shared in-group identity, potentially leading to exclusion of those who do not speak them. Therefore, this study investigated the association between regional language use (specifically, of Frisian and Low Saxon) and social well-being. We distributed a language background questionnaire to participants of the Lifelines study [4], a multigenerational cohort study comprising data from 167,729 participants living in the north of the Netherlands. Complete datasets were present for 34,291 participants. In both contexts (Frisian in the province Fryslân, and Low Saxon in the provinces Groningen and Drenthe), those using the regional language half of the time or more had significantly more social contacts and higher levels of social embeddedness (measured through social club membership) than those who did not know the regional language, or who used it infrequently. Stronger social embeddedness for frequent regional language users was most prominently present in rural areas. This effect was stronger in Fryslân than in the Low-Saxon language area. Overt measures of social well-being like loneliness or life satisfaction did not differ between groups. While our results confirm an association between regional language use and some indices of social functioning on a large scale, they cannot uncover a causal relationship between the two. We discuss how future research may inform us further about the relation between regional language use and social well-being.

[1] Bizumic et al. (2009) 10.1111/j.1464-0597.2008.00387.x

[2] Eckert (2016) 10.1017/CBO9781107449787.004

[3] Tip et al. (2019) 10.1177/1948550617752062

[4] Sijtsma et al. (2022) 10.1093/ije/dyab257

Missed opportunities: Rethinking multilingual learner support in linguistically restrictive learning environments

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In Quebec, French-medium education is a requirement for a growing population of multilingual, migrant-background students (OQLF, 2017). Research suggests that students' multilingual competencies are misunderstood and positioned deficiently in the Quebec educational context (e.g., Armand, 2011). To better understand these students' diverse linguistic practices, this ethnographic study examined two students' translanguaging experiences in an *accueil* class, where students learn French intensively before integrating mainstream classes. The data analyzed encompassed fieldnotes (165 hours of observations), interview transcripts (n=12), groupwork sessions (n=2), and artefacts. Using hybrid thematic coding, I deductively examined participants' language practices and strategies, then inductively explored their experiences in relation to them (Fereday & Muir-Cochrane, 2006). Findings show that the teacher used students' first languages instrumentally—to scaffold their French language development only. However, students' spontaneous and agentic translanguaging strategies and their collaborative practices appeared to mediate their learning and help them navigate a linguistically restrictive environment. Findings will be discussed to emphasize a need to combine context-specific translanguaging and critical multilingual language awareness pedagogies as a holistic resource for language development and identity empowerment (García, 2015; Cenoz & Gorter, 2021).

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Mitigating ethnic minority students' Foreign language anxiety through Co-learning in Chinese as an additional language classrooms: A transpositioning perspective

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Recent studies on ethnic minority students in Hong Kong have highlighted the difficulties they face when learning Chinese-as-an-Additional-Language (CAL). These linguistic challenges can cause anxiety and hinder their integration into Hong Kong society. Transpositioning is an emerging notion in the field of Applied Linguistics and involves individuals stepping out of their assigned roles and adopting different perspectives through translanguaging (Li and Lee, 2023; Tai, 2024). It has been argued that engaging in transpositioning can potentially engage students' learning and participation in classroom interaction. However, there is limited research on how multilingual classroom teachers can suspend their social roles to alleviate students' anxiety while learning a second language in classrooms. This paper seeks to fill this research gap by examining how a Chinese teacher creates a safe translanguaging space for co-learning, which allows him to move beyond his predefined social roles and alleviate ethnic minority students' anxiety in learning CAL. The study uses Multimodal Conversation Analysis to analyse classroom interaction data. The fine-grained classroom analysis is triangulated with the video-stimulated-recall-interviews with the teacher and students which are analysed using Interpretative Phenomenological Analysis. By combining these two methods, we seek to gain insight into the teacher's thoughts on his pedagogical strategies as well as students' reflections on their teacher's translanguaging practices (Tai, 2023). This study argues that adopting a transpositioning frame of mind allows CAL teachers to potentially help reduce students' FLA by creating a more supportive and inclusive learning environment in which students feel comfortable expressing their thoughts by utilizing their multilingual and multicultural resources. Hence, the paper proposes a Transpositioning-Translanguaging-Co-Learning approach to reduce students' anxiety related to CAL learning. By positioning both the teacher and students as equal contributors to knowledge, this can foster student engagement and active participation in classroom interactions.

Mobilising EAL learners' cultural and linguistic resources through content and language integrated pedagogy in the Australian EAL classrooms

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Leveraging English as an Additional Language (EAL) learners' cultural and linguistic resources facilitates their learning process, cultural competencies, agency, and identities to bring their "whole sel[ves] into the classroom" (Ladson-Billings, 2021, p. 353). This is particularly important against the backdrop of the deficit and monolingual (English-only) discourses that continue to shape Australian EAL classrooms (Cross et al., 2022). Using Cultural Historical Activity Theory as an analytical framework, this study examines the affordances of Content and Language Integrated Learning (CLIL) pedagogy for expanding EAL teachers' capacity to consistently integrate their learners' cultural and linguistic resources in their practice. Although CLIL is a pedagogy developed specifically for the foreign language context, we argue for the relevance of CLIL's key concepts and framework for EAL teachers to establish a multilingual, multimodal, and inclusive environment whereby EAL learners' cultural and linguistic resources are mobilised effectively. Drawing on qualitative data—interviews, observations, and reflections—collected from two EAL teachers of newly arrived students in Melbourne, Australia, the key findings show how using CLIL's 4Cs Framework and Language Triptych helps teachers put learners' cultural and linguistic considerations at the forefront of lesson planning and delivery, enabling them to implement various teaching practices—e.g., embodied and arts-rich translanguaging pedagogies—that are yet to be widely used in a formal EAL classroom context. The important implication arising from this study relates to practical ways for EAL teachers to consistently mobilise EAL learners' rich cultural and linguistic resources while developing their confidence and competence to use English to communicate and demonstrate their meanings.

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Mobility, translanguaging and plurilingualism: the case of digital nomad communities in Europe

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This paper provides sociolinguistic insights on digital nomadism in Europe. Digital nomads, remote-workers who adopt a lifestyle of constant travelling, are building online and local communities, constituting spaces of transcultural encounter and interaction (Woldoff & Lichtfield 2021). Adopting a translanguaging perspective (García & Wei 2014), digital nomads' linguistic repertoires, their attitudes towards plurilingualism, and their languaging practices are investigated through mixed-methods linguistic ethnography (Rampton et al. 2007). The present contribution is based on results from exploratory research conducted between April 2023 and August 2024, including online survey and participatory observation in the communities of Madeira and Canary Islands, as well as on the analysis of naturally-occurring spoken language data collected at the aforementioned communities, constituting the NomadLingo Corpus. Results highlight the interconnection between mobility, linguistic background and communicative practices. Translingual communicative practices in the NomadLingo corpus align with survey data representing diverse linguistic repertoires, characterising digital nomads as plurilingual speakers with transcultural identities. English as a lingua franca appears to be the most used means for communication – thus unveiling the globalised nature of digital nomadism. However, positive attitudes towards plurilingualism along with negative attitudes towards English-only communication suggest that monolingual ideologies are in fact also challenged within these communities. This study underscores digital nomadism as a valuable field of study for investigating the sociolinguistics of voluntary mobility in contemporary Europe. By documenting language fluidity, plurilingualism and translanguaging, our findings foster an ecology of plurilingualism and support efforts to embrace plural approaches to language teaching (Candelier et al. 2013).

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Monolingual Exchanges in Bilingual Hearings: Transparency and Fairness in Migration Review Hearings

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In democratic societies, legal systems strive to guarantee equal access to justice and procedural fairness for all individuals, irrespective of personal attributes such as their gender, ethnicity, or the language(s) they speak. But in most countries, legal systems designate specific languages (or language varieties) as their working languages and consequently privilege speakers of these languages over those of others. Speakers of non-privileged varieties are often excluded from institutional roles within the judiciary (Angermeyer, 2021), and, when involved in legal proceedings, rely on interpreting services to ensure equal footing with native speakers of the court's language (Hale, 2004). Research on legal interpreting has typically examined how interpreters' target language choices impact legal outcomes, yet few studies explore the effects of uninterpreted, monolingual exchanges in ostensibly bilingual proceedings, which can impact participants' understanding and procedural fairness. This study, as part of a larger research project, draws upon two data sources: (1) Australian case law on appeals based on interpreting issues in migration and refugee review hearings, and (2) observational data from 20 authentic migration review hearings in Australia. It identifies instances of monolingual, dyadic exchanges in bilingual hearings that were left uninterpreted. These exchanges include the Tribunal Member-legal representative dialogues in English (tribunal language), and witness-interpreter dialogues in a language other than English, both of which could have influences on delivering a meaningful hearing. This study contributes to the discussion of bilingualism in legal settings by providing an empirical analysis of monolingual exchanges in bilingual hearings. The study aims to foreground "transparency" (Davidson, 2003) as a guiding principle in interpreting practice within bi-/multilingual legal contexts, emphasizing its importance for enhancing fairness and accountability in judicial processes. This research contributes to the broader inquiry into how bilingualism intersects with procedural fairness and linguistic equity.

Monolingual ideologies in a multilingual reality: The case of bilingual education in Malta

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Malta is officially bilingual with Maltese and English being the official languages of the island and the official languages of schooling. Recent trends in immigration have also introduced diverse languages in schools leading to a more heterogenous linguistic context. Policy document on the use of languages in the Early Years (ages 0 to 7) and the Junior Years (ages 7 to 11) advocate for bilingual education in Maltese and English. This paper aims to identify the language ideologies held by educators in early childhood education and care (ages 0 to 3), kindergarten (ages 3 to 5) and the junior years (ages 5 to 11). Data from three studies on language use in schools were analysed to uncover educators' language ideologies when promoting languages with young children. The studies were carried out between 2017 to 2022 and are based on semi-structured interviews with 5 educators on activities to promote Maltese and English in classrooms. The interviews reveal conflicting ideologies expressed by educators in these three sectors, when promoting and teaching Maltese and English. Whilst acknowledging the importance of both languages, monolingual ideologies are traced in their discourse. According to educators languages should be kept separate, particularly to preserve the status of Maltese. The role of other languages is also dismissed, despite the linguistically diverse nature of schools. This paper provides recommendations for a reconsideration of language education in Malta, with the focus shifting from bilingualism to multiculturalism, through further educator training on the role of translanguaging in language classrooms and by strengthening critical multilingualism in teacher education.

Morphological regularity effects in the processing of the Spanish subjunctive by heritage speakers: An eyetracking study

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Recent research on heritage languages has emphasized variability among and within heritage speakers and one methodological approach to variability within speakers is to examine the role of word-level factors in the comprehension and production of morphosyntax, with the goal of identifying factors that favor maintenance of linguistic forms. Real-time measures of sentence processing are known to be sensitive to lexical factors and are particularly well suited to research on heritage speakers, but only one prior study appears to have taken this approach. The present study addressed this gap with an eyetracking study of the role of verb regularity in the processing of the subjunctive mood in heritage Spanish. Forty heritage speakers and 20 L1 users raised in Spanish-speaking countries read 32 stimuli in which a lexical trigger verb in a matrix clause necessitated the subjunctive mood on a verb in a subordinate clause. Half the subjunctive verbs were regular, half were irregular, and all were high frequency. The stimuli appeared in grammatical and ungrammatical conditions and were distributed across two counterbalanced lists with 96 fillers each. A comprehension question followed each item. Analysis via mixed-effects models revealed online sensitivity to mood morphology across both groups and verb types. Additionally, verb regularity appeared to affect the heritage speakers more than the comparison group, as their sensitivity to mood was less robust with the regular (vs. irregular) verb stimuli. These results suggest that morphosyntactic processing can vary and that relative difficulty is not necessarily due to generalized differences in the morphosyntax per se, as it can also be related to the demands of accessing lexical items in real time, in line with previous online and offline research on the Spanish subjunctive and consistent with theoretical proposals that lexical factors should be a key consideration in the study of heritage language morphosyntax.

Morphophonological Effects on Morphosyntactic Processing During L2 English Real-time Comprehension

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While L1 influence on L2 morphosyntactic processing is widely-investigated, the role of morphophonology in L2 real-time comprehension is less understood (e.g., Frenck-Mestre et al., 2008). Specifically, it remains unclear whether L2 learners' sensitivity to morphosyntactic violations (e.g., a.*last weekend the girl paint / chase the dogs) is affected by L2 allomorphic variations (e.g., paint-ed [tid] vs. chas-ed [st]) and L1 perceptual biases. This study explores morphophonological-morphosyntactic interactions in Mandarin learners of English, whose L1 lacks inflectional morphology and word-final consonant clusters. 57 intermediate-to-advanced adult L1-Mandarin learners of English and 57 L1-English monolinguals completed a semantically-driven self-paced listening (SPL) task involving tense / agreement (past simple, present habitual) morphosyntactic violations in English, e.g., see example a. We manipulated the morphophonological properties of the verb's inflectional morpheme (past -ed vs. 3rd person -s): vowel epenthesis (chases, painted) and consonant cluster (chased, paints). We predicted longer reaction times on the verb if morphosyntactic violations were detected. Subsequently, using identical verbs and morphemes from SPL, participants identified if an inflected or uninflected verb (A or B) matched the test verb (X) in an auditory ABX discrimination task. In the ABX task, L1-Mandarin participants were better at detecting verb-final vowel epenthesis than consonant clusters ($p=.007$), similar to L1-English participants ($p=.443$). In the SPL task, L1-Mandarin participants were sensitive to verb-related L2 morphosyntactic violations ($p=.003$), and more so when violations involved verb-final consonant clusters than vowel epenthesis ($p=.044$). In contrast, L1-English sensitivity to morphosyntactic violations ($p<.001$) was unaffected by morphophonological features ($p=.642$). In sum, despite the absence of consonant clusters in Mandarin, L1-Mandarin participants showed greater sensitivity to L2 morphosyntactic violations involving verb-final consonant clusters in sentential contexts, but not when they perceived verbs in isolation. Our study is one of the few studies to offer evidence for morphophonological effects during morphosyntactic processing in L2 comprehension.

Multilectal literacy and speed~accuracy trade-offs

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This paper presents the synthesized results of a multifaceted investigation into the language and literacy competencies of adolescents in three locations in Norway, characterized by unique combinations of local speech and written languages, and how this relates to cognitive performance and scholastic achievement. 492 participants age 14-15 were recruited from what a priori were taken to be (i) a monolectally literate eastern group using Bokmål Norwegian both in school settings and in private written communication, (ii) a bilectally literate northern group using Bokmål in school settings and dialect writing in private communication, and (iii) a trilectally literate western group with Nynorsk at school, high general engagement with Bokmål, and dialect writing used in private communication. Participants completed among other things: (i) a reading task in Nynorsk, Bokmål, English and local (written) dialect, (ii) a four way sentence matching task combining oral (eastern vs. western Norwegian) and written input (Bokmål vs. Nynorsk), (iii) a speeded own dialect production task with prompts in Bokmål, Nynorsk or English, (iv) a judgement task of sentences written in Bokmål, Nynorsk, emblematic and orthophonic dialect (Likert vs. forced choice version), (v) a flanker task combined with a language decision task (Nynorsk or Bokmål), (vi) a background questionnaire on language and dialect use in a variety of oral and written contexts. In near future the collected datasets will be enriched by a variety of SES and school performance data provided by Statistics Norway at the level of the individual. Across tasks a striking finding emerges viewed against other forms of multilingualism. The trilectal western group performs similar or even better on accuracy than the other groups, but has slower Response Times. Our interpretation is that the more varied literacy experience in the western group yields enhanced accuracy at the expense of a slower response style.

MULTILINGUAL ASSESSMENT IN PRIMARY PROGRESSIVE APHASIA

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This presentation examines a novel language assessment approach for bilingual individuals with primary progressive aphasia (PPA), a subtype of frontotemporal dementia characterized by progressive language decline that precedes other cognitive decline (Mesulam, 2001). We analyzed data from three participants who are Spanish-English bilinguals, with Spanish as their first language (L1). We tested their language production abilities using a translanguaging framework, which embraces participants' full linguistic repertoire rather than separating the testing sessions by language. The testing battery used was adapted to fit a translanguaging model by presenting all content, instructions and prompts in both languages. The participants were free to respond in either language and to mix their languages without restriction. The battery tasks included here assess naming actions and objects, responding to WH-questions, and forming narratives. Results show that the participants used both their languages during testing. They tended to use their L1 more than their L2 during difficult tasks, demonstrating less use of L2 in the connected-language tasks than in the single-word tasks. The examination of participants' response language revealed that the language of the prompts had no effect on the participants' language choice. Language preferences and accuracy varied across tasks and across participants. The results of this study show that using a translanguaging-based assessment allows the participants to deploy their full linguistic repertoire, without enduring the cognitive stress of being constricted to one language. Our findings suggest that regardless of L2 level of proficiency or the frequency of its daily use, L1 appears to be more resilient in the presence of neurodegenerative diseases affecting language (Goral, 2022).

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Mesulam, M.M. (2003). Primary progressive aphasia--a language-based dementia. *The New England journal of medicine*, 349(16), 1535–1542.

Multilingual Experience as a Protective Factor Against Cognitive Aging: Insights from Resting-State Brain Activity and Working Memory

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A growing body of research suggests that (degree of) multilingual experience affects neurocognitive outcomes across the lifespan. Multilingualism-induced brain adaptations have also been shown to contribute to the mitigation of age-related neural and cognitive decline (Gallo et al., 2022). However, while other lifestyle factors such as diet, exercise, and social activities have also been shown to mitigate adverse consequences of cognitive aging (CA), multilingual experiences and these other lifestyle factors have rarely been examined together. Previous research has also highlighted the possible effect of multilingual experience on working memory (WM) outcomes across the lifespan (Grundy & Timmer, 2017). The present study assesses the hypothesis that multilingual experience serves as an independent contributor to the mitigation of CA consequences using intrinsic brain activity at-rest and WM performance as target neurocognitive outcomes. Individual language and lifestyle profiles were calculated from native Norwegian multilingual speakers with English as one of their additional languages (n=117, Mage=45.4, SD=18.4, range 19-82). Resting-state electroencephalography (rs-EEG) and working memory (Corsi blocks) performance were regressed against a continuous measure of multilingualism (MLD) while controlling for other lifestyle-experiences. Accompanying results from Voits et al (2024) indicate a relationship between multilingual engagement and intrinsic brain activity, through a three-way interaction between age, multilingual engagement and rs-EEG power, in which multilingualism mitigates age-related decline in resting-state power dynamics in alpha and theta frequency bands. Preliminary results, from analyses linking WM performance, rs-EEG power dynamics and age, show a significant relationship ($p = .005$) between alpha power, MLD and age predicting WM performance. In particular, degree of multilingual engagement modulated the relationship between rs-EEG and WM performance in older age, indicating increased resilience against CA-related detriments in WM performance.

https://osf.io/yxnse/?view_only=3e334fc2f10b476fab3c24400c726610

Multilingual experiences, cognitive performance and genetic predisposition to Alzheimer's Disease in seniors: a Lifelines study

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Aging can be conceived as the interaction between modifiable factors (e.g., lifestyle) and fixed factors (i.e., genetics). In genetics, the APOE $\epsilon 4$ allele has been related to accelerated cognitive decline in older age and an increased risk of developing Alzheimer's Disease (Fan et al., 2019). Multilingualism has been related to the brain's resilience mechanism against age-related cognitive decline (Berkes & Bialystok, 2022) and can, thus, be viewed as a cognitively challenging modifiable lifestyle factor. However, multilingualism studies so far have rarely included genetic factors. The goal of this epidemiological study is to investigate how multilingual experiences impact cognition in older adults and to explore how this is modulated by APOE $\epsilon 4$ status. We examined a sample of cognitively healthy older adults from the Lifelines Cohort Study, which comprises data from 167.729 people living in the northern Netherlands (Sijtsma et al., 2022). Cognitive performance was assessed with the Cogstate Brief battery assessing processing speed, attention, working memory, and visual learning (Fredrickson et al., 2010). We run linear mixed-effects regression models to investigate the effect of multilingual experiences (e.g., number of languages, current language use) on cognitive performance on the Cogstate subtests, including APOE $\epsilon 4$ status as an interaction term. We control for age, diet, physical activity, and educational attainment. Although the data analysis is currently ongoing (to be completed before June) until now 2000 participants have been included. We predict faster reaction times and increased accuracy on the Cogstate subtests as a function of multilingual language engagement (following Pot et al., 2018). We expect to see decreased cognitive performance in APOE $\epsilon 4$ carriers compared to non-carriers (based on Fan et al., 2019). Based on preliminary analyses, we expect an interaction between multilingual engagement and APOE $\epsilon 4$ status, the nature of which we elaborate in this presentation.

Multilingual families' and children's language agency in interaction with preschools

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The aim of the research project is to explore multilingual families' and children's language agency in interaction with preschools in Iceland. The project is directed by the following research question:

- How is families' and children's language agency represented in multilingual contexts in preschools in Iceland?
- What kinds of linguistically appropriate practices are found in the participating preschools?
- What kinds of educational partnerships are found between the participating preschools and families regarding the children's multilingualism?

According to King et al. (2008), the research field of family language policy (FLP) focuses on how languages are learned, managed and negotiated within families. Curdt-Christiansen (2013), has noted that FLP also recognizes the influence of economic, political and social structures and processes in society. Furthermore, educational contexts affect FLPs. The project also draws on theories of children's and families' language agency (Said & Hua, 2017; Schwartz, Kirsch & Mortini, 2020). The project is a qualitative research study. It involves ten families and their bi- or multilingual children at the age of 3-5 years living in two different municipalities, as well as teachers and principals in their children's preschools. Data was collected in semi-structured interviews with the families and preschool staff, diaries and recordings of examples on the children's multiple language use at home, and observations of the children's language use in the preschools. The project provides insight into multilingual families' and children's language agency in interaction with preschools and preschools' views and interactions with multilingual families. Findings indicate that although the preschools are interested in promoting multilingualism, the preschool context is mainly monolingual.

Curdt-Christiansen, X. L. (2013). Family language policy: sociopolitical reality versus

linguistic continuity. *Language policy*, 12, 1-6. DOI 10.1007/s10993-012-9269-0

King, K. A., Fogle, L. & Logan-Terry, A. (2008). Family language policy. *Language and*

Linguistics Compass, 2(5), 907-922. <https://doi.org/10.1111/j.1749-818X.2008.00076.x>

Multilingual tutors in Dutch newcomer education: Role enactment, challenges, potential

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Worldwide, education systems are engaging with an increasing number of migrant students with diverse language backgrounds, who often do not realize their full learning potential and feel less included. While research shows that multilingual approaches can foster learning and inclusion (Reljić et al., 2015), their enactment is often perceived as challenging. We formed a research-practice partnership (2024-2025) which explores the involvement of multilingual tutors in a Dutch secondary newcomer school. The aim of the present study is to provide insights into how the multilingual tutors enacted their role, the challenges they encountered, and the necessary conditions they identified for fulfilling their role. Five adult newcomers with educational experience from abroad were trained as multilingual tutors drawing on pedagogical translanguaging approaches, which involve the use of speakers' entire linguistic repertoires. Data was collected through ten semi-structured interviews exploring the experiences of the tutors in two instances: at the beginning of the project (Jan 2023) and six months after the project started (June 2024). We analyze this data employing thematic analysis. The results show that the tutors enacted a multifaceted role as linguistic and cultural brokers, in- and outside the classroom, and involving several actors (e.g., students, teachers, parents). The most significant challenges that the tutors experienced included teachers' unclear or conflicting expectations regarding tutors' roles in the classroom. Tutors identified a solid collaboration with teachers as conditional for enacting their broker roles. This study contributes to better understanding the potential of multilingual tutors in newcomer education and yields insights into how such a role may be adopted in various educational settings.

Reljić, G., Ferring, D., & Martin, R. (2015). A meta-analysis on the effectiveness of bilingual programs in Europe. *Review of Educational Research*, 85(1), 92–128. <https://doi.org/10.3102/0034654314548514>

Multiple perspectives on parental role in the language upbringing and academic progress of school-aged children with immigrant backgrounds

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As Iceland's compulsory schools accommodate growing linguistic and cultural diversity, where nearly 30% of students have immigrant backgrounds (Statistics Iceland, 2024), understanding immigrant parents' roles in language upbringing and academic progress is essential. This study explores the multiple perspectives of immigrant parents, students, and teachers by using the frameworks of Family Language Policy (Curdts-Christiansen, 2018), immigrant parenting (Ochoka & Janzen, 2008), and parental involvement in schools (Leyendecker et al., 2018). The study is a part of a larger research project entitled, Language policies and practices of diverse immigrant families in Iceland and their implications for education (LPP). Semi-structured individual interviews with ten school-aged children (ages 14-16) and their immigrant parents were conducted, complemented by individual and focus group interviews with the teachers. Findings revealed that the families' practices and strategies regarding the children's languages and education were guided by diverse beliefs and orientations rooted in their past experiences, current life in Iceland, and future aspirations. Contrasting perspectives among stakeholders highlight the need for collaborative dialogue and efforts among families and educators, which address varying perspectives, ensure the dissemination of reliable information, and incorporate expert guidance to enhance parental engagement in fostering their children's languages and academic progress.

Curdts-Christiansen, X. L. (2018). Family Language Policy. In J. Tollefson, & M. Perez-Milans (Eds.), *The Oxford Handbook of Language Policy and Planning* (pp. 420-441). Oxford University Press.

Leyendecker, B., Cabrera, N., Lembcke, H., Willard, J., Kohl, K., & Spiegler, O. (2018). Parenting in a new land: Immigrant parents and the positive development of their children and youth. *European Psychologist*, 23(1), 57–71. <https://doi.org/10.1027/1016-9040/a000316>

Ochoka, J., & Janzen, R. (2008). Immigrant Parenting: A New Framework of Understanding. *Journal of Immigrant & Refugee Studies*, 6(1), 85–111. <https://doi.org/10.1080/15362940802119286>

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Narrative Comprehension Abilities of Children: A Comparison between Bilingual and Monolingual Programs

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Understanding the impact of Content and Language Integrated Learning (CLIL) bilingual programs on early language development is crucial, as they gain prominence in Australia and globally. While narrative assessments provide ecologically valid measures of linguistic competence (Paradis et al., 2011), research on comprehension remains limited. We compared narrative comprehension abilities between children in bilingual (Korean-English) and monolingual (English) CLIL programs. Using the Squirrel Story Narrative Comprehensive Assessment, a prospective cohort of 5- and 6-year-olds from 15 different home language backgrounds attending either the Korean-English program or English-only program in Australia were assessed at the beginning (Term 1; bilingual program: N=33; M=5;7; SD=0.49; monolingual program: N=21; M=5;5; SD=0.47) and end of the school year (Term 4; bilingual program: N=33; M=6;3; SD=0.53; monolingual program: N=23; M=6;2; SD=0.53). Children listened to the story in English and were encouraged to answer questions in any languages they speak. The analyses included responses from 51 children in English-only and 7 children in partially or entirely Arabic, Indonesian, Korean and Mandarin at Term 1 and/or 4. Comparisons across groups found children in the bilingual program started with a significantly higher baseline performance than their peers in the monolingual program and within-group analyses showed significant improvements across terms for both groups. Linear mixed-effects models showed significant interactions between group and term in literal ($\beta=1.36$, $SE=0.50$, $t=2.72$, $p<.01$), inferential ($\beta=2.65$, $SE=1.15$, $t=2.31$, $p<.05$) and total scores ($\beta=3.91$, $SE=1.28$, $t=3.06$, $p<.01$), indicating greater improvements for children in the monolingual program. Our findings suggest that both bilingual and monolingual programs were effective at promoting growth in narrative comprehension abilities. Children in the bilingual program exhibited stronger narrative comprehension skills from the outset and continued to show improvements throughout the school year. These findings highlight the importance of supporting children's full linguistic repertoires to foster their early language development.

Nativeness as a Multidimensional Construct: Ideological Influences on Ergative agreement variation in Basque-Spanish and Basque-English Bilinguals

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This study investigates how language ideologies shape the perception and production of the ergative marker among Basque bilinguals in two communities: (i) heritage speakers of Basque from Boise, Idaho (Basque-English bilinguals), and (ii) Basque L1 and early L2 speakers from Getxo, Basque Country (Basque-Spanish bilinguals). Basque's ergative-absolutive alignment contrasts with the nominative-accusative case-marking systems of Spanish and English, the dominant languages in these communities. This co-occurrence of case-marking systems creates conditions for variation in ergative nominal marking in both native and non-native Basque-Spanish bilinguals (Rodríguez-Ordóñez, 2015; Gondra et al., 2024). By comparing these distinct bilingual environments, this study reveals how linguistic variation unfolds when dominant languages and social contexts differ. Additionally, the lack of ergative marking in Basque also carries social significance, often perceived as a marker of authenticity (Rodríguez-Ordóñez, 2022). This ideological association makes the study particularly relevant for understanding how language ideologies impact morphosyntactic variation. Using two controlled tasks—an acceptability judgment task and an elicitation task—this research examines how self-perception of nativeness, metalinguistic knowledge, and beliefs about authenticity influence ergative usage. Ideological effects on linguistic perception and production were analyzed using independent samples t-tests and chi-square tests of independence. Results indicate that speakers who self-identify as native or as “traditional Basque” ($p < 0.001$) rate and use the ergative marker more accurately, aligning with prescriptive norms. While all Basque L1 speakers identify as native, early L2 and heritage speakers vary; hence, those who do perceive themselves as natives differentiate from their peers of the same acquisition type ($p < 0.001$). Moreover, speakers with metalinguistic awareness of ergativity and with prejudices against it show greater proficiency ($p = 0.000$), reinforcing the role of formal education. In conclusion, these findings suggest that nativeness, influenced by identity and authenticity ideologies, extends beyond biological heritage and sociolinguistic variables, with implications for language competence and preservation.

Navigating verb-framed and satellite-framed languages: Motion event encoding in heritage speakers

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In this study, we examine how motion events are encoded in both languages of Turkish heritage speakers (HSs) in Germany and the U.S. According to Talmy's typology (1985), Turkish, as a verb-framed language, encodes path in the main verb and manner as a satellite, whereas German and English, as satellite-framed languages, express manner within the verb and path outside of it. Building on Slobin's Thinking for Speaking hypothesis (1996), which proposes that a language's grammatical structure influences how speakers conceptualize and express events, we examine how these typological contrasts may shape bilinguals' encoding practices in motion descriptions. Prior research on Turkish-German HSs has shown that their German motion event encoding often resembles Turkish patterns: HSs tend to avoid path satellites and omit manner-of-motion information in directed motion events (Goschler 2009; Goschler et al. 2013, Schroeder 2009). At the same time, German impacts Turkish motion encoding, leading speakers to incorporate more manner verbs, especially in boundary-crossing contexts, which is noncanonical in Turkish (Daller et al. 2011; Woerfel 2018, Goschler et al. 2020). However, much of this previous research relies on pre-constructed experimental data. To gain a broader perspective, we examine spoken and written corpus data of Turkish HSs in Germany and the U.S. (n=40), and monolingually raised speakers from Turkey, Germany, and the U.S. (n=60). Our quantitative findings indicate that HSs generally align with monolingual speakers in their heritage and majority languages, yet qualitative analysis shows cross-linguistic influences, such as the noncanonical use of manner verbs in Turkish in boundary-crossing descriptions. These findings indicate that the linguistic systems remain stable in bilinguals, with only subtle qualitative differences. This study advances the understanding of the Thinking for Speaking hypothesis from a HS perspective, shedding light on how early bilinguals navigate and integrate typological contrasts across their languages.

Negative and positive effects of multilingualism on production of grammatical aspect

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This study investigates whether multilingualism influences verb-related morphosyntactic production in the first and dominant language (L1MorphosynProd). Multilinguals experience concurrent activation of verb representations of translation equivalents encoding specific morphosyntactic features across their languages, and between-language competition. The extent of foreign language (FL) exposure, cumulative FL proficiency, and the total number of FLs known may contribute to the level of lexical competition, thereby impacting L1MorphosynProd. One hundred ninety-three neurotypical Greek-speaking adults (ages 19–80) completed a language background questionnaire, cognitive tasks, and a sentence completion task tapping grammatical aspect and time reference production in Greek. Prior research (Soilemezidi et al., 2024) identified aspect as the most challenging morphosyntactic category for these participants. A regression model incorporating demographic, cognitive, and multilingualism-related factors (number of FLs known, cumulative FL exposure, and L2 proficiency) was fitted to the aspect production (AspProd) data. Results showed that cumulative FL exposure and age negatively affected accuracy in AspProd in local configurations ($p=.033$ and $p=.036$, respectively), while verbal working memory (WM) positively influenced AspProd ($p<.001$). The negative effect of cumulative FL exposure on AspProd suggests that multilingualism increases between-language lexical/verb competition, which taxes participants' processing system and compromises AspProd. Consistent with previous findings suggesting that multilingualism enhances WM capacity (e.g., Fyndanis et al., 2023), cumulative FL exposure was positively correlated with WM ($r=.23$). Given this, and since WM positively influenced AspProd, we performed path analysis to find out whether, in addition to a direct negative effect of multilingualism on AspProd, there was also an indirect positive effect of multilingualism on AspProd, which was mediated by WM. Path analysis confirmed this indirect effect. The present study provides evidence that cumulative FL exposure affects AspProd both negatively (directly) and positively (through WM mediation). These findings reveal complex effects of multilingualism on L1MorphosynProd/AspProd, with WM playing a mediating role.

Neural basis of Heritage Bilingualism

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Research has historically focused on how language networks develop in monolinguals, or those who speak one language. More recently, studies on bilinguals have uncovered how their language networks develop differently. Bilingualism is associated with changes in brain structure, particularly in gray matter. Models like the Dynamic Restructuring Model (DRM) describe how early exposure to a second language (L2) leads to cortical growth, followed by renormalization as language experience increases. The Unifying Bilingual Experience Trajectories (UBET) model further examines how factors like proficiency, language switching, and bilingualism duration influence neurocognitive changes. However, these models often overlook heritage bilinguals—individuals raised speaking a minority language at home while immersed in a dominant societal language. For example, U.S. Spanish heritage speakers often develop stronger proficiency in English (L2) than in their home language, Spanish (L1). Current models do not fully address how this special bilingual experience affects brain development. The current paper presents prior research on bilingual and structural neural changes, with a focus on heritage bilinguals. We include four recent studies on U.S. Spanish-English heritage bilinguals, including children and young adults. Findings revealed differences between monolingual and heritage bilingual children in cortical thickness and subcortical volume, a lack of differences during young adulthood, and variability in neural measures related to bilingual experience such as proficiency and usage. In other words, group differences are more apparent in childhood, while individual differences emerge in young adulthood. Specifically, heritage bilingual young adults show thinner cortices and greater subcortical volume with increasing English proficiency, but thicker cortices and less subcortical volume with Spanish proficiency. In heritage bilingual children, English vocabulary is related to cortical thickness but not subcortical volume. We will conclude by identifying gaps in heritage bilingual research and calling for new approaches to explain these brain adaptations.

Neural oscillations underpinning comprehension and production of spoken emotional words in the second language

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Neurophysiological evidence suggests that bilinguals show reduced emotional response when reading or producing negative words in their second (L2) relative to their native (L1) language (e.g., Zhang et al. 2023; Jończyk et al. 2024). However, little is known about the neural dynamics of comprehending and producing spoken emotional words in L1 and L2. Here, we tested 35 Polish (L1)–English (L2) bilinguals as they repeated aloud or orally translated negative and neutral words in both languages. In each trial, a sad or neutral emoji indicated emotional valence of a subsequent word. Emojis were black or white, colour coding the task. Task colour coding was counterbalanced; translation direction (L1–L2, L2–L1) was blocked and counterbalanced. Event-related potentials showed smaller N400 amplitudes for negative words in L2 than L1 and a larger Late Positive Potential for negative L2 words to be translated into L1 than L2. Event-related spectral perturbations in both tasks revealed larger theta desynchronization for L1 negative than L2 negative words and L1 neutral words, suggesting a larger involvement of an emotion regulation mechanism in L2 (Sulpizio et al. 2020). We also found larger synchronisation in the beta band for negative words in L1 than L2, indexing a stronger emotional response to negative words in L1 (Güntekin & Başar, 2014). Together, we provide novel and complementary event-related potential and time-frequency evidence supporting the L2 psychological distance hypothesis (Pavlenko, 2012).

1) Jończyk et al. (2024) | doi: 10.1017/s1366728924000075

2) Zhang et al. (2023) | doi: 10.1093/cercor/bhad161

3) Sulpizio et al. (2020) | doi: 10.1111/ejn.15013

4) Güntekin & Başar (2014) | doi: 10.1016/j.neuropsychologia.2014.03.014

5) Pavlenko (2012) | doi: 10.1080/00207594.2012.743665

NEUROLINGUA: A Neuroimaging Database Tailored to Unravel the Complexity of Multilingual Language Comprehension

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Neural mechanisms underlying language processing involve a well-defined brain network involving mainly left perisylvian areas. However, the extent to which this network is variable across individuals is not yet fully understood. Individual differences in linguistic profiles (e.g., age of acquisition, exposure, proficiency) provide an opportunity to assess how network topology varies according to sociolinguistic factors. To this aim, we developed NEUROLINGUA, a comprehensive database of structural and functional neuroimaging data, enriched with sociodemographic, sociolinguistic, and behavioral information. The database includes data from 632 healthy individuals aged 18-81 immersed in a multilingual environment, range from near-monolingual individuals to those highly proficient in three or more languages. Given the complex influence of bilingualism and multilingualism on neural architecture, NEUROLINGUA provides a detailed linguistic characterization of the sample. Each participant completed a language localizer with both auditory and visual comprehension tasks, enabling cross-modal comparisons. Additionally, the localizer includes tasks where participants performed simple mathematical operations after sentence comprehension tasks. As a technical control for the dataset, a confirmatory analysis showed that global structural MRI measures (gray matter/total intracranial volume) are associated with gender and nonverbal intelligence. Next, analysis of the fMRI data confirmed NEUROLINGUA's effectiveness in localizing the language comprehension network and in capturing effects related to participants' linguistic profiles. Task-based activation shifted as expected, engaging primary and secondary auditory or visual regions depending on the input modality. NEUROLINGUA will soon be publicly accessible, offering researchers a rich resource to explore the adaptability and variability of the language network in diverse linguistic contexts.

Neuromotor Adaptations in Bimodal Bilingualism: Grammatical Marker Production in Austrian Sign Language (ÖGS)

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While much of recent research has focused on bimodal bilingual effects in sign language comprehension, there is a gap in exploring the biomechanics of sign language production, either in proficient signers, or with regard to learning trajectories. This study investigated the neuromotor control of grammatical marker production in Austrian Sign Language (ÖGS) among hearing learners and proficient signers, utilizing 3D motion capture and electromyography (EMG) data. Fifteen participants produced 102 signs, including adjective pairs in plain and intensified forms. A comparison of adjective pairs among deaf signers showed that adjective intensification is characterized by kinematic differences in peak wrist deceleration ($d = 0.33$, $p = 0.045$) and spatiotemporal stability of wrist acceleration ($d = 0.31$, $p < 0.001$). These were accompanied by differences in muscle activation such as co-contraction of the forearm ($d = 0.37$, $p = 0.004$) and wrist extensor mid-frequency power (10-30Hz, $d = 0.48$, $p = 0.001$). Preliminary comparisons of the deaf signers vs. learners indicate meaningful differences in sign production that reflect proficiency in sign language acquisition. The variables most sensitive to intensification were spatiotemporal variability of acceleration, muscle co-contraction indices, and muscle spectral power in frequency domain. The study builds on prior research in L2 acquisition of American Sign Language (Hilger et al., 2015), demonstrating the impact of sign language learning on motor control, and revealing distinct neural adaptations in sign language learners. The results also indicate that kinematic variability serves as a marker of motor proficiency and linguistic experience, suggesting that bilingual signers develop specialized motor patterns to accommodate the visual-motor modality. The findings advance the understanding of neuromotor learning trajectory in bimodal bilingualism.

New borrowings and disused loans in a changing linguistic ecology

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Singlish, which comprises primarily elements of English, Malay, Hokkien, Mandarin-Chinese and Cantonese, is a contact language spoken by most Singaporeans. While some linguists prefer to label Singlish as a “colloquial form of Singapore English” (e.g. Rubdy 2001; Chng 2003; Bokhorst-Heng 2005; Wee 2010; Bruthiaux 2010), the grammar, phonology and lexis of Singlish are however drawn from Sinitic languages such as Hokkien, Mandarin-Chinese and Cantonese, as well as languages such as English, Malay and Tamil. The most distinctive linguistic characteristic of Singlish lies in its word-stock, which is primarily made up of borrowings from languages in Singapore’s linguistic ecology. As a result, loanwords also provide a glimpse into the changes in the ecology. This paper provides an analysis of loanwords in Singlish by looking at new borrowings as well as disused loans. Attention will be paid to the etymology of these loans, allowing us to see clearly the importance of some languages in a changing ecology. There is, for example, an increase in Malay and Mandarin-Chinese loans. The results also show that while there is a good number of “stable” and fossilized Hokkien loans, there is also a large number of Hokkien loans that have fallen into disuse. The second part of the paper focuses on the users of these loanwords, and comparisons will be made across users of different age groups and ethnicities. These variations in loanword knowledge and use serve to show how language communities have an active role to play in the borrowing process. This paper will highlight, through the changes in the loanwords, the on-going evolutionary process of Singlish.

New York City in the Shadow of War: Linguistic Landscape in a Time of Conflict

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Language in public spaces - Linguistic Landscape (LL) - has been shown to reflect ideologies, values, and attitudes of people in spaces such as neighborhoods, cities and nations at large. LL provides a valid lens enabling researchers to identify patterns over time, during periods of crisis. LL studies in the past two decades have shown that it is possible to obtain in-depth interpretations about a range of perspectives during conflicts. Most of these studies are based on various types of analyses that lead to new findings of these phenomena. In this vein, the purpose of the current study is to explore the meanings of the LL in New York City related to the Israel/Gaza war by collecting and analyzing LL samples from February to June, 2024. Data were collected via frequent visits to various neighborhoods around the city, resulting in a set of over 300 photographs comprising signs, graffiti and other multimodal artifacts. These were then divided into two subsets: posters of the hostages which were found to trigger intensive reactions, and other sporadic LL samples related to the war found incidentally while walking in the city. Thematic analysis was performed on the two sets of data. The findings reveal that the hostage posters served as platforms for conflicting points of view about the war such as empathy and hostility, and they were a catalyst for marking identity and in-group affiliation and forms of intertextuality. The use of Hebrew signs in some locations was also used as a secret language reinforcing a sense of group identity in the LL. The sporadic samples reveal LL itself as a dynamic symbol of tension and defiance. Overall, the study underscores the role of diaspora in the state of affairs in conflicts.

No moral Foreign Language Effect differences beyond the L2

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Bilinguals' decision-making may be affected by the linguistic context, depending on whether the scenario to be evaluated is presented in their first or second language. This phenomenon is known as the (moral) Foreign Language Effect (FLE/MFLE; Keysar et al., 2012). However, no study investigated whether differences in moral judgments hold between multilinguals' second (L2) and third (L3) languages. A custom-made survey was completed by a total of 43 secondary school and university students with Polish as their L1, English as L2, and French as L3. The questionnaire included 4 moral dilemmas to evaluate and comprehension questions in the respective languages to winnow out answers provided without understanding the content of the scenarios. In a rotated within-subject between-item design, each version of the survey presented two scenarios in English and two in French. In every scenario, a hypothetical individual committed an act violating social and/or moral norms, with variations in the severity of the consequences. The participants rated the wrongfulness of each act utilizing a Likert scale. Expectedly, the results showed no significant distinctions in scenario evaluations across non-native languages ($\bar{x}=2.37$, $SD=0.98$ in L2 vs $\bar{x}=2.19$, $SD=0.7$ in L3; $t(37)=.811$, $p=.422$, $d=.133[-.191,.456]$), suggesting that the "foreign status" of these renders similar emotionality and/or exemption from social normativity, thus reminiscent of the L2 Status Factor hypothesis (Bardel & Falk, 2012) in studies of crosslinguistic influence, which assumes that learners of successive languages forge closer mental associations between their various 'foreign' languages rather than between these and the native tongue (De Angelis, 2007:29), and appeals to the implicit/explicit divide assumed between the naturalistically-acquired, automated, emotionally charged, and/or normatively influenced L1 and more metalinguistically-driven, effortful and detached non-native linguistic systems. The few nuances that do emerge are traceable to the specific ethical scenarios.

No perceptual drift? Accent perception in two generations of Italian migrants

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Research on foreign accents has convincingly shown that intensive language contact can lead to a perceived foreignness in heritage speakers (HSs). They are often foreign-sounding to homeland raters who grew up as monolinguals, suggesting some degree of crosslinguistic interaction between the heritage and the majority language (e.g., Kupisch et al. 2014). So far, little is known about whether HSs also “hear with an accent”. Kim et al. (2023) showed that Spanish HSs in the US sound more foreign than homeland speakers, while at the same time HSs and homeland speakers perceive global accent in a similar way. Our paper adds to this discussion by considering accent ratings from three different populations of Italian speakers: 47 homeland speakers in Italy, who have never used any other language but Italian as their primary language; 34 first generation migrants who grew up in Italy but moved to Germany as adults; 31 HS who grew up speaking German and Italian in Germany. All three groups judged 20 recordings (including speech of Italian homeland speakers HSs, and L2 learners of Italian). The results revealed that HSs stand out as they find their heritage peers and L2ers more native-sounding in comparison to the other two rater groups (first generation migrants: ($\beta=-0.87$, $SE=0.40$, $z=-2.16$, $p<.05$ and homeland speakers: ($\beta=-1.07$, $SE=0.39$, $z=-2.78$, $p<.001$). These findings indicate that HSs were reminded of their family members when judging heritage speech, making them more lenient and open towards non-homeland accents.

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On the Role of Heritage Languages in Childhood Trilingualism: Evidence from a Dual Language Program

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Dual language bilingual education (DLBE) offers at least 50% of academic instruction in a language other than English, known as the partner language. Despite widespread concerns that trilingual students may be at a learning disadvantage, there is not yet a study on DLBE that explores how children who speak a third language at home compare to peers who speak only English at home. To explore the influence of trilingualism on development, 56 DLBE students who received between 50% and 90% of their instruction in Spanish participated in this study: 16 2nd grade, 21 4th/5th grade, and 19 7th/8th grade students. 32 of these children spoke English and a heritage language at home and were learning Spanish as their third language; 24 spoke only English. Children completed oral production and forced choice tasks targeting differential object marking (DOM), gender agreement in direct object clitics (clitic gender, CG), and the volitional subjunctive (VS). Each participant was divided into one of three groups depending upon the structure tested: children with exposure to only English at home, heritage speakers of a language that has an equivalent structure (either DOM, CG, or VS), and heritage speakers of a language that does not have an equivalent structure (no DOM, CG, or VS). Results, supported through binomial logistic regressions, show no discernible differences between children acquiring Spanish as a second and a third language. Therefore, trilinguals whose input spaces are divided between English, a heritage language, and an additional language at school neither have an advantage nor a disadvantage in learning Spanish. While the present project does not strictly control for age of acquisition of the first two languages, our findings are crucial for educators and policymakers in demonstrating that multilingualism does not negatively impact children's dual language learning experience at school.

One-year-old bilingual lexicon is semantically organized

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Prior work on bilingual vocabulary development mainly focused on examining differences in vocabulary size, thus addressing the question of how many words bilingual children know. Although there is no doubt that language comprehension also depends on the structure of a child's lexicon, only a handful of studies aimed to address this question in bilingual children. Here we report a study of early lexico-semantic organization in infants growing up bilingual in a Basque-Spanish language environment. Twenty-two one-year-olds were tested in an eye-tracking preferential looking paradigm in their dominant language (Basque). Proportion of looking time data demonstrates that one-year-old bilinguals are not only able to map a word (label) to an object, but also that they are sensitive to semantic relations between the words and objects. Specifically, infants in our experiment looked longer at the picture of a dog when they heard word dog, then when they heard word tree. Importantly, they also looked longer at the picture of a dog when they heard word horse, then when they heard word tree. These findings suggest that although still modest in size, vocabularies of one-year-old bilinguals are semantically organized, with words in their mental lexicon being connected based on the overlap in meaning.

Online processing of null and overt subject pronouns in Catalan-Spanish bilinguals

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This study explores how Catalan-Spanish bilinguals resolve null and overt subject pronouns using eye-tracking during spoken language processing, an area that has received limited attention to date. Microvariation in pronoun preferences has previously been attested in null-subject languages (Contemori & Di Domenico, 2023). Catalan and Spanish, both null-subject languages, exhibit subtle differences in pronoun interpretation (de Rocafiguera, 2023), with notable variation in overt pronouns, which may refer to subject or object antecedents. Moreover, the role of language dominance in bilingual processing remains underexplored. Although our bilingual sample spans a wide spectrum of dominance profiles, we concentrate specifically on the two extremes. Twenty-five Catalan-dominant and 28 Spanish-dominant Catalan-Spanish bilinguals completed two equivalent Visual World Paradigm eye-tracking tasks using printed words on a Tobii Pro T60XL, one in each language. The auditory stimuli featured a subordinate clause introducing two animate NP antecedents in subject and in object position (e.g., a pastry chef and a butcher), followed by a main clause containing either a null or an overt pronoun, which semantically biased towards either the previous subject or object (While the pastry chef cheers up the butcher in the market, [(he) is cutting a] cake/steak with a knife). While participants listened to the sentences, the two antecedents were displayed on the screen. GAMMs on the proportion of fixations in the region of interest (in brackets above) revealed differential processing outcomes in Catalan and in Spanish, with clearer tendencies in Catalan by Catalan-dominant bilinguals and particularly in the overt pronoun condition (in line with previous offline results). Overall, our results show subtle differences in the online processing of null and overt subject pronouns in Catalan and Spanish and a relevant impact of language dominance, which contribute to the growing evidence showing microvariation in the scope of null and overt subject pronouns in null-subject languages.

Open-minded but poorly prepared: The perspectives of pre-service teachers on the role of multilingualism in education

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With nearly one in three children in Germany having a migration background and every fourth elementary student speaking a heritage language alongside German (Statistisches Bundesamt, 2024), multilingualism is an inherent part of German society. Additionally, it can be assumed that linguistic diversity will likely increase in the future due to further migration and globalization. Therefore, schools should value linguistic diversity and integrate it into everyday teaching practices. This promotes not only the academic language development of multilinguals, but also benefits all learners. Against this background, the current study examines the attitudes of pre-service teachers toward multilingualism in various German federal states. The online questionnaire data consists of responses from 250 pre-service teachers. The questionnaire explores demographic factors, including participants' own multilingual backgrounds, their exposure to multilingualism-related content in teacher training, and their practical teaching experiences with multilingual students. The study also assesses attitudes toward language-sensitive teaching, the potential benefits and challenges of multilingualism in education, and the conditions that could either facilitate or hinder the inclusion of multilingualism in the classroom. The quantitative study examines pre-service teachers' beliefs and experiences in multilingual education. Preliminary findings show that while participants value multilingualism and support its classroom inclusion, many feel underprepared to teach in heterogeneous classes, with varying levels of confidence and readiness to address these needs in their future teaching. The study contributes to a better understanding of the perceptions and attitudes of future teachers toward multilingualism and heritage languages, as well as their potential impact on everyday teaching practices.

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Outrunning the Old Trolley: Applying a Two-Stage Moral Dilemma Paradigm to Assess Foreign Language Effect in Moral Decision-Making

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Previous research on the relationship between the Foreign Language Effect (FLE) and moral decision-making focused on moral dilemmas requiring a single decision and, generally speaking, described a utilitarian response tendency in participants who made decisions in a foreign language (Costa et al., 2014). This study draws on two-stage moral dilemmas (Frechen & Brouwer, 2022) to assess the influence of previous decisions in the same narrative, i.e. whether people tend to stay consistent or reconsider within a morally challenging situation, and if differences are observed when comparing between decisions made in a native language with those made in a foreign language. Two-stage moral dilemmas will be used to assess the influence of previous choices on the Foreign Language Effect in moral decision-making in a native language (Spanish) and in a foreign language (English). The first stage of each dilemma presents two binary choices of whether or not to take an action that would harm one person to save others (utilitarian or deontological decision), while the second stage of each dilemma will be presented after the participant's response and, congruent with the previous choice, offer a second binary decision to harm one person to save others. Previous studies conducted solely in a native language show a pattern of inconsistency between decisions made across stages, while we, on the contrary, hypothesise participants who make the choice in a foreign language will consistently choose the utilitarian option in both stages. Results from the study and their relation to eminent theories of both moral decision-making and the Foreign Language Effect will be discussed.

Overcoming challenges in multilingual health communications: transforming health information for culturally and linguistically diverse communities.

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In Australia, the COVID-19 pandemic underscored significant challenges in multilingual communications, particularly impacting Culturally and Linguistically Diverse (CALD) communities. According to the latest census (ABS, 2022), more than 400 languages are spoken in Australia. Approximately 850,000 people rely on translators and interpreters to access information and communicate in public service settings. This paper examines a research project conducted by the Australian Department of Health and Aged Care in collaboration with RMIT University. The study assessed the production and effectiveness of four translated health communications related to COVID-19 vaccination, employing four translation and communication approaches. The experiment focused on six languages—Arabic, Chinese, Greek, Serbian, Spanish, and Vietnamese—the languages of some of the most vaccine-hesitant groups in Australia. The project findings provide insights into the most effective communication methods and support the importance of placing communities or target audiences at the centre in both designing and implementing communication strategies that affect them. This has growing importance for translators and interpreters as community review panels begin to be integrated into the communication and translation workflows of government campaigns. By collecting insights from both producers and users of these communications (Norma et al., 2023), the study identifies critical gaps and proposes a best-practice model for creating and disseminating multilingual health information. The paper will also discuss the implementation of the recommendations that emerged from the project. The findings underscore the vital role of quality translation in public service communications, advocating for increased awareness and understanding of multilingual needs. This research not only enhances existing practices in Australia but also paves the way for further exploration of multilingual government communications on a global scale.

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Parental language mixing and its association with language outcomes of children with (a suspicion of) Developmental Language Disorder

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Background: Multilingual children naturally encounter language mixing in their environment. Since language development depends on the language input (Anderson et al., 2021), and processing mixed-language input may be cognitively demanding (Morini & Newman, 2019), the amount of parental language mixing may relate to children's language outcomes. This matter is also highly relevant for children with developmental language disorder (DLD), who experience problems with language uptake (Jackson et al., 2021). Yet very little is known about language mixing in the input of these children, and the potential consequences for their language development. Although studies of children with typical development suggest that the effect may be small (Bail et al., 2015), the effect could be amplified in children with DLD. Method: Participants were 30 3- to 6-year-old multilingual children with (a suspicion of) DLD in the Netherlands and their parents. Parental language mixing was measured both through questionnaire data (Q-BEx; De Cat et al., 2022) and day-long recordings (LENA). The preregistered analyses (<https://osf.io/tnw3u/>) related parental language mixing (Q-BEx, LENA) to children's Dutch language outcomes (vocabulary, grammar) while controlling for effects of age, cumulative exposure to Dutch, and parental level of education. Results: Parental language mixing occurs in all families, with wide variability: between 1 and 105 instances per hour in LENA recordings ($M = 26$ times). The relation between parental language mixing as measured through Q-BEx and children's vocabulary outcomes is positive and marginally significant after correcting for multiple testing (estimate = .35, 97.5% CI [-.01, .70], $z = 2.20$, $p = .028$), suggesting that more parental mixing may relate to higher vocabulary outcomes in children with DLD. The other three regression models reveal null results. Currently, frequentist analyses are supplemented with Bayesian analyses. Findings will inform language development theory as well as professionals supporting multilingual families on language use at home.

Parental satisfaction with immersion education for L2 speakers: insights from the Celtic experience

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Previous research surrounding parents and immersion education have typically explored the decision-making processes and subsequent experiences surrounding involvement which they encounter (Kavanagh & Hickey, 2013; Lee & Jeong, 2013; Mhic Mhathúna & Nic Fhionnlaoich, 2021; Wesley & Baig, 2012). One area which appears to be seldom covered in the literature, however, is that of parents' satisfaction with their children's language skills whilst in immersion education. This study aimed to capture parental views on this topic within a wider project encompassing their general experiences of immersion education. We asked 258 parents across Wales (n=126), Ireland (n=60), Scotland (n=60) and the Isle of Man (n=12) to complete a questionnaire regarding their experiences of having a child attending an immersion school; these areas were focused on as immersion programmes are a prominent feature of each area's education systems. The questionnaire asked parents about their views of minority languages and bilingualism, their child's school, their participation and involvement in their child's education, and the support and communication they receive from their child's school. Results suggest that whilst some views were consistent across areas, the extent of parents' agreement with some statements differed in interesting ways. For example, although most parents were satisfied with their children's development in their native and target languages (with a slightly higher proportion demonstrating satisfaction with the target language), there were a small proportion who, despite their satisfaction with their children's native language development, felt it was being impacted due to attending an immersion programme. These findings are interpreted in relation to the socio-political landscapes in which each language exists and the implication of the findings for language policy and planning are discussed.

Parenting style, bilingual development and children's socio-emotional wellbeing

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Current scholarship on Harmonious Bilingualism (HB) focuses on how parents' bilingual perception, proficiency and language use may influence their children's language use, literacy activities, and bilingual proficiency; it also examines how children's bilingual experience relates to their language and social-emotional skills (De Houwer, 2015). However, research in HB has not addressed how parenting styles may play a role in this process. In the North American context, previous studies have found immigrant parents' proficiency in or use of their languages is associated with their parenting beliefs and practices (Calzada et al., 2017), and that their parenting styles may shift to reflect the goal of assimilating to the host culture's values and practices (Roche et al., 2014). Parents' authoritative parenting was found to be associated with children's higher expressive language ability in the home language and better socioemotional adjustment in both Mexican and Chinese immigrant families (Chung et al., 2019). The current study further explores these intertwined factors within the HB framework. We hypothesize that authoritative parents would enable their children to develop stronger willingness to communicate and thus higher bilingual proficiency, which in turn leads to stronger abilities to regulate their socio-emotional behavior, demonstrating more prosocial behaviors. Chinese immigrant families (N = 118) living in the United States participated in this study. Parents filled out two surveys: 1) a home language and literacy environment survey (Lü & Koda, 2011); 2) a parenting styles and dimensions questionnaire (Robinson et al., 2001). Children also responded to two surveys: 1) a language use/attitude survey; 2) a Strength and Difficulties Questionnaire (SDQ, Goodman, 1997) for children 11 years or older. Parents whose children are younger than 11 filled out the SDQ (parent version). Data is currently under analysis and we will explore the relationships of the aforementioned variables through correlation and path analysis.

Parents' attitudes towards childhood multilingualism: New insights from North America and Nordfriesland

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Parental attitudes towards childhood multilingualism are important because they influence parents' language practices with their children; and these, in turn, influence children's multilingual development. Yet parental attitudes are underresearched, and only one previous study (conducted by the authors) has systematically investigated their dimensionality. This large-scale study of quantitative questionnaire data established that – at least in the Canadian province of Quebec – parents' attitudes comprise three distinct evaluative dimensions: status (multilingualism holds utilitarian value), solidarity (multilingualism enhances social identity), and cognitive development (multilingualism entails learning benefits). These dimensions accounted for much, but not all the variance. The current, questionnaire-based study investigates (1) whether parental attitudes in other contexts comprise the same dimensions, and (2) whether additional dimensions exist. The participant sample is based on new data collected from over 750 parents raising multilingual infants/toddlers in three diverse contexts: Quebec (English/French/heritage languages), the U.S. (English/Spanish), and the German district of Nordfriesland (German/Frisian). A corpus-assisted discourse study is in progress: frequencies and collocations are investigated to attest statistically significant patterns; concordance lines and discourse segments are analysed to establish meaning in context. To date, analysis of the Quebec subsample has already confirmed the presence of the status, solidarity, and cognitive development dimensions. Moreover, it has revealed a potential fourth dimension: personality development (multilingualism leads to positive personality traits such as open-mindedness and empathy). We hypothesise that these four dimensions characterise bilingual parents' attitudes across contexts, and predict that the U.S. and Nordfriesland data will also reveal parents' evaluation of childhood multilingualism in terms of status, solidarity, cognitive development, and personality development. This paper will present the final findings from all three contexts and discuss how they can contribute to the development of research-informed support measures for parents raising young multilinguals in North America, Nordfriesland – and beyond.

Pedagogical Translanguaging in L3 French and Italian Courses for Spanish-Speakers: Practices and Perceptions

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Translanguaging theory views the bilingual mind as a single linguistic system, aims to empower students by validating their linguistic practices, and strives to leverage their full linguistic repertoires in the classroom (García, 2009). Recent work has discussed pedagogical translanguaging (PTL), a theoretical and instructional framework informed by translanguaging theory which strategically utilizes students' prior linguistic knowledge as a resource for developing multilingualism (Cenoz & Gorter, 2021). However, questions remain about how teachers can effectively implement these theories in practice. The goal of this study was to examine PTL practices employed by two instructors in introductory-level French and Italian courses designed for Spanish-English bilinguals at a Southern California university in the United States where multilingual pedagogies were institutionally supported and integrated long-term. The research investigated functions of instructors' self-reported practices and student perceptions of the impact of PTL on their learning. PTL practices were examined using ethnographic observations, audio recordings, and field notes. Instructor and student perceptions of PTL were measured with semi-structured interviews. The findings revealed that the Italian instructor incorporated a student-centered and inductive approach where students analyzed specific examples to discover rules or patterns before receiving explicit instruction. In contrast, the French instructor used a more deductive, teacher-centered approach to illustrate cross-linguistic similarities. However, neither instructor had formal training in PTL and therefore incorporated these practices intuitively. These results align with Galante (2020) and Omidire and Ayob (2022), highlighting a need for training to increase the effectiveness of PTL. Additionally, while both instructors leveraged students' linguistic knowledge to support instruction or compensate for limited Spanish proficiency, a potential risk for exclusion during PTL activities was identified despite all students sharing the same languages. This study will provide recommendations for PTL training which promote inclusive instruction, the strategic use of students' linguistic expertise, and active learning approaches.

Peer assisted learning as a strategy in multilingual classrooms: Insights from studies on translanguaging practices in two primary schools in South Africa.

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Peer assisted learning as a strategy in multilingual classrooms: Insights from studies on translanguaging practices in two primary schools in South Africa. Many teachers and learners in South Africa share the same home language, however, where teachers are not familiar with the language practices of their learners, they can create the conditions necessary for learners to participate in semiotic and discursive practices. This is especially necessary for multilingual learners who find it challenging to understand content covered in monolingual English (Garcia & Li Wei, 2014). There is little research evidence on peer assisted learning as a strategy in multilingual classrooms to assist learners in engaging in discursive and semiotic practices that respond to their cognitive and social intentions, especially in the cases where the teachers have a limited language proficiency of their learners. This paper presents data from two studies that focused on exploring translanguaging practices in multilingual grade 6 (11-12 year old) classrooms. Translanguaging practices occurred in both classrooms with one being more learner-centered and the other being more teacher-centered. In both classrooms peer assisted learning with pairs of learners sharing a home language was used as a strategy to include a multilingual environment, and to assist the learners in understanding the content. I argue using discourse and interview data that peer assisted learning can be incorporated as a strategy in multilingual classrooms to assist learners who are not proficient in the target language, and to free multilinguals from being subjected to monoglossic and monomodal ideas of communication as the standard (Tyler, 2023).

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Peer interactions, multilingualism, and second language acquisition during an intensive study-abroad Arabic program: Insights from dynamic social network analysis

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Target-language (TL, L2) gains are often listed as the primary outcomes and goals of international student mobility. However, despite “folk beliefs” that mere presence in an L2-speaking country will automatically facilitate language acquisition virtually through osmosis, not all learners benefit equally from study-abroad sojourns, and considerable variation has been evinced in their linguistic attainment. One line of enquiry that has attempted to explain the varied picture has investigated students’ social networks as a factor conditioning their interactions and—subsequently—progress. This contribution analyses the longitudinal development of the social interaction network and its influence on L2 gains of 41 U.S. sojourners enrolled in a 3-month intensive study abroad Arabic program. Unlike extant research, the current study i) focuses on students’ interactions with their alma mater classmates as well as other agents ii) reconstructing their complete network, iii) tracing the impact of each individual student’s position in the social graph using centrality metrics, and iv) includes a dynamic developmental perspective with three measurement points at 4-week intervals each. Objective proficiency gains measured with OPI were most influenced by predeparture proficiency (negatively), multilingualism, perceived integration of the peer learner group (negatively), and the number of fellow L2 learners speaking to the student. Snapshots of the whole student network taken after each month reveal relative stable same-gender cliques, but with changes in the patterns and strength of interaction. We discuss interesting divergent trajectories of centrality metrics, L2 use and progress, especially in the final month of the sojourn, predictors of self-perceived progress across skills, as well as gender differences underscoring the importance of understanding the cultural milieu. We also comment on the consequences of different ways of operationalizing (counting) multilingualism as a variable in quantitative linguistic research.

Perception of English stop voicing contrasts in L1 Arabic L2 English learners

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English possesses a voicing contrast in its stop inventory: /b-/p/, /d-/t/, /g-/k/. Its voiced consonants have a short-lag VOT, and its voiceless consonants are aspirated (Lisker & Abramson, 1964, 1967). (Modern Standard) Arabic also possesses a voicing contrast in its stop inventory but, unlike English, it manifests this contrast only in one place of articulation, /d-/t/. Arabic has /b/ but not /p/, and it has /k/ but not /g/. In Arabic, /b d/ are typically prevoiced, and /t k/ are aspirated (Kulikov, 2020, 2022). Our study investigates the extent to which the phonological differences between English and Arabic pose an acquisitional obstacle for L1 Arabic L2 English learners. Others have examined the pronunciation of English stops by L1 Arabic L2 English learners (Flege & Port, 1981; Olson & Hayes-Harb, 2019; Saud Alharbi et al., 2022). Here, we analyze perception data. Thirty L1 Arabic L2 English learners from Saudi Arabia residing in North America categorized three synthetic acoustic continua into their respective English consonants, <ba-pa>, <da-ta>, and <ga-ka>. We also recruited a control L1 English group. The stimuli varied in 10-ms increments between 0 and 80 ms. Sigmoid functions suggested the following: 1) The categorization of the /b-/p/ and /g-/k/ contrasts of the two groups was identical—there was no evidence of an acquisitional obstacle for these learners with regards to these contrasts. 2) It was the categorization of the /d-/t/ contrast that captured a difference between the two groups. The /d-/t/ cross-over point was earlier (i.e., had a shorter VOT) for the learners than for the controls. This is not surprising because Arabic /d/ is prevoiced and English /d/ is not. These findings provide evidence for place-specific cross-language phonetic interference but against featural generalization; they also show that, unlike “similar” ones, novel contrasts may not be particularly difficult for learners.

Perception of nasal vowels in L2 French: Insights from Eye-Tracking

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We examine how L1-German L2-learners of French process French nasal vowels (/ɛ̃, ɔ̃, ɑ̃/), using offline and online measures. Perceiving unfamiliar sounds is especially challenging for L2ers when these sounds are absent or similar to sounds in their L1. French has three nasal vowels (/ɛ̃, ɔ̃, ɑ̃/); German has the corresponding oral vowels but lacks vocalic nasals. L2-French learners are known to have problems identifying nasal vowels (e.g., Bustamante et al. 2018), but the sources of these problems remain unclear. To gain a better understanding, we combined a nasal identification task with eye-tracking. Participants were asked to listen to and identify nasal vowels, using three orthographical labels (IN, AN, ON for /ɔ̃, ɛ̃, ɑ̃/, respectively). There were 144 stimuli with 24 non and real-word triplets (e.g., ment, main, mon). To examine processing patterns, participants' eye-fixations of the orthographic labels were recorded. Our goal is to collect data from 30 L2ers; preliminary results are based on 9 L2ers and 17 L1 controls. The L1 controls identified all nasal vowels more than 98% correctly; L2ers reduced (60%-90%) accuracy, higher for /ɔ̃/ than for /ɑ̃/ ($\beta = -1.95$, $SE = 0.28$, $v = -6.86$, $p < .001$) and /ɛ̃/ ($\beta = -0.98$, $SE = 0.29$, $v = -3.04$, $p < .001$). The incorrect responses reveal that L2ers have particular difficulties distinguishing /ɑ̃/ from both /ɛ̃/ and /ɔ̃/. Eye-tracking data support these findings and reveal longer fixation on /ɑ̃/, including when /ɑ̃/ is not the target nasal. Our data are generally in line with the revised Speech Learning Model (rSLM) (Flege & Bohn 2021), suggesting that new sound categories can be formed; but even in advanced learners, they still differ to some extent from target language categories. We discuss the role of acoustic cues, grapheme-phoneme mapping and the interpretation within the rSLM.

Performance and Play on Snapchat. Exploring L2 Features in Digital Social Writing.

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Digital social writing, such as messaging on Snapchat, is an important part of adolescents' social life. Multilingual, creative and playful language use is widespread in digital writing (Cutler & Røyneland, 2018; Deumert, 2014), and bilingual practices are found to be even more prevalent in synchronous environments, such as chat rooms (Paolillo, 2011). This paper aims at exploring the ways in which different languages and varieties are represented in digital social writing among adolescents in Eastern Norway. The main research question is: In what ways are features from other languages than Norwegian represented in the digital social writing of adolescents from areas around the capital, Oslo, and what functions do they serve? The methods used in the study triangulates descriptive analysis of L2 features and qualitative analysis of the functions and meaning-making they represent. The data consists of 1032 authentic, non-sensitive text messages donated from 45 adolescents (14-15 years) in Central Eastern Norway. Additionally, 16 focus group interviews (4h and 27min) have been conducted with 46 adolescents in the same area. The study applies a variationist approach to user-based data (Androutsopoulos, 2017; Eckert, 2012), viewing the produced text as situated interaction. The concepts of style (Eckert & Rickford, 2002), performance (Bauman, 1975) and indexicality (Eckert, 2008) are central to the analysis. Preliminary results show extensive use of a wide range of English features: Slang, product names, structural loans and more. The situated use of English features indexes casualness and friendliness and are reflexively used in the messages. Performative and playful use of features from other languages and dialects is also found. The paper discusses the role of performative, multilingual language use in adolescents digital social writing practices, and how multilingual resources are used to contextualize the verbal content and index social meaning, but also frequently used "for fun".

Peripheral or just absent policies? Foster care as a particular social context of FLP

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Public language policy concerns large numbers of speakers, and it is usually written down in laws and other legally binding documents. In contrast to this, the family home and family interactions are often considered as the supposedly private, unregulated space where ad-hoc interactions align with explicit parental decisions and form a family language policy over time. However, the aim of this contribution is to challenge this binary understanding and to address the interplay of public language policy and the supposedly private domain of family language policy in the severely under-researched social context of foster care. Our specific focus is on the contradictions between policies and practices involved in caring for unaccompanied minors and children from multilingual families when it comes to placement in foster care. This involves complex processes of institutional responsibility, expectations regarding adequate care and ideals of family life. Case studies from four European Countries illustrate why FLP should be interested in multilingual children meeting (typically less multilingual) foster parents and institutions. We analyse legal and policy documents from Austria, England, Germany and Norway and we compare the understanding of family and language matters in the four countries. Preliminary interviews with social workers and media texts about child welfare services complete the analysis of D/discourses around the lived experiences of language in this particular context of FLP. Preliminary results point to a lack of language awareness in relevant documents leaving practitioners and decision makers with little guidance when it comes to decision-making. We argue for the need to address language issues on all levels of child welfare and foster care institutions. Discourses on minoritized languages and their speakers need to be addressed explicitly also in the social services in order to render the experiences of multilingual children in foster care more central.

Perspectives and Practices of Pedagogical Leaders in Norwegian Early Childhood Education and Care for Supporting Home Language Use. Case of Polish Children in Norway.

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This study aims to investigate practices of pedagogical leaders in Norwegian ECEC regarding the utilization and support of home languages (HL), with a specific focus on Polish children. The research explores how ECEC staff is promoting the use and support of HL and the experiences of both Polish and non-Polish staff members. The migration of many Polish families to Norway after 2008 has resulted in Poles constituting the largest immigrant group in Norway, with Polish children aged 0-5 making up 12% of all children with minority backgrounds (Statistics Norway, 2023). The Framework Plan for Kindergartens emphasizes that ECEC staff should “help ensure that linguistic diversity becomes an enrichment for the entire group of children and encourage multilingual children to use their mother tongue while also actively promoting and developing the children’s Norwegian” (Ministry of Education and Research, 2017, p. 24). However, Bøyum et al. (2016) underline that despite these guidelines, the practical implementation of this objective is not always evident. This study involved ten pedagogical leaders from diverse ECECs in Oslo, all working with children aged 3-6 and having Polish children in their groups. Half of the participants were native Polish speakers, while the other half had different nationalities. Data collection included audio-recorded semi-structured interviews conducted in both Polish and Norwegian in 2024. A reflexive thematic analysis approach (Braun & Clarke, 2022) was used for data analysis. The study revealed diverse challenges in the practical implementation of promoting HL use despite the guidelines in the Framework Plan. ECEC staff face dilemmas concerning the use of Polish and other HLs while teaching minority children the majority language. The findings highlight the need for further understanding and effective strategies to promote active usage of HL among children with languages different from Norwegian.

Phonologically cued lexical anticipation in L2 English: additive effects of cross-linguistic influence and cue markedness

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L2 speakers make use of semantic and morphosyntactic cues to generate lexical predictions in their L2 more readily if these cues are also present in their L1 (1). Although there is evidence for this during semantically-cued (2) and morphosyntactically-cued lexical anticipation (3), no studies have examined purely phonologically-cued anticipation in the L2 (i.e. before the predicted word is integrated). We tested proficient L2 speakers in their use of the phonological alternation between the English indefinites “a” and “an” as a cue to lexical anticipation (“The boy picked up a...compass/ an...umbrella”). We conducted two visual world experiments, one with native speakers of Spanish (N=24), a language with phonological allomorphy similar to the “a”/“an” alternation (Experiment 1), and one with native speakers of German (N=38), a language without phonological allomorphy (Experiment 2). Predictive processing was expected to occur if participants launched anticipatory looks to the only picture in a 4-picture display that was congruent with the article they heard. Only Spanish speakers showed this effect, and only with the marked “an” article. These results suggest that proficient L2 speakers can engage in lexical anticipation based on reliable phonological cues, but only (i) when such features are also present in their L1 and (ii) when the cues are salient/marked in the L2 (“an” is more salient than “a”). Other phenomena, e.g. grammatical gender, show that the presence of features in the L1 is not a prerequisite for L2 prediction (4), but our findings suggest that for anticipatory behavior in the L2 based on phonological cues it might be. We discuss differences between morpho-syntactic and phonological prediction-based cues.

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Political Heritage, Linguistic Destiny: Bilingual and Multilingual Publications in Mexico (1888-1959)

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Mexico, a country in which, in addition to Spanish, there are 68 indigenous languages and two sign languages, has a long tradition of publishing bilingual and multilingual texts. During the colonial period, the vast majority of these texts were printed and disseminated with a markedly evangelistic purpose, hence, the languages of publication were mainly Spanish and the indigenous languages, which at that time had a lingua franca status. From the last years of the nineteenth century and the first half of the twentieth century, a period in which the project of the Mexican nation took shape, based on a monocultural and monolingual perspective of the population, multilingual texts were printed with a view, precisely, to integrating indigenous communities. Through the review of catalogs, inventories and annual bibliographies published between 1888 and 1959, this paper analyzes the different bilingual and multilingual texts that were printed in that period with the purpose of giving an account of the translation policy of both the Mexican government and other publishing houses in order to delineate the complex linguistic panorama of the country and the ways in which it is printed in such publications. This will allow us to show the political and social value of languages and their speakers.

Predicting nouns but not definiteness during L2 comprehension: Evidence from ERPs

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During sentence comprehension, L1 readers are known to predict the semantic features of upcoming nouns, including their definiteness (“a book” vs. “the book”). This results in a mismatch effect (a pre-nominal N400) when a determiner’s definiteness mismatches the readers expectations. In the current study, we attempted to replicate this definiteness prediction effect in English monolingual speakers (N=24) as well as Chinese-English bilinguals (N=24), whose L1 has typological differences in definiteness marking. Participants read predictive sentence contexts word-by-word for comprehension while event-related potentials were recorded at the scalp. Sentences constrained for either a definite or indefinite noun, and we crossed predictability of the article (a/the) and predictability of the following noun in a 2 x 2 design: (“Janet had been fired, and she desperately needed a/the job/car”). At the article (a vs. the), monolinguals showed a clear article mismatch response, with unexpected articles triggering a larger N400 and late frontal positivity compared to expected articles. In contrast, the article mismatch response in Chinese-English bilinguals was significantly reduced, suggesting they had difficulty predicting definiteness information in real-time, during L2 processing. In contrast, both groups showed clear N400 predictability effects at the noun, suggesting that the prediction of other classes of semantic features remained intact. These findings highlight differences in the nature of predictive processing in monolingual and bilingual readers. We discuss the role of determiner usage, language experience, and typological differences in explaining these results.

Predicting Sentence Repetition Performance in 4-7 year old Spanish English Bilinguals with and without DLD

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Past work shows that sentence repetition differentiates older school age children with and without developmental language disorder (DLD) and highlights the contributions of working memory and vocabulary knowledge to sentence repetition in DLD. Because it is important to be able to identify risk for DLD in younger children we focus on differences in sentence repetition and the predictive role of measures of working memory and vocabulary knowledge in children at kindergarten and first grade. To address these, we analyzed SR performance in 186 Spanish English bilinguals (165 TD; 21 DLD) aged 4-7 years in the southern United States. Participants completed measures of language input and output (% time using each language), sentence repetition (raw number of words repeated correctly, expressive vocabulary (NDW or number of different words in narrative, and nonword repetition (NWR) measured by the percentage of phonemes correct as a memory measure. Language ability status was determined by expert bilingual speech pathologists. Data from kindergarten and first grade were examined through correlations and regression models to identify robust predictors of SR performance. Furthermore, an error analysis was run to identify error types in sentence repetition and how these align with vocabulary knowledge and working memory. Initial results show that TD children consistently outperform DLD peers on SR tasks. At both kindergarten and first grade NDW (vocabulary) and nonword repetition or memory accounts significant amounts of the variance in sentence repetition. In English NDW accounts for more of the variance (56% at kindergarten and 50% at first grade). In Spanish memory accounts for more of the variance (68% at kindergarten and 49% at first grade). We explore these differences in patterns through our error analysis to understand how sentence repetition can inform our understanding and identification of DLD.

Predicting Words Across Languages Depends on Language Context: Evidence from Visual World Eye-Tracking

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In bottom-up language comprehension, bilinguals generally activate words from both languages in parallel. But it is unclear if this extends to prediction: Do they predict in both languages, or restrict predictions to the one they are currently hearing? Also, do such predictions depend on whether or not they have recently encountered both languages context? We investigated this in two visual-world eye-tracking experiments by asking whether Chinese-English bilinguals pre-activate Chinese phonological representations of predictable words during English comprehension. In Experiment 1 and 2, we investigated cross-language phonological prediction in a one-language context (where only English was used) and in a two-language context (where both English and Chinese were used), respectively. In both experiments, 30 Chinese-English bilinguals studying in the UK listened to L2 English sentences containing a highly predictable word (e.g., You should take an umbrella with you, because there will be a heavy rain at three o'clock this afternoon) while viewing a display with a critical object and three distractors. In the target condition, the critical object corresponded to the target word (e.g., rain [Chinese: yu3]). In the Chinese homophone condition, the Chinese name of the critical object was a homophone (e.g., feather [Chinese: yu3]) of the Chinese translation of the predictable word. In the unrelated condition, the critical object (e.g., comb [Chinese: shu1]) was unrelated to the predictable word. The cluster-based permutation analysis showed that in both Experiment 1 and 2, participants fixated more on target objects than unrelated objects before the target word onset. But only in Experiment 2, participants fixated more on Chinese homophone objects than unrelated objects before the predictable word onset, indicating that in a two-language context, bilinguals pre-activated the form representations of predictable words in L1 during L2 comprehension. Our findings show that bilinguals predict across languages, but it depends on language context.

Predictive Cues in Language Processing: Insights from Learners of German as a Foreign Language

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The predictive use of linguistic key information is crucial for effective language comprehension (Pickering & Garrod, 2007). In German, external grammatical gender information provided by articles serves as a predictive cue. L2 learners utilize these gender-specific cues less effectively than L1 speakers (Hopp & Lemmerth, 2018). Additionally, external semantic information (e.g., yellow banana) also provides predictive information. Comparisons between L2 and L1 speakers reveal a delayed onset of prediction and weaker effects in L2 learners (Schlenter, 2023). Studies show that L2 speakers rely more on semantic cues than morpho-syntactic ones (Grüter, Lau & Ling, 2019; Hopp, 2015). While L2 proficiency may correlate with improved prediction outcomes, individual language combinations also influence predictive abilities (Schlenter, 2023). This study investigates the impact of different L1s on semantic and grammatical prediction skills across various proficiency levels. Sixty international students with varying levels of German proficiency participated in a visual-world eye-tracking experiment examining the processing of semantic and gender information in noun phrases. Participants were instructed to look at the correct image as quickly as possible. In the gender condition, this was feasible in 50% of cases due to differing genders following the article; in the semantics condition, it was similarly achievable based on a cue in the adjective before noun onset (e.g., "a wild tiger (masc.)" [Distractor: doll (fem.)]). Results discuss whether L2 learners rely more on semantic information than gender cues and how this reliance is influenced by their proficiency and native language. It is likely that L2 speakers learn grammatical gender rules in German more effectively if their first language also has a gender system. This study investigates this possibility and contributes to our understanding of prediction in L2 learning while addressing Schlenter's (2023) call for comparing L2 speakers with diverse L1 backgrounds and considering their proficiency levels.

Preparation wears off anticipation: The influence of preparation time in bilingual proactive control

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This study investigates the influence of preparation time, as measured by the cue-to-stimulus interval (CSI), on the reversed language dominance effect, a marker of proactive bilingual language control. Additionally, we explore the role of language proficiency in modulating this influence. Two groups of Chinese-English bilinguals, with high and low proficiency levels, completed a picture naming task in single-language and cued mixed-language blocks. Crucially, in the mixed-language blocks, the preparation time between cue and stimulus was manipulated by including CSIs of 0 ms, 800 ms, and 1,500 ms. Sixty-five Chinese-English bilinguals (low proficiency, $n = 29$; high proficiency, $n = 36$) participated in the study. The analyses employed linear mixed-effects models using R (version 4.2.1). The findings demonstrate that the reversed language dominance effect is influenced by the amount of preparation time available. Specifically, the effect observed at a 0 ms CSI could be mitigated with preparation times of 800 ms and 1500 ms, with this reduction occurring for both high- and low-proficiency participants. This paper is among the first attempts to investigate how preparation time influences proactive language control as measured by the reversed language dominance effect. Our results help explain the inconsistencies in observing the reversed language dominance effect across studies and enhance our understanding of the application and timing of proactive control in bilingual language processing. They also highlight the importance of considering preparation time when investigating the mechanisms underlying bilingual language production.

Preposition Use in Bilingual Children with Developmental Language Disorder: A Longitudinal Comparative Study

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Introduction: Prepositions are important in sentence construction, providing essential spatial and relational context. However, bilingual children often face challenges due to language interference, particularly those with developmental language delay (DLD) (e.g., Janssen et al., 2020; Armon-Lotem et al., 2021). This study aims to investigate the use of prepositions among bilingual Spanish-English children. We examine preposition production and errors over time in two groups of children. We hypothesize that: 1) Bilingual children with DLD will demonstrate lower accuracy in using prepositions compared to their typically developing (TD) peers over the years. 2) We anticipate significant differences in the progression of acquisition between the two groups over time. Method: The participants include 15 children at risk for DLD and 15 TD children. We collected data from narrative production tasks from year 1 to year 5 and coded for correct and incorrect preposition use and omission errors. Our analysis included the percentage of correct productions, the percentage of errors, and the types of errors across both timeframes and participant groups. The anticipated findings suggest that preposition use could serve as a marker for DLD to help identify bilingual children at risk for DLD, thereby informing the assessment of bilingual children. This research aims to deepen our understanding of how to identify impairments in bilingual children further. Our data has been collected and transcribed, and we will proceed with coding and analysis in preparation for the presentation.

Priming as an learning index in (neuro)diverse monolingual and bilingual child populations

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Neurotypical heritage bilingual children (CHS-TD) tested in their weaker language and monolingual children with Developmental Language Disorder (Mono-DLD) have been shown to have surface similarities in their production or comprehension (e.g., Paradis, 2023). To unravel differences in the learning mechanisms between the two groups (impaired in DLD, unimpaired in neurotypical bilingual children), we used the structural priming paradigm (e.g., Branigan & Pickering, 2017). Priming is the tendency to (re)use a previously encountered structure. It can offer insights into children's representation of linguistic structures, ease in accessing the representation, or efficiency in processing input to learn (uptake) (Messenger, 2022). It has been used to assess the presence and magnitude of immediate priming (after each trial) neurotypical monolingual children (Mono-TD). Recent studies with Mono-TD show that priming may increase given more trials, suggesting cumulative priming taps into uptake (Contemori, 2022). Meanwhile, this cumulative effect is said to be absent in monolingual children with Developmental Language Disorder, a condition associated with reduced uptake (Garraffa & Smith, 2022). We tested three Mandarin non-canonical structures in 22 Mono-DLD, 26 Mandarin-English CHS-TD and 29 Mono-TD (5-to-9-y.d.; age-, SES-, and non-verbal IQ-matched). Results showed that, while immediate priming was observed in all groups, its magnitude was smaller in Mono-DLD vs. CHS-TD/Mono-TD. This suggests that all groups have acquired linguistic representations, but that the Mono-DLD had difficulty accessing them. Cumulative priming was observed in the two neurotypical groups, but not in Mono-DLD. This shows that Mono-DLD exhibited reduced uptake despite optimal input, while reduced input did not lead to reduced uptake in CHS-TD. When not primed, CHS-TD preferred a structure shared between English and Mandarin (SVO), to a significantly greater extent compared with their monolingual peers. Taken together, we show that structural priming has great experimental and clinical potential to unravel differences in learning mechanisms across diverse learner populations.

Priming Motion Events in Heritage Speakers: Agents and Mechanisms of Language Change

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This study explores how language contact influences language change by focussing on heritage language speakers (HLS), who experience “extreme language contact” [1], and may produce linguistic innovations. Structural priming, the tendency to reuse a structure after recent exposure, is suggested to underly language change as it operates across languages and has long-lasting effects [2]. We investigated these dynamics by conducting within- and across-language priming experiments with Italian HLS in Germany, comparing the responses of younger and older speakers. The focus was on framing patterns of motion events (ME), specifically differences between verb-framed (VF) Italian and satellite-framed (SF) German. Thirty-nine bilingual participants (aged 11–58) engaged in two sessions where they described MEs in Italian after being exposed to VF and SF primes in both Italian (within-language) and German (across-language). Each session included a pre- and post-test to investigate long-lasting priming effects. Results from a Generalized Linear Mixed Model (GLMM) showed that SF constructions were more likely after SF primes, supporting the role of priming in spreading linguistic structures. Although age was not significant, younger speakers tended to produce more SFs. A second GLMM on long-lasting effects, showed that younger participants exhibited higher innovation rates, although SF production declined in post-tests compared to pre-tests. Our findings suggest that language contact fosters linguistic innovations, with across-language priming contributing to replicating these changes. We also find long-lasting priming effects for canonical structures (VFs in Italian) but not for innovations (SFs). Additionally, younger HLS are more likely to produce linguistic innovations, potentially acting as agents of language change.

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[2] Kootstra, G., & Muysken, P. (2019). Structural priming, levels of awareness, and agency in contact-induced language change. *Languages*, 4:65.

Processing of the Subjunctive Among Spanish Heritage Speakers in Southern California: An Eye-tracking Study

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Studies (Giancaspro, 2019; Giancaspro et al., 2022; Montrul, 2002, 2007, 2009, 2018; Silva-Corvalán, 1994, 2018) have focused on Spanish heritage speakers' ability to produce subjunctive mood via (oral) elicited production, written, comprehension, and judgment tasks. These studies have shown underproduction, overproduction, and/or gradual loss of mood distinction. The present study differs from previous studies by focusing on the processing of mood-modality Spanish subjunctive mismatches (i.e., (dis)agreement between the triggering verb and the subordinate verb) within nominal clauses (e.g., *La muchacha quiere que su hermano vaya a su trabajo* 'The girl wants her brother to go to her job') by Spanish heritage speakers (HSs) in southern California and Spanish speakers from Tijuana. Thirty-one HSs from southern California and 18 speakers from Tijuana, Mexico, participated in this study. The main reading experiment employed via eye-tracking analyzed 48 critical sentences (out of 144 experimental sentences) manipulating the embedded verb to display either the subjunctive or indicative. Proficiency was measured through various tasks (e.g., DELE, Diploma of Spanish as a Foreign Language, 2006; MELICET, English Language Institute, 2001; reading proficiency task, Picture Naming task, and Lexical Screening task), while a sociolinguistic background questionnaire (López-Beltrán, 2021) (e.g., heritage language background, contexts of use, interactional network, attitude, motivation and identification, and education background) accounted for variation among HSs. Preliminary results indicate Tijuana speakers were more sensitive to indicative as the embedded verb within the subordinate clause in comparison to HSs. However, there was a verb type effect regarding the matrix verb with a particular condition *Es muy bueno que* 'It is really good that' affecting sensitivity among both groups. This research contributes to the field of heritage language processing by exploring the implications of heritage languages and cognitive science. This bridges a gap between psycholinguistic and sociolinguistic methods in the HSs' field.

Pronoun Interpretation and Use in Turkish Heritage Speakers: A Comparative Study in Germany and the US

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This study investigates the pronominal system of Turkish in Turkish heritage speakers in Germany and the US, which is claimed to diverge systematically from that of native speakers, due to the influence of the dominant language. A key feature of Turkish is its ability to omit subject pronouns, unlike German or English. Previous studies have shown that native Turkish speakers prefer the null pronoun *pro* as a default, while the overt pronoun *o* is used to indicate a topic shift (Enç, 1986). We hypothesize that active use of the heritage language modulates preference and interpretation of the null and overt pronouns (*pro* and *o*). Specifically, we predict that greater active use of Turkish will correspond to a stronger preference for null pronouns and an increased likelihood of interpreting *o* as topic shift. Our ongoing pilot study tested 35 Turkish-German, 12 Turkish-American, and 9 late bilingual Turkish speakers. Two tasks were administered: an interpretation task assessing pronoun resolution in sentences with two potential antecedents, and a preference task where participants rated sentences with null or overt pronouns. Participants also completed a questionnaire adapted from HeLex (Tomič et al., 2023) to measure active Turkish use. Results indicate that 1) as a group, Turkish-German heritage speakers have higher active use of Turkish than Turkish-American heritage speakers; 2) The Turkish-German group tended to interpret *o* as a marker of topic shift more often than Turkish-Americans; and 3) both groups, generally preferred the null pronoun (*pro*) to the overt *o*. To further examine within-group tendencies, we performed a regression analysis for the Turkish-German population. Results showed a slight positive correlation between active use and the interpretation of *o* as topic shift. Our results suggest that rather than being divergent as a whole, the pronominal system of heritage Turkish heritage speakers is influenced by use factors.

Prosodic Disambiguate Perception in French-Mandarin Simultaneous Bilinguals: A Psycholinguistic Study of French Additive Focus Identification

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Phonetic suprasegmental elements play crucial roles in language perception from an early age, infants can distinguish their native language(s) based on suprasegmental features from the first days of life (Mehler et al., 1988). For bilingual speakers exposed to two languages simultaneously, incompatibilities between linguistic systems can create perceptual challenges due to interference between different phonological systems (MacWhinney, 2005). French and Mandarin differ significantly in their suprasegmental features, requiring bilingual speakers to navigate two distinct prosodic systems. Our study investigated French-Mandarin simultaneous bilinguals' prosodic perception in the identification of French additive focus, examining their ability to use intonation to disambiguate the constituent associated with the additive focusing adverb *aussi* ('also') in ambiguous sentences, through a forced-choice perception task. 32 French-Mandarin simultaneous bilinguals who reside primarily in the Paris region since their age of exposure were recruited and categorised as early bilinguals (exposure age: 0-2) or late bilinguals (exposure age: 2-12). Using a self-assessment questionnaire adapted from LEAP-Questionnaire for multilingual adults (Marian et al., 2007), most participants were identified as French-dominant, while some identified as balanced bilinguals. The comparison with the performance of 59 French monolinguals revealed that only late bilinguals exhibited a marginally significant reduction in accuracy ($P \approx 0.038$) when perceiving intonation cues marking additive focus. This finding suggests that early exposure (before age 2) might contribute to native-like prosodic processing abilities in simultaneous bilinguals in adulthood, indirectly supporting findings from previous research on bilingualism and suprasegmental elements perception in a different language pair (Dupoux et al., 2010). This study offers new insights into prosodic perception and bilingualism in the rare language pair of French-Mandarin, highlighting a potential link between prosodic processing and early exposure. Furthermore, the influence of bilingual language acquisition and sociolinguistic factors on adult bilingual processing merits further exploration in future psycholinguistic research on bilingualism.

Pupillary embodiment of brightness vocabulary in physical and emotional contexts in bilinguals' first vs. second language

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Previous research found reduced pupillary reactions to emotional language in unbalanced bilinguals' weaker second language (L2), compared to their dominant first language (L1). Most researchers argue that an L2 learned later in life has an emotion disadvantage because the disjunct age-of-acquisition of emotions and L2 yields weaker semantic representations. Alternatively, L2 semantics may simply be less accessible during processing. This raises the question of whether domains beyond emotion are similarly less embodied in L2. For example, the imaginary pupillary light reflex (PLR) causes pupils to constrict or dilate when hearing light vocabulary. On one hand, emotion and luminance words share a mode of embodiment; on the other hand, luminance vocabulary is often ambiguous, carrying figurative emotional and literal physical meaning. We investigated whether language-dependent pupillary embodiment differs between figurative and literal uses of brightness vocabulary. We expected pupil dilation in response to both figurative brightness and darkness. In literal contexts, we predicted stronger dilation for darkness compared to brightness words (imagined PLR). The study used a 2x2x2 design: brightness (bright/dark), context (literal/figurative) as within-subjects factors, and language (L1 German/L2 English) as a between-subjects factor. Pupils of unbalanced adult bilinguals (N = 166) were recorded while they listened to and imagined 64 sentences containing light vocabulary in literal or figurative contexts. Linear mixed-effects models found stronger pupillary responses for figurative sentences across both languages, suggesting that luminance words can evoke affective reactions and are semantically ambiguous when uncontextualized. Additionally, participants showed greater sensitivity to the figurative-literal distinction in L1. Importantly, the imagined PLR was embodied only in L1, where physical experiences frequently co-occur with language. Figurative uses of light-related vocabulary are also common in bilinguals' L2 and elicit pupil dilation in both languages. We discuss in how far these findings speak for language-dependent differences in semantic representations or processing.

Pushing the Limits of Monolingual Ideologies-Teachers' Practices and Perspectives of Translanguaging in English as a Foreign Language Classrooms in China

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Recent research has put focus on translanguaging in bi/multilingual classrooms in English-dominant countries. Nevertheless, there is a lack of research to date that explores teachers' perspectives of translanguaging in relation to language education policy in China. This study investigates Chinese teachers' views and practices of translanguaging in English as a Foreign Language (EFL) classrooms across three secondary schools. Meanwhile, the study compares teachers' perspectives to China's English language education policy. This aims to examine to what extent translanguaging challenges monolingual ideologies, potentially fostering equality and social justice. The data of this study consists of language education policy documents and semi-structured interviews with teachers. Discourse Analysis is conducted to interpret policy documents, focusing on the language attitudes and underlying ideologies regarding bi/multilingualism. Interview data is analyzed using Thematic Analysis to understand teachers' beliefs and practices related to translanguaging and their interpretation of the language education policy. Findings reveal that monolingual ideologies are often reflected in both teachers' perspectives and language education policy. Nevertheless, tensions exist between policy, ideology, and actual classroom practices. Despite the monolingual ideology, translanguaging practices have been naturally integrated into EFL classrooms. Teachers regard translanguaging as beneficial for 1) foreign language teaching and learning, 2) accomplishment of classroom activities and meaning-making, 3) development of learners' bilingualism and literacy, 4) construction of cultural identity, 5) leverage of students' equality and social justice. Moreover, teachers recognize the need for a shift in policy from the monolingual ideology to a multilingual perspective. Albeit to varying extents, teachers generally believe that translanguaging would break the limits set by the policy and long-established ideologies in society, which creates chances for social and educational justice for all learners.

Rapid Automatic Naming in Bilingualism: Exploring performance variability in Object Naming

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Family language policy (FLP) among other sociopolitical and linguistic factors influences bilingual language acquisition and production. In the Basque Country, multilingualism is widespread, yet few resources are available when it comes to formal language assessment. The aim of this study was to investigate bilingual Spanish-Basque children's performance on a Rapid Automatic Naming task (RAN) included in NeureSoft, a novel online platform for language assessment in Spanish and Basque, currently being developed by the Basque Center on Cognition, Brain and Language (BCBL). Specifically, this study focused on how language dominance can affect response variability and speed when rapidly naming a set of repeated objects in Basque. For data analysis, participants (n=385) were divided into groups based on the demographic data collected through self-reported questionnaires filled out by the parents of the children. The hypothesis claims that bilinguals who are examined in their most dominant language will have a better overall performance on the RAN test than those examined in their less dominant language. The role of multisensory processing tasks in predicting future developmental milestones such as literacy skills and overall language acquisition is also explored through the RAN-reading relationship, revealing an overall association between tasks, but a stronger one for the individuals examined in their most dominant language. This study highlights the importance of considering the bilingual profile in language assessment and utilizing assessment tools which are adapted to their diversity.

Reading predictors in monolingual and bilingual preschool children: a longitudinal study on Italian

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Topic. This study aims to develop a protocol that aids practitioners in the early screening of developmental dyslexia among monolingual Italian and L2 Italian children. While most studies focused on English and a few other languages, there remains a gap in studies examining the relationship between early linguistic predictors and subsequent literacy acquisition in L1 or L2 Italian. Early screening protocols focusing on linguistic predictors, and not only on reading skills, could be particularly beneficial for the L2 population, often at risk for misdiagnosis of reading impairments (Bedore & Peña 2008). **Method.** This project employs a three-year long longitudinal design divided in 3 phases. In Phase 1, 44 monolingual and 33 bilingual preschool children (mean age = 5.9), all in their final year of kindergarten, were tested on linguistic predictors of reading skills such as narrative abilities, vocabulary, phonological and morphological awareness. Phase 2 followed the same sample into their first year of primary school, focusing on their reading skills. Phase 3, currently underway, revisits these assessments during the children's second year of primary school. During phases 2 and 3, reading skills were tested via a finger-tracking device, an innovative technology that serves as a proxy of eye-tracking and allows for the in-detail study of online reading processing (Ferro et al. 2018). **Results.** Data analysis will start upon completion of data collection; full results will be available by the time of the conference. Analyses will explore regressions between predictors and reading skills, measured by means of both traditional tasks and innovative finger-tracking data. Specifically, we expect to identify distinct predictive patterns for the L1 and L2 groups, consistent with previous findings (Bellocchi et al. 2017). Insights gained from these analyses will also inform the development of teaching strategies aimed to effectively support reading acquisition in both monolingual and bilingual children.

Reading-to-think about negative and positive moral scenarios in a first and second language

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People routinely make moral decisions about others' actions. How moral decisions ensue, however, is a matter of debate. A foreign language effect account (FLE) asserts that L2 moral decisions are more rational/less emotional than L1 decisions (Maschio, et.al., 2022). A reading-to-think account (Titone et al., in prep) asserts that reading and thinking overlap, predicting that moral decisions and L1/L2 differences will arise from factors that impact both reading and decision-making (e.g., word frequency, discourse-connectives, proficiency). Complicating this issue, however, most work examines negatively- but not positively-valenced morality, and rarely considers encoding processes leading to decision outcomes. To address these issues, we conducted a study where 127 L1 and L2 English-French bilingual adults read, in a self-paced manner, and made initial moral judgements about simple sentences (John pushed Paul). Next, they re-read the same sentences with additional context and made updated decisions (...because Paul threatened John). Both negatively- and positively-valenced moral scenarios were presented (e.g., John praised Paul). First, the results showed that all readers encoded sentences containing high- vs. low-frequency actions more quickly, especially for negative actions. This pattern emerged for initial decisions, although the frequency effect was greater for L2 vs. L1 readers (see also, Whitford & Titone, 2017). Second, upon re-reading, all readers updated decisions more for negatively- vs. positively-valenced actions, particularly for low-frequency actions marked with causally ambiguous discourse-connectives (i.e., after). Crucially, updating effects were greater for L1 vs. L2 readers, suggesting greater L1 sensitivity to linguistic cues. Collectively, these data suggest: 1) reading and thinking are one in the same process, consistent with a reading-to-think account, 2) moral decisions unfold differently for negative and positive scenarios, and 3) L2 readers are comparable to L1 readers for initial moral decisions but are less likely to update decisions based on subsequent context, in contrast with a FLE account.

Real-World, Educational Benefits of Early Bilingualism: Longitudinal Evidence from the Miami School Readiness Project

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Most of the research on the cognitive consequences of bilingualism has used decontextualized, researcher-administered assessments (i.e., executive functioning or other tasks given in laboratory or online settings). Much less is known about how bilingual students fare compared to monolinguals in academic performance in their own schools. The Miami School Readiness Project assessed the school readiness (cognitive, language, motor, social, behavioral skills) of over 50,000 preschool children and followed them longitudinally throughout their entire school career. About 29,000 students were still present in the sample for their final (12th grade) year in high school. Administrative school record data on students were received each year (transcripts/course enrollment, grades received [GPA], attendance, suspensions, grade retention, standardized math/reading test scores, and graduation). Students were largely low-income, and ethnically and linguistically diverse (60% Hispanic/Latine, 33% Black, 7% White/Asian/Other; 52% were English language learners (ELLs) who spoke a language other than English at home (mostly Spanish, Haitian Creole, and others). English proficiency for ELLs was assessed every year, and we know when students reached full English proficiency (i.e., were bilingual). This presentation will share results from several different kinds of comparisons (i.e., ELL/bilinguals vs. non-ELL/monolinguals; Early L2 [English] proficiency vs. later L2 proficiency within ELLs), using a variety of different statistical techniques (i.e., multiple regression, structural equation modeling, hierarchical linear models, and latent class analysis). Former ELL/bilingual students consistently outperform monolingual students, and ELLs who master English earlier do better in school later compared to those that acquire English proficiency later. Controlling for poverty status, gender, race, and often school readiness/prior performance, the bilingual students have higher GPAs, better math and reading test scores, are less likely to be retained or suspended, and are more likely to take advanced courses, attend school, and graduate compared to monolingual students, perhaps suggesting real-world academic benefits of bilingualism.

Reframing language attitudes as sociolinguistic stance-taking in the linguistic landscape

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This paper makes the case that language attitudes towards minoritized languages can be assessed in new ways through the analysis of the multilingual linguistic landscape, in the form of sociolinguistic stance-taking (Du Bois, 2007; Jaffe, 2009). While studies on language attitudes tend to make use of direct and indirect methods, including interviews, surveys, and verbal guise approaches (Kircher & Zipp, 2023), these approaches reproduce hegemonic ideologies about language that circulate with reference to languages of wider communication, such as English. In contrast, the linguistic landscape foregrounds the societal treatment of language as the basis for identifying and documenting language attitudes. This paper draws from an existing corpus which houses over 2000 images of crowd-sourced images of the linguistic landscape in Hawai'i featuring Hawaiian, Hawai'i Creole, Chinese, Japanese, Korean, and other languages. The findings from a coding-based analysis of 300 signs show that the signs themselves assert stances of legitimacy in sociolinguistic domains that refer to both low and high prestige contexts. Moreover, a number of signs are aimed at readers who are not likely to comprehend the signs and who are depicted, by the signage, to be at odds with the norms or stances projected in the signs. This means that minoritized languages are not always associated with solidarity, particularly in the linguistic landscape. The findings contrast with existing language attitudes research on minoritized languages such as Hawai'i Creole and Hawaiian, which are described as languages associated with low prestige and high solidarity in studies that utilize direct and indirect methods. A linguistic landscape approach to language attitudes shows that linguistic notions of prestige and solidarity are not necessarily pre-existing features of language, but rather, emerge from the stances people project in signage in public space.

Regional variation in bilingual areas

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For more than a century, dialectologists have studied regional variation in the regional and minority languages (RML) spoken in Europe (e.g. Basque, Frisian, Galician). It is also observed that speakers from RML areas are often – but not always – recognised as belonging to this RML group when speaking the majority/dominant language (e.g. having a Basque accent in Spanish). In RML areas where the RML is almost completely replaced by another language and the number of RML speakers is very small, regional variation patterns in the dominant language have developed (e.g. Irish English). However, in regions where the RML is still widely used and has a considerable number of (native) speakers, regional variation within the majority language remains often unnoticed and has not been researched. With this poster we launch a call for partners in a comparative project with RMLs in Europe, from different language families and varying in status, institutional support and language vitality. At first, we will focus on the following research questions:

- Can listeners detect the regional origin of speakers within an RML area when they speak the majority language?
- Is there a difference between bilingual RML speakers and monolingual speakers of the dominant language?
- How is regional variation in the majority language linked to regional variation in the RML?
 - Can it be explained by language transfer?
 - What is the role of typological distance between the RML and dominant language?
 - Do they follow the same socio-geographic patterns?
- Is the rise of regional variation within the dominant language related to the loss of vitality of the RML?
- What is the role of regional and national language policies?
- What is the role of educational practices?
- What is the role of regional/minority identity?

We will also present the results of a first case study in the Basque country.

Researching family language policy in Nikkei Peruvian families in Japan: insights from mother-daughter interviews

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In the 1990s, Japanese immigration policies encouraged the immigration of Nikkei Latin Americans (emigrants from Japan and their descendants), and today there is an estimated population of 250,000 in Japan. Many first-generation migrants spoke little Japanese on arrival in Japan, while their children, many now young adults born and educated in Japan, speak Japanese as the dominant language. Consequently, there exist complex modes of communication within families, and between generations, combining Portuguese, Spanish, and Japanese in social and educational contexts. We present selected data from a broader study of Nikkei Latin Americans with migration histories from Brazil, Peru, Argentina, Venezuela, and Bolivia, living in the Tokyo and Aichi regions in Japan. Our specific focus is on two Nikkei Peruvian families living in the Tokyo region. We draw upon data from plurilingual semi-structured interviews with mothers and daughters, language biographies written for the project, and samples of plurilingual digital communication combining Spanish and Japanese languages and scripts. Through the theoretical lens of plurilingualism/plurilingual competence, we analyze language practices that are uneven, fluid along life paths, and socially situated (Coste, Moore, & Zarate, 2009; Council of Europe, 2001). At times, participants described practices that allowed them to exercise their agency freely within social structures (Archer, 2003; Giddens, 1984), combining languages innovatively and purposefully to achieve their goals; other times, powerful social discourses constrained their practices (Benwell & Stokoe, 2006; Weedon, 2009), restricting their plurilingual agency. We conclude by highlighting connections between the mothers' family histories, beliefs, and decisions regarding the maintenance of Spanish and the sociolinguistic practices of their daughters. In doing so, we illustrate the challenges associated with intergenerational language transmission that relate to migration pathways, complex emotions, belonging, ethnolinguistic identities, and place, among other factors.

Revising the Official Languages Act in bilingual New Brunswick: striking a fine balance between equal rights and neoliberal tendencies

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As Canada's only officially bilingual (English-French) province, New Brunswick relies on its Official Languages Act (1969) to ensure that both official linguistic communities are treated equally by their government. Official bilingualism remains nonetheless a contentious issue in New Brunswick. While members of the Francophone minority see language legislation as a necessary tool to ensure equality, some members of the Anglophone majority feel that it offers no real advantages to the mostly monolingual majority. Using a critical sociolinguistics approach, we will in this paper analyze the government of New Brunswick's response to the 2021 review of the Official Languages Act through its two commissioned reports and the position papers it received during the public consultation. The first commissioned report (2021) provides the government and the population with an action-oriented reference document to improve the provisions of the Act and ensure its proper orientation, while the second (2022) identifies ways to improve access to and learning of both official languages. Our focus will be on the ways the reports, and thus the government, position official bilingualism and language learning, on the one hand, and tries to appease the linguistic tensions between members of both linguistic communities, on the other. We will highlight, through a critical discourse studies lens, the increasingly neoliberal perspective (Codó, 2018) adopted by the government, who, in an attempt to promote bilingualism and appease tensions, focuses on the economic advantages and the personal gains afforded by bilingualism (Barakos, 2020), all the while insisting that the Act aims to ensure equality between linguistic groups.

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Codó, E. (2018). Language policy and planning, institutions and neoliberalisation. In J. Tollefson and M. Pérez-Millan (Ed.) *The Oxford Handbook of Language Policy and Planning*. (pp. 467–484). Oxford: Oxford University Press.

¡Saqué por los pelos! ¡No sé ni cómo saqué! Spanish Null Objects in Contact with Basque

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Null objects are a distinguishable morphosyntactic feature of Spanish in contact with Basque well-documented in corpora (Gómez-Seibane, 2011), acceptability judgment tasks (Vázquez-Lozares, 2022; Gondra, 2021), and formal comparative analyses (Landa, 1995; Franco & Landa, 1991). This study investigates the spontaneous use of Spanish null/overt direct object (DO) clitics in 80 young adult participants, 40 males and 40 females through interviews: 16 native Basque speakers, 16 proficient Basque speakers, 16 intermediate Basque speakers, 16 monolingual Spanish-speakers from the Basque Country (contact area), and 16 monolingual Spanish-speakers from a non-contact area. Findings indicate that Basque proficiency is positively correlated with null objects: the higher the proficiency in Basque, the more frequent the production of null objects is. Additionally, another directionality trend is observed where the use of null objects is negatively correlated with the use of DO clitics. Findings underscore the importance of analyzing spontaneous speech to document current rates of null objects and DO clitics in bilingual populations, and thus, complement theoretical and judgment data with naturalistic speech. Findings suggest that not only language contact but also familial, community, and educational contexts shape linguistic profiles distinctly.

Franco, Jon & Alazne Landa. 1991. Spanish object clitics as verbal agreement morphemes. MIT Working Papers in Linguistics, 14, 99–114. Cambridge, Mass.

Gómez Seibane, Sara. 2011. Objetos nulos en hablantes bilingües de vasco y español. Oihenart 26. 259–276.

Gondra, Ager. 2021. Null Direct Object Clitics in Basque Spanish: A Study Across Four Generations. Studies in Hispanic and Lusophone Linguistics, 14, 349-384.

Landa, Alazne. 1995. Conditions on null objects in Basque Spanish and their relation to *leísmo* and clitic doubling. Ph.D. dissertation, University of Southern California.

Vázquez-Lozares, Almike. 2022. A look into the bilingual grammar through the study of Basque-Spanish null objects and Basque differential object marking. Ph.D. dissertation, University of Illinois at Urbana-Champaign.

Searching for the bilingual advantage in executive functions for young adults: Integrating structural equation modelling and latent class analysis

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Evidence for bilingual advantages in executive functions (EFs) has been found in behavioural studies with both younger and older adults (e.g., Bialystok et al., 2004), with implications for cognitive ageing and disease onset (Bialystok et al., 2007; Craik et al., 2010). However, behavioural evidence remains mixed, particularly for young adults (e.g. Paap & Greenberg, 2013), sparking ongoing debate within the field (see Antoniou, 2019 for a review). This study aims to address these inconsistencies by employing a robust methodological approach based on the Unity/Diversity Framework of executive functioning (Miyake et al., 2000) and using latent class analysis to account for the diverse language experiences of participants across the multidimensional spectrum of bilingualism. Building on previous work, we collected data from more than 400 healthy young adults to explore an expanded four-factor structure of EFs using a comprehensive battery of tasks developed for bilingual populations. These tasks include measures of working memory updating, task shifting, response inhibition, and interference suppression. Using structural equation modelling, we derive latent measures of the EFs for analysis. Additionally, we used latent class analysis to categorise participants based on their language use and environments at key developmental timepoints, identifying distinct groups within the sample. This integrated approach allows for a nuanced examination of how different language experiences influence EF performance, providing a more detailed understanding of the underlying mechanisms. The results of this study will be discussed, focusing on the implications for understanding the bilingual advantage (or lack thereof) in young adults. By providing a detailed examination of the factor structure and class-specific performance, this research contributes to a more nuanced understanding of EFs in bilingual populations. These insights pave the way for standardised methodologies in future studies and offer a potential resolution to conflicting findings in the field.

Self reported and tested outcomes of long-term trilingual exposure in young adulthood

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This study was conducted in Iceland, where youth have access to high levels of English from incidental sources such as social media. Studies on L2 learners of Icelandic have consistently reported low results, which could be related to dividing their time between 3 languages and the low global economic value of Icelandic. A previous study of L2 adolescents with years of schooling in Iceland showed a wide variety of language levels and dominance patterns with many participants having no very strong language. Method: This study followed up on the previous study, attempting to recontact all the participants; 1/3 of the sample (n=13) consented to participate (now age 20 to 22 years). Participants filled out self-reports of Icelandic, home language and English proficiency (LEAP-Q) as well as detailed self-report of proficiency across varied situations. Standardized tests were administered in Icelandic (Milli mála) and English (PPVT, EVT). Results: The follow-up included mainly the subgroup that was already strong in Icelandic in adolescence. All reported high proficiency in Icelandic and English, with lower but considerable proficiency in their L1. The self-reports indicated higher performance than age equivalent scores of the standardized tests. All participants had the same dominance pattern as they did in adolescence. Participants reported being comfortable using each of the 3 languages across a variety of situations; tasks deemed most difficult in the home language included formal skills such as writing a paper or reading a novel. The results show that high Icelandic and English attainment by L2 learners is possible in this context while also preserving home language skills. The results shed light on long term trilingual exposure and on the relationship between formal tests and self-reported performance. Questions remain about the participants who did not consent to participate in the follow-up.

Shared syntax in bilingual models and speakers: Code-switching increases cross-language structural priming

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After hearing a grammatical structure in one language, bilinguals become more likely to produce that structure in their other language [1]. However, bilinguals mix languages in ways that do not always follow the script of typical cross-language structural priming experiments. They not only switch languages between but also within sentences. We hypothesize that code-switching in the prime increases syntax sharing, leading to stronger cross-language priming compared to single-language primes. We test for this effect in an implicit learning model of priming [2] and in heritage speakers of Spanish in the US. We conducted four simulated experiments, using instances of the Spanish-English Bilingual Dual-path model [3] as simulated participants. These were presented with Spanish transitive primes before producing English transitives. Primes were entirely Spanish, or started or ended with an English (code-switched) determiner and noun, or noun only. Only with a code-switched determiner and noun at the beginning, structural priming was significantly increased compared to entirely Spanish primes. We therefore used these code-switched primes in our follow-up experiment with human participants. We tested for the interaction between code-switching and prime structure in 190 heritage speakers of Spanish in the US. In a preregistered online experiment, participants wrote 60 English picture descriptions after hearing active or passive primes that were entirely Spanish or code-switched. As predicted by the model, the experiment revealed that structural priming in participants was stronger after code-switched compared to entirely Spanish primes. Together, these results show that (1) processing code-switches can increase syntax sharing, resulting in stronger cross-language structural priming, and that (2) implicit learning can explain this interaction.

[1] Hartsuiker et al. (2004). <https://doi.org/10.1111/j.0956-7976.2004.00693.x>

[2] Khoe et al. (2023). <https://doi.org/10.1080/23273798.2021.1998563>

[3] Tsoukala et al. (2021). <https://doi.org/10.1007/s42113-020-00088-6>

Social bilinguals outperform monolinguals and familiar bilinguals in Catalan vocabulary acquisition

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This study explores early vocabulary development among Catalan-speaking children in various bilingual contexts, focusing on the influence of Spanish exposure. Given the prevalence of bilingualism in Catalonia and the typological similarity between Catalan and Spanish, this context offers unique insights into bilingual language acquisition. Prior research suggests that bilingual children tend to have smaller vocabularies in each language individually compared to monolinguals, though their combined vocabulary size across both languages aligns with monolingual norms. Therefore, we expect to find a higher vocabulary level in monolingual children than in bilingual children, regardless of their degree of exposure to Spanish. In this study, 1,337 families with children aged 8 to 30 months participated by completing the Catalan adaptation of the MacArthur-Bates Inventory (MB-CDI), 536 of them completed the MB-CDI1 (Mage = 13.48; SD = 3.06) for receptive and productive vocabulary, and 801 completed the MB-CDI2 (Mage = 23.89; SD = 3.99) for productive vocabulary. Participants were classified into three groups based on their exposure to Spanish: Catalan Monolinguals (MO), who were exposed only to Catalan; Familiar Bilinguals (FB), who received Spanish exposure from one parent and Catalan from the other; and Social Bilinguals (SB), who were addressed in Catalan at home but exposed to Spanish through extended social contacts. Our results show that SB infants achieve higher scores in both receptive and productive vocabulary. However, one-way ANOVA results indicate that these differences are statistically significant only in Receptive vocabulary in the case of younger children (less than 2 years old) and in Productive vocabulary in children older than 2 years old. Specifically, significant differences emerged, with SB children outperforming MO and FB children. These unexpected findings will be discussed considering prior research, with a particular emphasis on the participants' sociolinguistic context and typological similarity between the two languages involved.

Social variation of code-switching acceptability

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Code-switching (CS) research regularly uses Acceptability Judgement Tasks (AJTs), but little research has paid attention to how both a) the social attributes and demographics of bilinguals and b) the social context of CS affects AJT results (cf., Badiola et al., 2018). Acceptability of CS grammaticality is presented with a focus on the social identity of the perceiver and considers a context in which CS is frequently found, namely reggaetón music. A modified AJT was implemented via Qualtrics, and data were collected from Latinx Spanish-English bilinguals across five US states (New York, Florida, Illinois, Texas, and California). Participants provided AJT responses to 40 CS sentences adapted from reggaetón music lyrics. Grammaticality was manipulated via full NP versus pronominal NP subjects, following Koronkiewicz (2014). Half of the sentences were labeled “source: reggaetón”. Data were analyzed using linear mixed-effects regression in R (fixed effects = place of birth, region of residence, family national origin, gender, and age; random effects = participant and item). US-born participants had lower AJT ratings for ungrammatical sentences, which were lower when the reggaetón label was present. Participants from California demonstrated the highest AJT ratings for grammatical and ungrammatical sentences. Interaction effects between region of residence and label status are found only for participants from Florida in the ungrammatical category. Results of this study make strong connections to sociolinguistic theory on the listener's identity and its effects on language perception. Furthermore, the study highlights the importance of considering demographic and contextual information in acceptability judgment testing.

Badiola, L., Delgado, R., Sande, A., & Stefanich, S. (2018). Code-switching attitudes and their effects on acceptability judgment tasks. *Linguistic Approaches to Bilingualism*, 8(1), 5–24.

Koronkiewicz, B. (2014). Pronoun categorization: Evidence from Spanish/English code-switching [Doctoral dissertation, University of Illinois at Chicago]. UIC Indigo.

Socio-emotional well-being in Heritage Bilingual and monolingual children with Specific Learning Disorders or Developmental Language Disorders and typically developing peers: group differences and the interaction with socio-economic level.

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The socio-emotional well-being of heritage bilingual (HB) children is a topic of interest in the literature, but socio-economic level (SES) is not always considered as a potential confounding factor. Furthermore, little research has examined the emotional well-being of HB with specific learning disorders (SLD) and developmental language disorders (DLD). The present study aims to examine the social-emotional well-being of HB and monolinguals with SLD or DLD and typically developing (TD) controls, considering the role of SES. The study included 776 participants divided into eight groups: HB with DLD (N=74) and TD age-matched controls (N=88), monolinguals with DLD (N=36) and TD age-matched controls (N=78), HB with SLD (N=141) and TD age-matched controls (N=78), monolinguals with SLD (N=146) and TD age-matched controls (N=135). Parents completed the Strengths and Difficulties Questionnaire (Goodman, 2001), which includes five subscales of child well-being: emotional problems, conduct problems, hyperactivity/impulsivity, peer relationship difficulties, and prosocial behavior. SES was calculated by collecting information on both parents' education and occupation. Preliminary analyses showed that HB children had lower SES compared to their monolingual peers. There was a main effect of diagnostic group on all subscales, with clinical groups showing increased socio-emotional difficulties compared to TD peers. HB showed increased difficulties in peer relationships compared to monolinguals. HB also tended to show increased emotional difficulties, but when SES was considered, there was a significant interaction showing that only bilinguals in the clinical groups had increased emotional difficulties compared to monolingual peers. SES played a significant role in emotional and conduct problems and partially in hyperactivity/impulsivity traits. The discussion will focus on implications for the assessment of socio-emotional skills in bilingual children, highlighting the importance of including socio-economic status and suggesting that having an SLD or DLD may represent an increased vulnerability factor for the socio-emotional well-being of HB children.

Sociolinguistic Diversity and Cognitive Performance in Multilingual Malaysians

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Only recently has the sociolinguistic context begun to be prioritised and considered a modulator of linguistic and (neuro)cognitive abilities. We refer to the sociolinguistic environment in which one is exposed to linguistic input over a significant period as Contextual Linguistic Diversity (CLD). In this study, we investigate the extent to which multilingual experience (at the individual and societal level) influences cognitive performance in the Malaysian context. Given that Malaysia presents a context of rich sociolinguistic diversity and (almost) unanimous multilingualism, the aim of this study is to examine the variation of CLD for individuals situated within this context and to explore the link between CLD and executive function. A total of 97 Malaysians aged 19 to 40 ($M = 25.39$) completed the Contextual Linguistic Profile Questionnaire, adapted to the Malaysian context. The questionnaire includes a measure for CLD, which captures the extent to which different languages are known and used by participants, as well as their respective language exposure at the societal level. A CLD score was derived for each participant, with higher scores reflecting greater exposure and use of diverse languages at the individual and societal level. Additionally, participants completed three cognitive tasks that tap into inhibitory control, working memory, and shifting abilities. Results show that while almost all participants are multilingual, there were individual differences in CLD within this cohort, highlighting the importance of considering CLD when studying multilingualism in a seemingly homogeneous population. Crucially, CLD significantly predicted performance in the cognitive tasks. High CLD scores were associated with improved accuracy in all tasks. However, high CLD was also associated with greater interference in working memory, illustrating the important interplay between context and cognition. Overall, this study suggests that different degrees of CLD can modulate cognitive performance even within a highly multilingual population.

Spanish-English Cross-linguistic and Bilingual Predictions of Reading Risk

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Reading is an important skill for educational success and the early identification of struggling readers is crucial to provide timely and effective intervention. Emergent bilinguals are often over-identified as struggling readers—because their second-language skills are still developing—, or under-identified—because most reading screening instruments are developed using a monolingual calibration sample and paradigm, preventing accurate measurement of emergent bilinguals' skills, which are likely unevenly distributed across languages. Misidentifications are costly and result in bilingual struggling readers not receiving the support they need. We addressed this inequity by developing a free universal reading screener for kindergarteners, first, and second graders in California's public education system. We will report on a longitudinal study ($n \sim 1,000$) predicting Spanish-English bilingual children's reading risk at the end of the school year using a combination of comparable, yet language-specific English and Spanish tasks assessing (pre-)reading skills, such as, phonological awareness, decoding, and oral language at the beginning of the year. This will allow us to (a) explore cross-linguistic screening models—that is, for example, screening in Spanish to predict English reading risk for those in English instructional programmes; (b) develop multilingual screening protocols that combine students' scores on both Spanish and English measures to predict risk in either or both languages; and (c) compare the above approaches to the current status quo, monolingual screening protocols. A recently concluded pilot study ($n = 308$) suggests that Spanish screening of bilingual kindergarteners and first graders in English instructional programmes ($AUC = .74-.86$) is superior to English screening ($AUC = .68-.70$). Results of the full analysis, including results for the multilingual screening protocol, will be available by the time of the conference. Ultimately, our inclusive approach to reading screening seeks to finally establish the consideration of bilingualism in the fields of psychometrics and educational assessment.

Spelling affects vowel and word learning

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Non-native language (Ln) words are often mispronounced when the grapheme-to-phoneme correspondences (GPCs) differ from the first language (L1). However, not every Ln learner is similarly affected by GPC differences between Ln and L1. Thirty-six L1-Spanish speakers (out of 80 planned; data collection to be completed by 03/2025) participated in a three-day vowel learning study. Half of them learned /y/ linked to <u> and /ø/ auditory-only. The other half learned /ø/ linked to <o> and /y/ auditory-only. During exposure, participants listened to each vowel 900 times and produced them 300 times. They learned 20 words containing /y/ or /ø/, with 30 exposures to each. On day 3, they were tested on production and perception of these vowels in isolation and in word context. Preliminary results show that learning a sound with orthography affects its position in perception and production: Participants who learned /y/ linked to orthography perceived and produced it with smaller F2 than /ø/ and vice versa. The effect of orthography percolated to word context: Participants were worse at rejecting /y/->/u/ mispronunciation in word context when /y/ was learned linked to <u> (smaller effect for /ø/->/o/ mispronunciation). A non-significant tendency was observed in vowel production in word context. In the final sample, we will assess whether four individual difference factors (perceptual acuity, inhibitory skills, bilingual exposure, decoding skills) predict the extent to which learners are affected by GPC mismatch during learning. The preliminary results suggest that mismatched GPCs in L1/Ln can modulate phonetic aspects of speech production and perception in the earliest learning stages and will shed light on factors explaining individual differences in Ln sound learning.

Statistical word learning across accents and time scales

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Despite ambiguity and variability in naturalistic environments, adults and children demonstrate a remarkable ability to learn words. Cross-situational word learning (CSWL) is a proposed mechanism for learning where individuals track co-occurrence probabilities to resolve word-referent ambiguity. One aspect of everyday linguistic environments – accented speech – has not yet been tested in the context of CSWL. Yet, learners are regularly faced with situations requiring them to learn words from diverse multilingual speakers, who often have accents. We investigate how adults learn and retain novel words when exposed to accent variability. Monolingual participants (N=123) learned English-like novel words produced by a female native-English speaker and a female Mexican-Spanish accented speaker in a CSWL paradigm. On each learning trial, participants were exposed to two novel words and two novel referents. Participants were assigned to one of three test conditions (between-subject); immediate, 6-minute delay, and 24-hour delay. On each alternative forced-choice test trial, they were presented with a novel word produced by an unfamiliar native-English speaker and had to match it to one of two referents on the screen. Accuracy was high (>80%) across all conditions. Two generalized linear mixed-effects models (immediate vs. 6-minute delay, and immediate vs. 24-hour delay) were used to test the interaction between accent and test condition. No significant effect of accent was found in either model. However, in the immediate vs. 24-hour delay model, a main effect of delay emerged, with lower performance after a 24-hour delay. These findings suggest that CSWL is a robust mechanism for word learning, with adults generalizing word knowledge across accents, and with delay affecting memory for accented and unaccented novel words equally. Ongoing experiments test learning in a field of three to increase referent variability, and examine performance in bilingual speakers.

Structural preferences in language learning across languages: Experimental and modelling evidence from verb bias effects in cross-linguistic L1-to-L2 and L2-to-L1 priming

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Experimentally and in computational modelling, this study tests whether cross-linguistic structural priming leads to learning via an error-based prediction mechanism. In a German-to-English cross-linguistic structural priming experiment, we investigate how structural preferences in terms of prime verb bias affect immediate, cumulative and longer-term priming in L1-German-L2-English (L1-to-L2; $n = 92$) and L1-English-L2-German adults (L2-to-L1; $n = 89$). Spoken German ditransitive primes preceded participants' written picture descriptions. Baseline tasks measured participants' structural preferences in English and German. A post-test measured participants' English preferences after the priming experiment. Prime verbs differed in their preference for a double object (DO; the clown gives the cowboy a ball) and prepositional object (PO; the clown gives a ball to the cowboy) structure: We used 4 strongly and 4 weakly DO-biased German verbs whose English translations were PO-biased. In immediate priming, participants showed positive prime verb bias effects, in that priming was stronger, the more the prime verb's bias overlapped with the prime structure (i.e. heavily DO-biased verb in DO prime). In contrast, participants showed inverse preference effects in cumulative and longer-term priming: stronger priming the less the prime verb's bias overlapped with the prime structure. In both L1-to-L2 and L2-to-L1 priming, L1 prime verb biases predicted priming effects, causing L1-to-L2 PO priming, but L2-to-L1 DO priming. The combined findings of positive and inverse preference effects suggest that lexically-driven and error-based learning components interact in priming. Due to different L1 preferences in different groups of L2 learners, error-based learning can cause different learning trajectories in the long run. Using the Bilingual Dual-path model, we simulate the experimental data to assess whether the model can capture short-term positive and long-term inverse preference effects. We present model simulations of the experimental data for the different parameters tested in immediate, cumulative and long-term cross-linguistic priming.

Supporting Biliteracy for Bilingual Children with Reading Impairment

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Bilingual children with reading impairment may have limited access to biliteracy for fear of a perceived negative impact associated with reading in two languages. Here we studied the effect of biliteracy on bilingual children with reading impairment to challenge beliefs that limit these children to reading in only one language. In this single subject design (SSD), six bilingual participants with reading impairment characterized by below average RAN and word- and nonword-reading, with average language and IQ, participated in a parent-supported, home-based reading intervention (reading aloud with praise and error correction) in the L2/home language (English). Word- and nonword-reading accuracy, rate and fluency in both English and French, and connected-text reading in English were compared from a no-intervention phase (reading primarily in French) to an intervention phase (reading in French and English). Visual data inspection, as per SSD protocol, revealed no deceleration trends in word-reading and nonword-reading accuracy and rate for any participants in the L2/English during the intervention phase. Word-reading and connected-text reading fluency in English and word reading fluency in French increased during the intervention phase. Individual mean word-reading accuracy was significantly higher during the intervention phase as compared to the no-intervention phase in both languages for all participants. Group means for word- and nonword-reading accuracy and rate ($p < .001$) were significantly higher in the intervention phase as compared to the no-intervention phase for both languages with a medium effect ($d = 6.55$, Hedges g) for word-reading accuracy in English and French and a large effect ($d = 8.03$) for word-reading rate in English and French. Beliefs may limit access to biliteracy for children with reading impairment, but our findings showed no negative impact of biliteracy on word decoding skills. Thus, we support equitable access to biliteracy for neurodiverse children. The implications of these findings on reading intervention are discussed.

Supporting clinicians to assess children's Heritage Languages that they do not speak themselves: A feasibility study of Sentence-Repetition protocol with a novel scoring schema

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The best practice when diagnosing Developmental Language Disorder (DLD) in multilingual children is to assess all their languages. However, it is often the case that Speech and Language Therapists/Pathologists (SLT/PS) do not speak the children's Heritage Language (HL). This study assesses feasibility of using an interpreter to support SLT/PS in providing standardised language assessment in children's HL. Method: Pre-recorded LITMUS Sentence-repetition (SRep) (<https://www.litmus-srep.info/>) in children's HL Polish was administered by an English-speaking SLT/P, who did not speak Polish, to assess 27 (aged 5-8 years; 12 with suspected DLD; 15 typically developing) Polish-English bilingual children living in Ireland. Children's repetitions were recorded and subsequently scored with assistance from an interpreter, a Polish language teacher living in Ireland. A novel scoring schema that marked syntactic category and relevant grammatical information for each word was used to guide the scoring process. The interpreter listened to the recorded repetitions and indicated on the scoring schema whether each word was: repeated correctly; omitted; substituted; or morphologically changed. The SLT/P used this information to score the assessment and analyse error types. Repetitions were also scored by Polish linguists using standard LITMUS SRep scoring procedure, and the two sets of scores were compared. Results: The two scoring methods gave comparable scores indicated by highly significant correlation. Further qualitative comparisons revealed that some discrepancies arose because Polish linguists scored responses as if they were produced by Polish children living in Poland while the interpreter accepted all responses that in their opinion were typical of Polish-speaking children living in Ireland. Discussion: The study supports the feasibility of assessing HL Polish by an English-speaking SLT/P when using a standardized scoring procedure that supports collaboration between SLT/PS and interpreters. The study highlighted the importance of adjusting scoring allowances for HL speakers and specific combinations of languages to account for crosslinguistic influence.

Supporting Spanish-English Bilingualism Through Parent Intervention: A Study of Diverse Latino Families in Texas

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Heritage language maintenance among Latino families reflects a complex landscape of linguistic and cultural diversity. While Spanish is the second most-spoken language in the United States, many Latino children experience home language loss during English-language schooling with consequences for family communication and cultural identity. This challenge is particularly salient among Spanish-English bilingual families in Texas, who represent various countries of origin, generational statuses, and cultural contexts. Parent interventions can address this challenge by promoting positive attitudes toward bilingualism and providing strategies for maintaining Spanish. This study evaluates parents' experiences participating in DUAL-PALS, a new version of the Play and Learning Strategies (PALS) intervention (Landry et al., 2008) that includes a focus on the importance of heritage language maintenance. Spanish-speaking Latino parents of 3-5-year-olds, recruited from bilingual pre-K programs in Texas, participated in this ongoing randomized controlled trial. The 47 Latino parents represent diverse Spanish language contexts such as recent immigrants maintaining country-of-origin Spanish and U.S.-educated parents preserving heritage Spanish. We employed a mixed-method approach, utilizing the Family Language Policy Framework, to analyze quantitative and qualitative data. The study explores how parents' language beliefs, plans, and practices regarding bilingualism vary across different cultural backgrounds, and how participating in DUAL-PALS influenced approaches to supporting their children's Spanish development. Results suggest that DUAL-PALS supports parents' efforts to maintain Spanish by reinforcing cultural identity and expanding parents' repertoire of home-language-supportive strategies. Parents reported increased engagement in Spanish-language activities and a heightened sense of agency in promoting bilingualism. Despite societal pressures to prioritize English, parents saw their children's bilingualism as central to their cultural identity and future opportunities, and adapted strategies to integrate Spanish into daily routines. This research contributes to understanding how parent interventions can support bilingualism while acknowledging the rich diversity of Spanish-speaking families in the United States.

Susceptibility to False Memories in the Native and Non-Native Languages Using the Deese-Roediger-McDermott Paradigm: A Meta-Analysis

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The Deese-Roediger McDermott (DRM) (Deese, 1959; Roediger & McDermott, 1995) paradigm has been used widely in psychology to identify the theoretical mechanisms contributing to the production of false memories. While scholars have typically used the DRM literature to investigate critical lure production in first-language speakers (Chang & Brainerd, 2021; Gallo et al., 2010), a growing literature has begun to investigate how first versus second language use may impact false memories (Bialystok, 2020; Cangelosi, 2022; Grant et al., 2023). In this subset of the literature, there is frequently a lack of agreement across studies. Some studies suggest that second-language users are more susceptible to false memories in their dominant or first language (Suarez & Beato, 2021). Alternatively, others observe that second-language users are either less susceptible or show null effects (Cabeza & Lennartson, 2005; Ulatowska et al., 2021). The current meta-analytic review examines how first versus second language use influences critical lure production in the DRM paradigm. Following the PRISMA guidelines for systematic reviews, we searched several databases for relevant articles, theses, and unpublished works. Preliminary results of the meta-analysis suggest that individuals recognize significantly more false memories in their first language than in their second language. Moderator analyses of second language proficiency and DRM list type (Emotion, Semantic, Phonological) will be presented.

Switching back and staying switched: The downstream effects of code-switching on eye movements beyond the initial switch

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Prior research on code-switch comprehension in bilinguals has primarily focused on processing at the initial switch site. This study investigated the downstream consequences of a code-switch by examining three critical regions in the sentence. 64 Spanish-English bilinguals read short stories containing naturalistic code-switches during eye-tracking. The first region either stayed in the same language (NS) or introduced a mid-sentence code-switch (CS). The second region crossed Region 1 Switch (NS vs. CS) by Region 2 Switch (NS vs. CS) to create 4 conditions: fixed switch, new switch, stay switch, and switch-back. The third region always continued in the original base language of the sentence, again creating 4 conditions: never switch (after Region 2 never switch), immediate switch-back (after Region 2 new switch), delayed switch-back (after Region 2 stay switch), and continued switch-back (after Region 2 switch-back). As expected, initial code-switches in Region 1 elicited longer gaze duration and total times compared to non-switches. In Region 2, reading times were longer when switching back to the base language of the sentence than when staying in the new language. Furthermore, switching back was just as costly as a new switch, while staying switched was slightly more costly than never having switched languages. In Region 3, immediate and delayed switch-backs elicited the longest reading times. In contrast, continuing in the base language after a switch-back elicited shorter reading times that were comparable to never switching in any region. This pattern of results suggests short-lived processing costs associated with switching between languages, whether during an initial switch or a switch-back. However, these costs disappear within 1-2 words reading in the same language, reflecting the ease with which bilinguals read mixed language text. Thus, these data build on prior evidence of code-switch comprehension to demonstrate processing differences based on different code-switching patterns after the initial switch.

Tales of Two Generations: Effects of Migration Generation, Task Mode, and Age on Narrative Abilities of Child Heritage Speakers of Persian in Canada

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Studies examining the effects of language environment factors on heritage language (HL) outcomes have rarely considered the migration generation of child heritage speakers (HSs) as a macro-factor encapsulating cumulative and current factors. Moreover, studies comparing generations of HSs often focus on first versus second or third-generation HSs (Montrul, 2022) rather than closer generations such as second-generation (born in the host country) and generation 1.5 (immigrated in childhood). This study asked whether generation could be considered as a macro-factor that indexes the differences in language background of closer generations of HSs. Further, we explored children's narrative abilities, asking whether generation (as a potential macro-factor), narrative task mode (telling vs. retelling), chronological age (indexing longer exposure to the HL), and their interactions modulated narrative abilities in HSs. Participants were thirty-two Persian-English bilingual children (6;3-11;10), divided equally into two age-matched generation groups (GEN1.5 and GEN2.0). The MAIN (Gagarina et al., 2019) was used to elicit children's narratives, and the ALEQ-4 (Paradis et al., 2020) was used to collect language environment data. Narrative abilities were examined at two levels: story macrostructure (story grammar) and microstructure (linguistic features such as story length and lexical diversity). Data were analyzed using group comparison tests and linear mixed modeling. Results from group-comparison tests showed that GEN1.5 children received more Persian input at home, and their parents had lower English fluency than GEN2.0 children. Models showed that GEN1.5 children produced longer stories with higher lexical diversity. The between-group difference in narrative length was more pronounced on the retelling task, suggesting that GEN1.5 children benefited more from the verbal story model provided in the retelling task. Narrative task mode significantly influenced performance, with retelling yielding better results across both narrative levels and groups. Additionally, chronological age positively influenced microstructure measures for both groups but did not affect macrostructure.

Teachers' cognition about multilingualism and multilingual education in Argentina

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Given the increasing linguistic and cultural diversity in today's classrooms, language teacher education must promote the "multilingual turn" in teacher professionalisation (Putjata et al., 2022). Numerous studies have examined the impact of teacher training in multilingual education on teacher cognition (e.g. Gorter & Arocena, 2020; Lorenz, Krulatz & Torgersen, 2021). However, research in this field has been only partially developed for the teaching of Italian abroad (Cinganotto & Turchetta, 2020). This study explores the impact of a professional development intervention on multilingual education involving 19 in-service teachers of Italian in Argentina. The study aims to understand the changes in teachers' cognition about multilingualism and multilingual education during the course (Borg, 2018). The research adopted a mixed-methods approach, and was designed as a longitudinal case study (Yin, 2018). Data were collected through pre- and post-training questionnaires, diaries, focus groups, and a researcher's journal. Despite some persisting monolingual views, teachers' beliefs about multilingualism evolved positively. By the end of the course, teachers also felt more aware, competent, and motivated to give value to students' entire linguistic repertoires.

Borg, S. (2018). Evaluating the impact of professional development. *RELC Journal*, 49(2), 195-216.

Cinganotto, L., & Turchetta, B. (2020). La formazione dei docenti di italiano L2 all'estero: Risultati di un'indagine internazionale. *Italiano LinguaDue*, 12(2), 20-37.

Gorter, D., & Arocena, E. (2020). Teachers' beliefs about multilingualism in a course on translanguaging. *System*, 92, 1-10.

Lorenz, E., Krulatz, A., & Torgersen, E. N. (2020). Embracing linguistic and cultural diversity in multilingual EAL classrooms: The impact of professional development on teacher beliefs and practice. *Teaching and Teacher Education*, 105, 1-14.

Putjata, G., Brizić, K., Goltsev, E., & Olfert, H. (2022). Introduction: Towards a multilingual turn in teacher professionalization. *Language and Education*, 36(5), 399-403.

Yin, R. K. (2018). *Case study research and applications: Designs and methods*. Sage.

Teachers' Ideologies on Heritage Language Maintenance in Chinese Complementary Schools: A Case Study in the Netherlands

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This paper explores Chinese teachers' beliefs and opinions on heritage language maintenance (HLM) in complementary schools in the Netherlands. HLM is one of the primary challenges faced by bi/multilingual families. Parents from these families often struggle with the desire and pressure of intergenerational transmission since the acquisition of heritage language for their children is more precarious than mainstream language. In recent years, a great number of studies addressed HLM theoretically and empirically in different social contexts regarding assorted languages. In the Netherlands, scholars mainly focused on the Turkish community and their HLM, while very little attention was paid to the Chinese community. In addition, the focus of HLM study by far is on parents and learners, and heritage language teachers are under-presented. Some studies explored Chinese HL teachers' professional development, motivation, and challenges they face in heritage language education, but their ideologies are less studied, not to mention in the Dutch context. Therefore, this paper fills in the literature gap on Chinese teachers' ideologies on HLM in the Netherlands. The researcher conducted a case study in Brabant Chinese School (pseudonym), the Netherlands. In-depth semi-structured interviews were conducted with 7 teachers (N=7) in total. Content analysis approach was used to code the data and three-layered coding was applied. The findings revealed that 1) Mandarin was perceived as a new diasporic linguistic standard in replace of Cantonese. 2) Heritage language maintenance is perceived as vital in ethnic grouping and identity creation, accessing heritage culture, and being pragmatic. This paper provides a peephole to look at Chinese teachers in complementary schools in NL. More future studies are expected to shed light on this group.

Keywords: heritage language teachers, heritage language maintenance, language ideologies, Chinese complementary schools, the Netherlands

Testing Spanish-English Bilingual Children's Morphosyntactic Comprehension Using A Forced Choice Paradigm

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In response to the lack of available measures in comprehension, we report on the development of a novel auditory forced-choice task that measured bilingual children's morphosyntactic knowledge, which has potential clinical and theoretical implications for children with developmental language disorder (DLD; Georgiou & Theodorou, 2023). We hypothesized ability-driven effects, in line with a previous study of Catalan-Spanish bilinguals (Balboa-Castells et al., 2024). Fifty-one Spanish-English six- to twelve-year-old bilingual children (DLD n=20) from the greater Houston area participated in this study. All children had normal hearing and nonverbal intelligence. Language ability was modelled continuously using best-language scores on a standardized language test (Bilingual English-Spanish Assessment). Spanish/English versions tested 11 language-specific targets informed by previous studies (e.g., English past/progressive forms; Spanish clitics and subjunctive; and subject/object relatives in both). Sentences contained familiar vocabulary and considered dialectal variation. Children heard correct/incorrect versions of the same recorded sentence paired with a yellow or green robot, and they selected the robot who said it best. Each language had 6 versions to minimize order effects. Descriptively, children had low accuracy on subjunctive-marked complement and adjunct clauses. Structures tested in both languages, such as relative clauses, were sensitive to the language of elicitation. A mixed-effects model found significant effects of age, ability, and an Age x Ability interaction, providing partial support for our predictions. Additional analyses that consider proficiency in each language may improve sensitivity to language disorder.

Balboa-Castells, R., Ahufinger, N., Ferinu, L., Castilla-Earls, A., Andreu, L., & Sanz-Torrent, M. (2024). Grammatical correction and morphological productivity tasks as potential identifiers of developmental language disorder in Spanish-Catalan bilingual children: a pilot study. *Clinical Linguistics & Phonetics*, 1-23.

The acquisition of L3 Scandinavian impacts word order in advanced L2 English: Regressive cross-linguistic influence in verb-particle constructions

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Despite the agreement that cross-linguistic influence is not unidirectional, scarce attention has been given to how the addition of an L3 impacts the languages known prior (e.g., Cabrelli, 2023). Therefore, the present study explores how learning a Scandinavian language as L3 affects word order in advanced L2 English depending on L3 proficiency. The targeted verb-particle constructions are absent in Polish (L1) and present in both English (L2) and Scandinavian (L3), but their placement varies across these languages. In English and Norwegian, the particle can both precede (preNP) and follow (postNP) the object. In Swedish, the particle is fixed in the preNP position, while in Danish it is always placed in the postNP position. Capitalizing on these differences, we examined four groups: three of L1 Polish L2 English learners acquiring either L3 Norwegian (n=65), Swedish (n=52) or Danish (n=46) from beginning to advanced levels, and a control group of L1 Polish L2 English bilinguals (n=45). All groups were matched for L2 English proficiency (M Dialang=67.4 out of 75, SD=4.9). They were tested with an acceptability judgement task (AJT) and a self-paced reading task (SPRT) in both L2 and L3. An analysis using linear mixed-effects models revealed regressive cross-linguistic influence in participants' judgments and reading times in L2 English, but only at higher L3 proficiency levels (e.g., the L3 Swedish group preferred the preNP position, while the L3 Norwegian group did not differ from the control group). Our study is the first to show that (i) L3 impacts word order in L2, thereby extending the observation of regressive cross-linguistic influence to syntax, and that (ii) this effect is dependent on L3 proficiency.

Cabrelli, J. (2023). Language attrition and L3/Ln. In: J. Cabrelli et al. (eds.), *The Cambridge handbook of third language acquisition and processing* (pp. 317–353). Cambridge University Press.

The affordances of participatory arts-based methods in plurilingual research and education: A cross-disciplinary experience in Catalonia, Spain

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This paper presents a cross-disciplinary, participatory action-research project focused on promoting plurilingual awareness through arts-based methods. Conducted in an economically deprived educational context in Catalonia, the project is part of a broader European Horizon initiative supporting the socio-educational inclusion of plurilingual, migrant-background children. We will focus on how doing research with and through the arts, and in collaboration with urban artists and educational communities from diverse linguistic and cultural backgrounds, fits with our participatory and socially engaged approach to research on plurilingual education. Concretely, the use of artistic/creative methods in this project served multiple roles: as a medium for data collection; a way to engage participants; a form of promoting plurilingual awareness; a strategy to elicit narratives and facilitate discussions on complex issues including raciolinguistic discrimination, and to expand the modes available for self-expression, empowerment, and identity construction. This cross-disciplinary endeavour created spaces for a diverse range of voices and perspectives to emerge and meet, fostering complex, multimodal understandings of the many faces of -and around- plurilingualism. As artistic practices emerged 'bottom-up' from participants' diverse motivations, they also challenged and transformed traditional research hierarchies and decision-making processes in bi/plurilingual inquiry. Consequently, arts moved beyond being a medium (doing research 'through' arts) and played a core role in expanding our understanding of what it means to do research, for/with whom and how (e.g. doing research on plurilingualism 'with' arts and artists/creators) (Wang et al. 2017). Ultimately, we have come to conceptualise artistic/creative methods in research on plurilingualism as a space for cross-disciplinary dialogue and encounter, where different perspectives and epistemologies can meet and work together.

Wang, Q., Coemans, S., Siegesmund, R. & Hannes, K. (2017), Arts-based methods in socially engaged research practice: A classification framework. *Art/Research International* 2(2), 5-39.

The bimodal bilingual acquisition of nominal structure in Hong Kong Sign Language and Cantonese: Does modality make a difference?

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This study investigates the acquisition of nominal structure by a congenitally deaf child (WT), who was exposed to Hong Kong Sign Language (HKSL) since birth and Cantonese around 2;0 after implantation. In the spoken language literature, it has been argued that children acquiring specific structures tend to follow a similar developmental sequence independent of the target languages (Guasti 2016: 24). In the current study, we tested this assumption against:

- (1) HKSL and Cantonese differ in the modality of language transmission;
- (2) HKSL and Cantonese's nominal structures are different in specific ways: (i) HKSL has a flexible nominal-internal word order which is rigid in Cantonese (Dem-Num-Cl-N), (ii) Cantonese requires a (numeral-)classifier for nouns but it is absent in HKSL; instead, HKSL numerals combine with nouns directly which is not permitted in Cantonese (Li & Tang 2020);
- (3) Early bilingual input before age 3 invokes acquisition processes similar to those observed in L1 acquisition (Meisel 2008).

WT's nominal expressions were extracted from the "Child HKSL-Cantonese Corpus" (28 sessions; 1;0-4;3). His production were compared with data from a monolingual Cantonese-acquiring hearing child (CKT, 1;5-2;6; "Hong Kong Cantonese Child Language Corpus", Lee et al 1996). For each nominal expression, their nominal structure, language choice, referential properties and grammatical functions were tagged for subsequent analysis. We found a similar developmental sequence in WT's acquisition of nominal structure in HKSL (Noun >> Demonstrative>>Numeral) and Cantonese (Noun >> Demonstratives >>Classifier>> Numeral). Furthermore, WT's and CKT also shared a similar sequence in Cantonese nominal word order (Noun>> / = Dem >>Classifier >>Numeral). In other words, WT's development of knowledge of nominal structure is amodal and no negative effects on Cantonese acquisition was observed even if the child was developing HKSL. Lastly, this finding also aligns with observations in early sequential bilingual acquisition with AOA<3;0 (Meisel 2008).

The cognitive effects of sign multilingualism: sign language expertise enhances language- and modality-specific statistical learning abilities.

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This study investigated the effects of sign language expertise on sign-language specific versus general visual statistical learning. We compared two groups: 37 adult hearing non-signers versus 27 native signers (ASL/BSL, 15 deaf and 12 hearing bimodal). Participants watched a weather forecast in a novel sign language, i.e. Swedish. The forecast contained 22 target signs differing in occurrence frequency and iconicity, i.e. form-meaning similarity. Subsequently, we tested participants' form recognition and meaning assignment of target signs. We also assessed general visual statistical learning abilities using tasks. Our results suggest that sign language expertise enhances modality- and language-specific but not general statistical learning. Form recognition accuracy was positively predicted by sign expertise, frequency and iconicity. Meaning assignment accuracy was predicted by sign expertise and iconicity. Crucially, frequency effects, i.e. evidence of statistical learning, were limited to signers. Importantly, group differences were effects of sign expertise, not deafness: hearing bimodal native signers' performance patterned onto that of deaf native signers, not hearing non-signers.

The complexity-proficiency intersection for Advanced L2 English writers

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Linguistic complexity indices serve an important measure of second language (L2) development across many studies; however, empirical findings often defy straightforward generalizations. One reason for this attested difficulty is significant differences in operationalizing proficiency across different studies (Gablasova et al., 2017). To allow for a more consistent comparison of results, especially from the cross-linguistic perspective, the present study examines lexical complexity across L2 English essays in four proficiency bands as established on the ACTFL Proficiency Guidelines (2012). The data in this study consists of 800 argumentative essays from the International Corpus of Learner English v3 (ICLE v3) randomly but evenly sampled from four different L1s. Texts were assigned proficiency scores using a rubric adapted from the ACTFL writing proficiency guidelines (2012). Lexical complexity analysis adopted 14 indices from TAALES (Kyle et al., 2018) and TAALED (Kyle et al., 2021). Measures include lexical density (percent content words), diversity (TTR), and several measures of lexical sophistication. Preliminary MANOVA analysis and pairwise comparisons indicate significant differences exist across proficiency bands. The results of the study help validate global assessment measures such as the ACTFL-based assessments, while simultaneously providing more empirical ground and argument for the use of common benchmarks in language development studies. The presentation will discuss implications of the study for learner corpus research, L2 language pedagogies, and the observed importance of vocabulary range and sophistication.

Gablasova, D., Brezina, V., & McEnery, T. (2017). Exploring learner language through corpora: Comparing and interpreting corpus frequency information. *Language Learning*, 67, 130–154. <https://doi.org/10.1111/lang.1222>

Kyle, K., Crossley, S., & Berger, C. (2018). The tool for the automatic analysis of lexical sophistication (TAALES): Version 2.0. *Behavior research methods*, 50, 1030-1046.

Kyle, K., Crossley, S. A., & Jarvis, S. (2021). Assessing the validity of lexical diversity indices using direct judgements. *Language Assessment Quarterly*, 18(2), 154-170.

The complexity-proficiency intersection for Spanish Heritage Language Learners

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Complexity measures have been found to index functional writing proficiency in heritage Russian (Kisselev et al., 2021) providing, in the process, a fine-grained view of the heritage language at different levels of proficiency; this study explores the same in heritage Spanish, measuring syntactic and lexical complexity, accuracy, and functional writing proficiency in 162 Spanish heritage language learners (heritage speakers enrolled in a heritage language course) in the U.S. Subject proficiency was measured using an adaptation of the standardized ACTFL WPT (American Council on the Teaching of Foreign Languages Writing Proficiency Test), which elicits four samples at four levels of difficulty: Intermediate, Advanced, combined Advanced/Superior, and Superior. All four samples were double-rated by certified ACTFL raters, leading to a single proficiency rating of each subject: 33 Intermediate Mid (IM), 59 Intermediate High (IH), 42 Advanced Low (AL), and 28 Advanced Mid (AM). Next, the writing was analyzed: Syntactic complexity [finite clauses ÷ total t-units] and accuracy [error-free t-units ÷ total t-units] were scored by hand, while Python was used to extract lexical measures of diversity (MTLD), density, and richness. All scores were averaged by writer sublevel. Results of two-tailed t-tests indicate that mean complexity and accuracy scores were significantly higher in the IHs than the IMs (Figures 1, 2); mean accuracy scores were significantly higher in the AMs than the ALs (Figure 3); and lexical diversity and richness were significantly higher in the IHs than the IMs. These findings that complexity is higher in writers at higher proficiency sublevels suggests that complexity can indeed index proficiency in this population, and can be interpreted as evidence that investigating language-learner complexity should take proficiency into account.

Kisselev, O., et al. (2021). Syntactic complexity measures as indices of language proficiency in writing: Focus on heritage learners of Russian. *Heritage Language Journal*, 18(3), 1-30.

The Different Faces of Bilingualism in the Shadow of War: the Cases of Ukrainian Families in Latvia and the US

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Almost three years of Russia's full-scale war against Ukraine have considerably changed the lives of many Ukrainians and caused many families to seek refuge in other countries. In Latvia, for instance, there were 25.7 thousand Ukrainian refugees (or 1.2% of the total population) in January 2024 according to the Central Statistical Office. Of these, 7.1 thousand (27.8%) were children under the age of 18. The arrival of these refugee families has raised a number of social issues, including language (policy) questions at both individual and societal levels. In this vein, our paper discusses research on family language policy (FLP) of Ukrainian families with children, focussing on families who migrated to Latvia after February 2022. It is grounded in similar research with a spotlight on multilingual families which has intensified in recent years, including aspects of various fields of linguistics, sociology, and education. Our study focuses on language attitudes and bi/multilingual practices at home which include Ukrainian, Russian, Latvian and English and on family literacy (including digital literacy) events. Based on structured in-depth interviews with these families, our paper discusses three main questions: 1) What do the families do to ensure that their heritage languages are maintained and transmitted to the next generations? 2) How do families support their children in learning the new societal language, and how do the parents learn it themselves? 3) What kind of home literacy events as part of language management do parents plan for transmitting their heritage languages and acquiring societal languages? Data has been gathered in Latvia since 2024. For comparison, similar questions will be analysed using data from Ukrainian refugee families in Tennessee in the US.

The Effect of Bilingualism on Children's Executive Functions: The Role of Family Background

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Although the number of bilingual children increases worldwide, studies on the development of bilinguals' executive functions (EF) are still unable to provide a clear picture. As the constant managing of two languages in mind might exercise one's abilities of inhibitory control, switching, and enhance (functional) working memory, bilinguals have been hypothesized to have better EF than monolinguals. However, the empirical studies to date have not consistently supported this assumption. Small sample size, publication bias, and lack of considering important covariates (e.g., family background) have been shown to contribute to inconsistent findings. Furthermore, the inclusion of different EF subcomponents and measures might additionally play a role in controversial findings on this association. Thus, this study aims to examine the association between bilingualism (as compared to monolinguals) and different EF facets in early childhood using a large sample, different measures, and particularly, considering the effect of family background. 3,657 children (14% bilinguals) from a British nationally representative data set—Study of Early Education and Development—were included in this analysis. Children's EF comprised of emotionally neutral EF indicators (i.e., Head-Toe-Knee-Shoulder task performance; parent-report) and a more emotion-related indicator (parent-report) at age 4. Children whose parents did not acquire English as first language and the household language was not or not only English were treated as bilinguals (=1), else as monolinguals (=0). Using structural equation modelling, family background indicators (i.e., parents' educational level, family income, and socioeconomic status) and further controls (i.e., child's sex and age) were additionally included in the initial model (i.e., EF predicted by bilingualism). Findings revealed that bilingualism was negatively associated with both task- and report-based emotionally neutral EF. Interestingly, a significant (positive) effect of bilingualism on the emotion-related indicator showed up, but only if family background indicators were additionally considered, suggesting further investigations of moderating effects.

The effect of dual language education on young bilingual children's language and literacy: A systematic review of the literature

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Dual language education (DLE) has gained increased attention in the United States, although there is variability in the way it is designed and implemented. However, existing research syntheses do not focus on DLE in the early years. For example, in a recent review on bilingual education and bilingualism (Baker et al., 2016), only one of five studies including preschoolers examined the effect of participating in DLE on bilingual children's language and literacy. In this paper, we report findings from a systematic literature review following a rigorous procedure. The initial search yielded 48 studies, of which 17 were excluded because they discussed bilingual education but did not include DLE programs., Twelve articles were conceptual papers and were excluded. Ten other articles reported qualitative studies or included children above kindergarten. After all exclusions, nine studies were selected. Most studies focused on word recognition and lower-level language skills, like vocabulary and grammar. A small number examined bilinguals' higher-level language skills such as inference-making and monitoring comprehension. Authors concluded that DLE benefited bilinguals' English skills more or as much as students who attended English immersion programs, who were bilinguals and/or monolinguals. Some studies showed that DLE can support children's partner languages. An important gap is the absence of studies with partner languages other than Spanish. None of the studies included children from Native nations, and few included Black children. Future research should investigate language policies determining children's eligibility and access to DLE programs. From policy and practice perspectives, expanding the number of DLE programs for 3- and 4-year-old children would support these children's development and learning as they transition into kindergarten.

Baker, D. L., Basaraba, D. L., & Polanco, P. (2016). Connecting the Present to the Past: Furthering the Research on Bilingual Education and Bilingualism. *Review of Research in Education*, 40, 821–883.

The effect of Identity on backward transfer in /t/ and /d/ in 1st generation Glasgow-Indians

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One consequence of language contact is backward transfer, the transfer of features from the host language to native variety (also L1 attrition). Relevant to examining backward transfer in ethnolinguistic minorities is the individual's identity. A reflection of one's identity is in the speaker's development and choice of linguistic resources which they use to indicate their distance to surrounding social groups. Most previous research has investigated hybrid accents (like 'Brasian') in 2nd+ generations, which is seen as a reflection of their hybrid British-Asian identity. However, the effect of identity on L1 attrition remains underexamined in first-generation immigrant minorities. The present study investigated this using Flege's SLM-r which argues that the migrants' L1 sound categories can either shift to become more Glaswegian-like (assimilation) or exaggeratedly Indian-like (dissimilation) or remain unchanged. Two control groups (Indians and Glaswegians) and the experimental group (Glasgow-Indians) were recorded reading English and Hindi words containing two phones /t/ and /d/ to examine VOT. Data was also recorded on two identity variables 'Glaswegian Identity' (recognition of self as 'Glaswegian') and 'Indian Identity' (recognition of self as 'Indian') using a questionnaire. The results showed that in both /t/ and /d/, Glasgow-Indian VOT became longer, more Glaswegian-like (assimilation) in both languages. Moreover, in both /t/ and /d/, English VOT showed a higher increase than its Hindi counterpart, indicating that Glaswegian English affected Indian English more than Hindi. Furthermore, increasing Glaswegian Identity increased assimilation in VOT in /t/ but had no effect on /d/, whereas increasing Indian Identity decreased assimilation in VOT in /d/ but had no effect on /t/. These results: (1) present evidence of backward transfer, (2) highlight the role linguistic proximity in transfer, (3) indicate differential effects of identity on different phonetic categories.

The effect of linguistic repertoire and order of acquisition on L3 processing: the case of L1/L2 French and L1 Mandarin learners of L3 Spanish

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Third language acquisition (L3A) differs from the acquisition of a first (L1) or second (L2) language partly due to cross-linguistic influence (e.g., Bot & Jaensch, 2015; Jarvis & Pavlenko, 2008; Ringbom, 2007). This study aims to investigate the extent to which one's prior linguistic repertoire is relevant in third language (L3) learning by examining how the presence/absence of French, as another gendered language, and its order of acquisition (L1 vs. L2), may affect accuracy and task completion times with grammatical gender in L3 Spanish via an analysis of: (i) structural similarity in terms of grammatical gender, (ii) order of acquisition of the structurally similar language, and (iii) cross-linguistic structural congruency for grammatical gender assignment. 115 adults were recruited and divided according to their linguistic background: L1 English-L2 French (n=27), L1 French-L2 English (n=37), L1 Mandarin-L2 English (n=31), and L1 Spanish speakers (n=20) as a control group. All participants completed a background questionnaire, a Spanish proficiency test, and four experimental tasks in Spanish with varying conditions, including: textual translation from L1 to L3, picture identification based on a gendered article prompt, picture description, and a grammaticality decision task. Findings show an advantage in L3 accuracy and processing time for the presence of grammatical gender in one's prior linguistic repertoire (L1/L2 French). Furthermore, this advantage appears more evident in L1 French speakers and on specific tokens that are cross-linguistically congruent in gender assignment between French and Spanish. Specific gender assignment congruency at the lexical level appears more important than global L3 proficiency or order of acquisition of a gendered language. In sum, this study provides evidence for the source of transfer being conditioned by order of acquisition and cross-linguistic congruency in L3 morphosyntactic development through an analysis of mirror-image groups and a non-gendered comparison group.

The effect of psychological trauma on word learning in Ukrainian refugee children

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Refugee children face numerous psychological and social challenges due to difficult past and ongoing experiences, including high prevalence of psychological trauma. Such challenges may be exacerbated by limited proficiency in the language of the host country, as well as inhibiting the learning of new languages (Paradis et al., 2022). More specifically, trauma can result in impaired cognitive function, including declarative memory capacity (Samuelson, 2011), which is strongly associated with vocabulary learning outcomes (Hamrick et al. 2018). The present study addresses this urgent and under-researched topic by investigating the impact of trauma on word learning in Ukrainian refugee children in the Netherlands. We test the hypotheses that increased trauma symptoms will correlate with reduced declarative memory capacity (H.1), predict poorer L2 receptive vocabulary (H.2), and predict difficulty with novel word learning (H.3). Ukrainian children (ages 10-12) completed a psycholinguistic test battery, part of which included standardised trauma assessments (GPS and CRIES), a measure of declarative memory (CVMT) and receptive Dutch vocabulary (PPVT-III-NL). Additionally, we designed a multi-session contextual word learning experiment, presenting 16 low-frequency Dutch words in an illustrated, audio-recorded story. The story contained three exposures of each word and was presented twice. Receptive knowledge of form and meaning was assessed in immediate and delayed posttests, with two days between testing. A productive task was included in the delayed posttests. Full results from at least 35 participants are expected by spring 2025. Initial findings from 21 children support the stated predictions, particularly the negative correlation between trauma and declarative memory function. The complexities of the receptive L2 vocabulary and novel word learning results will be discussed in relation to the encoding and storage of lexical forms in declarative memory, and how this may be impacted by trauma.

Hamrick et al. (2018). doi:10.1073/pnas.1713975115

Paradis et al. (2022). doi:10.1017/S136672892200030X

Samuelson (2011). doi:10.31887/DCNS.2011.13.2/ksamuelson

The effect of the language immersion on bilingual language control during L2 reading: An eye-tracking study

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The goal of this eye-tracking study is to investigate the influence of instructed L2 immersion on lexical access in L2 reading in English-dominant learners of Russian (N = 13) and Spanish (N = 15). According to the proactive gain control account (Hoversten & Traxler, 2020), bilinguals utilize a control mechanism informed by the language environment, predicting that the activation threshold in the non-target language (L1 English) decreases with increased L2 (Spanish/Russian) exposure starting from early stages of lexical processing. We test this hypothesis by examining eye movements in L2 reading during the first (Session 1) and last (Session 2) two weeks of an 8-week instructed immersion program. We hypothesize that intensive immersion will lead to increased inhibition of L1 lexical access, evident in early (gaze duration) and late (total reading time) eye-tracking measures (Rayner et al., 1989). Method: Using an invisible boundary paradigm, Russian/Spanish sentences are displayed until an English (L1) critical word at an invisible boundary is replaced by a Russian/Spanish (L2) target word. The study employs a 2x2 within-participant design (Sessions; translational equivalents /unrelated L1-L2 word pairs, e.g., HAND-MANO vs. HAND-JEFE) with 200 experimental sentences and 60 fillers. Analyses include linear mixed models (LMMs) with each eye-movement measure as an outcome and the following predictors: session, target-critical word condition (plus the interaction), word length and frequency, target word position, and trial order. Analysis and preliminary results: Preliminary analyses of the Russian data revealed a facilitation effect of translational equivalents on total reading time in Session 1, which disappeared in Session 2. These findings partially support the hypothesis of decreasing lexical access to L1 English. While early measures showed no evidence of facilitation or inhibition, as the immersion program progressed, L1 lexical access became inhibited during the later stages of lexical processing (e.g., information integration and/or morphosyntactic analysis).

The effects of bilingualism on foreign language learning: A search for underlying mechanisms

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A growing body of evidence suggests that bilingual children often outperform their monolingual peers in learning foreign languages (Cenoz, 2003; Festman, 2021; Hirosh & Degani, 2018). However, the findings are mixed and limited to secondary-school children and older primary-school children. Even more importantly, the underlying mechanisms driving the positive effects of bilingualism on novel language learning, particularly in young children, have not been thoroughly explored. This study aims to fill this gap by investigating whether metalinguistic awareness, executive functions, and attitudes toward English as a foreign language (EFL) contribute to the bilingual effects in English language learning among preschoolers. Participants included Dutch speaking monolingual (n=83, Mage=63 months, 37 female) and bilingual (n=36, Mage=61 months, 16 female) preschoolers from the Netherlands learning EFL at kindergarten. Their EFL proficiency was evaluated through receptive vocabulary and grammar tasks. The mediators examined were metalinguistic awareness, assessed via a phonological awareness task; attitudes toward English, measured using a motivation-to-learn-English scale; and executive functions, evaluated through tasks involving verbal working memory, cognitive flexibility, inhibition, and selective attention. Control variables included age, socioeconomic status, intensity of English instruction at school, exposure to English outside of school, and IQ. Path analyses revealed that bilingual children significantly outperformed their monolingual peers on receptive vocabulary and but not on grammar, demonstrating that the positive effects of bilingualism on EFL learning are already visible at preschool age. Contrary to our expectations, this advantage was not explained by the mediators examined. Among the control variables, child age and exposure to English outside of school predicted both vocabulary and grammar scores while IQ predicted only grammar scores. The findings are discussed in relation to bilingual children's proficiency in both languages and other potential mechanisms that could account for the bilingual effects in English language learning.

The Effects of pedagogical translanguageing on the Development of Core Academic Language Skills (CALS) in Secondary Education in the Southern Basque Country

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This study explores the impact of pedagogical translanguageing on the development of academic language skills in Secondary Education in the Southern Basque Country. It presents a one-month intervention focused on enhancing academic language proficiency through translanguageing, integrating the three curricular languages: Spanish (the majority language), Basque (the minority language), and English (the foreign language). Academic language is conceptualized as Core Academic Language Skills (CALS), which consists of seven linguistic abilities essential for comprehending expository texts (Uccelli et al., 2015). The intervention aims to offer a concrete educational proposal for incorporating pedagogical translanguageing in classroom practices (Cenoz & Gorter, 2020). To evaluate the effects of this intervention, a mixed-methods approach is employed. Initially, a pre-test is conducted to assess students' linguistic competence in the three curricular languages. The pedagogical intervention is then applied, specifically in the 1st grade of Secondary Education, involving 84 multilingual students. After the intervention, a post-test is administered to measure any changes in language competencies across the three languages. In addition, qualitative data is collected through classroom observations and focus groups with students. Findings suggest that pedagogical translanguageing has a significant positive impact on the development of academic language. Additionally, the results indicate that pedagogical translanguageing not only supports academic language but also fosters metalinguistic competence. Key words: academic language, pedagogical translanguageing, metalinguistic competence, CALS, secondary education

Cenoz, J., & Gorter, D. (2020). Teaching English through pedagogical translanguageing. *World Englishes*, 39, 300-311.

Uccelli, P., Barr, C., Dobbs, C., Phillips Galloway, E., & Sánchez, E. (2015). Core academic language skills: An expanded operational construct and a novel instrument to chart school-relevant language proficiency in preadolescent and adolescent learners. *Applied Psycholinguistics*, 26(5), 1077-1109.

The effects of trauma on L2 word learning

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Psychological trauma symptoms (henceforth: trauma) affect various factors relevant to second language learning (SLA) (Sachinvala et al., 2000, <https://doi.org/10.1097/00005053-200012000-00005>). Yet, empirical studies on the relationship between trauma and SLA are scarce. This study investigates the question: Does trauma affect the acquisition of novel L2 words? As word learning relies on the memory systems most affected by trauma - working memory and declarative memory (Ruiz et al., 2021, <https://doi.org/10.1177/1362168819872859>) - it could be significantly impacted by trauma. We hypothesize that trauma hinders both immediate recall and retention of novel words. Further, our study explores the interaction between word learning, trauma and memory. We tested 35 adult Ukrainian refugee L2 learners of Dutch with a CEFR level between A1 and B1, aged 20-40, who were enrolled in or just finished an L2 Dutch course. Word learning, trauma, and memory were assessed with a newly designed multimodal contextual word learning task, two trauma questionnaires (PCL-5, Blevins et al., 2015, <https://doi.org/10.1002/jts.22059>; GPS-A, Olf et al., 2020, <https://doi.org/10.1080/20008198.2020.1752504>) and two memory tasks (Backward digit span task, Wechsler, 2008; CVMT, Trahan et al., 1996, <https://doi.org/10.1080/13854049608406665>). These tasks were part of a larger test battery also including measures for wellbeing, attention, and proficiency in Dutch and Ukrainian, which participants completed on a laptop in three one-hour sessions plus homework. In the word learning task, participants were exposed to 16 low-frequency words embedded in a Dutch story. Participants heard the audiorecorded story and saw illustrations. We assessed participants' receptive knowledge of form-meaning mapping in an immediate and delayed posttest after one week. Data-collection will be completed by December 2024. Results will show whether trauma impacts word learning, and contribute to our understanding of how this happens. Such findings could help teachers and policymakers navigate the challenges that traumatized L2 learners face.

The Efficacy of Health Fear Appeals in Bilinguals' Second Language

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Health messaging is often based on emotional appeals, such as fear (Carey & Sarma, 2016). However, bilinguals tend to experience an emotional distance when using a later learnt language (LX) as opposed to their first language (L1) (Pavlenko, 2012). Current bilingual health communication research remains prevalently focused on proficiency and comprehension factors that affect health literacy (Krystallidou et al., 2021), yet recent work on COVID-19 highlights the potential for language-emotionality considerations in bilingual health communication (Schroeder & Chen, 2021). We examined whether this emotional distance would reduce the efficacy of fear-based health messages in bilinguals and hypothesized that the effect of fear would be reduced when health messages are presented in participants' LX. A between-subjects design was employed to isolate fear and language effects, with random assignment to one of 4 experimental conditions: 2 message presentation language (L1 v. LX) and 2 fear conditions (high v. low). Preliminary data from sixty-seven Cantonese-English bilinguals was obtained via social media. Participants viewed a hypothetical health message on sun-protective behaviours with low or high fear appeal, in L1 or LX. Self-reported message-evoked fear and behavioural intention were measured as the outcome variables and a factorial ANOVA was run on each outcome separately. Our preliminary results suggest a main effect of fear condition on message-evoked fear, but no main effect of presentation language. Crucially, we observed no interaction between language and fear, and there were no significant effects on behavioural intentions. Though the fear manipulation successfully evoked fear, null effects on behavioural intentions raise questions for whether fear translates to behaviour. Presentation language may not affect fear appeal efficacy in health messaging, contrasting previous findings on bilingual emotions. These findings highlight how language choice can drive messaging outcomes, and further inform the development of effective public health campaigns and information dissemination.

The Experience of Speech and Language Therapists (SLTs) Working with Bilingual/Multilingual Children with Developmental Language Disorder (DLD)

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This study aims to provide insight into the experiences of Speech and Language Therapists (SLTs) working with bilingual and multilingual children with Developmental Language Disorder (DLD). Previous research has explored SLTs' experiences with bilingualism (Sharpe & Perovic, 2023) and with DLD (Thomas et al., 2019), yet there is limited research that addresses both simultaneously. A mixed methods survey was distributed to SLTs in the UK with questions on assessment, diagnosis, and opinions on bi/multilingualism and DLD. Preliminary analyses show that most SLTs noted advantages of bilingualism in children with DLD, for example improved communication opportunities and word retrieval benefits, though others suggested bilingualism could mask DLD. Furthermore, SLTs highlighted the lack of developmental norms and multilingual resources. One SLT noted that the difficulty in assessing children in other languages required reliance on interpreters. Other SLTs mentioned that limited knowledge of DLD, cultural differences and distinguishing between language difference and disorder contributed to problems faced when assessing this group. Many SLTs recommended that parents/carers join support groups, apply for individualised education plans, and use sign language, Makaton or Augmentative and Alternative Communication (AAC). While most SLTs had attended training on DLD, fewer had training specific to bi/multilingualism. The results indicate the need for more multilingual resources and targeted training and support for SLTs working with bi/multilingual children with DLD.

Sharpe, E., & Perovic, A. (2023). A survey of speech and language therapists' opinions of bilingualism and the advice they give to bilingual families of children with speech, language and communication needs—a comparative study between the UK and Singapore. *Clinical Linguistics & Phonetics*, 1-33, <https://doi.org/10.1080/02699206.2023.2268260>

Thomas, S., Schulz, J., & Ryder, N. (2019). Assessment and diagnosis of Developmental Language Disorder: The experiences of speech and language therapists. *Autism & Developmental Language Impairments*, 4, <https://doi.org/10.1177/2396941519842812>

The Experiences and Perspectives of Bilingual Parents Raising Their Children With Autism in South Florida

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Parents of children with autism from bilingual families often receive professional recommendation to use only one language with their child, usually the majority language of the community, regardless of their proficiency level (Ijalba, 2016; Martínez-Álvarez, 2019; Yu, 2016). Children with autism from bilingual families are at risk of not developing their home languages due to a belief that bilingualism might cause confusion and delay in language development. Research has shown that bilingualism does not cause delays in language development, but that it may bring potential benefits to individuals in a variety of circumstances, including to those individuals on the autism spectrum (Digard et al., 2022; Nolte et al., 2021). This phenomenological study was developed to understand how language choices affect bilingual families with autistic children. The goal of this study was to examine the experiences of bilingual parents of children with autism in relation to their use of language in their households, in the school setting, and with services provided to their children. South Florida's diverse linguistic context, where 75% of the population in Miami-Dade County and 42.8% in Broward County speak languages other than English (U.S. Census Bureau, 2022), with Spanish being the most spoken language after English, was the setting of this study. Using a multiperspectival interpretative phenomenological analysis (IPA) approach as methodology, this study examined the perspectives and experiences of parents of children with autism from two distinct bilingual backgrounds: Spanish-English speakers (n=6) and Portuguese-English speakers (n=6). Adopting a translanguaging stance, participants were interviewed in their preferred language via Zoom. Preliminary analyses through the lens of hermeneutic phenomenology indicate most parents believe it is important to maintain their home language with their children, while cultural practices were not considered relevant. Parents also mentioned the need of additional support from schools, including language support.

The face of mother tongue teacher education: creating space for collaborative and intercultural learning for bilingualism in professional development activities for mother tongue teachers

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"Mother tongue" (hereafter MT) has been an elective subject in Sweden since the 1977 Home Language Reform, aiming to nurture individual and societal bilingualism. MT teachers, however, are exempt from the requirement for formal teaching qualifications that applies to other teachers. Consequently, regulated educational pathways for MT teachers are fragmented, and language education is only available for a fraction of the 181 languages that students can study as a MT. The few higher education institutions that do provide education for MT teachers offer courses/programs related to MT education broadly, and language teaching specifically. In this presentation, we will share our analysis of three professional development activities for MT teachers that we have been involved in planning and implementing. We aim to critically and reflexively examine our pedagogical practices, focusing on power relations as well as knowledge creation and exchange. Drawing on cultural-historical activity theory (Engström et al., 1999) and consciousness-raising (Freire 1973), we argue that these professional development activities enable a "pedagogy of vulnerability" (Christodoulidi 2023), by creating spaces for collaborative and intercultural learning in Swedish higher education. Discussions, critical reflections, and text creation on identity, language ideologies, power, and social justice in these activities often stem from the participants' life histories, marked by various forms of migration. This contributes to diversifying academic spaces in Sweden and acknowledges and elevates both MT teachers as a professional group and the subject itself in its Swedish educational context.

Christodoulidi, F. (2023). A pedagogy of vulnerability: Its relevance to diversity teaching and 'humanising' higher education. *Equity in Education & Society*. <https://doi.org/10.1177/27526461231185834>

Engeström, Y., Miettinen, R., & Punamäki, R.-L. (Eds.). (1999). *Perspectives on activity theory*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511812774>

Freire, P. (1973). *Education for Critical Consciousness*. Seabury Press.

The foreign language effect in forgiveness and empathy

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Previous research has shown that emotions are experienced as more intense in bilinguals' first language (L1) while more logical decisions seem to be made in their second language (L2), collectively referred to as the Foreign Language effect. Based on the theoretical explanations for these findings, we conducted two experiments examining whether L2 use leads to a higher (or lower) likelihood of forgiving transgressions and socially unacceptable behaviour. In Experiment 1, native Swedish speakers with L2 English read a scenario describing a socially unacceptable transgression in either L1 or L2. They then rated their forgiveness towards said transgression, and their experienced empathy towards the transgressor (Time 1). Following this, the participants read additional information explaining that the transgressor's behaviour was caused by situational factors rather than dispositional factors. Then the participants reported their forgiveness and empathy once more (Time 2). There were no differences in forgiveness between the L1 and L2 conditions, but a general increase in empathy towards the transgressor from Time 1 to Time 2. A larger increase in empathy was also associated with a larger likelihood to forgive. Interestingly, there was an interaction between language and empathy: While there were no differences between L1 and L2 in terms of reported empathy at Time 1, the increase of empathy from Time 1 to Time 2 was significantly larger in L2 than in L1. This could indicate a Foreign Language effect on implicit forgiveness, even in the absence of an effect on explicit forgiveness. In Experiment 2, we manipulated the nature of the explanation of the transgressor's behaviour, where half the participants were given a selfless explanation to the transgression, while the other half were given a selfish motivation for the transgression, again in either L1 or L2. Data collection for Experiment 2 is currently ongoing.

The Hands and Faces of Bilingualism: Bilingual Practices at a Canadian Deaf School

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The Hands and Faces of Bilingualism: Bilingual Practices at a Canadian Deaf School Deaf communities, as linguistic-cultural minority groups, are increasingly studied. (Marschack, Zettler and Dammeyer 2017). This qualitative research reveals bilingual practices supported by the Newfoundland School for the Deaf (NSD) in Canada. Until its closure in 2010, NSD was a hub of language, learning, and socialization, a place where Deaf children received a bilingual, bimodal, and bicultural education. Analyses of data collected reveal three main methods bilingualism was supported, findings that have implications for Deaf children today, all of whom are mainstreamed into hearing schools. Data were collected via access to provincial archives and consultation with Deaf community members and administrators. Systematic, thematic coding of data, such as school reports, curricula, and professional development materials, identified practices that supported bilingualism, namely 1) a strengthening of an individual and group Deaf identity, 2) the provision of role models, and 3) active community engagement. Deaf identity is complex, for it encompasses not only factors like ethnicity and religion, but also being linguistically and/or culturally Deaf, and disabled or not disabled. Support for both American Sign Language (ASL) and English instilled learners with a secure sense of self and belonging. This was reinforced by Deaf role models, who fostered the development of life skills, enabled independence, and propelled youth into leadership roles, occupational training and higher education. Deaf people's bilingual practices were also supported by active engagement and community participation, which reinforced their status as contributing members of society. Revealed in this research are the significant ways in which the support of bilingualism contributes to an inclusive and diverse society.

Marschack, M., Zettler, I. & Dammeyer, J. (2017). Social, Dominance, Orientation,

Language Orientation and Deaf Identity, Deaf Studies, Deaf Education, Vol.

22(3), pp. 269-277. DOI:10.10931/deafed/enx018

The Hidden Capital of Heritage Language Skills: Multilingual Profiles of Second-Generation Immigrants in Germany

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Germany's long history of immigration has created a linguistically diverse society, especially in urban areas. While languages such as English and French are considered economically valuable, heritage languages remain undervalued despite their potential. Heritage languages are considered to have the potential to serve as valuable human capital, enhancing productivity and labor market opportunities. However, there is limited data on the prevalence and proficiency of heritage languages, particularly among second-generation immigrants. This study, part of a PhD project, addresses this gap by exploring the multilingual profiles of second-generation immigrants in Germany. Specifically, it examines Which multilingual profiles can be identified in this population? The analysis uses data from the Migration Sample of the German Socio-Economic Panel (SOEP), which includes self-reported language proficiency in both German and native languages. Latent class analysis (LCA) was used to identify distinct profiles, with missing data handled by full information maximum likelihood estimation in Mplus. Out of 3,626 observations, a 4-class model was selected, which revealed significant heterogeneity. Two dominant profiles emerged, characterized by strong proficiency in German across all sub-skills. Notably, more than half of the participants also reported high proficiency in their heritage language. These findings suggest that second-generation immigrants, despite being socialized in the German education system, largely retain strong heritage language skills, challenging assumptions of monolingualism. The profiles identified highlight the diversity of bilingual competencies within this group and underline the potential of heritage languages as an economic and cultural resource. In a second step, these profiles will be used to analyze acquisition conditions and assess the impact of multilingualism on labor market advantages.

The Home Language Learning Experience: Insights from Chinese Families in the UK

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According to 2022 report from the Office for National Statistics, 30% of newborns in England and Wales were born to non-British mothers. Despite extensive research linking home and community language environment (HCLE) to children's developmental outcomes, HCLE in bi/multilingual families in the UK is understudied. In two studies we take a first step in addressing this gap by examining the relationship between the HCLE and language skills in Chinese-heritage children aged 3-5. In study one, sixty-four UK-based Chinese-heritage families with children aged 3 to 5 completed questionnaires covering features of the HCLE, parental child-rearing values, acculturation status, and parental perception of school readiness. In study 2 we followed up 35 families to collect day-long recordings of naturalistic parent-child interaction using LENA and assessed the children's expressive and receptive language with the Multilingual Assessment Instrument for Narratives. Our key findings are that, firstly, the HCLE was strongly associated with parental child-rearing values but not with socio-economic status (SES) or acculturation status. Secondly, parents who engaged more in HCLE activities, had more children's books, and supported healthy screen devices use, viewed their children as more school-ready. Furthermore, a moderate link also existed between parental perceptions of children's school readiness and SES. Thirdly, we found no associations between either the HCLE measures or LENA word frequencies with the children's expressive and receptive language in the narrative task. We found wide variation of HCLE activities in Chinese-minority families living in the UK. However, our findings provide a contrast to previous studies since we did not find a relationship between activities of the home and children's language abilities. We therefore recommend that a sustained and systematic research programme focussing specifically on the nature and development of language in minoritised communities to ensure that our understanding of the HCLE across communities is representative and inclusive.

The ideological effects of Basque revitalization movement on Euskaldun Zaharrak

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One way to revitalize the Basque language was to create a standard form called Batua. While the ideological effects that the Basque revitalization movement has on euskaldun berriak (L2 Basque learners) has been widely studied (Ortega et al. 2015; Urla et al. 2018; among others), the language ideology of euskaldun zaharrak (native speakers) has remained unexamined. Thus, this study explored the self-perceptions and attitudes of euskaldun zaharrak that were not formally educated in the standard variety. Data was collected through an agreement-based survey, open-ended questions and a semi-structured interview. Results showed that the participants' perception of a legitimate Basque speaker differed from that of the euskaldun berriak from previous studies. For the participants, Basque variety (regional dialect vs. standard) was not a mediating factor for legitimacy. Instead, the legitimacy of a Basque speaker was determined by the mode of language learning (family transmission vs. formal instruction). Overwhelmingly, participants' ideology showed that learning Basque (whether a regional dialect or Batua) through family transmission was a requirement for legitimization. Regarding the value of Batua, participants showed conflicting ideologies shaped by their language preference in different contexts, which constituted a factor (Language Preference) in the quantitative analysis. This study contributes to a better understanding of the effects of Basque language revitalization movements on the ideology of diverse segments of the same linguistic community.

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Urla, J., E. Amorrortu, A. Ortega, J. Goirigolzarri, and B. Uranga. 2018. "Basque Standardization and the new Speaker: Political Praxis and the Shifting Dynamics of Authority and Value." In *Standardizing Minority Languages*, edited by P. Lane, J. Costa, and H. De Korne, 24–46. New York and London: Routledge.

The impact of bidialectal input on preschoolers' perceptual adaptation to vowels in a non-native language

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In a multilingual society, being able to adapt to novel accents is an indispensable communication skill. At 19 months, children successfully recognize words in an unfamiliar accent (Johnson et al., 2022). In eight-year-olds, exposure to an unfamiliar L2 accent boosts word recognition for words heard previously in that accent (Hu, 2021). Exposure to phonetic variability may even provide long-term benefits in comprehending multiple accents, a skill increasingly relevant in multicultural settings (Quam and Creel, 2021). We seek to extend previous findings by examining how category flexibility and input variability (monodialectal/bidialectal input) contribute to children's adaptation to vowels of unfamiliar accents. We assess if exposure to varying L2 accents enhances children's ability to adjust to /ε,æ/ categories in an unfamiliar L2 accent. Over two consecutive days, Czech five- to six-year-old children watch four short English animated videos in 3 conditions (randomly assigned between subjects). They feature two speakers with the same non-native accent (condition 1), the same native accent (condition 2), or with different accents, one native, one non-native (condition 3). On day 3, a test video is administered with two speakers of different unfamiliar native accents. Data will be collected from 45 preschoolers. Scores in a word audio selection task will be modelled using LME with condition and category flexibility score (from a phoneme boundary task) as predictors. By investigating the effect of category flexibility and multidialectal input on adaptation to an unfamiliar accent, the study will offer practical implications for enhancing children's linguistic adaptability in increasingly multilingual environments.

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The Impact of Bilingual Experience on L1 Spoken Word Recognition: An eye-tracking exploration of competition dynamics across the bilingual continuum.

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Spoken word recognition involves the activation of multiple candidate words competing for selection as speech unfolds. Cohort competitors, which partially match the onset of the auditory signal, are activated more strongly than rhyme competitors, which match the ending of the auditory signal. In bilingualism research, the competition dynamics used to disambiguate spoken words across languages (i.e., between-language competition) have been extensively investigated via cohort competitors (e.g., Blumenfeld & Marian, 2007). However, little is known about how bilinguals process within-language competition using both cohort and rhyme competitors or the role that diverse bilingual experiences play in this disambiguation process. This study investigated within-language competition across three bilingual groups in their first language (L1): Spanish-English attriters in the UK, Spanish-English sequential bilinguals in Spain, and Spanish heritage speakers in the UK. Participants completed a Visual World Paradigm task with manipulation of onset/rhyme phonological overlap to study the time-course of spoken word recognition. The study also examined how proficiency, language use, and other external factors related to second language (L2) experience modulate L1 spoken word recognition. Results revealed consistent cohort effects across groups, with a stronger and an earlier tendency to attend to cohort competitors than rhyme competitors. However, differences emerged in the duration of rhyme effects during L1 auditory disambiguation. Spanish sequential bilinguals retained rhyme competitor information longer than Spanish heritage speakers and Spanish-English attriters. Second language proficiency modulated competition dynamics, with higher proficiency participants less likely to look at rhyme competitors. These findings suggest that variability in linguistic experience among bilinguals affects the dynamics of lexical competition in L1.

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The impact of bilingualism in the lexical access of patients with neurodegenerative diseases

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There is consistent evidence of a disadvantage in bilinguals' speech production compared to monolinguals in healthy individuals, but studies investigating this phenomenon in clinical populations such as Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD) are scarce. Given that both clinical populations are known to have word-finding deficits, it is crucial to understand the impact of bilingualism on their speech production. Specifically, we tested the weaker links hypothesis, which predicts a larger word frequency effect in picture naming tasks in bilinguals as compared to monolinguals or passive bilinguals. In a picture naming task, Catalan-Spanish early and highly proficient bilinguals (active bilinguals) were compared to Spanish-dominant speakers with low proficiency in Catalan (passive bilinguals). Participants were divided into three different groups according to their degree of cognitive impairment: AD group (n=66), MCI group (n=124) and elderly individuals without cognitive decline (n=58). The results showed a larger word frequency effect in active bilinguals than in passive bilinguals ($p = <.001$). However, active bilinguals demonstrated a beneficial effect of phonological similarity in naming compared to words that differ between their two languages. Passive bilinguals also showed a cognate effect, though significantly less pronounced than in active bilinguals. Additionally, we explored the distribution of errors observing semantic paraphasias and omissions as the main error types suggesting a significant impairment in lexico-semantic processing due to these neurodegenerative conditions. These findings support the weaker links hypothesis, not only in young and older bilinguals, but also in patients with MCI and AD.

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The impact of cognitive control ability on second language (English) writing performance

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In the related research on second language (English) writing, a few studies have explored the relationship between working memory and second language writing performance. However, no research has yet investigated the multidimensional relationship between different components of cognitive control and second language writing performance, and there is even a lack of psychological experimental research in this area. This study aims to explore the impact of different dimensions of cognitive control on second language writing performance by comparing the English writing performance of groups with varying levels of cognitive control ability. The experiment required 58 Chinese-English bilinguals to complete four cognitive tasks and a 30-minute argumentative writing test. The data analysis results showed that the high working memory capacity group achieved higher writing scores than the low working memory capacity group. Compared with the low mental set shifting ability group, the high mental set shifting ability group had higher writing scores, higher accuracy, but lower syntactic complexity. However, there were no differences in second language writing performance between different groups in terms of updating and inhibition. These findings reveal the different roles of cognitive control in second language writing performance and contribute to the cognitive research on second language acquisition.

The impact of COVID-19 on immigrants from Ukraine in Canada

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This presentation addresses language use among immigrants from Ukraine in Canada during the COVID-19 pandemic. The balance between host and home languages is essential for any immigrant group, as it impacts one's identity construction, self-esteem, intellectual engagement, and cognitive abilities (Pasquarella et al., 2022). Therefore, it is essential to investigate this vulnerable balance as it comes under extra pressure during a crisis, such as COVID-19, which is known to have changed communication patterns among the general population (Marra et al., 2020). Immigrants were particularly disadvantaged in accessing vital pandemic information (Leung et al., 2023) due to insufficient knowledge of the pandemic vocabulary (Pandey et al., 2021). The objective of the reported empirical studies was to describe linguistic challenges experienced by Ukrainian immigrants during the pandemic in Western Canada (Alberta and Saskatchewan). The study employed mixed quantitative-qualitative methods, drawing on the results from 50 surveys and 20 interviews with participants. The results demonstrate that overall, the participants interacted in Ukrainian 61% of the time. Over half of the participants experienced difficulties understanding COVID-19 related information, with the major problem being "confusing or contradictory information". The use of languages and the importance of home culture maintenance were not affected by the pandemic, but the channels of communication changed. Wearing masks negatively affected communication. The interviews detail idiosyncratic differences in the impact of COVID-19 on language use between the families of individual immigrants, depending on factors such as family composition, employment, etc.

The impact of diversity of social language use on the recruitment of proactive and reactive control

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Recent findings suggest that bilinguals adjust different types of cognitive control mechanisms to adapt to the linguistic demands of the contexts of language use and exposure in which they are immersed (Beatty-Martinez et al., 2019). The present study compared two groups of young adults, Mexican-born sequential Spanish L1-English L2 bilinguals, who reported either the separate or more integrated use of both languages. Participants completed the AX version of the Continuous Performance task (Gullifer & Titone, 2020) and results showed that greater linguistic diversity across social spheres _as measured with the entropy score_ predicted different patterns of engagement of proactive and reactive control. For separate-context bilinguals, higher linguistic diversity predicted faster reaction times in proactive and reactive control, and processing speed. Notably, for integrated-context bilinguals higher linguistic diversity predicted slower responses to proactive control and to processing speed. These patterns of cognitive control recruitment point to differences in the way bilinguals from each group appear to manage coactivation of the L1 and L2. Separate-context bilinguals seem to resolve the conflict between the two languages through response inhibition while integrated-context bilinguals appear to restrict the coactivation of competing representations through careful context monitoring and opportunistic planning. An important implication of the present study is that bilinguals who live in the same country and speak the same languages may perform differently and that differences tend to emerge when cognitive performance is assessed with fine-grained nonlinguistic cognitive tasks.

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The impact of family language policy and practices on children's language acquisition: The case of regional Chinese varieties

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Research on language maintenance highlighted the importance of family language policy and practices in preserving ethnic minority and immigrant languages (García, 2003). In contexts where regional languages are not protected by national language policies and are in direct competition with the national language, the role of family language policy and practices in their maintenance at the societal level remains unclear. China presents a particularly interesting case. The dominant ethnic group, the Han, comprises 91.5% of the population and speaks an estimated 2000 distinct Chinese varieties (Li, 2006). Although some varieties serve as regional lingua francas, national language policy mandates Mandarin use in public domains such as education, with other Chinese varieties largely reserved for private use. The present study investigates how sociocultural and sociopolitical factors may shape parental language policies and how these choices might influence children's acquisition of regional Chinese varieties. Using a semi-structured protocol, we interviewed parents and adult children (ages 19-25) of twenty-four families about parents' language beliefs, practices and specific efforts made to implement the family language policy (Spolsky, 2004). Young adults from eight families had very limited proficiency or no knowledge of the Chinese varieties their parents spoke. Results indicated that family language strongly impacted children's proficiency in these Chinese varieties. Parents' strong commitment to transgenerational transmission of the Chinese varieties and the associated cultures and thus their persistent use of the varieties within the family resulted in high proficiency among their adult children. In contrast, adult children of the parents who did not feel very strongly about preserving the regional variety had limited proficiency or did not speak the language. These results suggest that family language policy may directly contribute to changes of China's linguistic ecology.

The Impact of Multilingualism and Socio-Economic Status on Academic Performance: Evidence from the SCAMP and the National Pupil Databases

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This study examines the impact of multilingualism and socioeconomic status on academic performance within the UK, utilising data from 3,213 pupils from the National Pupil Database who also took part in the Study of Cognition, Adolescents and Mobile Phones (SCAMP). We employed multilevel modelling to analyse the relationship between language experience, socioeconomic status and Key-Stage 2 (KS2~11 years) and Key-Stage 4 (KS4~16 years) performance in English, Mathematics and Science. Findings reveal that multilingual learners initially face academic challenges at KS2, particularly in English and Science, but achieve comparable results with monolingual peers by KS4, overcoming early setbacks. Notably, simultaneous multilinguals not only catch up but excel beyond their monolingual counterparts by KS4, demonstrating the significant long-term academic benefits of early multilingual exposure and /or its associated cultural factors. Further analysis indicates that multilingual group membership mitigated the adverse effects of low socioeconomic status, with pupils from these backgrounds making substantial academic strides between KS2 and KS4 compared to monolingual peers. This challenges prevalent misconceptions about multilingualism in education. These findings underscore the need for educational policies that harness linguistic diversity to foster academic equity and success, emphasising the crucial role of language experience and socioeconomic factors in shaping educational outcomes.

The impact of orthographic markedness on orthographic coding in bilingual visual word recognition: a masked priming study

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Models of bilingual visual word recognition, such as the BIA/+ framework (Dijkstra & van Heuven, 2002), consider that bilingual lexical access is language nonselective. When a word is read, all words sharing common properties such as orthographic patterns are expected to be co-activated, regardless of their language membership. However, more recent work on a sub-lexical orthographic variable called ‘orthographic markedness’ sheds new light on these mechanisms (Casaponsa et al., 2020), suggesting a possible reduction in nonselectivity for marked words. This concept refers to the fact that some orthographic patterns can be legal (and frequent) in both languages of a bilingual, called “unmarked”, while others are legal in only one language, called “marked” (wr in English, vr in French), or more frequent in one language than the other. Our goal was to investigate orthographic coding and cross-language lexical competition using the cross-language masked priming paradigm combined with a lexical decision task. French-English bilinguals performed a French (L1) lexical decision task using pseudowords as primes. The pseudowords were manipulated within-subject according to their orthographic relatedness to the target word (related vs. unrelated) and their orthographic markedness (marked in English vs. unmarked), resulting in four priming conditions. The results suggest differential priming effects depending on prime orthographic markedness (and target repetition), with a facilitation orthographic priming effect appearing in the unmarked prime condition but an inhibitory priming effect in the marked prime condition. This pattern is consistent with previous findings using a similar paradigm albeit with words as primes (X, 2022) and suggests the existence of inhibitory links from sub-lexical language nodes to cross-language orthographic representations. This study highlights the role of orthographic markedness on lexical access and invite us to reconsider and articulate together some revision of BIA proposed in recent years (Casaponsa et al., 2020; van Kesteren et al., 2012).

The impact of sociolinguistic variation on language processing: Tracing individual differences in on-going language change in ERPs

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This study investigates the neurophysiological and behavioral effects of exposure to low-level sociolinguistic variation on sentence processing. The study tests morphosyntactic processes undergoing change in the Sunnmøre Norwegian dialect region, focusing on declining long-distance predicate participial agreement. Using a combination of detailed dialect survey data (n = 422) and ERP experiments (n = 156), including on-line reading, speech production, and acceptability judgment tasks, the study examines both inter- and intra-speaker variation to understand how narrow unilingual grammatical variability impacts language processing. The experiment was conducted in Bokmål (a standard written variety of Norwegian that prohibits participial agreement) and tested two conditions: cross-dialectally invariant adjectival gender agreement (control) and varying participial number agreement (target). Testing was conducted in two dialect regions: Sunnmøre (Western Norway, n = 73), representing the target group, whose dialect displays variable participial agreement, and Northern Norway (n = 83), representing the control group with invariant agreement. The findings reveal significant effects of dialect grammatical variability, resulting in significantly attenuated ERP responses (P600s) and less discrete and less accurate grammaticality judgments among the Sunnmøre Norwegian group compared to Northern Norwegian speakers. Individual difference analyses of Sunnmøre sociolinguistic variation show that individual rates of participial agreement in production significantly predict individual variability in ERP response patterns. These findings highlight the dynamic interplay between intra- and inter-individual variability in the representation, production, and comprehension of grammatical variants undergoing change.

The Impact of Voice Onset Time Variability on ASR Performance in Bilingual Spanish-English Children

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The growing use of Automatic Speech Recognition (ASR) systems in educational applications for bilingual children presents both opportunities and challenges. ASR systems can make digital content more accessible to young learners, yet variability in speech patterns may affect their accuracy. This is especially important for bilingual speakers who tend to have more variable pronunciations. This study investigates how Voice Onset Time (VOT) variability impacts ASR transcription accuracy in Spanish-English bilingual children. Data was collected from 199 bilingual children, aged 3-7 years, from Southern California. Participants completed a picture-naming task focusing on voiceless plosives, and their speech was transcribed by four ASR systems (IBM, Whisper, Google, Amazon). VOT variability was analyzed as a predictor of transcription accuracy, controlling for age and bilingual proficiency. Results showed greater VOT variability was associated with lower ASR accuracy across all systems. Age was consistently a significant predictor of transcription accuracy, with older children's speech transcribed more accurately. No interaction was found between VOT variability and bilingual proficiency. Findings suggest ASR systems may struggle with inconsistent pronunciation, highlighting a potential area for improvement. Further research could investigate if these findings hold across other phonemes or participants with higher Spanish proficiency, and explore additional factors explaining more variance in ASR accuracy for bilingual children.

The Impact of Working Memory on Comprehension Accuracy in Subject and Object Relative Clauses: A Comparison Between Monolingual and Bilingual Children with Autism Spectrum Disorder (ASD)

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Cross-linguistic research indicates that subject-relative clauses (SRCs) are easier to produce than object-relative clauses (ORCs). This difference arises due to constituency displacement that leads to non-canonical word order (e.g., in French) (Delage et al., 2007) or case-marking (e.g., in German) (Ibrahim & Hamann, 2024) observed across typical and atypical populations. Autistic children often face difficulties with complex structures like ORCs (Schaeffer et al., 2023). Working Memory (WM) limitations may exacerbate these difficulties, as WM is crucial for holding and manipulating information during sentence comprehension. Additionally, autistic children tend to exhibit challenges with WM, which could influence their processing of complex syntactic structures (Delage et al., 2022). Interestingly, autistic bilingual children have shown WM advantages over their monolingual peers (Andreou et al., 2020), suggesting bilingualism may aid syntactic processing. Nevertheless, the interaction between WM, bilingualism, and syntactic processing in ASD remains underexplored. This study investigated the role of WM in SRC and ORC comprehension in autistic monolinguals and bilinguals. We hypothesized that bilinguals would outperform monolinguals, particularly in ORC comprehension, due to enhanced WM. We tested 93 autistic children: 47 monolinguals and 46 bilinguals across various language backgrounds (English, French, German, Italian, and Spanish), matched on age (3-12 years) and vocabulary. Participants completed a non-word repetition task indexing WM and a character-selection task assessing comprehension of relative clauses (6 SRCs, 6 ORCs). A mixed-effects logistic regression revealed that bilingual children with higher WM outperformed monolinguals on both SRCs and ORCs. Further analysis indicated that WM impacted comprehension accuracy differently across groups: for monolingual children, WM affected comprehension of SRCs, whereas for bilingual children, WM impacted ORC comprehension. These findings highlight the intricate relationship between WM, bilingualism, and syntactic processing in autistic children, suggesting that bilingualism may foster linguistic development in au, particularly in structures that require higher WM demands (Yang, 2017).

The influence of children's home language on third grader's reading and writing performance in a multilingual education setting

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Luxembourg's multi-lingual education system, combined with differences in children's home language - with approximately two thirds of children attending grade 3 not speaking the languages of school instruction (Luxembourgish/German) at home - complicate the diagnostic process of identifying children with potential learning disorders in reading and/or writing. It is therefore paramount to distinguish between reading/writing difficulties due to lower language proficiency and those due to a learning disorder. To address this issue, we have developed two novel test batteries that are specifically adapted to the country's multilingual environment: (1) a reading and writing test battery assessing children's phonological skills, RAN, word and non-word reading, text reading and writing skills, as well as (2) a German receptive vocabulary and syntax test. The tests were normed in 747 children attending 3rd grade in Luxembourgish public schools across all school districts of the country. Four language groups were created based on children's reported home language: Luxembourgish/German (languages of school instruction); French; Portuguese; Other languages. Our results show that children who speak the language(s) of instruction at home perform better in most sub-tests of the reading and writing test battery, emphasising the impact of home language on children's task performance. This is further highlighted by a lack of language group differences in the non-word reading task, which was equally challenging for all children. Importantly, when accounting for children's German receptive vocabulary, differences in word and text reading performance based on language spoken at home are significantly reduced. We will extend these analyses to additionally explore the impact of children's home language and German receptive syntax on text reading performance.

The Integration of the Hebrew Accusative Marker in Monolingual and Russian-Hebrew Heritage Bilingual Speakers: An ERP Study

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This study investigates the integration of the Hebrew accusative marker in monolinguals and bilinguals, for whom Russian is their heritage language (HL) and Hebrew is their societal language (SL). Monolinguals exhibit a P600/N400 effect for accusative violations (*N1accVN2acc/*N1nomVN2nom) compared to grammatical counterparts (N1nomVN2acc/N1accVN2nom) [1]; however, HL speakers show mixed results [2,3]. Hebrew employs the accusative marker *et* for definite objects, while Russian uses gender/animacy-based inflections [4,5]. This research focuses on morphosyntactic processing in HL speakers' dominant SL. We tested Russian-Hebrew bilinguals (N=23) and Hebrew monolinguals (N=40) with an auditory EEG task, where participants rated the grammaticality of transitive sentences. Brain signals were recorded from 64 channels across 328 items split into two lists. Mixed-effects modeling with participants as a random effect; Condition (N1nomVN2acc/N1accVN2nom/*N1accVN2acc/*N1nomVN2nom) and Group (monolinguals, HL-Russian) as fixed factors were applied. ERP amplitudes from 200ms pre- to 1200ms NOM1 and NOM2 were analyzed with time as an additional fixed factor. Behavioral data showed HL speakers matched controls, with more pronounced RT and rating pattern differences, potentially due to morphosyntactic awareness [3], cross-linguistic transfer [6], thus leading to a bilingual advantage [7]. In the ERP data, both groups showed positive peaks for subject-first sentences in NOM1. In NOM2, the distinct ERP responses—P600 for monolinguals and N400 for HL speakers—suggest that while monolinguals process accusative violations primarily as syntactic anomalies, HL speakers may approach them as semantic incongruities, indicating differing neural mechanisms in bilinguals in their dominant SL.

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The L2 processing of Relative Clauses with an OVS word order: A self-paced reading study with L1 English - L2 Italian learners

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This study investigates relative clause processing in L2 Italian focusing on the Object-Verb-Subject (OVS) order. Italian RCs are ambiguous between subject/object when the head and the internal NP match in number because the subject can appear post-verbally. Subject readings are preferred (De Vincenzi, 1991), but RCs are disambiguated towards an object reading via VP when the two NPs mismatch in number (1). This study asks whether adult L1 English-L2 Italian learners (a) are sensitive to verbal morphology activating a structural reanalysis of OVS; (b) recover from an SVO misanalysis in favor of OVS; (c) experience increased processing at post-verbal subjects. Italian L2ers (N=36, 18 advanced, 18 intermediate) and native speakers (N=27) completed a self-paced reading task with three conditions:

- (1) L'avvocatoM/SG che [hanno3PL ascoltato] [i testimoniM/PL] è uscito dal tribunale (ORC-VS)
- (2) Gli avvocatiM/PL che [hanno3PL ascoltato] [il testimoneM/SG] sono usciti dal tribunale (SRC)
- (3) L'avvocatoM/SG che [i testimoniM/PL] [hanno3PL ascoltato] è uscito dal tribunale (ORC-SV)

The lawyer(s) who have listened the witness(es)/the witnesses have listened left the courthouse.

To test (a), RTs to the first VP were compared between (1) and (2). Results show that all groups experienced increased RTs at the VP in (1). For (c), RTs to the post-verbal (1) and pre-verbal (3) NP were compared. Findings revealed that both NSs and L2ers (regardless of proficiency) were significantly slower at the post-verbal NP. For (b), comprehension question accuracy was measured. Comprehension accuracy to OVS structures was significantly lower in L2ers than NSs and did not improve at higher proficiency levels. These findings suggest that native and L2 processing is not qualitatively different (Hopp, 2006) and that learners are sensitive to verbal morphology. However, learners struggle to reconstruct the OVS meaning offline, confirming how difficulty persists at advanced L2 levels with structures operating at interfaces (Belletti, 2018)

The Language Ideology of Ongoing Revival: The Case of the Academy of the Hebrew Language

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The revival of Hebrew as a spoken language in late nineteenth and early twentieth century Palestine, as part of the creation of a new Jewish national identity, is considered a major language policy achievement, and its impact on the multilingual culture of the Jewish people has been dramatic. Nevertheless, little is known about the roles of national, religious, and language ideologies in the formation of the new language variety. This study seeks to clarify some of the ideological, political, and theological patterns behind the planning of Hebrew by examining the discussions of the Hebrew Language Committee since 1890, and the Academy of the Hebrew Language since 1953. Scholars like Johnson (2013) and Cameron (2012) have indicated the need to critically evaluate the perceptions, ideologies, and intentions behind language planning. Such an evaluation may reveal language planners' motivations and awareness of the desirable and undesirable social consequences of their work. The present study, using the discourse-historical approach (Reisigl & Wodak, 2009) and focusing on the first 40 years of the Academy (1953-1993) within a broad historical context that spans into the present, can help to understand the dynamics and tensions of language planning, as well as presuppositions that remained unquestioned. Three ideological strands are identified, which may be linked to the political theologies discernible in Israeli society: (1) a conservative strand, seeking to preserve existing norms and conventions; (2) an outward-looking innovative strand, seeking to close gaps between the standard language and modern usage; and (3) a powerful inward-looking innovative strand, seeking to create a new language standard out of intrinsic motivations and without considering the complex multilingual reality of language speakers. The paper will conclude by considering the social implications of these strands.

The language of religion: Christian churches as potential complementary domains for Hmong-American family language policy

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Congruent with Higgins' (2018) call for more investigation of meso level factors that impact family language policy (FLP), this paper aims to contribute to the few studies that examine how churches can shape FLP by investigating two Hmong American families' distinct church communities and the ways they aid or disrupt heritage language maintenance (HLM). Crucially, as Christianity continues to rise within the United States' Hmong community, it is imperative to explore their potential in supporting HLM. The case study adopts the Douglas Fir Group's (2016) multi-level transdisciplinary framework to trace family members' and pastors' ideologies about religion, identity and HLM, their manifestations in language practices and the complex interplay between the home and church. Data include interviews, audio of natural language use and videos of church activities. Data were thematically formulated and analyzed recursively in MAXQDA. Findings reveal that it is the language of religion used within both families' churches that either drive or hinder Hmong HLM. While Family A's pastor views the shift to English as inevitable, Family B's pastor views the preservation of Hmong as a goal. Therefore, Family A's church is English dominant to accommodate the younger generations who view Hmong as foreign, resulting in an environment that provides the family no space to use Hmong. For Family B's church, to accommodate the older generation and sustain Hmong, everything is conducted in Hmong, resulting in an environment where the children must use Hmong to become active participants in the church community. While the church language practices in Hmong deepen Family B's investment in Hmong HLM, Family A's church remains another English dominant community. The study concludes with implications for families and communities interested in HLM, limitations, and a call for more ecological research on FLP that considers the multiple and varied meso institutions that families engage in.

The linguistic landscape of Portuguese in Japan: Marketing an exotic past and supporting a new heritage language

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The Portuguese language has been present in Japan since the arrival of Portuguese Jesuits in 1549. For the next century, the Portuguese traded and spread their religion from their bases, particularly around Nagasaki. Thereafter, the language went into hiding following the prohibition of Christianity and the expulsion of the Portuguese, becoming incorporated into the secret prayers, or *orasho*, of the hidden Christians. Jumping forward to today, since the 1990s large numbers of ethnic Japanese from Brazil have migrated to Japan following changes to Japanese immigration policies; currently, an estimated 250,000 Nikkei Japanese Latin Americans (migrants from Japan and their descendants) live in Japan, the largest group being Brazilians, bringing with them a new stage in the history of the Portuguese language. Today, tourist areas in the Nagasaki region exoticize Portuguese language and history to market products and locations; multilingual street signs include Portuguese alongside Japanese and English in cities such as Hamamatsu, which has been described as Japan's most Brazilian city (*a cidade mais brasileira do japão*); community centres provide multilingual information in Portuguese and other languages where large numbers of Brazilian Japanese live; and even Netflix Japan offers subtitles in Brazilian Portuguese for some programs. We map out the linguistic landscapes of (the)Portuguese in Japan, illustrating the above stages, showing how Portuguese today is portrayed and commodified in terms of an exotic Other from Japan's past, and contrastingly in terms of supporting/recognizing the new heritage language of ethnic Japanese Brazilians and their families. We employ various lenses of linguistic landscapes in our analysis (e.g., Ben-Rafael, Shohamy, & Barni, 2010; Blommaert, 2013; Cenoz & Gorter, 2008), outside of traditional educational contexts (Neidt & Seals, 2020), and as social semiotics (Kress, 2011; Scollon & Wong-Scollon, 2003; van Leeuwen, 2005), highlighting representations that are multilayered, and constructed diachronically-synchronically and discursively.

The mediating role of motivation in the relationship between plurilingualism/pluriculturalism and creativity: Empirical evidence for Plurilingual Creativity paradigm

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This study continued empirical investigation of the Plurilingual Creativity paradigm. This paradigm expands the Multilingual Creative Cognition by making shifts in the conceptualization of the phenomena of multilingualism and creativity, respectively: from the languages to the agency of the individual in the interaction of languages, and from the cognitive processes underlying creative thinking to sociocultural and personality related factors influencing creative endeavor. The current study focuses on the mediating role of motivation in the relation between plurilingualism/pluriculturalism and creativity. Two hundred and sixty-one individuals (47 male and 214 female) aged between 17 and 66 ($M=27.64$, $SD=11.98$) participated in the study. Participants were invited to respond to assessments of language repertoire (measured by the number of languages spoken by participants), multicultural experience (measured by Multicultural Experience Questionnaire), intercultural competence (measured by Integrative Intercultural Competence Survey), creativity motivation (measured by the Creativity Motivation Scale), and motivational characteristics and creative personality (measured by the Scale for Rating Behavioral Characteristics of Superior Students). A series of mediation analyses revealed that motivation mediated the link between pluriculturalism and creativity. Specifically, motivational characteristics mediated the relationship between intercultural interest and creativity motivation ($\beta=.051$, $p<.01$), intercultural interest and creative personality ($\beta=.128$, $p<.01$), management of intercultural interaction and creativity motivation ($\beta=.060$, $p<.01$), management of intercultural interaction and creative personality ($\beta=.159$, $p<.01$), multicultural experience and creative personality ($\beta=.189$, $p<.01$), multicultural experience and creativity motivation ($\beta=.115$, $p<.01$), multicultural desire and creative personality ($\beta=.178$, $p<.01$), and multicultural desire and creativity motivation ($\beta=.083$, $p<.01$). These findings emphasize the importance of considering personality-related factors in the contribution of plurilingualism to creativity and provide empirical support for the conceptual shift toward Plurilingual Creativity.

The Misinformation Effect in Bilinguals: Exploring the Role of Language and Emotion in Memory Distortion

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Memory holds a great capacity, yet it can be subject to distortions, especially when exposed to post-event information—a phenomenon called the misinformation effect (e.g., Loftus et al., 1978). Factors, including the vividness and the emotionality of the event, can affect the suggestibility to misinformation. Although over half of the world's population is bilingual, research on false memories has largely focused on monolinguals. To date, limited studies have examined bilinguals' vulnerability to misinformation, yielding mixed results. While research using the misinformation paradigm suggests that bilinguals perform better in their native language (L1; e.g., Calvillo and Mills (2020), findings regarding the impact of testifying in a second language (L2) on susceptibility to misinformation remain inconsistent. Addressing these gaps, the present project focuses on false memories in bilinguals, specifically examining how factors including emotional processing in L2 and L2-related factors, including proficiency, age and the context of L2 acquisition, impact bilinguals' vulnerability to misinformation. Native English speakers and English-French bilinguals will watch a video depicting a car accident and recall it in either English or French. Participants will rate the emotionality and vividness of their memories on a 0–10 scale both before and after recalling the video. They will then read a narrative containing 10 true and 5 misleading statements, presented in English or French, followed by a recognition memory test. We expect bilinguals to be more vulnerable to misinformation in L2 than L1. We also expect bilinguals to rate emotionality and the vividness of the event less when they recall the event in L2 and these ratings to affect their suggestibility to misinformation. This project has considerable theoretical and practical significance, as it enhances our understanding of memory distortions in bilinguals, offering valuable insights into bilingual cognition and contributing to the refinement of interview techniques in clinical and legal settings.

The mismatch negativity of music processing in children with different language backgrounds

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Background: Musicians and native speakers of tonal languages are more sensitive to pitch differences than non-musicians and speakers of non-tonal languages. While bilingual experience is known to modulate auditory processing, it remains unclear how bilingualism specifically affects music processing. The primary objective of this study is to determine whether bilingual experience itself enhances general auditory processing or if its effects on music are influenced by language-specific properties (e.g. tone, syllable-timing, or stress-timing). **Methodology:** A passive listening oddball paradigm, featuring six types of musical changes (intensity, pitch, rhythm, timbre, slide, and location), was presented to >65 children from four different language backgrounds while event-related potentials (ERPs) were recorded from 65 scalp sites. Participants included children between the ages of 5 and 10 with backgrounds in either Mandarin, Spanish, Standard American English, or African American Vernacular English (AAVE). **Results:** Older children (8-10 years old) from Mandarin-speaking households exhibited a larger mismatch negativity response to the first standard tone (~100 ms) compared to younger participants (5-7 years old) with the same Mandarin background. All language groups, except for those with an AAVE background, showed an amplitude attenuation ~100 ms after the onset of tone changes. Spanish-speaking participants exhibited overall smaller responses than other groups, particularly for pitch and slide deviant processing in the right hemisphere. Although no hemispheric asymmetry was seen in the scalp waveforms, source localization of the pitch condition in Mandarin-speaking participants revealed a right hemisphere dominance. **Conclusion:** The effect of a native tonal language was apparent, but bilingual experience itself did not show clear influences on auditory change detection. Native language experience may play an unrecognized role in influencing music processing.

The motor face of bilingual word recognition

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The involvement of the motor system in language processing remains a debated topic. Although research findings are conflicting, there is increasing consensus that the speech motor system has a modulatory role in speech perception, particularly under challenging conditions like distorted speech or background noise. Listening to a second language (L2) is similarly demanding, requiring additional cognitive and perceptual effort. After the first year of life, the ability to distinguish nonnative phonemic contrasts declines, leading to slower, more resource-intensive processes for L2 recognition. This suggests that greater motor system engagement during speech perception under challenging conditions could also extend to L2 processing. A series of three studies explores whether the motor system, specifically associated with speech articulators, influences bilingual acoustic processing. In Experiment 1, bilingual participants performed a word-to-picture matching task after real and sham repetitive Transcranial Magnetic Stimulation (rTMS) was applied to perturb the primary motor cortex (M1) linked to the orbicularis oris (OO) muscle. Experiments 2 and 3 involved bilingual participants completing the same word-to-picture matching task under two conditions: i) contraction of the OO muscle, and ii) contraction of the index finger muscle. Reaction times and accuracy were recorded to determine whether perturbing M1 activity or inducing movement interference of the articulators impacted word recognition. The results show that motor perturbation and movement interference significantly delay word recognition in L2, while L1 remains unaffected. Experiment 3 further demonstrated that this effect is not due to code-switching. These findings support the hypothesis of a motor compensatory activation with a higher cognitive demand, as when processing of incomplete acoustic-motor models in a less familiar language. The motor system appears to be more engaged during the increased perceptual challenges in L2 processing, underscoring the potential role of the speech motor system in alleviating bilingual listening effort.

The Neural Bases of Theory of Mind: The Role of Bilingual Typology

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Theory of Mind (ToM), or the ability to felicitously assign mental states to others, has previously exhibited sensitivity to individual differences in verbal memory, working memory, executive control, and bilingual status. Recent studies reveal that bilinguals reliably outperform monolinguals on false-belief (FB) tasks (Rubio-Fernández & Glucksberg, 2012; Navarro & Conway, 2021), a signature of ToM proficiency. It remains unknown (1) which neural processes underlie the advantaged performance of bilingual adults on ToM tasks and (2) whether distinct bilingual typologies differentially modulate said processes. In the present study, Spanish-English heritage bilinguals (current n=16, expected n = 30) completed a belief reasoning task (Guan et al., 2018) with concurrent EEG recording, and an additional battery of individual differences tasks including metalinguistic awareness, a language history questionnaire (LSBQ), and a mini-personal social network survey to extract variables of language use not only from the individual but also from the individual's speaker's network. The first goal was replicate previous modulations in ERP differences between TB and FB (e.g., Meinhardt et al., 2011), such that FBs elicited a more positive Late Positive Component and Late Positive Complex than TBs. Our results confirmed this hypothesis and demonstrated both effects. Modulations of these effects by Bilingual Language profile are underway. This study will shed light on how experiential and cognitive dimensions of bilingualism interact in the neural underpinnings of social competence and communication.

The neural network supporting sign language processing: A dynamic causal modeling study with bimodal bilinguals

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Sign language provides a unique and natural opportunity to explore the cognitive and neural mechanisms of language processing. However, the neural network supporting sign language processing is poorly understood. Using dynamic causal modeling (DCM), this study investigated the neural network underlying Spanish Sign Language (LSE) processing and then compared the model with those of two other language modalities: written and auditory words. Three groups of hearing native Spanish speakers with different levels of LSE knowledge participated in the study: 23 native signers, 20 late signers, and 23 nonsigners. Three modalities of stimuli were designed: sign stimuli (signs, pseudosigns, scrambled video as baseline), written stimuli (words, pseudowords, pixelated words as baseline), and audio stimuli (words, pseudowords, rotated speech as baseline). A DCM model was constructed for each modality with six volumes of interest (VOIs) in the left hemisphere: the inferior occipital gyrus (IOG), the ventral occipital-temporal sulcus (vOT), the posterior superior temporal sulcus (pSTS), the anterior superior temporal sulcus (aSTS), the pars orbitalis (IFGorb), and the inferior parietal lobule (IPL). Similar to written and auditory words, sign language processing recruited multiple routes from the perceptual cortex (IOG) to higher-order semantic areas (aSTS, IFGorb), such as a lexical-semantic pathway (IOG→vOT→aSTS) and a lexical-phonologic pathway (IOG→vOT→pSTS→IFGorb). In contrast to a sublexical pathway (vOT→IPL→pSTS) in written and auditory modalities, the reversed pathway (pSTS→IPL→vOT) reflects specific roles of the left IPL (e.g., feedback activation during phonological processing of the hands) in sign language processing. The absence of bidirectional connectivity between the left aSTS and IFGorb implies sign language processing may involve alternative routes for semantic integration compared to the other two modalities. This study provides new insights into the connectivity architecture of neural substrates involved in sign language.

The plurilingual Bangladeshis of Venice: between learning and maintaining

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In an era shaped by migration, as people move and evolve, linguistic repertoires change too. In this paper I will present the Bangladeshi migrant community of Venice and the languages of its members. Bangladesh is the 5th country for emigration, and the Venice community is one of the greatest in Italy, with more than 8'000 official presences by 2023 (around 20% of the foreign population). Since the late '80s, the community has expanded exponentially being now constituted by newcomers, reunited families, second and third generations, making a highly variegated community. Moreover, contexts, reasons for migration, desires, motivation as well as linguistic backgrounds and repertoires are several. Within the CREST spoke of CHANGES project (NRRP), in this research study a comprehensive sociolinguistic-ethnographic approach and a qualitative method were used. Semi-structured interviews were conducted with members of the Bangladeshi community of different generations, genders and social status. The focus languages are Italian and Bangla, but while working with the interviewees plurilingual and pluricultural repertoires also emerged, including English, Arabic or Hindi, creating wider transnational links. In this paper attitudes towards Italian and Bangla and plurilingual practices will be analysed. It will be shown how the bi-plurilingual community is composed and which challenges it faces in a multilingual society. On one hand, Italian is a second language for the first generation, with challenges or scarce opportunities in the learning process; Bangla, on the other, is slowly 'eroded' in second and third generations but still is considered part of the heritage to keep alive, with specific schools for children of Bangladeshi origin; finally, English is the prestigious language which creates opportunities (Tonioli 2022, 278-9).

Tonioli, V. (2022) «Tell Me: language education representations and family language policies in transnational Bangladeshi low socioeconomic status families living in Italy». *International Journal of Multilingualism*, 19(2), 269-287.

The PRISMA project: Multilingual approaches to narrate migration

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The benefits of multilingual pedagogies (i.e., translanguaging pedagogy, plural approaches) have garnered recognition within educational settings. Research has underscored their impact on students' cognitive and linguistic development and on promoting inclusive learning environment (Ascenzi-Moreno & Espinosa, 2018). However, multilingual pedagogies faces several challenges, such as the diverse linguistic competencies of emergent bilinguals, and limitations, like maintaining a focus on oral activities (Storheil & Iversen, 2023). With the intention of filling this research gap, the PRISMA project was implemented within L'AltRoparlante (Carbonara & Scibetta, 2021), a network of Italian schools that adopted multilingual pedagogies at curricular level. It consisted in a written texts competition where students were allowed to freely use their plurilingual repertoires to narrate migration. 109 students (10-13 years) took part in the competition with multilingual and multimodal texts. These were analysed together with focus groups (with students) and interviews (with their teachers) to uncover patterns in students' linguistic practices and thematic choices. Results suggest that multilingual pedagogy alone seems to be insufficient to support emergent bilingual students' biliteracy. Yet, findings reveal that multilingual pedagogy challenges deep-rooted monolingual ideologies in written production and the PRISMA project itself showed the potential to develop students' multilingual and multicultural competence. The conclusions carry implications on language education, with particular attention to the writing skills as well as on creation of stronger collaboration amongst the various actors (school, family, community schools) involved in students' (language) development.

Ascenzi-Moreno, L. & Espinosa, C.M. (2018). Opening up spaces for their whole selves: a case study group's exploration of translanguaging practices in writing. *NYS TESOL Journal*, 5(1), 10-29.

Carbonara, V. & Scibetta, A. (2021). *Imparare attraverso le lingue*. Carocci.

Storheil, I.V., & Iversen, J.Y. (2023). Translanguaging strategies in multilingual newly arrived students' writing. *Scandinavian Journal of Educational Research*, 1–14.

The processing of adjectives in Spanish as an L2: A Psycholinguistic study.

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This study explores the acquisition and processing of the uninterpretable features associated with adjective position in Spanish (prenominal/postnominal), as it affects semantic (non-restrictive/restrictive) interpretation. Studies using offline methodologies (Pettibone et al., 2021) suggest that bilingual speakers struggle with acquiring formal features of adjectives until reaching advanced proficiency, especially when their first language (L1) has a fixed adjective order (English) compared to languages with similar structures to Spanish (Italian). The extent to which these challenges are associated with processing costs due to the linguistic formalities or to cross-linguistic interference has been less studied. To address this, we examine L2 Spanish processing of L1 English/Italian speakers who have lived in Spain for at least three months. We use a Self-Paced Reading task with items containing adjectives that are either in fixed or variable position, with different semantic interpretations: (i) prenominal-non-restrictive or (ii) postnominal-restrictive. After each item, participants answer a grammatical judgment task (GJT), and a semantic interpretation task (SIT). We also assess individual differences in linguistic experience with a Linguistic Historical Questionnaire and a Spanish proficiency test. We expect (1) shorter reaction times (RTs) for adjectives in fixed positions versus variable positions, (2) shorter RTs for L1 Italian than L1 English speakers; and (3) RTs to be predicted by individual differences in Spanish proficiency and use, with higher levels predicting shorter RTs, especially for L1 English speakers. Finally, we expect (4) GJT and SIT results to be predicted by RTs. 94 participants are being recruited (calculated for 80% power, $\alpha = .4$). Results from this study will provide insights into real-time adjective processing, that may show nuances in L2 acquisition not observable through offline methods alone.

Pettibone, E., Pérez-Leroux, A. T., & Klassen, G. (2021). Old grammars new (?) scope: Adjective Placement in native and non-native Spanish. *Languages*, 6(1), 22. <https://doi.org/10.3390/languages6010022>

The Protective Effect of Bilingualism on Mental Health in Early and Middle Childhood. A longitudinal investigation

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Bilingualism is a common phenomenon worldwide (Grosjean, 2010) and is becoming increasingly prevalent. The consequences of growing up bilingual on children's mental health and well-being are unclear. Some studies have shown positive effects of bilingualism on mental health (Bialystok, 2011; Collins et al., 2011), while others show no differences (Farver et. al, 2006) or worse mental health in bilingual children (Takahashi et al., 2023). The present study investigated the impact of growing up bilingual on children's mental health trajectories from early to middle childhood using data from the Millennium Cohort Study, a representative sample of the U.K. population. Parents of 15,435 children (2,146 bilinguals) filled in the Strengths and Difficulties Questionnaire (Goodman, et al., 2010) to assess children's mental health at ages three, five, seven and eleven years. Mental health was measured in terms of internalizing (emotional and peer problems) and externalizing problems (conduct problems and hyperactivity symptoms). Latent growth curve modelling was used to examine internalizing and externalizing trajectories over time. Before controlling for covariates, bilingual children exhibited significantly higher rates of internalizing problems compared to monolinguals, with no group differences in externalizing problems. After controlling for sex, non-verbal IQ, parents mental health, ethnicity, socio-economic status (SES), English language proficiency and school environment factors (teacher support and number of bilingual peers), bilingual children exhibited significantly lower levels of mental health problems compared to monolingual children across all time points, suggesting that bilingualism serves as a protective factor. SES moderated the effect of bilingualism on externalizing problems, with bilingualism benefiting children in low and mid-level, but not high-level SES groups. In conclusion, growing up bilingual appears to protect against mental health problems during childhood, particularly for children from lower and mid-level socio-economic backgrounds. We will discuss potential reasons for this benefit.

The Protective Role of Bilingualism in Preserving Cortical Thickness in Aging Bilinguals

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This study investigates the relationship between bilingualism, cognitive reserve, and cortical thickness in aging bilingual individuals, exploring the potential role of bilingualism in preserving brain structure against age-related decline. A total of 79 bilingual individuals, aged 30 to 79 years, underwent neuroimaging analysis to assess cortical thickness using the FreeSurfer atlas. Cognitive reserve was evaluated using established measures of bilingualism (Dash et al., 2022) and cognitive reserve index (CRIq; Nucci et al., 2012), accounting for gender effects to minimize bias. Partial Least Squares Regression (PLSR) was employed to examine how age, bilingualism, and cognitive reserve indicators (such as CRIq) relate to cortical thickness across several brain regions. The analysis revealed three latent variables (LVs) that elucidate key brain-behavior relationships. The first latent variable, primarily driven by age, was associated with cortical thinning in regions typically impacted by aging, including the bilateral middle temporal (MT), hippocampus, lateral orbitofrontal cortex, and inferior temporal cortex. The second latent variable, incorporating both age and CRIq as predictors, highlighted regions linked to cognitive control and sensory processing, such as the insula, thalamus, and superior frontal cortex, indicating a protective effect of cognitive reserve against age-related cortical thinning. The third latent variable, with bilingualism-related measures as the predictor, revealed preserved cortical thickness in regions associated with language and executive control, including the pars opercularis, orbitofrontal cortex, and inferior parietal cortex, suggesting that bilingualism may provide a neural shield against aging-related brain changes. These findings support the hypothesis that bilingualism and cognitive reserve contribute to the preservation of cortical thickness in key regions, particularly those involved in cognitive control, language, and executive functions. This study provides further evidence for the protective role of bilingualism in maintaining brain structure and function in aging, contributing to the broader understanding of cognitive reserve mechanisms.

The role of bilingual experiences on attentional control in the dichotic listening: evidence from younger and older Cantonese-English bilinguals

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Attentional control, a sub-category of executive function, is believed to be practiced when bilinguals/multilinguals use one language and inhibit others, resulting in a better attentional control performance than monolinguals. Most of the research examined this bilingual effect in the visual domain (e.g., Flanker). Only a few researches adopted the forced-attention dichotic listening paradigm (FADL; simultaneously presenting two different stimuli to each ear and forcing attention to either ear) to investigate the bilingual effect in the auditory domain but yielded inconsistent findings. One possibility is the gradient bilingual experiences are neglected by the binary comparison of bilinguals and monolinguals. In addition, the age difference (younger vs. older) in the bilingual effect remains unclear. Therefore, the current study, with bilingualism measured as gradient variables, investigated the bilingual effect on (auditory) attentional control for Cantonese (L1)–English (L2) bilinguals in their lifespan. In Experiment 1, 60 younger adults (aged 18-25) completed the Language History Questionnaire (LHQ-3; aggregating scores of proficiency, dominance, and immersion) and a FADL task on lexical tones from their dominant language (i.e., Cantonese). Bayesian mixed-effect analysis showed that multilingual diversity (MLD) scores and L2-L1 dominance ratio (i.e., more frequent usage of L2) positively predicted attentional control in the FADL task. In Experiment 2, 57 older adults (aged 59-72) followed the same procedure. A similar model did not show a significant relationship between bilingual experience and FADL performance. The younger adults' results support the bilingual effect on attention control in the less-documented auditory domain. Importantly, bilingual experiences (multilingual ability and frequent usage of L2) that are related to attentional control are specified. The lack of the effect for older adults might be explained by a narrow range of bilingual variables (e.g., MLD scores), and studies need to find older adults with more diverse bilingual experiences to further investigate the bilingual effect.

The Role of Code-Switching and Language Entropy on Semantic Accuracy in Heritage Speakers

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This study investigates the impact of the interaction between entropy (the degree of language integration) and code-switching on semantic accuracy in heritage speakers. Previous research has identified the role of cognitive flexibility in bilingualism, however, the role of code-switching and bilingual experience remains complex. We examine this relation by analyzing the performance of 36 bilingual English-Spanish heritage speakers on a Spanish semantic task. Participants were asked to pair semantically related words and explain their semantic associations in Spanish, with the option to code-switch to English when needed. The task was scored by counting the semantically correct associations, irrespective of code-switching and code-switches were counted. For each participant, we also measured language entropy, within six sociolinguistic contexts including: with friends, with family, at school, TV/video watching, radio/music listening, and reading. Our primary dependent variable was semantic association task accuracy (binary: 1 = correct, 0 = incorrect). Predictor variables included code-switching (binary) and the language entropy measures across the six contexts, as well as interactions between code-switching and each context-specific predictor. Data analysis was conducted using a Generalized Linear Mixed-Effects Model (GLMM), treating participants and task items as random effects to account for individual and item-based variability. Results reveal significant main effects including: higher language integration with friends' context positively predicted accuracy, while code-switching showed a negative impact on accuracy. Additionally, a significant interaction effect was observed suggesting that family language entropy moderates the effect of code-switching on accuracy, with high family integration mitigating code-switching's negative impact. These findings indicate that, although code-switching negatively impacted task accuracy, this effect was modulated by the frequency of language integration in specific contexts, as reflected by language entropy with family. These preliminary findings provide insight into how the degree of bilingual integration across communicative contexts may influence language processing in heritage speakers.

The role of cognitive control in lexical ambiguity resolution in bilingual and monolingual children

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Lexical ambiguity, where a word has multiple meanings, poses challenges for language comprehension. Resolving ambiguity includes cognitive control (CC) to manage interference and effectively use contextual cues (Gernsbacher, 1990; Vitello & Rodd, 2015). When processing lexical ambiguity, individuals must suppress competing meanings and select the appropriate interpretation based on contextual cues that either facilitate retrieval or create interference. Drawing on the Structure Building Framework (Gernsbacher, 1990) and Oberauer's (2020) content-context binding theory, this study explores whether bilingual children use their CC skills more efficiently than their monolingual peers in processing lexical ambiguity. Bilingual children provide a unique opportunity for studying CC in ambiguity resolution due to their experience suppressing competing meanings across languages (Kroll & Bialystok, 2013). This experience may enhance their ability to handle interference and use contextual cues, though its application to ambiguity resolution within a single language is not well understood. While studies have documented facilitative and interference effects in bilingual lexical processing (Geva & Shafman, 2012), most have focused on cognates, which prompt simultaneous activation across languages (e.g., Schwartz & Kroll, 2006). Recent work highlights context's role in bilingual lexical access (Kaltsa & Papadopoulou, 2023), yet little is known about how bilingual children manage interference and employ cues during ambiguity resolution. This study investigates how 20 bilingual and 20 monolingual children (aged 8-13) use relevant and irrelevant information to control interference and resolve lexical ambiguity. In a cross-modal priming task, participants heard sentences with homonyms, followed by target, intrusion, or unrelated probes. Data analysis is ongoing, using linear mixed-effects modeling to examine how reaction times and accuracy change by group, sentence type, and cue types to determine whether contextual and visual cues facilitate responses or create interference. It's expected that bilingual children will show higher accuracy, faster reaction times, and greater resilience to interference.

The role of domain-general auditory processing in second language proficiency and grammatical knowledge

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Researchers have recently posited that domain-general auditory processing—the ability to accurately represent and recall sound characteristics—can account for variability in second language (L2) phonological and speech learning (Saito et al., 2020). However, studies examining auditory processing in other L2 domains are scarce, although emerging evidence suggests that it might also be related to L2 proficiency and grammar learning (Saito et al., 2022). Our study extends this research to examine the association between auditory processing and overall L2 proficiency and grammatical knowledge. Intermediate L2 learners of Spanish completed four tests measuring auditory processing abilities—pitch, rise-time, formant, duration (Kachlicka et al., 2019). Spanish proficiency was assessed through an aural elicited imitation task (EIT) and a written standard test (DELE). Grammatical knowledge was measured using a grammaticality judgment task (GJT) including phrase structure, subject-verb agreement, and noun-phrase number and gender agreement. Preliminary analyses (N=24) showed that participants performed at intermediate levels on the GJT (M=.78; SD=.12) and the measures of proficiency (EIT: M=73.83, SD=20.15; DELE: M=21.52, SD=3.79). Auditory processing skills varied among learners, with lower scores indexing more efficient processing. Correlation analyses between auditory processing skills and L2, interpreted following Plonsky & Oswald's (2014) effect sizes, revealed the following: Small-to-medium correlations for pitch across five out of six L2 measures ($r_s = -.31$ to $-.43$), small correlations for risetime across three L2 measures ($r_s = -.24$, $.29$, $.30$) and for formant in one L2 measure ($r = .21$), and no meaningful correlations for duration ($r_s < .17$). Pitch was the only auditory processing measure significantly correlated with L2 (noun-phrase number agreement, $p = .05$). The consistent pattern of correlations for pitch suggests that better pitch abilities may be associated with higher L2 proficiency and grammatical knowledge. If ongoing data collection confirms these results, they would suggest that auditory processing skills contribute to various domains of L2 learning.

The Role of Executive Control in L3 Syntax Production: Does it Modulate Cross-Language Influence?

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Human cognitive capacity is limited, and processing a third language (L3) presents unique cognitive challenges that warrant investigation. In L3 syntactic processing, both the first language (L1) and the second language (L2) can be potential sources of cross-linguistic influence (CLI), which can either facilitate or interfere with L3 production. While CLI is well-studied in bilingual contexts, less is known about how trilinguals manage these influences, and the role of executive control (EC) in this process remains understudied. Here we investigate whether EC abilities contribute to L3 processing and whether they modulate CLI in L3 syntax production. To this end, we recruited 118 Arabic-Hebrew-English undergraduate students, including 26 diagnosed with ADHD and 92 without ADHD. Participants completed an elicited imitation task, in which they produced 160 sentences in L3 that syntactically overlapped with either L1, L2 or both creating different conditions of CLI. The sentences were either grammatical or ungrammatical. Participants also completed three EC tasks targeting different EC components (shifting, inhibition, and working memory) and an EC self-report questionnaire. We employed two complementary analysis approaches: examining individual differences in the typically developing group and comparing performance between ADHD and a matched non-ADHD control group. Results from both analyses converged to show that shifting and working memory abilities contributed to overall improved L3 syntax production. However, their role in modulating CLI was weaker than expected. Inhibition did not significantly contribute to L3 syntax production, nor did it modulate CLI in this study. Trilinguals with ADHD faced challenges in L3 syntax production, which we suggest are likely due to compromised shifting abilities. These findings contribute to our understanding of the cognitive mechanisms underlying multilingual language processing and shed light on the understudied population of trilinguals with ADHD.

The role of inhibition and auditory integration in accounting for L2 perception/production accuracy

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The question of the relationship between language use and cognitive skills (e.g., attention, working memory, inhibition) is a current and promising line of inquiry in SLA (Luque & Morgan-Short, 2021; McManus, 2021) with direct implications for theorizing in connection to usage-based accounts of L2 learning (Ellis, 2006; MacWhinney, 2008). In the field of L2 pronunciation, these questions have been explored with regard to both general cognitive mechanisms (e.g., Darcy et al., 2016) as well as those specifically related to domain-general auditory processing (e.g., Saito et al., 2021; Shao et al., 2022). In these separate lines of inquiry, both inhibition (i.e., the ability to suppress an automatic or dominant response) and auditory integration (i.e., the ability to repeat melodic or rhythmic strings) appear to be promising in their ability to explain individual differences in L2 perception and production abilities for classroom learners. What remains unknown is how inhibition and auditory integration might be related to one another, and whether different types of inhibition might be better suited to explain pronunciation abilities. The current study explored the relationships among inhibition, auditory integration, and L2 perception/production in a sample of L1 English learners of Spanish (n=58). Replicating Darcy et al., (2016), perception was measured using a speeded ABX categorization task and production was measured using a delayed sentence repetition task. Three distinct tasks were chosen to measure inhibition to tease apart whether different types of inhibition (e.g., resisting a dominant response vs. proactive interference) might be more or less related to auditory integration and L2 pronunciation skills. Auditory integration was measured using the melodic and rhythmic reproduction tasks in Shao et al. (2022). Results of regression analyses indicated that inhibition did not explain perception/production accuracy but that auditory integration did help explain perception accuracy. No clear relationship was found between inhibition and auditory integration.

The role of interference suppression in conversational awareness among bilingual children aged 3-to-4

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While balanced bilingual children often outperform unbalanced bilinguals in suppressing irrelevant information in experimental settings, it remains unclear whether this advantage in interference suppression (IS) extends to conversational contexts. This study addresses this gap by investigating bilingual children's conversational awareness. Conversational awareness is the ability to recognize whether a speaker follows implicit conversational principles, primarily studied through Gricean maxims: be truthful (Quality), relevant (Relevance), informative (Quantity) and avoid ambiguity (Manner). Siegal et al (2010) showed that bilingual children are more sensitive to violations of Gricean maxims than monolinguals. Plausibly, IS facilitates maxim understanding, as it helps filter out irrelevant contextual information when evaluating utterances' felicity. Nevertheless, its potential link with IS remains unclear. We hypothesize that IS contributes to young children's maxim understanding, with more balanced bilinguals being more sensitive to maxim violations. Seventy 3-to-4-year-old Cantonese-English bilinguals completed a Cantonese maxim violation task and Bivalent Shape Task (Esposito et al., 2013) to assess conversational awareness and IS respectively. Degree of bilingualism was assessed through receptive vocabulary tests and parent surveys on bilingual exposure. An executive function battery and pragmatic reasoning task were also administered. Results showed that IS significantly predicted sensitivity to Relevance and Manner, with Manner requiring greater cognitive effort. Bilinguals with higher L2 proficiency outperformed those with lower L2 proficiency in the IS task, and were more sensitive to violations of Relevance and Quality. Another mixed-effect model showed a significant three-way interaction effect between L2 proficiency, IS, and maxim condition. Further analysis indicated that bilingual advantage in IS supports understanding of Relevance but not Manner, which places greater demand on IS. These findings highlight the role of IS in young bilinguals' conversational awareness, evidenced by its uneven effect on maxim understanding.

The role of language and memory skills in sentence repetition in Arabic diglossia

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Purpose: Sentence repetition (SRep) task taps into a person's ability to recall and reproduce the exact wording from a previous hearing (Theodorou, Kambanarous, Grohmann, 2017). Sentences are made up of words. Words in Arabic sentences are complex and they encode not only lexical units but also morpho-syntactic units. Linguistic distance between Spoken Arabic (SpA) and Standard Arabic (StA) implies that words can be lexically-phonologically novel, and they can also encode novel morpho-syntactic units (clitics, case/mood inflections) (Saiegh-Haddad & Henkin-Roitfarb, 2014). This might impact linguistic representations in LTM and processing in WM. Two questions were addressed: 1) Does linguistic distance impact sentence repetition in StA? 2) Do language and memory skills contribute to SRep accuracy? **Method:** 116-kindergarten children were administered a SRep task in StA. All words comprising the sentences were coded for the linguistic distance of the stem-word and of each of the morpho-syntactic affixes (novel StA/non-novel SpA). Memory (digit span and non-word repetition) and language skills (oral language comprehension/vocabulary) were also tested. **Results:** Results showed significant differences in SRep accuracy for words and affixes depending on novelty with unique StA words the hardest to repeat; they were involved with many more lexical substitution errors. Cognate words were easier to repeat than unique words and they induced many more phonological errors. Children made many more case/moods inflection errors than any other type of morpho-syntactic errors. Finally, while memory skills predicted Srep repetition accuracy, hierarchical regression analyses showed that vocabulary knowledge was the strongest predictor ($B=.61$). **Conclusion and implications:** Findings show that SRep is impacted by diglossia/linguistic distance as an additional linguistic complexity factor. Moreover, SRep relies not only on memory skills but also on vocabulary knowledge. In addition, when using SRep for diagnosis, we should take into account for linguistic diversity, to accurately assess language skills across different populations.

The Role of Language Brokers in Public Service Interpreting: A Training Program Evaluation

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This survey-based investigation examines a public service interpreter training program in which all students have served as language brokers in their childhood. Language brokers facilitate communication between linguistically and culturally different parties (Tse, 2014). The program began as an initiative that paired bilingual undergraduate interns who provided interpreting and translating support community partners who work with clients who identify as non-English language preference (Ortega et al., 2022), and now combines rigorous coursework with practical experience through service-learning roles within the community (Monikowski & Peterson, 2005). Through quantitative and qualitative analyses of students' narratives this study's aims are two-fold: (1) to assess the program's contribution to students' interpreting skills; and (2) to develop the current curriculum and training materials to equip students. Findings reveal pedagogical approaches that demonstrate student interpreting skill development and address ethical challenges and highlight student perceptions regarding the program's community impact on language access.

Monikowski, C., & Peterson, R. (2005). Service-learning in interpreting education: Living and learning. *Sign language interpreting and interpreter education*, 188-207.

Ortega, P., Shin, T. M., & Martínez, G. A. (2022). Rethinking the term "limited English proficiency" to improve language-appropriate healthcare for all. *Journal of Immigrant and Minority Health*, 24(3), 799-805.

Tse, L. (2014). Language brokering among Latino adolescents: Prevalence, attitudes, and school performance. In *The New Immigrant and Language* (pp. 230-243). Routledge.

The role of lexical overlap and cognate facilitation in initial child foreign language speech segmentation

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When listening to a new foreign language (FL), adult word segmentation and recognition is improved for words that partially overlap in form and meaning with their L1 equivalents, such as cognates (English: /bʌtər/; German: /bʊtə/) versus noncognates (English: /mɪrər/; German: /ʃpi:gl/; Shoemaker & Rast, 2013). However, considering lexical access improves with age (Kim & Na, 2008), young FL learners may not rely on L1 lexical entries in initial FL segmentation. We investigated in two experiments whether such lexical overlap also facilitates word recognition in young German students before they receive instruction in English. In Experiment 1, English-German cognate and noncognate word pairs (n = 160) were embedded into an otherwise identical English sentence frame (You pushed some butter/mirror mustom to the exit). 113 German 6- to 9-year-olds listened to sentences followed by isolated probe-words that either had (target) or had not (lure) appeared in the sentence and indicated whether they had heard the probe word in the sentence. Participants recognized words (target > lure; $p < .001$), but this was not influenced by form similarity with L1 lexical items (no main effect/interaction; p 's > .05). In Experiment 2, we aimed to assess whether L1 effects emerge when the German labels of the target words are pre-activated, which should facilitate recognition of cognate, but not non-cognate words. Participants (n = 55) first previewed a pair of pictures, one of which depicted the target item, before completing the segmentation task. The results remained the same as in Experiment 1. Taken together, this suggests that unlike adult FL learners, young FL learners may not readily activate L1 lexical entries in initial FL segmentation. To assess whether cognate facilitation develops in the course of L2 learning, once some English proficiency has been acquired, we are currently conducting a third experiment, with 10- to 11-year-olds.

The Role of Perceptual Salience in L2 Cross-Situational Learning

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Case markers are challenging to acquire in both natural and artificial languages, likely due to their low perceptual salience—being shorter, unstressed, and easily overlooked. Building on previous cross-situational learning experiments [1], this study examines the role of perceptual salience in the acquisition of non-native morphology, particularly, agent and patient markers. We exposed 160 native English speakers with no prior exposure to Portuguese to an artificial language based on Portuguese phonotactics, manipulating case marker salience in terms of syllabicity, stress and sonority (high: /-'ka, -'ji/; low: /-l, -r/). In each trial, participants listened to sentences while matching them to one of two animated scenes, each portraying two alien characters performing a transitive action. In training trials, the scenes differed in at least two aspects, including the alien characters (noun), their colour (adjective), the action (verb) and the agent-patient relationship (case marker), whereas in test trials, the scenes differed only in the target aspect, e.g., verb test trials differed in the action. This was followed by a grammaticality judgment task including word order and case marker violations. By the end of the experiment, participants performed above chance in verb and noun test trials but failed to acquire adjectives and case markers. Results revealed that salience did not significantly enhance case marker learning or influence other lexical items. However, participants exposed to high-salience markers demonstrated significantly better accuracy in detecting case marker grammatical violations (high: $M = 56.17\%$, $SE = 1.14$; low: $M = 39.79$, $SE = 1.11$). This suggests that heightened salience may increase awareness in the early stages of acquiring a novel language, though not necessarily improve overall learning when the target structure is challenging.

[1] Rebuschat, P., Monaghan, P., & Schoetensack, C. (2021). Learning vocabulary and grammar from cross-situational statistics. *Cognition*, 206, 104475.

The strength of L2 form-meaning connection: Task effects on semantic priming with advanced L2 learners

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This study investigated whether a strong L2 form-meaning connection can be established among advanced L2 learners. Although previous bilingual processing studies seldom observed a significant L2 semantic priming effect in lexical decision tasks (e.g., Duyck, 2005; Smith et al., 2019), translation priming effects were reported to be more robustly found in a semantic task than in a lexical task (e.g., Grainger & Frenck-Mestre, 1998; Finkbeiner et al., 2004). Given that it remains unclear whether the null L2 semantic priming effect indicates a weak L2 form-meaning connection or arises from task-specific issues, the current study was to fill this gap by exploring the strength of L2 form-meaning connection concerning task effects in L2 semantic priming. Two unmasked intralingual L2 semantic priming experiments were conducted. Thirty-eight native English speakers and 40 advanced Chinese learners of English were recruited for each task. In the lexical decision task, thirty-six semantically-related English word pairs were selected along with 54 unrelated filler pairs and 108 nonwords paired with English word primes. In the semantic categorization task, the same 36 critical word pairs and 54 filler pairs were adopted. Participants were instructed to decide whether the target words belong to the man-made or natural category. Data analysis with mixed-effects models found no task effect for either group. A significant semantic priming effect was only observed for native speakers, but not for advanced L2 learners in both tasks. This result contrasts with previous studies reporting significant L2-L1 translation priming effects in semantic tasks. Thus, the lack of a task effect with null L2 semantic priming suggests a weak L2 form-meaning connection among advanced L2 learners. Factors such as the size of semantic categories, the differences in priming paradigms, and L2 learners' English proficiency were discussed to explain the absence of the semantic priming in the current study.

The time-course of vocabulary learning during natural sentence reading, in the eyes and in the brain: Evidence from co-registration of eye-tracking and EEG.

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Background: In investigations of vocabulary learning from reading, methods such as eye-tracking have aimed to characterize the time-course of lexical development and processing. However, in eye-tracking measures, novel and real words may become indistinguishable after a number of exposures (Pellicer-Sánchez et al., 2020). We employed co-registration of eye-tracking and EEG to extract fixation-related brain potentials (FRPs) as a novel approach to investigate learning during reading. Over multiple exposures, we examined the (1) development of semantic representations, and (2) costs in contextual integration. **Design/Method:** L1-English speakers read short paragraphs containing three types of target words: (a) real words, (b) novel pseudowords pre-trained for form and (c) novel pseudowords pre-trained for form and meaning. Targets in (a) provided a known baseline, (b) required meaning extraction and in-context integration, (c) in-context integration alone. Materials included 30 target words of each type, each repeated 8 times. Preliminary results (N=12/30): Linear mixed-effects regression on Total reading times revealed significant differences between all conditions when target words were first encountered. By the 8th exposure, there were no significant differences, suggesting no costs in processing novel words relative to real words (replicating Pellicer-Sánchez et al.'s findings). In FRPs for initial exposures (1-2), meaning-trained novel words elicited a significant negative peak approximately 200-350 ms --equivalent to an N400 effect in FRPs (Kretzschmar et al., 2009)--, indicating costlier semantic access vis-à-vis real words. By the final exposures (7-8), none of the novel words elicited an N400 relative to real words, mirroring the lack of effects in eye-tracking data. Importantly, however, a significant late positivity emerged for form-trained words vis-à-vis real words (marginally significant for meaning-trained) approximately 400-750 ms post-fixation, suggesting costlier integration (Federmeier, 2022). **Conclusion:** FRPs provided direct evidence of processing costs for newly learned words after multiple exposures, beyond the lack of effects in eye movements.

To mix or not to mix? The relation between parental language mixing and bilingual children's language outcomes.

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Language mixing is a common phenomenon in the language input of bilingual children. Bilingual families are sometimes advised to avoid language mixing, whilst the relation between the frequency of parental language mixing and children's language development remains unclear. The present study investigated language mixing as observed in daylong audio recordings (LENA) and as reported in the questionnaire for Quantifying Bilingual Experience (Q-BEx) in relation to children's language outcomes. To ensure a thorough approach, the present study not only used two different methods to measure language mixing, but also distinguished between intra- and inter-sentential language mixing. Moreover, it included receptive and expressive vocabulary outcomes as well as sentence repetition scores in both the majority and minority language in two different groups of participants. Participants were 52 3-to-5-year-old Polish-Dutch and Turkish-Dutch children in the Netherlands. Our results showed that the LENA and Q-BEx yielded similar relations with children's language outcomes in 14 out of 15 regressions (controlled for age, Dutch language exposure, parental education and group), suggesting that the method with which language mixing was measured does not affect the found results. We found evidence that the overall frequency of language mixing in the input as well as intra- and inter-sentential language mixing were unrelated to all child language outcomes in the majority language as well as to receptive vocabulary outcomes in the minority language. A negative relation was observed between overall language mixing and expressive vocabulary outcomes in the minority language. Longitudinal studies into the effects of parental language mixing are needed to pinpoint the directionality of the observed negative relation. Our findings emphasize that language mixing in the input is mostly unrelated to children's language outcomes. This contributes to the improvement of advice provided to bilingual families, such that families should not feel pressured to strictly separate their languages.

Too many words for much: intensification strategies in Italian in Transit

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This paper investigates the use of intensification strategies at the morphosyntactic level in Italian-based multilingual practices, which I label ‘Italian in Transit’ (liT). liT skills are acquired in informal settings by multilingual migrants and refugees in Italy and are occasionally reactivated after moving to other countries. My dataset comprises 23 interviews with liT speakers from sub-Saharan West Africa working as street vendors in a park in Berlin. After presenting an overview of the intensifiers used in my corpus, I focus on two forms that are largely interchangeable in Italian, i.e., *molto* and *tanto*, both meaning ‘very, much/many’. In contrast to the distribution across all registers in the reference corpus for spoken Italian VoLIP, *tanto* clearly outnumbers *molto* in my data (though the part-of-speech distribution aligns with the target language). This predominance rather reflects the frequency patterns of the two intensifiers in the informal spoken registers of the VoLIP only. Thus, it may be seen as a linguistic trace of the input the participants were mainly exposed to in Italy. In contrast, other sociolinguistic factors, like the length of stay in Italy or Germany, do not have a decisive effect. Moreover, I examine the occasional use of *troppo* ‘too much’ to convey high intensity rather than excess, as in *io parlare poco no(t) troppo italiano* ‘I to speak a little not too much [=much] Italian’. liT shares this feature with Italian youth varieties and colloquial French (e.g., *troppo bello* and *trop beau* ‘very beautiful’), and with contact varieties based on Italian or other codes developed in highly multilingual settings abroad. Despite the high inter-speaker variation, *troppo* usually occurs in re-elaborative, if not contrastive sequences, and is often preceded by strategic pauses. Thus, its overextension – which is not only found among French-speaking participants – can be linked to its discourse-pragmatic and prosodic salience.

Topic Preposing in English-Spanish Code-Switching: A Comparative Study of Bilinguals in Puerto Rico and Gibraltar

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Code-switching, the integration of different languages in speech, is common in bilingual regions like Puerto Rico and Gibraltar, each with unique linguistic histories. While interest in understanding code-switching is growing, its impact on the syntax-information structure interface, particularly Topic Preposing, remains underexplored (Muntendam & Parafita Couto, 2024). This study examines Topic Preposing in Spanish-English code-switching among bilingual speakers from Puerto Rico and Gibraltar. We focus on (Clitic) Left Dislocation in matrix and embedded sentences, focusing on how the matrix language (English vs. Spanish) affects the acceptability of preposed topics. We hypothesize that preposed topics will be more acceptable when Spanish serves as the matrix language due to its syntactic flexibility, as opposed to English, with its rigid SVO order. In this pilot study, 39 bilingual speakers from Puerto Rico and 75 from Gibraltar completed an acceptability judgment task using a 4-point Likert scale. The test included 35 tokens consisting of both monolingual (Spanish/English) sentences (e.g., *Rice and beans Ana hated as a child, but she liked pasta*) and code-switched examples, which varied according to the matrix language (either English or Spanish). The analysis revealed that bilinguals in both regions found code-switched examples generally acceptable, with scores ranging from 2.17 to 3.18 (out of 4). When the matrix language was English, Gibraltarian speakers' scores dropped to 1.93, aligning with the rigid word order of English. In contrast, Spanish examples received higher scores (2.8 to 3.88), reflecting the syntactic flexibility of Spanish (Jiménez-Fernández & Miyagawa, 2014). Notably, Puerto Rican speakers rated English examples higher (2.53), suggesting they may apply Spanish grammar to English (Jiménez-Fernández, 2023). Preliminary findings suggest that code-switching is acceptable regardless of the matrix language, challenging our initial hypothesis. This study underscores the need for further cross-community comparisons to better understand the connection between syntax and information structure in bilingual contexts.

Towards an emotive-relational model of family language policy: Bilingual parenting and wellbeing in Hungarian families in Australia

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This paper presents the emotive-relational model of family language policy (FLP), developed in the diasporic context of Hungarian families in Australia. This study responds to a disciplinary call to explore the emotive dimensions of bilingual parenting (De Houwer 2015; Hollebeke, Struys, and Agirdag 2023; Sevinç and Mirvahedi, 2022) and contributes to the current body of work on the socio-affective factors (Schalley and Eisenclas 2020) of heritage language maintenance. The research draws on the concepts of harmonious bilingual development (De Houwer 2015) and harmonious bilingualism, defined as subjective well-being not negatively affected by factors relating to a bilingual setting (De Houwer 2020, 63). These theories contend that parental attitudes to early bilingualism, discourse socialisation patterns and the frequency with which children hear each language are crucial contributing factors to harmonious bilingual development (De Houwer 2015). On the other hand, conflicts around language choices in the family disrupt family harmony and lead to negative emotional experiences. Using these concepts, this study aimed to map the connections between linguistic practices and family (parental) wellbeing. The research used an online survey (N = 80) which collected quantitative and qualitative data. Survey data were analysed using SPSS software to generate descriptive and t-test statistics. The results demonstrate that parents experienced emotional challenges around all three elements of family language policies: (i) ideologies; (ii) language practices and (iii) language management. This study identified six emotive-relational dimensions of FLP: (i) linguistic-ideological, (ii) discursive; (iii) personal/ relational; (iv) socio-relational; (v) agentive and (vi) pragmatic. The methods and the results of this study can be useful for researchers investigating the interconnectedness of language maintenance and parental subjective wellbeing. The findings inform current theoretical models and methods of researching family language policy and its complex dimensions.

“Traditional Tales, Untraditionally Told” - Utilising Makerspace Pedagogy for Heritage Language Development in Schools and Libraries

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Crafting and language are both articulated as representing the non-physical intellectual wealth that constitutes “intangible cultural heritage” (ICH) as part of UNESCO’s definition of cultural heritage (<https://ich.unesco.org/>). Makerspace pedagogy is traditionally situated within the STEAM (Science, Technology, Engineering, Art, Mathematics) sector, supporting inquiry-based learning in education, and drawing on crafts-related skills through “making” activities (Shin, Lee and Nelson, 2022). This talk will present the findings from a project that facilitated schools and libraries in the UK to integrate multilingualism and makerspace pedagogy, in order to, on the one hand, bring multilingualism into spaces typically subjected to monoglossic discourses (Little and Murray, 2024), and, on the other hand, to provide families with new ideas to support heritage language development. Over a series of several workshops taking place in four schools and four libraries, families (and staff) learnt about multilingual storytelling, before planning and telling their own story, using cardboard construction to build puppets and scenery, and programming or stop motion animation to record their own story. Data include the artefacts (films) themselves, as well as supporting interviews and observation notes. Findings indicate that families were extremely appreciative of having their home/heritage languages valued in public/official spaces, while staff reported increased confidence in working with multilingual communities. The presentation will include examples of the multimodal, multilingual stories developed, exploring in detail the symbiotic relationship multilingual pedagogy and makerspace pedagogy have.

Little, S. and Murray, R. (2024) The multilingual children's library as physical and metaphorical 'space' within the community: Practical and emotional considerations. *Journal of Librarianship and Information Science*, 56(1): 131-144.

Shin, M., J. J. Lee and F. P. Nelson (2022). "Funds of knowledge in making: reenvisioning maker education in teacher preparation." *Journal of Research on Technology in Education*, 54(4): 635-653.

Translanguaging and Technology: Exploring Youth Literacy in a Digitally Connected World

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Amid rapid technological innovation and globalization, youth engage in translingual practices that challenge traditional literacy norms. Shaped by diverse linguistic repertoires and digital tools, these practices reveal language use as dynamic and fluid (García & Wei, 2015). This study incorporates New Materialist theories, highlighting the influence of non-human actors—like digital tools—in shaping human practices (Barad, 2007; Braidotti, 2022). While translanguaging research is extensive, it often overlooks how multimodal and material factors shape language use. This study addresses this gap by examining technology's role in youth translanguaging. This qualitative study is based on the Global StoryBridges (GSB) project, an initiative where youth create digital stories and engage in intercultural conversations. Focusing on how Google Translate affected interactions, this research highlights how youth in Mexico used it to communicate with peers in India, Uganda, and the U.S. In doing so, they navigated the tool's constraints, demonstrating both linguistic competence and digital literacy. Google Translate allowed youth to negotiate and express their identities as (non)speakers of English within these exchanges. These findings show that digital tools and platforms are not neutral; they actively shape how youth practice translanguaging and construct identities in online spaces. For educators and researchers, this underscores the need for digital literacy programs that are responsive to the technological and material realities of globally connected learners. To support students' full linguistic repertoires, educational curricula and pedagogies must adapt to reflect the dynamic, translingual communication practices of today's youth.

Translanguaging Landscapes in the Mathematics Classroom

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Translanguaging pedagogy can facilitate a child's learning by leveraging their entire linguistic, semiotic, and multimodal repertoires to learn academic content, like mathematics. The school classroom landscape contains linguistic, semiotic, and multimodal information: student work, classroom rules, and language learning tools (Gorter, 2018). While studies have investigated translanguaging in a mathematics context, the focus of these studies has been mainly on pedagogical practices (Lopez et al., 2019; Rodríguez & Krause, 2020; Tai & Wei, 2021). Few studies have examined how translanguaging and linguistic landscapes, what I am calling “translanguaging landscapes”, can support math learning in classrooms. Integrating a translanguaging approach to the linguistic landscape of a school allows us to understand how cultural tools like language, multimodalities, and non-linguistic semiotic systems influence the learning of important academic subjects like mathematics. In this study, I investigate the translanguaging landscapes in fourth-grade classrooms in a linguistically diverse Southern California elementary school where the language of instruction is mainly English. I take an ethnographic approach to analyze the translanguaging landscape of these classrooms through field notes, photographs, and interviews. The analysis consisted of writing analytic memos and thematic analysis on themes emerging from the data through a translanguaging framework. The analysis demonstrated the following major themes: 1) how linguistic, semiotic, and multimodal repertoires are embedded in the landscape and 2) barriers to expanding linguistic repertoires across named languages in the landscape. I conclude that paying attention to semiotic and multimodal systems recruited in addition to the linguistic features in translanguaging landscapes allows teachers and students to creatively leverage more of their meaning-making repertoires during mathematics time. Additionally, this study adds to translanguaging research beyond questions of multilingualism and “language barrier” discourse by demonstrating how teachers and students from diverse linguistic backgrounds leverage their nonlinguistic semiotic repertoires in their communication and learning through their landscapes.

Translanguaging strategies for promoting the participation of newcomer children in school visits to a science museum

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When going to school in a new country, newcomer children face the challenge of learning a new language, while needing to adjust to the school requirements and content. Museum visits offer rich opportunities for learning outside formal requirements. Translanguaging, an approach that uses students' linguistic and multimodal resources for learning (Li, 2018), can be promising for newcomer children's participation in museums. In a project with the oldest science, art and history museum of the Netherlands, we designed translanguaging strategies to be used in a guided visit about an 18th-century scientific expedition. We hypothesized that the participation of newcomer children in this context could be promoted through strategies involving multimodal tools (e.g., gestures, pictures) and linguistic resources (e.g., multilingual glossary including Dutch and children's home languages). In this study, we asked: When promoting the participation of newcomer children in a science museum by means of translanguaging strategies, what challenges and opportunities arise? The data comes from the visits of nine school groups of newcomer children and includes transcripts and notes from the museum visits, and from interviews with the children and museum guides. We conducted a reflexive thematic analysis, looking for patterns pointing to challenges and opportunities in the enactment of the strategies, considering the participants' experiences. The children and museum guides interacted around the science topic using multiple multimodal and linguistic resources. The use of home languages was perceived as a challenge by the museum guides, however, children acting as interpreters for each other supported the participation of children with less Dutch proficiency during the visit.

Li, W. (2018). Translanguaging as a practical theory of language. *Applied Linguistics*, 39, 9–30. <https://doi-org.utrechtuniversity.idm.oclc.org/10.1093/applin/amx039>

Translanguaging through Students' Eyes: Perspectives on Translanguaging Practices and Pedagogies

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Translanguaging is a burgeoning concept in language education, describing the dynamic use of an individual's complete linguistic repertoire to construct meaning. It also denotes a pedagogical approach that acknowledges and leverages students' diverse linguistic backgrounds to foster learning and identity development. In recent years, there has been impressive application of translanguaging pedagogies within K-12 contexts. However, additional studies are needed to examine students' engagement with, and at times resistance to, translanguaging pedagogies, as they make sense of their own plurilingual identities and translanguaging practices. In this paper, I contribute to this identified gap through a case study of an international school in Colombia, asking: What obstacles and opportunities did students encounter as they engaged with translanguaging pedagogies? As part of a larger case study, I gathered qualitative data, including classroom observations and student focus group interviews. Through a thematic analysis, I found elementary students were largely receptive to translanguaging pedagogies while middle and high school students were often resistant, while regularly engaging in translanguaging practices for their own social and academic purposes. These primarily Colombian students often expressed ambivalence to strengthening their Spanish academic skills, expressing it was not a valuable use of time. However, a closer analysis of students' languaging practices complexifies their position, showing how they both embraced and resisted colonialist messages about language present within their school context. While certain findings align with recent translanguaging studies, this study complexifies our understanding by documenting how older students often resisted translanguaging pedagogies. This study provides new avenues to consider the nuances of translanguaging and contexts in which the introduction of translanguaging pedagogies may not be empowering to students. Instead, I call for pedagogical contextualization, enacting pedagogies which recognize students' translanguaging practices and make space for their diverse linguistic repertoires and identities.

Two Multilinguals Transitioning to a Monolingual World: A Mother-Daughter Duoethnography

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This study examines the intertwined multilingual identity crises of a 14-year-old and her mother, originally from South Korea, after moving from a translingual life in Indonesia (Korean, English, and Indonesian) to a predominantly monolingual society in the USA. Employing duoethnography (Habibie & Sawyer, 2024), a qualitative method that involves dialogue between individuals to produce a polyvocal analysis, the study captures their experiences through mother-daughter dialogues based on the daughter's personal writings (diary, poems, lyrics) from the first year in the USA. Fifteen writing samples, chosen by the daughter, facilitated discussions through collaborative Google Docs entries, shared notes, and in-depth conversations. Using language socialization as a theoretical framework (Duff, 2007), this study investigates how both mother and daughter navigated belonging in new environments—a public school and a doctoral program—requiring negotiation of language, culture, and identity. Findings reveal that their identities were differently challenged: the daughter, positioned as a monolingual high schooler due to her English proficiency, struggled with conflicting identities, including one imposed by a predominantly English-speaking school environment. Meanwhile, the mother's multilingualism was minimized in her daughter's school context but recognized within her doctoral program, where it was valued as an asset. As family roles (daughter-mother) and community contexts varied, they faced tensions in language use at home, with an unexpected shift from Korean to English. The study contributes novel insights into the emotional and identity challenges resisted and overcome by multilinguals during socialization into a monolingual habitus. It advocates for greater awareness and strategies to support multilinguals in navigating linguistic and cultural transitions.

Understanding bilingual language development through place and context: A borderlands perspective

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Research on bilingualism has long recognized the importance of environmental factors in language acquisition and use (Grosjean, 2010). However, the specific impact of the U.S./Mexico borderland context on bilingual development remains understudied in the language sciences. In order for the educational and healthcare professions to keep up with both the current and projected demographic shifts of the USA (i.e., 1 in 4 Americans are expected to be Latino by 2060, U.S. Census Bureau, 2023), it is critical that practitioners are aware of the diverse experiences and perspectives of the communities that they serve. A path toward equity in both research and practice can be attainable through an examination of place and context. The purpose of this session is to present findings on the nature of bilingualism in the U.S.-Mexico borderlands, informed by the borderland's community across the lifespan, compiled and interpreted by a researcher native to the borderlands. This research investigates how factors specific to this bilingual communities impact language acquisition, proficiency, and usage patterns. As part of this research, 90 children and 115 adults across the U.S.-Mexico border participated in an ethnographic, semi-structured interview focused on their language practices and experiences living or growing up along the border. Preliminary themes that have emerged from both the child and adult data indicate deep ties in language and identity, translanguaging (Garcia & Wei, 2014) practices in and outside of the home, and attacks from both the insider and outsider group on language impacting language use that will be described both qualitatively and quantitatively upon completion of data processing in March 2025. By anchoring this work in place and context, practitioners and researchers can gain novel perspective and theoretical framework to consider in their work with bilingual communities, focused on understanding the impacts of place and context on bilingual speakers.

Understanding children's multilingual identities and practices through an arts-based methodology

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In family language policy (FLP) research, while there has been a push to examine how children can agentively shape language practices as key policymakers (Fogle & King, 2013; Kwon, 2020), there remains a dearth of research on how they conceptualize language(s), bilingualism, their emerging identities, and the ways they shift parental/caretaker language policies (Her, 2024). Adopting an arts-based educational research lens (Mulvihill & Swaminathan, 2020) and Prasad's (2013) alter(n)ative inquiry, this methodological paper presents my nontraditional arts-based data collection methods to center children's experiences and knowledges of their language ecologies. Drawing on my multiple case study of two Hmong-American families' language policies in California, I argue that nontraditional arts-based methods with young children can strengthen FLP studies by providing more nuanced accounts and experiences of multilingualism through multimodal representations that are unlikely to be gleaned through interviews and observations. Such methods also provide children with a child-centered form of participation giving them more agency in the research process. To achieve this, I discuss my rationale for adopting arts-based methods and how I utilized them via language portraits, photovoice, and illustrations to center and amplify the focal children's' linguistic experiences, thus positioning them as "knowers" with insider knowledge of their language practices (Prasad, 2013). Next, I discuss the affordances and constraints and reflect on future modifications. Finally, the presentation concludes with recommendations on how to implement arts-based, child-centered methods for children in FLP studies.

Understanding Newcomers in Northern Ireland

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In Northern Ireland (NI), there has been a rapid, recent, increase in “Newcomer” pupils (also termed English as an Additional/Second Language pupils) - from 1,366 in 2001/2002 to 20,548 in 2023/2024, a 1,400% increase. This increase in multilingual pupils has tremendous potential to increase diversity and contribute to a greater multicultural experience for all NI pupils; however, the rapid increase has overwhelmed available support services, particularly in schools with higher proportions of Newcomers. As part of a larger research project to assess Newcomer support needs, this study aims to gain a greater understanding of the NI Newcomer population, both currently and over time. Importantly, this understanding will additionally include an analysis of education outcomes, which may then be compared with larger populations with more established support systems for Newcomer pupils. To achieve this understanding, we use administrative data from the NI Research and Statistics Agency and the Department of Education (DE), focusing on pupil demographic variables, school characteristics and education outcomes information. In the first stage of our analysis, we used school-level DE data to investigate how the distribution of Newcomer pupils has changed across NI over 2014–2024, focusing on deprivation metrics. We compared the rate of Newcomer pupils at all primary and secondary schools in NI (N=1,070) with two key metrics: the percentage of pupils eligible for free school meals (FSM), and the percentage registered as having special education needs (SEN). The rate of Newcomer pupils correlated with both FSM ($p < 0.001$) and SEN (0.02). The latter measure is of particular relevance owing to the debate as to whether EAL pupils are more likely to be overdiagnosed or underdiagnosed as having language disorders (RCSLT 2006, Bedore et al 2018). School-level deprivation measures are further contextualized by relating them to broader measures such as a postcode-level deprivation index.

Unlocking the Power of Vocabulary: Insights into Multilingual Learners' Metaphor and Homonym Knowledge

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Vocabulary is a strong predictor of academic achievement, and no less so in children from multilingual backgrounds. Typically, the focus of most research on vocabulary knowledge in multilingual pupils has focussed on single words. Vocabulary knowledge, however, comes in many forms and some more overlooked and figurative aspects of vocabulary knowledge remain relatively under investigated, especially for multilingual learners. In this presentation we first will present the findings of a recent systematic review to examine the developmental trajectory of polysemy in English monolingual (EL1) and English as an additional language (EAL) children aged 0 to 11 and the impacts of teaching polysemy on their lexical, and broader linguistic, development. In general, EL1 children performed better than their EAL counterparts in comprehension tasks. Across the age groups, studies on metaphoric polysemy are scarce, however, we have begun to fill this gap. To illustrate, we then will present the findings of a recent intervention study aimed to examine the effectiveness of a digital game-based learning activity for homonym vocabulary, with a design adhering to a pre- and post-test randomised controlled trial with 178 7-year-old children, including those with and without EAL. Children were assigned to one of two versions of a vocabulary game developed to support homonym learning, or a digital maths game control. The interventions improved children's understanding of the different meanings of the homonyms – regardless of language background – compared to the control condition. The findings demonstrate that we can create learning opportunities for children (regardless of language background) that helps support more extended meanings of words. These results are discussed in relation to multilingual students' depth of vocabulary knowledge and the importance of appropriate approaches within schools to support these often-overlooked aspects of lexis.

Unpacking Pedagogies: EFL Teachers' Perspectives on Teaching and Assessing Speaking

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Assessment of speaking has been part of second and foreign language proficiency tests for over a century, evolving from controlled assessment to direct oral proficiency interviews, simulating real-life settings and language uses. In the last two decades, computer technology has been increasingly utilized to enhance oral language proficiency and to address test qualities of reliability, validity and practicality. This development has implications for how the speaking construct is understood, applied and assessed in second/foreign language contexts. The motivation for this study was a nationwide testing reform in Israeli secondary schools incorporating the use of technology for assessing oral proficiency. The context of the study involves large-scale tests taken annually by approximately 80,000 12th graders at the end of high-school. Given the potential impact of high-stake tests on teachers' practices, the current study examined: (1) the major dimensions of EFL teachers' language assessment literacy (LAL) associated with speaking skills (2) the practices teachers use for teaching and assessing speaking skills, and (3) the predictive relationships between the LAL dimensions and teachers' reported practices. This paper reports findings drawn from a large-scale study utilizing on-line questionnaires answered by 432 EFL teachers, representing the plurilingual mosaic of Israeli society (e.g., Hebrew, Arabic, heritage languages) and 20 semi-structured interviews. Factor analyses yielded three major factors representing teachers' dimensions of LAL for the speaking construct: the teaching-learning-assessment cycle; assessment methodology for speaking and the impact of assessment. Teachers assigned an important role to speaking in their classes, using appropriate assessment methods. Qualitative data concur with the quantitative analyses highlighting the complexity and contradictory nature of teachers' beliefs and their impact on their practices. Findings point to the centrality of the speaking skill in Israeli EFL classrooms, underscoring the impact of the national reform on instruction.

Use of Probabilistic Speech Cues in a Bilingual Context

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Variability is ubiquitous in speech perception. For instance, voice onset time (VOT) varies across speakers. Previous studies show that listeners are sensitive to VOT distribution in their L1. For example, Clayards et al. (2008) exposed monolingual participants to high or low VOT variance (i.e., wide versus narrow distribution conditions) and tested their sensitivity to the different distributions in a visual world paradigm (VWP) task; on each trial, participants saw four pictures, including a picture corresponding to the auditorily presented target (e.g., “beach”) and its minimal-pair competitor (e.g., “peach”). Participants in the wide distribution condition looked more at the competitor when VOT was close to the category boundary (i.e., ambiguous) than those in the narrow distribution condition. However, it is unknown whether and how this distributional learning effect extends to bilinguals. Here, we test whether bilinguals can maintain different VOT distributions for two languages with almost identical VOT ranges spoken by the same speaker. Specifically, participants are exposed to either Spanish narrow-Basque narrow, Spanish wide-Basque narrow, Spanish narrow-Basque wide, or Spanish wide-Basque wide VOT distributions (items mixed across languages). Preliminary results from 45 Spanish-Basque bilinguals show that, when both languages are presented in the same VOT distribution condition (i.e., both narrow or both wide), listeners look more at the competitor in the wide condition compared to the narrow condition, extending the findings of Clayards et al. (2008) to bilinguals. However, when the two languages have different VOT variances, the effect of condition does not hold. Thus, maintaining distinct models for each language appears challenging, possibly due to the overlapping VOT ranges of Spanish and Basque. We plan to test bilinguals who speak Spanish and English, two languages with more distinct VOT ranges, to determine whether this is the case.

Using network science to characterize multilingual communities in Northern Belize

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Network science can help us understand multilingual practices in communities (e.g., Tiv et al., 2020). However, most research to date focuses on ecologies in which multilingual conversations involve a limited number of languages (mostly two) and/or limited language mixing. This bias misses the realities of multilingualism globally. Our study uses network science to map multilingual dynamics in Belize (Central America), where interactions may include Spanish, Belizean Kriol, and English. We generated personal networks using self-reported data of 102 Northern Belizeans, collected in Winter 2023. Participants (egos) were asked to identify five to fifteen regular interaction partners (alters) across various domains. Each tie, denoting ego-alter and alter-alter relationships, was tagged with language use, enabling an analysis of how they distribute their languages with different people in everyday life. Descriptive statistics revealed that a mean number of 2.4 (SD = 0.76) languages are spoken with each alter across the egos' networks. 83% (SD = 25) of ego-alter ties in these networks are multilingual, and the egos engage in language mixing with 85% (SD = 23) of their alters. These high percentages demonstrate a compelling level of interactional complexity and linguistic diversity. In our presentation, we report on the structure and composition of participants' networks in more detail, further exploring how interpersonal language dynamics reflect the linguistic realities of Northern Belizean communities. We specifically focus on age group differences, building on Balam's (2016) observations about generational variation in language mixing practices in Belize.

Balam, O.E. (2016). Language use, language change and innovation in Northern Belize Contact Spanish. University of Florida. [Unpublished PhD dissertation].

Tiv, M., Gullifer, J., Feng, R., & Titone, D. (2020). Using network science to map what Montréal bilinguals talk about across languages and communicative contexts. *Journal of Neurolinguistics*, 56, 100913. <https://doi.org/10.1016/j.jneuroling.2020.100913>

Using the communication accommodation behavior scale to investigate interactions between L1-L2 speakers

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First language (L1) English speakers often adjust their speech during interactions with second language (L2) English speakers to accommodate and enhance communicative effectiveness. These adjustments typically include changes to pitch, rate of speech, and lexical choices. However, it is not yet known whether L1 speaker impressions of and motivation for accommodation could predict accommodative behavior when interacting with an L2 speaker. To investigate this issue, we have developed a survey tool to characterize impressions of L1-L2 accommodation interactions called the Communication Accommodation Behavior Scale (CABS). The CABS consist of 8 questions and evaluates attitudes and behaviors toward adjusting speech when interacting with less proficient English speakers, focusing on facilitation, conflict avoidance, and perceptions of judgment. Based on data collected via a representative sample panel (n=525), we ran a confirmatory factor analysis indicated that the CABS items have good integrity for measuring communication accommodation attitudes ($\chi^2 = 297.61$, 99, RMSEA = .06, 90% CI .05 – .07, CFI = .94, TLI = .93, SRMR = .07). To evaluate CABS with accommodation behavior, we used a mixed-reality platform called Mursion to record Physician Assistant students conducting clinical intake interviews with a virtual patient who had either high or low English proficiency. We measured the acoustic and lexical content of each student-patient interaction and administered the CABS survey. Analysis revealed that participants spoke more slowly ($p < 0.001$) and with a reduced pitch range ($p = 0.0121$) when interacting with low-proficiency patients. Notably, speech rate, a key accommodation feature, is positively correlated with one subscale from the CABS survey ($r = .37$). We will use CABS, a bilingualism index, and other measures of individual differences such as anxiety and empathy to statistically predict accommodative behavior. These results contribute to building a coherent social interpretation framework for L1-L2 accommodation interactions.

Validating the ITALK Questionnaire: Teacher-Reported Language Skills and BESA Performance in Bilingual Kindergarten Students with Developmental Language Disorder

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Developmental Language Disorder (DLD) affects one in fourteen students—about two students per classroom (Bishop et al., 2017). Previous research suggests that teacher reports offering context-specific insights can support referral for further assessment. Teacher reports in both Spanish and English significantly correlate with students' language-specific skills (Pratt et al., 2022). A closer examination of item-level correlations with student performance is needed to refine the diagnostic utility of these tools. The present study aims to validate the Inventory to Assess Language Knowledge (ITALK; Peña et al., 2018) with students' performance on the Bilingual English-Spanish Assessment (BESA; Peña et al., 2018). Based on previous research, we hypothesize that ITALK items assessing vocabulary, grammar, sentence production, and comprehension will correlate with students' morphosyntax and semantic performance, while the phonology item will correlate with phonology performance (Bedore et al., 2011; Pratt et al., 2022). Teachers (N = 97) of bilingual kindergarten students completed the ITALK questionnaire, evaluating student use of both languages in vocabulary, grammar, sentence production, comprehension, and phonology. Bilingual kindergarten students (N = 167), including typical development (N = 144) and DLD (N = 23), completed the BESA assessment of morphosyntax, semantics, and phonology. We conducted a bivariate correlation analysis to explore which items on the ITALK correlate to student BESA performance to examine construct validity. Preliminary analysis shows moderate, statistically significant correlations between vocabulary, grammar, sentence production, comprehension, and phonology ITALK items with morphosyntax and semantic BESA performance. The phonology ITALK item showed a weak correlation with phonology BESA performance. This study could inform the refinement of diagnostic tools, ensuring they accurately capture key predictors identified in this study. Furthermore, it may suggest that teachers understand indicators related to student language development. By identifying these critical predictors, practitioners can use this information for further language assessment referrals.

Visualizing Bilingual Identities in the Spanish Heritage Language Classroom

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Heritage Language Education has increasingly highlighted the role of asset-based pedagogies in improving literacy, content, and socio-emotional-related outcomes among language-minoritized students. Key areas of emphasis in the heritage language classrooms concern the identities of heritage language learners (HLL) of their home language. One important component of coursework offering students an opportunity to showcase their learning is the "proyecto final" (Prada, 2022). This study approaches the proyecto final as a space to explore identity dynamics among HLLs. Specifically, this work approaches a multimodal assignment (i.e., illustrated bilingual children's books) through the lens of translanguaging. Translanguaging is the practice of using different languages flexibly and strategically communicate effectively and make meaning (Garcia & Li, 2014). In the field of heritage bilingualism our understanding of the relationship between translanguaging, pedagogy and educational outcomes remains underexplored (Prada & Melo-Pfeifer, 2024). The study explores 20 proyectos finales in the form of children's books, submitted individually within a lower-level Spanish for HLL's course in a US university. Thematic analysis revealed that proyectos finales are used to share personal stories that are characteristic of bilingual life in the US/Mexico border states. Themes identified include being and becoming multilingual in a monolingual society, emotional labor in relation to racialized multilingualism, and trajectories of migration. Interestingly, a variety of translanguaging strategies are employed to depict these themes, including translation, showing-telling, Spanglish, and transpositioning.

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Prada, J. (2022). Approaching composition as showing–telling through translanguaging: Weaving multilingualism, multimodality, and multiliteracies in a digital collage proyecto final. *Languages*, 7(1), 70.

Vowel and Stop Voicing Perception in the Heritage and Societal Language of Spanish-English Bilingual Preschoolers

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Despite an abundance of research on speech perception in simultaneous bilingual infants (Sundara, 2022), few studies have examined how young bilinguals perceive speech sounds in both the heritage and societal language in the preschool years, when important preliterate skills whose emergence is dependent on speech perception abilities are being developed. This study examines vowel and stop voicing perception in both the societal (English) and heritage (Spanish) language of Spanish/English bilingual preschoolers (N = 37, mean age = 4;3), comparing bilinguals' English perception patterns to those of English monolingual peers (N = 37), and examining how child-internal (age, gender, and vocabulary) and external variables (input quantity and input diversity) affected perceptual performance in both the societal and heritage language. Perception was assessed through a forced-choice minimal-pair identification task in which children heard synthesized audio stimuli that varied systematically along the vowel and Voice Onset Time (VOT) continuum and were asked to match them with one of two pictures for each contrast. Children were familiarized with the stimuli before the experiment. We analyzed the data with Bayesian mixed-effects logistic regression analyses of categorization data, modeling responses as a function of continuum step and language group (monolingual or bilingual), and, for the second analysis, age, gender, English or Spanish vocabulary, exposure to English and Spanish (i.e., input quantity), and number of input providers in each language (i.e., input diversity). The results show no bilingual-monolingual differences for English vowel perception, whereas bilingual children's identification of the English consonant contrasts was affected by their experience with Spanish stops, as evidenced by different patterns from English monolinguals. The results also show that age, vocabulary, and input quantity played a larger role on perceptual performance in Spanish than in English, suggesting that it takes more input and accumulated experience with the heritage language to develop mature-like categorization.

Vowel production and gender comprehension in Spanish-English bilinguals

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Phonetic variability impacts the acquisition of grammatical categories, including English plurals and person markers, Spanish plurals, and clitics. We propose to explore the interaction between bilingual phonetic variability and grammar acquisition in the domain of Spanish grammatical gender, where some Spanish-English heritage children appear delayed or even divergent relative to monolinguals. Importantly, Spanish word-final unstressed vowels /a, e, o/, which are the main exponent of gender, merge and centralize in heritage speakers by influence from English. Such bilingual effect may make phonological-based gender attribution harder. To study these intermodular interactions, we compare heritage speakers living in North America from birth or before age 11 (HSs, n=21) and adults who emigrated from a Spanish-speaking country (ASIs, n=17). We analyzed vowels from a naming task containing 245 nouns ending in unstressed /a e o/, and determiner and noun gender in an eye-tracking task using naturalistic speech. F1-F2 values were used to plot vocalic spaces and to compute vowel overlap using Bhattacharyya affinity (BA) scores. Results showed that BA scores were higher for HSs (F=0.73; M=0.81) than for ASIs (F=0.69; M= 0.73) but in both groups some participants had distinct and others highly overlapped vocalic spaces. In processing, a logit glmer model shows HSs can use gender-marked definite articles even when presented with natural speech, but they benefit less (and later) from this cue, relative to ASIs. When word-final vowel is the unique cue for gender retrieval, both groups hesitate more with alternating nouns (palo/pala, 'stick'/'shovel') than with non-alternating nouns (e.g., cama, carro). For HSs, gender alternation is more costly. No correlations were found between phonetic production and gender processing. We find group differences but no evidence (yet) of intermodular interactions, at least as concerns production data.

Well-being in second language writing: Should it include negative feelings?

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For the past decades, considerable interest has been directed towards the affective dimensions of learning and proficiency in the field of Second Language Acquisition (Pavlenko, 2013). For example, substantial effort has been put into examining how negative emotions (e.g., anxiety) affect the use of a second language, often emphasizing the importance of mitigating the aforementioned feeling (Cheng, 2004). However, recent research (Busse et al., 2023) suggests a positive correlation between anxiety and, in particular, writing performance. Since negative emotions may contribute to positive writing outcomes, questions arise regarding how to conceptualize well-being in writing. This study examines to what extent writers' well-being (including negative emotions) leads to differences in the use of writing strategies. The participants were 6 adult learners of Norwegian. To analyze the writing process, the study employed screen recording software that captured ongoing composition activities on a digital device. Additionally, semi-structured and data stimulated recall interviews were conducted. The preliminary results indicate that participants often experience negative feelings (e.g., "uncomfortableness", "frustration", "feeling constipated") during the writing sessions. These feelings can consequently prompt the use of different writing strategies, such as stopping to consult a dictionary. Although few positive emotions were explicitly mentioned pertaining to specific use of strategy, participants reported feelings of enjoyment of the overall writing session. The study deliberates the role of negative emotions on learners' well-being in a second language writing context, implicating the benefits of a more nuanced conceptualization of well-being in writing.

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Cheng (2004). A measure of second language writing anxiety. *Journal of Second Language Writing*, 13(4).

Pavlenko (2013). The affective turn in SLA. In Gabrys-Barker & Bielska (Eds.), *The affective dimension in second language acquisition*.

What do novice teachers need to know about plurilingual learners? An international collaborative Q-methodology study of plurilingual pedagogical competence

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This paper reports on the development of a tool for evaluating the understandings and perspectives of novice teachers working with plurilingual students across Sydney, Shanghai, and Hamburg. Plurilingualism, or the ability to communicate across multiple languages, is increasingly more the norm than the exception for school students around the world. While much empirical research highlights the advantages of including plurilingual students' multiple languages in their classroom learning, novice teachers report lacking the skills and knowledge, collectively referred to as 'plurilingual pedagogical competence', to do this effectively. This highlights the need to evaluate and support teachers' abilities in this regard. As teachers' practices are significantly shaped by their beliefs, our international team of researchers from Sydney, Shanghai and Hamburg set out to develop a robust instrument to evaluate novice teachers' perspectives and understandings of cultural and linguistic diversity, and the use of plurilingual pedagogies in the classroom. Acknowledging the challenges involved in gauging subjective beliefs, our research utilised Q-methodology as a suitable sociocultural approach to delve into educators' understandings and beliefs about language. Our paper provides a comprehensive account of the collaborative process that we engaged in to develop a measurement tool that involved various stages and inputs from experts in the field. We give a detailed account of the development process, including individual statement development, international collaboration workshops, and the gathering of diverse viewpoints and feedback from subject matter experts across each of our national contexts to ensure cultural relevance and contextual appropriateness. We will share the first results from a pilot study conducted with 12 novice teachers to evaluate the feasibility and clarity of the Q-statements in capturing the targeted aspects of pedagogical language competence. Finally, we will outline the next steps involving the use of the newly developed and pre-tested Q-set in a comparative case study.

What perceptions do in-service teachers hold about multilingual language teaching and learning approaches in the Basque Country?

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From an international perspective, investigations valuing the numerous possibilities that students' multilingual repertoires provide to language teaching and learning processes are on the rise (Chik & Melo-Pfeifer, 2024). Academic literature investigating teachers' beliefs on multilingualism and foreign language teaching (usually as L2 and L3) has increased notably in the last decade. Nonetheless, scarce investigations have adopted a multilingual view on these language learning and teaching strategies when an international language (English), a majority language (Spanish) and a minority language (Basque) share the curriculum as in the case of the Basque Country. This study aims to report main aspects of the multilingual educational reality in the Basque Country by comparing in-service teachers' beliefs with current school of thought about multilingualism. This investigation applies a mixed methods design, combining a specifically designed online questionnaire (N = 418) and four focus group discussions (N = 20). Findings indicate that teachers consider oral competence a crucial component when acquiring language, tend to prioritize the non-native teacher model, and demonstrate high awareness about the effect parents' language attitudes have on students' language learning outcome. Overall, they demonstrate to have positive beliefs on multilingual language teaching approaches. However, teachers seem to consider translanguaging-like strategies more suitable for upper levels in Primary and Secondary Education. A major implication in this investigation is in-service teachers' positive starting point to develop and implement more multilingual language teaching and learning approaches in the classroom. Looking ahead, the current paper requests curricular updates and specific teacher training plans to fulfill these objectives.

Chik, A., & Melo-Pfeifer, S. (2024). Do societal and individual multilingualism lead to positive perceptions of multilingualism and language learning? A comparative study with Australian and German pre-service teachers. *Language Awareness*, 33(1), 182–200. <https://doi.org/10.1080/09658416.2023.2234288>

“What should we know about you?” Working with children as co-researchers in bilingualism research

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Children growing up with a heritage language are living their lives across multiple languages and cultures, navigating familial, societal, and policy expectations (Curd-Christiansen, 2014; Wang and Li, 2024). However, despite them being the experts in their own lives, most research views them as participants, ignoring them as potential co-researchers. This talk will explore the value and ethics of co-produced research, by drawing on the findings of a project co-constructed with seven children and young people (11-16 years old) who are growing up multilingual with Chinese heritage. The collaboration shaped a global strand, resulting in 137 multimodal entries about children's lives from all over the world, and a local strand, capturing the voices and experiences from children living in Sheffield, UK. The session explores what co-production with children can add to a research project, while also sharing findings from the project itself. These findings highlight 'many faces of bi/multilingualism', including the extreme balancing acts children face, their lives impacted by microaggressions, cultural expectations, and additional educational commitment via heritage language schools, but also a chronological change in perceptions, from "heritage language as status quo", to rebellion, to - oftentimes - an internalised desire to maintain the heritage language.

Curd-Christiansen, X. L. (2014): *Learning Chinese in Diasporic Communities: Many pathways to being Chinese*. Amsterdam: John Benjamins Publishing.

Wang Y and Li J (2024) Changing discourses of Chinese language maintenance in Australia: unpacking language ideologies of first-generation Chinese immigrant parents from People's Republic of China. *Frontiers in Psychology*, 14:1259398. DOI: 10.3389/fpsyg.2023.1259398

When non-Indigenous families choose Yup'ik immersion: A new optimism for language revitalization

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In 2018, the Anchorage School District in Alaska started the first urban Yup'ik immersion program, which symbolically acknowledges the linguistic and cultural loss caused by the intergenerational community and family trauma from boarding schools and is one way to address the education debt (Ladson-Billings, 2006) owed to Alaskan Natives. While the program has been attractive to Alaskan Natives of Yup'ik and non-Yup'ik backgrounds it has also enrolled children from (im)migrant and settler families. There is recent research on why, where, and when people wish to learn a (severely) minoritized, non-lucrative language with very few speakers (Simpson & Pöyhönen, 2024), for example, Welsh, Basque, and Sami. This research contributes more accounts of who are the new speakers of an endangered Alaskan language, and why they are willing to invest (Norton & Darvin, 2015) in learning Yup'ik. This presentation explores, through focus groups and interviews with educators and parents the question: Why learn a small Alaskan language, if not for language reclamation? Results show that the reasons this program attracts students from many different cultural and linguistic backgrounds are multiple - practical, ideological, and personal. Parents find the program a good fit for their children because of the nurturing environment, small class sizes, ability to manage special needs with ease, as well as ideological reasons such as the importance of cultivating connections to place in terms of land and history. Implications include an exploration of the following questions: 1. How would social-justice oriented language policies and pedagogies that support minoritized languages result in a greater desire and more tools to learn those languages among Indigenous and non-Indigenous people? 2. What are the Alaskan Native perspectives on promoting or discouraging choices related to the multilingual schooling options in Anchorage, Alaska for cultural insiders and outsiders?

When schools become multilingual: Enhancing production and receptive heritage language competences

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Heritage language (HL) experiences within and outside home potentially enhance HL acquisition at younger ages. Studies observe positive effects on HL acquisition, via productive or receptive measures, when HL schooling is considered (1, 2). Linguistic measures may tap into different linguistic competences of the bilingual child: Vocabulary scores are directly related to input quantity while grammar development is also linked to other factors (3). Data from a production and a receptive task of 144 multilingual children living in Germany have been analyzed (age range 2-7). The results on the latter show a similar, monolingual age-matched development of the HL/ML. Interestingly, when examining children's production of the HL and ML, measured in MLUw, we observe a steadily increase of both languages with age, yet the HL seems to grow in a slower pace than the ML. Between age 5 and 7, the difference between both languages is statistically significant. When considering the role of school as an institution promoting HL-acquisition, we observe a significant increase of receptive competences in the HL by age 6 for those children attending multilingual institutions. For language use, children in multilingual schools already show significantly higher MLU values by age 3. Therefore, integration of heritage languages in (pre)school importantly enhances HL-production early in childhood and, in the long term, higher receptive HL-competences in primary school.

1. Arnaus Gil, L., et al. (2024). Heritage languages are not weak! How bilinguals benefit from language diversity. Mardale, A., Romance languages as heritage languages. *Romanica Cracoviensia*.

2. Bylund, E. & M. Díaz. (2012). The Effects of Heritage Language Instruction on First Language Proficiency: A Psycholinguistic Perspective. *International Journal of Bilingual Education and Bilingualism*, 15(5), 593-609.

3. Unsworth, S. (2014). Comparing the role of input in bilingual acquisition across domains. T. Grüter & J. Paradis, Input and experience in bilingual development.

Where to start: Use of the bilingual multidimensional ability scale (B-MAS) to identify developmental language disorder (DLD) in bilingual children

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This study presents a protocol-based framework (the Bilingual Multidimensional Ability Scale; B-MAS) to assess and diagnose DLD in bilingual children based on community-based ratings of children's language performance. The B-MAS is proposed to overcome the dilemma when there are no established methods/tools to identify DLD in a certain bilingual population. Methods: Development of the B-MAS followed the EpiSLI identification system (Tomblin et al., 1996) and adapted it to use in bilingual children. In this study, we applied this framework with 166 Spanish-English bilingual and invited three SLPs with expertise in diagnosing and treating this population as expert raters. Data being reviewed included a set of comprehensive language measures, including direct (morphosyntax, semantics, and narrative tasks) and indirect (parent/teacher survey) measures in both languages. Each rater independently rated children's performance on each task and assigned ratings following a six-point scale (0-5). A child was diagnosed as having DLD if more than one rater assigned a summary rating of ≤ 2 . Analysis and results: Using this rating procedure, 21 children were identified as having DLD. Qualitative analysis showed that the raters as a group relied mostly on the narrative task and the morphosyntax subtests in English and/or Spanish to make judgment. When reviewing narrative performance, the raters placed emphasis on difficulties with story structure, cohesion, sentence structure, and error patterns. Quantitatively, the intraclass correlation coefficient (ICC) ranged from .829 to .904, indicating good to excellent intra-rater reliability following this protocol. Implications: This study provides a framework for clinicians and researchers to assess language proficiency and identify DLD in bilingual populations when a reference standard is not available. This framework has the potential to be applied in other language pairs and contribute to the limitations in assessment and DLD identification in other bilingual populations.

Who offers language assistance in the criminal justice system?

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In the past decade, sociolinguists, forensic linguists and policy scholars have documented many instances of ‘linguistic injustice’ in the criminal justice system, whereby victims, suspects and witnesses who speak a second language (L2) face language barriers in reporting of the crime, police interviews, court hearings, and correctional facilities (e.g., Angermeyer, 2015; Berk-Seligson, 2016; Filipović, 2022; Huner et al., 2022; Rodriguez & Ballard, 2023). What these studies have not sufficiently addressed is the provision of language assistance to L2 speakers. The present study investigates provision of language assistance in the USA and the UK. Both countries oblige government agencies to provide language assistance but differ in visibility of the policies. In the USA, Language Access policies are prominently displayed on the websites of the federal and state agencies and police departments (Rodriguez & Ballard, 2023), while in the UK language provisions are often hidden in legislation concerned with other domains (Humphries & Ayres-Bennett, 2023). To obtain data on policy implementation and assistance providers, we used a mix of case analysis, surveys and ethnographic fieldwork. Our preliminary findings show that policy visibility has no effect on its implementation and effectiveness – outside of the court system, language assistance is often outsourced to unqualified providers. In the USA, an analysis of 440 police interviews with L2 suspects revealed that 50% were conducted by bilingual officers with varying degrees of language competence. In the UK, a survey of 21 prisons with high numbers of foreign nationals, supplemented by field visits, revealed predominance of phone interpreting (95%), followed by interpreting by fellow prisoners (71%) and members of the staff (62%). We will discuss the implications of our findings for articulation of the policies and provision of language assistance.

Within- and across-language semantic processing and individual differences in bilingual children: an ERP study

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Establishing label-concept mapping is crucial for semantic development. Children with bilingual input learn translate equivalents from birth, which means that they are constantly exposed to two labels for one concept. Therefore, simultaneously constructing two distinct lexical-semantic systems increases the complexity for lexical-semantic development. Behavioural studies have shown that bilinguals as young as two years old exhibit sensitivity to semantic relatedness both within and across languages. However, the neural mechanisms underpinning this bilingual lexical-semantic network development awaits further investigation, and the impact of individual differences (e.g., exposure, age of acquisition, proficiency) on brain responses has yet to be clearly described. This study employs a within- and across-language semantic priming paradigm, using event-related potentials (ERPs) to investigate semantic processing in bilingual children. We address the following research questions: (i) What are the neural mechanisms underlying semantic processing in bilingual children? and (ii) How do bilingualism-related factors, such as language exposure and proficiency, modulate these neural responses? We aim to collect EEG data from 60 typical developing German-Dutch bilingual children aged 2–6 years. Data collection is half-way through. During the experiment, children listen to word pairs that are semantically related or unrelated, presented within and across German and Dutch. We also assess their bilingual language experiences, quantifying proficiency and exposure to both languages. We analyse the N400 component—an ERP index associated with semantic processing and meaning retrieval—to investigate priming effects and to evaluate how individual differences modulating N400 amplitudes across various conditions. We predict that balanced bilinguals will exhibit comparable N400 effects within and across languages. Additionally, we expect these effects to be more pronounced in older children (ages 4–6), with N400 amplitudes modulated by language exposure and proficiency. This research will highlight how individual neural representations of bilingual lexical-semantic systems emerge and develop across early childhood.

Word segmentation by Spanish and Basque monolingual and bilingual infants

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The ability to segment words from continuous speech is crucial for lexical acquisition. Monolingual infants typically begin segmenting words between 4-8 months. Familiar word recognition triggers neural responses: a negative response between 250-800ms after a familiar word's onset. This negative response is more pronounced in infants with larger vocabularies, while those with smaller vocabularies tend to display a positive response [1]. Since infants use language-specific cues for segmentation, it is interesting to investigate how dual language exposure affects this skill. Behavioural studies suggest that bilingual infants develop segmentation abilities at the same pace as monolinguals but with subtle performance differences, potentially due to language or task effects [2]. Here, we investigate these effects at the neural level. Neural activity was recorded in 80 11-month-old infants during a speech segmentation task. Infants heard 60 sentences (in Spanish for monolinguals and Spanish and Basque for bilinguals), each followed by an isolated word either present (familiar) or absent (unfamiliar) in the preceding sentence. Responses were analyzed in two time-windows: early 250-500ms and late 600-800ms). Preliminary data (from 13 Spanish monolinguals and 13 Spanish-Basque bilinguals) showed that in the entire sample familiar words elicited a more negative response than novel words in the late time-window. However, separate analyses by language background group showed that in monolinguals, familiar words elicited a more negative response than novel words in the two time-windows. In bilinguals, however, this was the case for Basque, while for Spanish, familiar words elicited a more positive response than novel words, and only in the early time-window. In conclusion, bilingual and monolingual infants demonstrate similar segmentation abilities, but bilingual infants' neural responses to familiar words may be language-specific and influenced by the degree of experience with each of their languages.

1. Kidd et al (2018) *Infancy*

2. Höhle et al (2020) *Biling. Lang. Cogn.*

'You're in the head of Jesus': Motivation and emotion in older learners of Biblical Greek

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Biblical Greek – the original language of the New Testament – holds great significance for Christians, yet there has been no empirical research on its learners. In this exploratory study, six semi-structured interviews with UK-based learners of Biblical Greek were analysed using thematic analysis. Respondents were educated L1-English Christians (Anglicans or Catholics). All but one were third-age learners who began (re-)learning Biblical Greek after retirement. Their main aim was comprehension, considering Greek crucial for understanding the New Testament's true message. Reading in the original language led to elating discoveries ('we know the Bible so well but when you read it in Greek... sometimes you see it for the first time'). Discovering word meanings was vital, as they differ between languages, and in the New Testament 'each word can be a window into [Jesus'] world'. Reading the New Testament in Greek is an 'incremental process', with each reading offering deeper understanding. They aimed to verify and compare translations and interpretations ('to know who was telling the truth and who wasn't'). Understanding the original text led to positive emotions: happiness, delight, and especially 'enjoyment'. These emotions stemmed partly from a sense of achievement, but more importantly from grasping what the authors truly said about Jesus' life and teachings ('You're in the head of Jesus... you are in the head of God in a way'). Reading, listening, or repeating prayers or texts in the original language also brought calm and relaxation. Sacred language learning seems ideal for third-age language learners. Retirement provides time to 'indulge' in this pursuit. Slow progress and the focus on depth over speed helps alleviate cognitive and sensorial difficulties often faced in later-life language learning, making it enjoyable throughout old age ('til I die'). Crucially, learning a sacred language can support the spiritual growth many seek in later life.

Poster Abstracts

A comparison of form-focused elaboration techniques in Japanese kanji learning

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This study examined the initial contact with the Japanese morphographic (meaning-encoding) script kanji by L1 English-L2 Japanese instructed learners. Kanji are phonologically opaque compared to alphabetic scripts and often structurally more complex. This presents a high hurdle to attaining literacy in Japanese, even for bilinguals with some proficiency in spoken Japanese. Qualitative accounts indicate learners' reliance on form-focused strategies to overcome this orthographic barrier to form-meaning mapping. As a result, form-focused elaboration (e.g., mnemonics, Keyword) is intrinsically appealing to learners and commonly used as a pedagogical intervention in vocabulary learning. However, not all form-focused tasks are created equal. Here, we tested if different types of form-focused elaboration led to differences in new word recall compared to a control condition. 57 beginner-level L1 English learners of Japanese were exposed to 24 new characters in three counterbalanced learning conditions: pictorial association, stroke counting, no-elaboration (try-your-best). A critical manipulation was that half the characters were pictographic (transparent form-meaning relationship) and half were not (opaque meaning). Learning was measured on three immediate written post-tests: free-recall of English word meaning, free-recall of kanji, and cued recall of kanji. Based on prior findings from alphabetic languages, we predicted that pictorial association would result in better recall of character meaning (recall in English), while stroke counting would enhance recall of the newly learned kanji. Logistic regression models revealed that pictorial association yielded better recall than stroke counting on all tests. The no-elaboration condition did not differ from pictorial association. For free-recall in English, this aligns with prior findings on word meaning in a known language. However, it runs counter to predictions for unacquired words, since pictorial association yielded significantly better kanji recall. The nature of morphographic scripts – the encoding of meaning in their formal components – may explain the divergence with findings from alphabetic-script languages.

A Language-Focused Book Reading Intervention to Boost Bilingual Language Development in Dai-Mandarin Preschoolers in China

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Early Mandarin Chinese development is challenging for bilingual children from ethnic minority backgrounds in China due to economic, pedagogical, and linguistic obstacles. These children often exhibit lower Mandarin proficiency than their monolingual peers. The Dai ethnic group exemplifies these challenges and highlights the unique perspective on bilingual acquisition provided by the linguistic similarities and differences between Dai (a Tai-Kadai language) and Mandarin (a Sinitic language). This study utilizes a cluster level randomized controlled trial design to evaluate the effectiveness of a six-week, language-focused book reading intervention (BRI) for Dai-Mandarin bilingual preschoolers on the children's bilingual narrative skills and Mandarin development, including receptive and expressive vocabulary, curriculum-based word knowledge, and general language skills. Participants include 51 children aged 49-61 months from a rural kindergarten in Yunnan Province, China. The intervention, designed as a supplement to the current curriculum, incorporated daily 25-minute sessions with shared book reading, explicit vocabulary instruction, and sentence structure activities. General language skills, vocabulary, and narrative skills were assessed using four measures at three time points (pre-, mid-, and immediately post-intervention): Chinese Language Assessment Scales-Toddlers and Preschoolers, Liwa Language Assessment, Multilingual Assessment Instrument for Narratives for bilingual narrative abilities, and informal curriculum specific vocabulary probes. Language learning environment and demographic information were captured using the Quantifying Bilingual Experience Questionnaire. Results showed the BRI significantly improved Mandarin skills, with large effect sizes in expressive vocabulary, curriculum-based vocabulary, and narrative structure complexity. Positive trends were also observed in Mandarin receptive vocabulary and Dai narrative skills. Notably, increases in cumulative Mandarin exposure and use were positively correlated with expressive vocabulary. The findings demonstrate that an L2-focused BRI with shared reading, explicit vocabulary instruction, and sentence structure activities effectively enhances bilingual children's L2 vocabulary and narrative abilities without impeding L1 narrative development, addressing the limited knowledge on Chinese minority children's bilingual development

A New Form of Bilingualism through K-Pop: Korean Language Acquisition among Japan's Generation Z through Independent Learning

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In Japan, the Zainichi Korean community has historically fostered bilingualism, with Japanese becoming the primary language by the third generation and Korean proficiency maintained through ethnic Korean schools. However, K-pop's global popularity has recently sparked a new kind of bilingualism among Japanese youth without Korean heritage. Motivated by intrinsic interest—such as understanding K-pop lyrics or speaking with K-pop idols—some Japanese students independently study Korean, achieving TOPIK Level 3 proficiency (the level required for Korean university entry) by the time they enter Japanese universities. In some cases, language assessments reveal that they speak Korean with near-native fluency. This study explores how these Generation Z learners, with no familial or cultural ties to Korea, acquire Korean independently. Through qualitative interviews, we examine their language learning pathways and practices. Our analysis shows that exposure to Korean often begins with K-pop or Korean dramas watched by family members. These students self-study Hangul through online resources and engage with Korean variety shows on YouTube, incorporating daily language exposure as a hobby. Over time, they experience language acquisition that resembles first-language learning, with Korean becoming an unconscious part of their daily routines. This presentation will discuss this unique form of bilingualism in Generation Z, emphasizing how cognitive factors and consistent, media-driven engagement foster language acquisition outside traditional learning environments. These findings contribute to our understanding of language acquisition through popular culture and reveal the potential of independent learning to support bilingualism among non-native speakers.

A repeated measures investigation reveals effects of language context and bilingual experience on risk/benefit judgments

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Studies on bilingual decision-making have typically found that reasoning in a second language (L2) leads to fewer decision-making biases compared to a first language (L1), a phenomenon referred to as the Foreign Language Effect (FLE). However, the overwhelming majority of previous studies have used between-subject designs, comparing different participants in the L1 and L2 conditions. This is problematic as it assumes that language background is categorical and homogenous when, in actuality, it is highly heterogenous (de Bruin, 2019). In this talk, we will present data from a study investigating risk/benefit judgments in two different languages within the same individual. Swedish-English bilinguals were presented with half of the materials in their L1 and the other half in their L2. Participants were asked to make judgments on the perceived risk and benefit of various current and debated activities and technologies (e.g. artificial intelligence, vaccines, chemical fertilizers, nuclear energy, etc.) for society as a whole. Language context was presented in blocks, and participants were immersed in the specific language context by reading literary text excerpts in each language, followed by answering content-based comprehension questions. Data collection is ongoing, but preliminary analyses indicate that an FLE in risk/benefit judgments presents in a repeated measures design. This is despite the fact that these bilinguals speak typologically related languages, with a culturally influential L2. In addition, this effect appears to be modulated by age of onset of bilingualism (AoB), with late bilinguals (AoB > 5) presenting a stronger FLE than early bilinguals (AoB ≤ 5), contrary to recent meta-analyses (e.g. Del Maschio et al., 2022) based on between-subject designs that found that the FLE was not moderated by language experience or methodological choices.

A Study of Creativity in the Linguistic Landscape on Moving Automobiles in Beijing

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Linguistic landscape studies have made significant progress over the past two decades, incorporating diverse contexts and theoretical approaches. This study aims to enrich linguistic landscape research by analyzing the relatively underexplored linguistic landscapes of automobiles, with a particular focus on creativity. By examining bilingual linguistic landscapes on vehicles in Beijing, this research conceptualizes the unique mobile landscape and contextualizes it within the dynamic interplay of language, mobility, and social interaction. Bilingualism emerges as a key feature, reflecting local language practices and global influences, and serves as a marker of social identity and cultural integration. Using quantitative and qualitative methods, the study analyzed a dataset of 284 signs collected from vehicles, complemented by 10 interviews with designers and drivers to uncover the motivations behind their language choices. The study categorizes the signs into four main types: Signs of Necessary Information, Signs of Non-Commercial Promotion, Signs of Commercial Promotion, and Signs of Self-Expression. The analysis reveals extensive use of bilingual (Chinese-English) signage, demonstrating both regulatory compliance and creative expression. Linguistic diversity is particularly prominent in private signage, where bilingual and multimodal resources interact to convey complex messages. Guided by Huebner's SPEAKING framework and Maybin and Swann's analytical model for exploring creativity, the study investigates how linguistic and multimodal strategies are employed to construct these linguistic landscapes. The findings highlight the role of bilingualism not only in facilitating communication but also in shaping identities that reflect cultural confidence, globalization, and individual expression. Ultimately, this study provides deeper insights into the values, perspectives, and identities embedded in the bilingual and creative landscapes of vehicle signage, contributing to the broader field of linguistic landscape research.

A translanguaging view of phonetic inventory complexity in Spanish-English bilingual children

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Examining the phonetic inventories of children at different stages of language development can provide uniquely holistic insight into phonological development and the relationships between speech segments within a given language learner. To date, this has been examined by identifying stages of phonetic inventory complexity within a given named language, such as Spanish or English in children identified as either monolingual or bilingual. Recently, a different perspective aligned with the uniquely dynamic language learning environment of bilingual children has emerged, known as translanguaging (Otheguy et al. 2019). In the context of translanguaging, “named” languages refer to the socially and politically defined boundaries that are assigned to different languages, such as “English” or “Spanish.” These labels create expectations about how one should communicate within the confines of each language, and consequently may limit an individual’s usage of their complete linguistic repertoire in a given context. Following a translanguaging approach, we describe the characteristics of the acquisition of phonetic inventories of consonants without strictly attributing them to specific named languages (i.e., Spanish and English), thus describing the full breadth of phonetic inventory complexity within a given individual. In this study, we describe the phonetic inventories of 23 Spanish-English bilingual with typical speech-language development (n=16) and with phonological delay (n=7). Data are phonetic transcriptions of single-word productions from two picture-naming elicitation probes sampling phonemes typically associated with Spanish and English. Based on these data, a hierarchy of levels of phonetic inventory complexity, combined across bilingual children’s named languages, is described. The inclusion of rhotic (i.e., [r,r̄]) and affricate (e.g., [tʃ]) consonants played the most significant roles in defining the three highest levels of inventory complexity. Issues of particular interest to research in bilingualism, phonological development, and assessment in speech-language pathology are discussed.

Accent-based social preferences in monolingual and bilingual infants learning Czech

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Unfamiliar-sounding speech affects our social behavior from an early age. Infants preferentially interact with adults who speak their native language over those speaking a foreign language [Shutts et al. 2009, Kinzler et al. 2007]. Similar effects were replicated with dialects in Japanese-learning 12-month olds [Okumura et al. 2014]. Preschoolers exhibit social biases towards L1-accented peers [Jarůšková & Chládková 2023]. Some studies indicate that multilingual exposure may attenuate these biases [Jarůšková & Chládková. 2023, Pierre & Johnson 2020], although most fail to find such effects [Spence et al. 2021]. Here we ask whether the bias towards L1- over L2-accented talkers is present in Czech-learning infants, and whether it is modulated by bilingualism. The present study employs a behavioral toy-taking experiment. Two age groups are tested: 11–14M-olds and 24–30M-olds, monolinguals and bilinguals. During the session, a child watches videos of two talkers speaking with native versus foreign accents, after which the talkers each offer a toy. We assess from whom the child takes the toy (coded as 1 = L1-accented, 0 = L2-accented). Data collection is underway (n = 68 out of 96). GLM modeled the effects of Language background (monolingual vs bilingual) and Age (1Y vs 2Y). Preliminary analyses suggest a non-significant but non-negligible interaction of Age and Language background (slope=0.427, z=1.410, p=0.159): in the 1-Y-olds, the estimated preference for native accent was 0.33 (95% c.i. = 0.13–0.62) vs. 0.63 (95% c.i. = 0.42–0.80) in the bilingual vs. the monolingual infants, respectively. These results are only preliminary; final analyses with the complete sample will be presented at the conference. The study will reveal whether and how infants' accent-based preferences are modulated by bilingual experience. The results will provide insights into accent-based prosocial behavior in children acquiring Czech, which has so far been an understudied population.

Accents in North Sámi speakers of Norwegian

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The Sámi are an Indigenous people inhabiting Sápmi, an area in Northern Scandinavia and parts of Russia. Today, nine Sámi languages are recognised, all endangered. The population with Sámi ethnicity is estimated between 140,000 and 200,000 but less than 30,000 are active users of a Sámi language (e.g., Aikio-Puoskari 2018), most bilingual. Our study is situated in Norway, which has the highest concentration of Sámi language users. Despite similar levels of education and income, individuals with stronger links to Sámi culture (self-identification, language use, occupation in reindeer husbandry) report experiencing more discrimination (e.g., Bals et al. 2010; Hansen et al. 2010; Yasar et al. 2023). Since sociolinguistic research has often found unfair treatment of speakers based on their accents (Derwing 2003; Kutlu 2023; Lippi-Green 1994), our study investigates whether perceived discrimination amongst the Sámi is related to accents in the majority language. We used an accent rating experiment where the Norwegian language speech samples of 20 North Sámi speakers and those of three controls groups were rated by 82 non-Sámi Norwegian raters from different regions for overall accent, regional origin and attitudes. The results confirm that Sámi speakers were rated as ‘L1 Norwegian-sounding’ significantly less than non-Sámi Norwegians. Moreover, more Sámi language use and proficiency were indeed related to a stronger perceived accent in Norwegian and to higher incidences of discrimination. Despite these findings, no overtly negative attitudes towards the accent were found in the data, suggesting a complex relationship between discrimination experience and accent. We discuss three explanations: (i) the raters in the study consciously avoided such stereotyping behavior; (ii) discrimination occurs based on other indicators of ethnicity, such as clothing or appearance (e.g., Kutlu et al. 2022); (iii) discrimination is more sensitively picked up by people with higher stakes in protecting the values the community stands for.

Across-Language Abstract Priming and the Translation Equivalent Boost in English-German Speaking Children and Adults

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Across language abstract priming is the tendency to hear a structure in language A (prime) and reproduce this structure in language B (target) irrespective of lexical content (Bock & Loebell, 2003). This effect has been found to be enhanced when the verb is repeated across prime and target (i.e., translation equivalent boost; Hartsuiker et al., 2004). Further, priming has been shown to be greater with less frequent prime structures due to prediction error (i.e., surprisal; Chang et al., 2006). However, there is extremely little research on these effects across languages in bilingual children and no developmental studies on how these effects emerge across growing age. In an ongoing study, we study these effects across age in 3- to 12-year-old English-German speaking children (N=19; recruitment in progress) and adult controls (N=33). The experimenter described video cartoons in English and the child in German in turns by using either the double object dative (Dora sent Boots the rabbit – DO) or prepositional object dative (Dora sent the rabbit to Boots – PO) in the same or different verb condition. At baseline (before priming), adults showed a stronger preference towards the PO in English and a strong DO preference in German, whereas children showed much less differences in biases especially in English. In line with Chang et al., (2006), we found priming for the less preferred structure in English with more DO production following a DO prime compared to a PO prime (6%) which was significantly higher in the same verb condition (10%) suggesting a translation equivalent boost. In contrast, children did not show any significant priming effects yet neither in the same nor different verb condition possibly due to less prediction error in English. Descriptively, we observed priming effects across growing age in individuals who show more variation in bias strength.

Addressing Diverse Phonological Systems in the Philippines: A Review of Phonological Inventories for Multilingual Speech Sound Disorder Intervention

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Multilingual assessment and intervention for speech sound disorders require consideration of all relevant phonological systems (Irizarry-Pérez et al., 2023). Existing evidence on cross-linguistic transfer (Combiths et al., 2022) and system-wide changes for speech sound generalization (Geirut, 2001; Storkel, 2018) highlights these approaches as effective for treating phonological disorders. However, for speech-language pathologists working with Filipino children, only Tagalog-English inventories (Augustino, et al. n.d.) are available to guide target selection. This poses a challenge because these inventories have limited applicability for most Filipino migrants, and children in the Philippines. Given the high linguistic diversity in the country and the implementation of mother-tongue-based education, Filipino children are likely to be exposed to and use another Philippine language, beyond Tagalog and English. This paper aimed to review the available studies on the phonology of the major languages in the Philippines – Tagalog, Bisaya, Hiligaynon, Ilokano, Bicolano, Waray, Kapampangan, Maguindanao, Pangasinan, and to create a framework for clinical use. Sixteen studies were examined, and information on consonants and consonant clusters was compiled to create a cross-linguistic, multilingual phonological inventory. A Venn diagram was used to map similarities and differences across languages (Combiths & Richard, 2023), with levels of complexity represented through color-coding. The analysis revealed that Bisaya has 22 consonants and 29 consonant clusters; Hiligaynon has 20 consonants and 17 consonant clusters; Ilokano has 17 consonants and 19 consonant clusters; Bicolano has 20 consonants; Waray has 16 consonants; Kapampangan has 17 consonants; Maguindanao has 15 consonants and 10 consonant clusters; and Pangasinan has 16 consonants and 26 consonant clusters. No consonant clusters were reported for Waray, Bicolano, and Kapampangan. The complex phonemes of these Philippine languages, combined with those in the Tagalog and English inventories, are still under analysis and will be presented at the symposium.

Adjective-noun order in Spanish-Chinese code-switching: resolving syntactic conflict

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This study investigates adjective-noun placement in code-switched adjective-noun constructions among Spanish-Chinese bilinguals. In Spanish features, adjectives typically follow nouns (manzana roja ‘apple red’), while Chinese places adjectives prenominal (红色的苹果 ‘red apple’). Thus, this syntactic difference raises the question of whether in code-switching bilinguals will produce structures like 苹果 roja or roja 苹果, or 红色的 manzana or manzana 红色的. Two theoretical models offer predictions for how bilinguals will resolve this conflict: the Matrix Language Frame model (MLF; Myers-Scotton, 1993) suggests that adjective-noun order should align with the matrix language, and the Minimalist Program (MP; MacSwan, 1999) which arrives at the descriptive generalization that the order is determined by the language of the adjectives. Thirty early Spanish-Chinese bilinguals completed a director-matcher task and a two-alternative forced-choice acceptability judgment task in four language modes: unilingual Spanish, unilingual Chinese, Spanish matrix language with Chinese insertions, and Chinese matrix language with Spanish insertions. The data was analyzed using Thurstone's law of comparative judgment (case V) and one-way ANOVA. Results revealed a preference for prenominal adjectives in unilingual Chinese and postnominal adjectives in unilingual Spanish, consistent with the expected syntactic structures of each language. In contexts with Spanish as the matrix language, the MP model most accurately predicted the order of mixed adjective-noun constructions. However, in Chinese matrix language contexts, we could not distinguish between the predictions of the models. Participants also showed a preference for noun insertions over adjective insertions in mixed constructions, as previously reported in other communities. Our study is the first to investigate adjective placement in Spanish-Chinese constructions, providing new empirical data on the best-fit model for predicting mixed adjective-noun constructions in the Spanish-Chinese bilingual in Barcelona, Spain.

MacSwan, J. (1999). A Minimalist Approach to Intrasentential Code Switching. <https://api.semanticscholar.org/CorpusID:152945415>

Myers-Scotton, C. (1993). *Duelling Languages: Grammatical Structure in Codeswitching*. Oxford University Press.

Adolescent Language, SES, and Cognitive Profiles in the ABCD Study

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Bilingualism is commonly categorized as a single category, yet bilinguals represent a highly heterogeneous group shaped by diverse life experiences including socioeconomic factors that significantly influence cognitive development. In the U.S., where monolingualism is the norm, children can become bilingual through various pathways, such as acquiring a non-English language at home or via formal education. Heritage speakers usually learn their home language early in childhood, often with cultural significance attached to their language experience. In contrast, those raised in English-dominant settings typically acquire an L2 through dual-language or foreign-language programs (i.e., sequential bilinguals). The variability within bilingualism highlights the need for more nuanced approaches in research. The current study examined cognitive outcomes among adolescent bilingual subgroups within the Adolescent Brain Cognitive Development (ABCD) Study, using data from release 5.1, which includes 6,683 English monolinguals, 1,138 heritage bilinguals, 592 dual-language education (DLE) learners, and 1,751 other bilinguals. Group classifications were based on self- and parent-reported data. Socioeconomic status (SES) varied significantly: DLE learners and other bilinguals had higher parental education and income than monolinguals, while heritage bilinguals reported the lowest SES. Cognitive performance, assessed using the NIH toolbox, was analyzed via linear mixed models, accounting for demographic and SES factors. Results showed that DLE learners and other bilinguals scored higher than monolinguals on fluid and crystallized intelligence, with monolinguals outperforming heritage bilinguals. However, once SES was included in the models, some of these differences were no longer evident. These results emphasize the variability within bilingualism and the need to consider the importance of linguistic and demographic diversity within cognitive research. In sum, the findings from this study highlight SES as a significant factor in cognitive outcomes, informing the interpretation of ABCD data and underscoring the complex interplay between language, SES background, and cognition in bilingual adolescents.

Analyzing Heritage Speakers' Interpretation of the Portuguese Present Perfect in the U.S.

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Aim: This study examines how first- and second generation Brazilian Portuguese (BP) heritage speakers (HSs) in California perceive the BP Present Perfect, which is restricted to continuative and iterative readings (Squartini and Bertinetto, 2000). Drawing on Lardiere's (2009) Feature Reassembly Hypothesis (FRH), which states that L2 learners reconfigure linguistic features to fit the ones of the target language. We test whether HSs's interpretation of the BP Present Perfect aligns with the English Present Perfect due to cross-linguistic influence. Our findings confirm the FRH prediction that HSs reassemble heritage language features to align with the dominant language. **Methods:** Participants included eight first-generation and four second-generation BP HSs from California and five BP monolinguals as a control group. We administered an acceptability judgment task to test acceptability of Portuguese sentences with English Present Perfect properties: (1) resultative reading, (2) one-time versus iterative experiential reading, and (3) sentences with exact cardinals. **Results:** Participants who immigrated after puberty resembled the control group, rejecting properties (1) and (3), and only accepting the iterative reading for (2). Conversely, prepuberty immigrants and second-generation participants accepted properties (1) and (3), and one-time experiential reading for (2). **Conclusion:** Our findings confirm cross-linguistic influence on second-generation HSs, and on first-generation participants who immigrated before puberty. These results support Lardiere's (2009) FRH, as both groups' judgments indicate that BP Present Perfect properties in their grammar align with those of the English Present Perfect.

Lardiere, D. (2009). Some Thoughts on the Contrastive Analysis of Features in Second Language Acquisition. *Second Language Research*, 25(2), 173-227.

Squartini, Mario and Pier Marco Bertinetto. 2000. The simple and compound past in Romance languages. In Ö. Dahl, ed., *Tense and Aspect in the languages of Europe*, pages 403–439. Berlin, New York: Mouton de Gruyter.

Are bilinguals processing certain words differently? Searching for cognate facilitation effect in Polish-Norwegian children's accuracy and reaction times.

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Words of similar sound and meaning (cognates, e.g. Polish 'balon' and Norwegian 'ballong') are more easily acquired by bilingual children (Kelley & Kohnert, 2012). This effect, called the cognate facilitation effect (CFE), occurs also in reaction times with cognates being processed faster than non-cognates (Brenders et al., 2011; Gastmann & Poarch, 2022). Searching for CFE in previously unstudied languages, Polish and Norwegian, we analyzed accuracy and reaction times in picture naming and word recognition tasks. The data was collected using Polish and Norwegian versions of Cross-Linguistic Lexical Tasks (CLTs; Haman et al., 2015) with monolingual and bilingual children (N = 174). The bilingual group (n = 58) was matched one-to-one with their monolingual Polish and Norwegian peers based on age, sex, and parental education. From CLT target words, we selected 14 Polish and 12 Norwegian cognates, based on the assessment of competent judges and normalized Levenshtein distance. As expected, we found the cognate facilitation effect in bilingual children. In the picture naming task, we observed the CFE in accuracy for both Polish and Norwegian CLTs. In the picture recognition task, we are seeing the CFE only in Norwegian. The effect was stronger for children's non-dominant language (Norwegian). Additionally, we found the CFE for Norwegian monolinguals in both production and comprehension. For Polish monolinguals cognates were easier than non-cognates only in the production task. This is surprising, but has been shown before in previous studies (Cunningham & Graham, 2000). The data is currently being coded for reaction times. In the picture recognition task, RTs are calculated automatically in the app used for data collection, while in the picture naming, RTs are calculated semi-automatically with the use of Chronset (Roux et al., 2016). We expect to reach conclusions similar to Gastmann and Poarch (2022): bilingual children will show shorter response latencies in cognate items.

Assessing the effectiveness of L2 and L1 corpora in measuring knowledge of productive vocabulary.

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In this paper, we analyse the relationships between different measures of productive vocabulary. Traditionally, assessments of frequency and contextual variety in L2 research have relied on data generated by L1 English speakers (e.g. Meara & Fitzpatrick, 2000; Nation & Laufer, 1995). This is problematic because L2 learners are primarily exposed to non-L1-like input. L2 acquisition is greatly influenced by encountering words frequently and in varied contexts, as this facilitates rapid assimilation and deep integration into the learner's mental lexicon (Monteiro et al., 2020). This study therefore seeks to provide a nuanced perspective by examining lexical frequency indices specifically derived from L2 outputs. These indices were meticulously extracted from a large-scale corpus of English produced by L2 learners, which was then compared to the same measures derived from the Corpus of Contemporary American English (COCA). Our participants were 200 L1 Japanese undergraduate learners of L2 English. Participants took three productive vocabulary measures: Lex30 (Meara & Fitzpatrick, 2000), G_Lex (Fitzpatrick & Clenton, 2017), and a composition task to examine lexical sophistication. Participants were also given a C-test to assess their overall language proficiency (Eckes & Grotjahn, 2006; Grotjahn, 2002). Lex30 and G_Lex provided insights into participants' ability to produce low-frequency words, while the composition task measured their lexical sophistication, which focuses on external text features like word corpus frequency (Kyle & Crossley, 2016). Our research will report two overarching findings: firstly, the degree to which corpora derived from L2 learner outputs offer an accurate reflection of vocabulary knowledge, and secondly, the efficacy of the productive vocabulary measures in capturing this knowledge. Beyond these findings, our broader objective is to underscore the importance of utilizing L2 generated corpora in vocabulary research, advocating for a more tailored approach to understanding and enhancing L2 vocabulary acquisition.

Associative Thinking in Bilinguals: How Dual-Language Experience Influences Conceptual Associations

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Dual-language experience shapes bilingual memory, creating unique lexical-semantic associations within and across languages (Marian, 2023). We tested the hypothesis that dual-language experience impacts associative thinking, affecting how bilinguals search for and form associations between concepts. Spanish-English bilinguals (N=120) completed, in both languages, the Multilingual Naming Test (MINT; Garcia & Gollan, 2022) and two associative thinking tasks: Divergent Association Task (DAT; Olson et al., 2021) and Forward Flow Task (FF; Gray et al., 2019). In the DAT, participants generated 10 words unrelated to each other in meaning. In the FF task, participants were given a starting word and wrote the next 19 words that came to mind. Both tasks were scored using computational approaches (i.e., language model embeddings) that quantify the semantic distance between concepts. On both tasks, bilinguals produced more semantically distant words in Spanish than in English. For the FF task, this effect was moderated by Spanish proficiency, with higher Spanish proficiency predicting higher Spanish and lower English scores. Higher proficiency may promote more distant conceptual associations by facilitating lexical access to a broader pool of concepts. We conclude bilinguals' associative thinking varies between languages, with language proficiency shaping the conceptual associations they make as they access semantic memory.

Garcia, D., & Gollan, T. (2022). The MINT Sprint: Exploring a fast administration procedure with an expanded multilingual naming test. *Journal of the International Neuropsychological Society*, 28(8), 845–861.

Gray, K., Anderson, S., Chen, E., Kelly, J., Christian, M., Patrick, J., Huang, L., Kenett, Y., & Lewis, K. (2019). "Forward flow": A new measure to quantify free thought and predict creativity. *American Psychologist*, 74(5), 539–554.

Marian, V. (2023). *The Power of Language*. Dutton, New York.

Olson, J., Nahas, J., Chmoulevitch, D., Cropper, S., & Webb, M. (2021). Naming unrelated words predicts creativity. *PNAS*, 118(25), e2022340118.

Attach Me If You Can

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The study investigates processing sensitivity to the selectional properties of the matrix verb in English as L1, L2 or L3. A perception verb ‘saw’ in the matrix clause can have the eventive (a/c) or the entity complement (b/d). However, the eventive one is preferred (Pozniak et al., 2019), and the parser anticipates (a) or (c) after ‘saw’.

- a. Bill saw [SC [DP the friend of the neighbor] [VP drinking coffee]]
- b. Bill saw [DP the friend of the neighbor [RC drinking coffee]]
- c. Bill saw [CP (that) [DP the friend of the neighbor] [VP was drinking coffee on the balcony]]
- d. Bill saw [DP the friend of the neighbor [RC that was drinking coffee on the balcony]]

Identical word order in (a/b) creates global ambiguity between the eventive and the entity complements, which favors HA in (b) (Sokolova & Slabakova 2022, 2021; Grillo et al. 2015; Grillo & Costa 2014). We tested this prediction with English monolinguals, Norwegian-English, Portuguese-English, Norwegian-English, Armenian-English and Spanish/Catalan-English adults, advanced in L2/3. A self-paced experiment manipulated the matrix verb (perception/non-perception) vs. RC type (full/reduced) (1/2).

- 1. Bill saw / called the friend of the neighbor drinking coffee on the balcony.
- 2. Bill saw / called the friend of the neighbor that was drinking coffee on the balcony.

The participants read sentences, one word at a time, and selected answers to comprehension questions, their answer choices, reading and response time being recorded. The results return HA in (b) and LA in (d), faster RT of the embedded verb and slower response time in (b) with a significant effect of a perception verb in all groups. We conclude sentence processing is sensitive to the sectional properties of a perception verb and based on structural prediction in native and non-native languages.

Attitudes to the Use of Artificial Intelligence in Language Learning: The Case of Chatbots in Saudi Arabia

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Artificial intelligence (AI) is one of the fastest growing technologies today. Its extraordinary scope and capabilities have led people of all ages and abilities to employ it in many of their activities. Language learning is a lifetime experience that could benefit from the use of AI and thus it is worth exploring people's awareness of this technology and its implications. Thus, this study aims to explore attitudes to AI chatbots and its usability in language learning in Saudi Arabia. The results of a questionnaire, which elicited 202 responses, showed favorable attitudes among most participants towards using AI chatbots in language learning. ChatGPT, Google Translate, and Duolingo are the AI chatbots best recognized and viewed as the most usable among the participants. AI is heavily incorporated in language learning technologies (LLTs) and chatbots. It seems that the merits of employing AI chatbots in language learning are greater than the drawbacks. Further research is needed to explore the challenges, potential threats and future expectations related to the application of AI chatbots in language learning.

Backward Transfer of Glaswegian English (L2) on Hindi and Indian English (L1): the role of Age of Entry and Indian Contact

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This study investigated phonetic backward transfer in the ethnolinguistic minority of first-generation bilingual immigrant Indians in Glasgow ‘Glasgow-Indians’ in relation to Flege’s Speech Learning Model, which predicts ‘assimilation’ and ‘dissimilation’ of sound categories. The study explored whether and how sounds of Glasgow-Indian native language (Hindi) and dialect (Indian English) are influenced by sounds of the dominant host language/dialect (Glaswegian English). Age of Entry (AoE) in Glasgow and amount of Indian Contact were also examined. Two control groups (Indians and Glaswegians) and an experimental group (Glaswasians) were recorded reading in English and Hindi words containing two phones (/t/ - Voice Onset Time, /l/- F2-F1 difference). In both languages, Glasgow-Indian /t/ Voice Onset Time became more Glaswegian-like (assimilation), whereas F2-F1 difference in /l/ diverged to an even greater degree than the Indians (dissimilation). Furthermore, increasing AoE and Indian Contact decreased assimilation of /t/ or increased dissimilation of /l/.

Barriers and Facilitators to Reading Comprehension in University Students with English as a Foreign Language

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Introduction: Learners of English as a Foreign Language (EFL) face difficulties in reading comprehension due to insufficient background knowledge, limited vocabulary, inadequate English language proficiency, and diminished self-confidence. This study focuses specifically on university students from Saudi Arabia studying in English. **Aim/Objective:** The purpose of this study is to examine the experiences of Saudi university students regarding the challenges they face and the support available for reading comprehension of academic texts while studying EFL. **Methods:** Sixteen Saudi students participated in semi-structured interviews: 12 females aged 21-28 and 4 males aged 23-27. Two participants were living in Saudi Arabia, and 14 were in Ireland. The interviews, which lasted 35-45 minutes, focused on four areas: experiences with learning English, challenges related to reading academic texts, available support, and motivation. The interviews were conducted in both Arabic and English, according to the participants' preferences. **Results:** Reflexive Thematic Analysis (Braun & Clarke, 2019) identified two major themes: 'Knowledge Development and Integration' and 'Language Learning.' The first theme refers to the process of enhancing reading comprehension by utilizing various cognitive resources to transform basic information into integrated knowledge. It includes two sub-themes: 'Cognitive Process' and 'Motivation.' The second theme encompasses the process through which individuals develop the skills necessary to understand, interpret, and engage with written texts in a new language. It involves three sub-themes: 'Reading for Pleasure,' 'Language Learning Environment,' and 'Everyday Language Exposure and Use.' **Conclusion:** The results of this study have important implications for educators and curriculum designers in higher education. The identification of the themes 'Knowledge Development and Integration' and 'Language Learning' emphasizes the need for a comprehensive approach to teaching reading comprehension in EFL contexts.

1. Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597.

Becoming Multilingual': Empowering College Students to Learn and Maintain Languages for Life

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This presentation reports on a study about the language backgrounds, challenges, interests and needs, as well as (developing) views about bilingualism and language learning of undergraduate students enrolled in the general education course “Becoming multilingual: Learning and maintaining two or more languages”. Participants were 650 students enrolled in this course 2020 – 2024 at a public university in the southwestern USA. Data were collected through pre- and post-course questionnaires and complemented with analyses of excerpts from autobiographical narratives that students produced as part of their course assignments. Findings include information about participants’ diverse linguistic backgrounds, including their first, second and additional languages, how they had learned them, whether they considered themselves bi- or multilingual, how comfortable they felt about their language skills, and to what extent they were interested in various language-related issues (i.e., effectively learning a foreign language, learning about themselves as bi- or multilinguals, (re)learning a language used in childhood, learning how to bring up a child as a bi- or multilingual and learning about other people who speak multiple languages). Course participants’ views about advantages and disadvantages of being bilingual remained stable, but their agreement with common myths about bilingualism and language learning decreased from pre- to post-course surveys. Autobiographical narratives and anonymous course evaluations and comments provided additional data about participants’ (concerns about) language learning and uses, their views about bilingualism, and the perceived impact and usefulness of the course for participants’ current and future lives. It is hoped that the presentation will spark interest among colleagues in offering similar courses for college (and non-traditional) students, including those from migrant, indigenous, multilingual, and multicultural communities to help contribute to a more harmonious bilingualism and well-being of course participants who are or inspire to become bi- or multilingual.

“Being a good mother”. Childcare educators’ discourse about mothers based on home language and literacy practices.

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The study presents the discursive constructions of ‘motherhood’ based on home language and literacy practices. It investigates childcare educators’ perceptions of mothers based on the languages used at home and the richness of home literacy experiences. In Malta, children attend childcare centres from 4 months to 3 years of age. Semi-structured interviews were held with two childcare educators on the use of Maltese and English with young children. The data from the interviews provide insights into how ‘good mothers’ are perceived. Hallmarks of good motherhood are based on the use of both Maltese and English, on reading aloud to their children and providing other literacy rich opportunities. On the other hand, educators attribute lack of the emergent literacy skills or comprehension in either Maltese or English to deficient parenting styles. Educators report that they gather this information about the children based on their observations and also informal conversations that they have with the children’s mothers. They also link problematic behaviour by these children to such parenting styles. The discourse shapes these educators’ conceptualisation of the “good mother” (Pitt, 2008, p.66), where home language and literacy practices are seen as a hallmark of ideal motherhood. The study presents the view of language and literacy as socially-situated practices (Barton, Hamilton & Ivanic, 2000). The study finally points to alternative discourses and social practices that hold promise for embracing diverse forms of mothering and literacy practices within institutional and social settings.

Barton, D., Hamilton, M. and Ivanic, R. (Ed.). (2000). *Situated literacies: Reading and writing in context*. London: Routledge.

Pitt, K. (2008). Being a new capitalist mother. In Prinsloo, M. & Baynham, M. *Literacies, Global and Local*. (pp. 51-70).

Best practice guidelines for the development of a bilingual sign and spoken language acquisition corpus

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The existence of linguistic corpora for the documentation of sign languages (SL) is becoming increasingly frequent. Still, hardly any studies focus on defining the relevant aspects necessary to properly and exhaustively document the acquisition and development of SL as a first or second language. The minority and minoritized nature of these languages implies that signers, deaf or hearing, are bilingual in at least one spoken language and one SL. The small number of native speakers has traditionally hindered the proliferation of research on the acquisition or learning of LS. The creation of evidence-based corpora documenting bilingual and bimodal acquisition is necessary, among other things, to promote the development of educational models that compensate for low generational transmission in sign languages. In this paper, we present the principles and criteria necessary to create corpora for Spanish Sign Languages (LSE), providing guidelines for its organization. Through phonological and pragmatic data collected using a pseudoword production task and a false-belief task, we illustrate the process required to build a comprehensive corpus that allows a) the detailed documentation of the acquisition process at different linguistic levels and b) its subsequent exploitation in different domains. The results of this selection of tasks suggest that the differences between signers of different ages are mainly determined by their degree of proficiency in the first language, regardless of its modality. They also confirm the need to create tailor-made tasks to document SL and to develop relevant assessment instruments for clinical and educational settings.

Beyond picture naming: The robustness of L2 after-effect across different tasks and linguistic complexity.

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Bilingual speakers face unique challenges in managing two simultaneously activated languages, requiring speakers to select one language while disregarding the other. This control process entails processing costs, most notably demonstrated in the "L2 after-effect" - a phenomenon where using a second language (L2) temporarily impairs subsequent first language (L1) word retrieval. While this effect is well-established when the use of L2 is based on the picture naming paradigm, it is still unclear to what extent different tasks in L2 can elicit subsequent L1 word retrieval difficulty in production. We examined whether the modality of language use (reading-aloud versus production in picture naming/description) and the complexity of stimulus type (naturalistic versus controlled stimulus conditions) influences subsequent L1 word retrieval in production. We tested 223 Polish-English bilinguals using four different exposure tasks: reading-aloud single words (N=56), reading-aloud short narratives (N=59), naming pictures (N=49), and describing photographs (N=59). Participants completed two sessions: of picture naming in L1, following L1 or L2 exposure tasks. We found a significant effect of preceding language, indicating that participants were consistently slower at naming pictures in their L1 after using their L2. The L2 after-effect was not modulated by the modality or stimulus type used in the preceding task. Thus, the L2 after-effect is not task-specific. This result suggests that any use of L2, regardless of the task, engages language control mechanisms, reducing the activation of L1 in subsequent production. Furthermore, the magnitude of this control does neither depend on the complexity, suggests their potential manifestation beyond single-unit processing, extending to complex linguistic structures.

Bidialectalism and linguistic accommodation: Forms of address among Ecuadorians living in Murcia, Spain

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This study documents the adoption of local linguistic patterns of forms of address among Ecuadorians living in Murcia, Spain. There are significant differences among the pronominal forms of address and their uses between dialects in Spain and Ecuador. The main differences being the alternation between 2-person plural vosotros (informal) and ustedes (formal) that exists in Spain is non-existent in Ecuadorian Spanish, where ustedes predominates for both formal and informal. As well, in the 2-person singular, Ecuadorians display more deference and higher rates of usted while Spaniards typically employ more tú. For data collection, we employed a discourse completion task (DCT) which gave participants 16 prompts asking them to respond to a specific context, such as a refusal to a boss who insists that you work overtime on Saturday, when you already have family plans. The contexts were coded for: (i) singular or plural referent context, (ii) age(s) of the interlocutor(s), (iii) social status of the interlocutor(s), and (iv) familiarity with the interlocutor(s). Additionally, we conducted sociolinguistic interviews including questions related to participant social networks and their use of different forms of address. At present, our corpus (N=36) consists of Spaniards (control group) and 1st and 2nd generation Ecuadorians living in Murcia. Preliminary results show that Ecuadorians use informal tú and vosotros at a similar rate to the Spaniards in the DCT; however, these forms of address are prompted by a different configuration of factors than the controls. Moreover, in the sociolinguistic interviews, most Ecuadorians denied using tú and vosotros in the same circumstances that were tested in the DCT. Finally, a subset of Ecuadorians reported intentionally switching between forms of address to accommodate the norms of the social network that they are engaged with.

Bidirectional Priming Across Languages in Adult Heritage Language Speakers

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Heritage language (HL) speakers often exhibit differential acquisition of their HL, leading to innovative language use and interpretations of grammatical structures (Flores & Rinke, 2020; Kupisch & Polinsky, 2022). This study investigates the bidirectional nature of cross-linguistic influence between HLs and the societal languages (SLs), addressing a critical gap in existing research. Using the priming paradigm with both online and offline measures, we aim to elucidate how innovative interpretations propagate between languages, and explore incipient language change processes, namely the precedence of online over offline changes. We focus on overt subject pronouns (OSPs), a syntax-discourse interface phenomenon where HL speakers often diverge from monolingual norms (Schimke et al., 2018). In two visual world eye-tracking priming experiments, we test Italian HL speakers with German as their dominant SL. In German, OSPs typically refer to the subject (John) of the main clause (e.g., John greets Peter when he crosses the street), while in Italian, they often refer to the object (Peter) of the main clause. In Experiment 1, participants read German prime sentences with unambiguous pronouns, then hear Italian target sentences with ambiguous pronouns while viewing visual scenes. Target sentences are followed by comprehension questions to assess offline interpretations of ambiguous pronouns. Experiment 2 reverses the prime-target language direction. We predict stronger priming effects in Experiment 1, affecting online interpretations of Italian OSPs. Given the lasting effects of early exposure to a dominant language (Scontras et al., 2015), we also predict that cross-linguistic priming will affect offline interpretations in Experiment 1. In Experiment 2, we expect attenuated priming effects on German OSP interpretations. By elucidating the dynamics of cross-linguistic influence and tracing innovative interpretations, this study contributes to understanding contact-induced language change in bilingual contexts and highlights the role of language dominance in shaping linguistic changes and processing mechanisms among heritage speakers.

Bilingual Arabic-English speakers' susceptibility to misinformation varies across languages

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The tendency to believe false information after it has been repeated (i.e., the illusory truth effect, ITE) occurs because repetition facilitates processing. The ITE supports efficient judgements of information, but it also perpetuates the alarming spread of misinformation. In today's globalized world, individuals consume information in multiple languages, including non-native languages. Yet, studies on the ITE have predominantly included monolinguals and only used participants' native languages, so it remains unclear how this bias unfolds across languages in bilinguals. The present study examined how individuals speaking orthographically distinct languages (i.e., Arabic and English) rely on repetition as a cue for truthfulness when evaluating trivia statements in either or both of their languages over time. In two online study sessions held two weeks apart, Arabic-English sequential bilinguals were asked to read and evaluate the truthfulness of accurate and inaccurate trivia statements, half of which were repeated and half of which were completely new. After reading each statement in the exposure phase, participants rated their truthfulness on a scale from definitely false to definitely true in two truth-rating phases. The languages of the exposure and truth-rating phases were counterbalanced across participants, such that the phases were either entirely in the native language Arabic, entirely in the non-native language English, or in both languages (i.e., switched between the two languages from Arabic to English or English to Arabic). Linear mixed-effects models revealed that bilinguals' susceptibility to the ITE weakened over time for statements initially presented in their second language, suggesting that use of a second language can reduce one's susceptibility to the ITE and misinformation. This work expands our understanding of bilinguals' susceptibility to misinformation, with practical implications for addressing the spread of misinformation in an increasingly globalized, multilingual digital landscape.

Bilingual Cocktail Party Problem: Navigating Noisy Environments”

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Individuals face a constant stream of noise and speech distractors that compete for cognitive resources during everyday tasks. This challenge is further pronounced for bilinguals who navigate multiple linguistic systems. However, the extent to which linguistic auditory distractors interfere with bilinguals’ long-term memory by is not well-researched. We investigated the selective attention processes of English-Spanish bilinguals. Participants were tested with a dichotic listening task with target audiobook excerpts and distracting movie audio clips. Target and distractor languages are manipulated to include both English and Spanish conditions. Participants answered comprehension questions about the target book as a measurement of long-term memory, and they completed executive function tasks, and language questionnaires. We tested how the interaction between language familiarity language (i.e., whether the distractor is presented in their first or second language) and language match between target and distractor languages predicts interference and long-term memory performance. Additionally, we explored how individual differences in executive functions and bilingualism moderate these outcomes. Through these investigations, we aimed to deepen our understanding of cognitive mechanisms underlying attentional processes in bilingual contexts.

Bilingual Literature: Potential and Challenges of a Linguistic Approach

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Bilingual literature is a distinctive yet underexamined facet of bilingualism, often overlooked in broader bilingualism research despite contributions by scholars like Pavlenko and advances in literary code-switching. While studies in second language acquisition (SLA) offer valuable insights, a gap remains in linking these findings to high-caliber, prize-winning authors, many of whom are bilingual or L2 writers (e.g., Nobel, Goncourt, and Bachmann laureates). Concurrently, literary multilingualism has emerged as a vibrant field, but remains characterised by extreme terminological fluidity that hinders its development. This study combines research on bilingual language processing with close reading, genetic editing, and stylometric analysis to explore bilingualism research's potential to trace linguistic characteristics in literary texts. By categorizing authors based on their bilingual backgrounds and comparing stylistic features across languages through close reading and corpus analysis, it aims to clarify how types of bilingualism may shape stylistic choices. As a case study, it focuses on late bilingualism in translingual works, and considers examples from authors such as Vladimir Nabokov, Joseph Brodsky, Romain Gary, and Rainer Maria Rilke to establish a foundation for cross-linguistic comparison and a framework to classify bilingual stylistic markers. Findings support the potential of bilingualism research to introduce conceptual clarity in literary multilingualism, revealing areas where thematic and stylistic markers unique to bilingual writing are likely to thrive and shaping interdisciplinary dialogue. However, challenges arise from the contrast between bilingual research's focus on average language use and controlled tasks, versus the complex, time-independent, and aesthetically driven language of literature. These differences highlight the challenges of adapting these methodologies for literary analysis and, once they have been taken into account, the potential of systematic study bilingual writers' work as the production of bilingual speakers for literary study and, in some ways, the study of highly proficient bilingualism.

Bilingual morphological processing in L2 reading before explicit attention: A gaze-contingent boundary paradigm study

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As it is common for more than one language to occupy our mind, it's vital to understand how these languages behave, since the input we process often only explicitly requires one of them. While research in cross-linguistic orthography (O) and semantics (S) has made great strides, cross-linguistic morphology (M) still holds many a mystery (Kahraman & Beyersmann, 2023). In the current eye-tracking experiment, the extent of cross-linguistic morphological activation was clarified using a gaze-contingent boundary paradigm, in which 60 Italian speakers read 128 sentences in their second language, English. Unbeknownst to them, one target English word in the sentences was replaced by an Italian preview item until participants' fovea arrived at the target word. The relationship between preview and target was manipulated as follows: identical preview (identical condition, the same S & O, e.g. "bandages"- "bandages"), an Italian-English cognate preview (cognate condition, overlapping S & O, "bendaggi"- "bandages"), a nonword preview with the same orthographic distance to the target as the cognate (legal nonword condition, overlapping O, "bagnades"- "bandages"), or a consonant string preview (illegal nonword condition, no overlapping O or S, "hkyqmfrp"- "bandages"). Crucially, targets were either morphologically-simple or morphologically-complex words. Therefore, with complex targets, the identical and cognate conditions confer the additional advantage of identical morphological structure across preview and target. If we observe faster processing (i.e., shorter fixations) for morphologically-complex than morphologically-simple words in the cognate condition (compared to the other conditions), evidence of cross-linguistic parafoveal activation of morphological information will be furnished. We can further zoom-in on the mechanics of bilingual morphological processing by analysing early eye-movement measures (e.g., first-fixation duration, gaze duration) and later measures, (e.g., regression-path duration), thus addressing the temporal evolution of cross-language morphological activation .

Bilingualism and multilingualism in the area of Naples: the development of auxiliaries in immigrant children's narrations

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Our study focuses on the longitudinal acquisition of Italian by twelve immigrant children having different languages as hereditary languages. Many of them were born in Italy or arrived in this country very young. They live in Naples and were interviewed with respect to a range of narrative tasks with no written or audio-oral texts, some of which used in famous international projects (Frog, where are you by M. Meyer). According to the task, the subjects either shared or did not share information with their listener. They were observed for minimally a year and maximally 4 years, during which the same tasks were reposed every month and a half approximately. We analyzed the verb morphology with respect to the Italian auxiliaries *essere* ('to be') and *avere* ('to have'), by means of which the *passato prossimo* – a type of analytical perfect tense that Italian children acquire first – is formed. We observed the development of the two auxiliaries with both transitive and intransitive verbs. We adopted a functionalist theoretical framework (Berman & Slobin 1994) and Sorace's (2000) gradient model for split intransitivity. We investigated the possible interference with the heritage languages of the informants but also the possible similarities with the path followed by Italian children and adult foreign learners. We will demonstrate that our children do not necessarily follow the implicational scale described by Sorace, that they have a contact with the way monolingual children and adult learners of Italian develop auxiliaries but that they also follow a developmental pattern of their own.

Berman, R. & Slobin, D. I. (eds), (1994), *Relating Events in Narrative. A crosslinguistic Developmental Study*, New York, Erlbaum.

Sorace, A. (2000), "Gradients in auxiliary selection with intransitive verbs", *Language* 76: 859–890.

Bilingualism and the Arts: Do Multilingual Students Take Arts Courses in Secondary School at Similar Rates as Monolingual Students?

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Early bilingualism is associated with numerous cognitive, social, and educational outcomes, however, links between bilingualism and student participation in the arts (music, dance, drama, visual art) have not been explored. Arts engagement promotes aesthetic, social, and academic development in adolescence. Research has examined selection factors related to taking arts elective courses in school, but multilingualism has not been a focus. Some theorize early bilingualism may link to musical skills and processing, but links with other art forms are underexplored. Utilizing a large (n=30,050), mostly low-income (76% in poverty), ethnically diverse (58% Hispanic, 35% Black, 7% White/Other), and linguistically diverse (60% speak a language other than English at home – English Language Learners [ELL]) sample of students longitudinally followed from age 4 through high school, we analyzed whether student early language status (monolingual, early bilingual, ELL still mastering English) and timing of proficiency in English predicted likelihood to enroll in elective arts classes (Music, Dance, Drama, Visual Arts) in middle school (6th-8th grade) in Miami, USA. Controlling for student gender, ethnicity, poverty, disability status, and 5th grade academic performance, regression analyses revealed that ELL students (both early bilinguals and those not yet proficient in English) were significantly less likely (by 20-30%) to enroll in drama and visual art courses compared to monolingual students, and there were no language group differences for taking music and dance. Results suggest there may be cultural and/or linguistic barriers for ELLs to access drama and visual arts classes. Additional analyses ready by the time of the conference will examine whether a) long-term ELLs (those still struggling with English proficiency in middle school) in particular, face barriers to enrolling in arts elective courses in secondary school, and b) the findings above are similar for enrollment in high school art courses (grades 9-12).

Bilingualism and trill sound in Basque

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In the sociolinguistic context of the Basque language, there are no longer monolingual Basque speakers; today, all Basque speakers are at least bilingual, either in Basque-Spanish in the peninsular Basque Country or Basque-French in the continental Basque Country. This study examines the impact of bilingualism on the Basque phonological system, focusing on a phonological shift in the continental Basque Country driven by bilingualism. Until recent decades, the trill sound was articulated as alveolar across the entire Basque-speaking area (Mitxelena 1990 [1961]: 327-328). However, in the Northern region, a shift is underway: the alveolar trill is being replaced by the French uvular trill, particularly among younger speakers (Oñederra et al. 2014). Our aim is to report on this sound change to determine whether the uvular trill has fully replaced the alveolar trill or if the latter remains in speakers' pronunciation. To this end, pronunciation in everyday speech has been compared to that in the 2024 *Libertimendua* of Hazparne —a series of parodies performed by local youth during the carnival (Luku 2022). The comparison reveals that the alveolar trill has not completely disappeared from young speakers' speech; they still use it when portraying specific characters to lend credibility and authenticity (Coupland 2007). This occurrence suggests that the sound change induced by bilingualism (the shift from alveolar to uvular trill) is incomplete and that the alveolar trill persists in speakers' phonemic memory and intention.

Coupland, N. 2007. *Style. Language Variation and Identity*. Cambridge: Cambridge University Press.

Luku, A. 2022. *Libertitzeaz*. Pamplona: Pamiela.

Mitxelena, K. 1990 [1961]. "Fonética Histórica Vasca". *ASJU Gehigarriak* 4. Donostia-San Sebastian: The Gipuzkoa Provincial Council.

Oñederra, M. L., Jauregi, O. & Epelde, I. 2014. "Hiztunaren fonema inbentarioa eta elebitasun goiztiarra: euskara gehi frantsesa vs. euskara gehi gaztelania". *Lapurdum* 18, 75-95.

Boarnsterhim Corpus: a bilingual Frisian-Dutch speech corpus

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This poster introduces the new release of the Boarnsterhim Corpus, a bilingual Frisian-Dutch speech corpus. All speakers (n=112) are from the (former) municipality of Boarnsterhim, situated in the province of Fryslân in the Netherlands, where Frisian has official status, in addition to Dutch. In general, Frisian is used as home language and in informal domains and Dutch is used in formal domains, in administration and in education. This corpus of Frisian and Dutch, two closely related languages, is an excellent source for the study of language variation and change in the two languages of bilinguals, the role of language transfer and literacy (most speakers are less literate in Frisian than in Dutch), and whether and how variation patterns are transferred from one language to another. BHC consists of data recorded in 1982-1984 (BHC1) and a replication study 35 years later in 2017-2019 (BHC2). The apparent time design of BHC1 (n=84) was implemented by including three generations of the same family, along a paternal or a maternal line. The replication study BHC2 (n=51) followed the same design. Some of the participants of BHC1 were re-interviewed (obtaining panel data for 23 speakers). Given the birth cohort of the 1st generation in BHC1 (born before 1920), we were not able to re-record any speakers of that generation. In total, the BHC consists of 112 bilingual speakers, born between 1898 and 2001, and covers as such more than a century (4 generations) in apparent time and 35 years in real time. For both Frisian and Dutch the corpus consists of 70 hours of spontaneous speech and 10 hours of reading tasks. In our poster we will discuss the unique characteristics of BHC in more detail and evaluate its appropriateness for the study of bilingual language variation and change.

Can immersion beat cross-linguistic influence? – A structural priming study

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Cross-linguistic influence (CLI) is typically studied by overt transfer of L1 features to the L2. This study tests subtle L1 effects on L2 verb-class restrictions of structural alternations: English dative verbs take direct-object structures (DO; “pay the man the money”) or prepositional-object structures (PO; “pay the money to the man”). So-called non-alternating verbs (donate) are restricted to PO. Acquiring verb-class-based structural restrictions is challenging, as they are not grammatically marked in the input. German and Swedish have structural optionality with similar restrictions, while Spanish only has PO structures and thus no verb-class-based alternation restrictions. We test (a) L1 effects, (b) whether naturalistic immersion allows L2 learners to induce verb-class restrictions on structural alternations in the absence of analogous L1 distinctions, and (c) if distinctions are robustly represented in learners’ grammars. Proficiency-matched groups of 192 L1 Spanish, German or Swedish non-immersed L2 learners of English, and L1 Spanish immersed learners in English-speaking countries participated in a structural priming study presenting DO prime structures for both alternating and non-alternating verbs (“give/donate the man the money”). Following prime sentences, participants typed dative structures in target sentences. Unlike L1 German and L1 Swedish non-immersed L2 learners, L1 Spanish non-immersed speakers made no verb-class distinction in non-primed DO productions after intransitive (control) primes, and they showed equivalent structural priming of DOs for alternating and non-alternating verbs after DO primes. Like L1 German and Swedish learners, L1 Spanish immersed learners made a verb-class distinction in non-primed production, but – like non-immersed Spanish learners – showed equivalent DO priming across verb classes. CLI constrains L2 verb-class acquisition; yet, immersion allows L2 learners to induce subtle grammatical restrictions not realized in the L1 from input. When encountering novel input violating verb-class restrictions, L2 learners readily abandon L1-absent restrictions, suggesting that CLI occasions weaker L2 representations even after immersion.

Capturing the mood: language acquisition and the bilingual experience of heritage speakers of Spanish in the UK

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A heritage language (HL) constitutes a minority language that children acquire naturalistically, usually in the context of the home and the family. This project seeks to explore the bilingual experience of children in the process of acquiring Spanish as a HL in the UK. I will present the preliminary results of a cross-sectional study on the production of Spanish mood using a sentence completion task and a semantic fluency task. Data collection is underway, so it will encompass approximately 12 monolingual speakers of Spanish in Argentina, and 12 heritage speakers (HS) of Spanish in the UK aged between 4 and 16. Participants self-reported about their frequency and contexts of use of Spanish and English, the number and variety of interlocutors and the types of activities they do in each language (including literacy). The goal was to unpack the individual differences of the bilingual experience and explore their relationship with the production of mood. In the HS group, my predictions are: (i) individual variation in all subjunctive mood contexts as seen in previous research (Giancaspro, 2017); (ii) an effect of age in indirect commands and early acquired contexts (Thane, 2024) but not in later acquired contexts (i.e. doubt, factive emotives) (iii) a correlation between frequency of input (particularly outside the home) and the production of mood (Dracos & Requena, 2023) and a role of literacy (Bayram et al, 2017). For the between group analysis, I predict (iv) a significant difference between the overall production of monolinguals and HS. The current project aims to capture an under-researched period in HL acquisition (children in school age) in order to understand the developmental profiles of HS in the UK. The property of mood has been shown to be variable, but the question raised throughout is: is there a systematicity in its variability?

Challenging Monolingual Norms: The Impact of Translanguaging Practices in a UK-based Community Language School

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Translanguaging has gained recognition as an effective pedagogical approach that supports bilingual students' learning and identity development by allowing them to draw from their full linguistic repertoires (Garza & Langman, 2014; Hernandez Garcia et al., 2023). This challenges the traditional "two solitudes" model of bilingual education by promoting flexible, cross-language meaning-making strategies (Creese & Blackledge, 2010). Although translanguaging research has expanded globally, its application in contexts like Yorkshire—historically associated with a predominantly white, monolingual population, despite its linguistic diversity (Craig, 2012)—remains underexplored. Thus, rooted in translanguaging theory as a transformative tool for inclusion (Li, 2023), this study investigates language use dynamics among multilingual instructors and children at a community language school in York, England. It examines (1) instructors' understanding and application of translanguaging, and (2) how inclusion is fostered through instructor-child and peer interactions. Data were gathered from classroom observations and post-observation surveys during one-hour classes of Italian and Spanish led by with heritage-language learners. Preliminary findings reveal overall familiarity with translanguaging pedagogies, albeit translated into diverse practices. For instance, one Spanish instructor primarily uses Spanish, switching to English only when needed—while another Spanish instructor uses more English, employing elicitation and repetition to accommodate various linguistic abilities (as done by the Italian instructor). Across all classes, student engagement is high, though with timing differences based on language dominance. Specifically, while more structured language use initially poses challenges, in more flexible environments engagement begins immediately. Students also switch to English in peer interactions to support lower proficiency peers, reflecting inclusion in practice. Altogether, these findings show that translanguaging enhances both language learning and identity validation, challenging native speakerism and monolingual ideologies (Halliday, 2006). Translanguaging is more than a pedagogical tool; it empowers students by challenging linguistic inequities, promoting the "multilingual turn" (May, 2013) and validating minoritised identities in education (García & Leiva, 2014).

Change, transfer and stability in bilingual grammars: German tense and aspect

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When L2 learners are exposed to L2 input, they change the configuration of the underlying grammar to match it. In this process, they may (inadvertently) also update the L1 grammar, resulting in a changed system. We investigate a grammatical distinction that is morphologically marked in two languages but meaningful in only one of them, namely, the English and German past tense. Both languages distinguish a synthetic past tense, formed through inflection or ablauting of the lexical verb (e.g. cook/cooked, sing/sang), as well as a periphrastic one (he has cooked/sung). In English, the two forms mark the perfective and imperfective, respectively, while German makes no such distinction. We investigate whether highly proficient German-English and English-German bilinguals will transfer aspect to the aspectually 'empty' German past tenses, that is, whether they use the synthetic German past tense to express bounded events and the periphrastic tense for ongoing ones, as they would in English. Our study is based on some 18,000 tense-marked verb phrases, produced by 20 L1 German speakers with long-term immersion in Canada (attrition group), 20 L1 English speakers immersed in Germany (L2 group), and 20 predominantly monolingual speakers of German (control group). The bilingual groups are matched for proficiency in both languages and language use in daily life. We find no overall distinction on overall use of the two past tenses, which almost deterministically refer to bounded events, while ongoing events are framed in the Present (with only 20 exceptions) across all groups. There are, however, some interesting differences between groups when it comes to verb type and frequency: the attriters use strong verbs more with the synthetic past tense than the other groups, while the L2ers have an overuse of weak verbs in the periphrastic past, and there are interesting interactions with verb frequency.

Characterizing deaf skilled readers as bimodal bilinguals: the interaction of language and domain-general cognitive functions

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Deaf individuals proficient in both a signed and a written language are bimodal bilinguals. This dual modality may shape a unique cognitive profile, with enhanced visual processing skills and distinct language pathways influencing memory, attention, and problem-solving. As part of a larger study investigating reading processes in deaf skilled readers of Spanish, we characterize their cognitive profile and compare them to hearing readers. Participants complete a comprehensive battery of language and cognitive assessments, including vocabulary (Lextale), reading comprehension, lipreading, attention (ANT) and non-verbal IQ (Raven matrices). We also measured working memory (backward span) in language (sign language or spoken Spanish, depending on the group) and with visual presented digits, and visuospatial memory (Corsi blocks). Data collection is ongoing; we have run over 30 deaf participants, and plan to collect 40 for each group. Full results will be presented at ISB15. Within the language measures, preliminary analyses reveal that reading comprehension was not related to either vocabulary or lip reading, but these last two measures did correlate with one another. This suggests that lipreading taps into lexical-level representations (even though the lipreading test included both words and sentences) but does not contribute to reading comprehension in deaf skilled readers. Secondly, for the relationship between language and general cognitive measures (memory, attention and IQ), we find that reading comprehension was related to working memory in sign language but not to attention or IQ. Future analyses with the full sample will look at how these factors impact reading proficiency in deaf skilled readers and how this compares to the cognitive traits that support reading in hearing individuals. These findings will advance our understanding of what predicts reading ability in bilinguals who cannot hear one of their languages.

Co-representing another's Target Language: Switch Costs in Joint Lexical Production

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Using the appropriate language given the communicative requirements of one's social environment is costly for bilinguals who need to select the target language while inhibiting the non-target language. This is particularly the case when constant language switching is required, with the inhibition of the non-target language imposing a 'language switch cost', as indexed by naming latencies and the N200 (Kang et al., 2020). Considering that language control is dependent on social cues for appropriate language use, investigating whether bilinguals co-represent language control processes when they are in a joint setting is important to understand how interlocutors are (seemingly) able to seamlessly switch between languages. While evidence from previous studies on lexical production showed that some aspects of language processing are co-represented between individuals in a monolingual setting (Baus et al., 2014), further research is required to understand whether inhibitory processes are also co-represented between bilingual individuals. To investigate this, we designed a joint version of the language-cued picture naming paradigm to evaluate language switch costs in bilinguals using EEG and naming latencies. Bilinguals who share the same two languages complete a go/no-go task that involves each of the two participants (target respondent is cued with a shape) naming pictures in one of the two shared languages (target language is cued with a colour) in turns. We aim to compare trials where target respondents switch and target languages repeat with trials where target respondents switch and target languages also switch, hypothesizing that if respondents were co-representing their partner's target language (in the previous trial) then respondent switch and language switch trials would impose switch costs. Our key prediction is (1) higher naming latencies and (2) larger N200 in respondent switch and language repeat trials compared to respondent switch and language repeat trials. Data collection is ongoing.

Code-switching among young learners in the EFL classroom

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This paper explores the types of code-switching young learners of English in Norway employ when playing video games in the English classroom. Norwegian society is highly immersed in English, especially among younger generations, resulting in high English proficiency and a substantial influx of English-inspired slang in the youth vernacular (Hasund & Drange, 2014; Sund & Kristoffersen, 2018). The current English curriculum in Norway is open to using any linguistic resources the learners might have in English learning. Despite the acceptance of L1 use in the L2 classroom, extensive target language use is still generally expected. This study presents data from learners (11-15-year-olds) recorded playing digital games in pairs or triads (85 sessions, 30-45 minutes each) during English classes. The games required significant verbal negotiation, and learners were expected to use mostly English, though younger learners were encouraged to use Norwegian if needed. It was predicted that more proficient learners would maintain monolingual English conversations, while less proficient learners would use translinguistic wording (Gardner-Chloros, 2009; Lüdi, 2003) when lacking English vocabulary. Results showed clear development across age groups: younger learners used mostly Norwegian with occasional English switches, especially when reading instructions. In contrast, older groups used mostly English with occasional Norwegian switches, confirming the prediction of code-switching among L2 learners being connected to the lack of or inaccessibility of lexical items. Mixed vocabulary items common in youth speech (e.g., switch-e, join-e, i.e., an English lexical item with a Norwegian suffix) were not documented. Advanced groups used Norwegian mainly for pragmatic reasons (expressions of frustration or celebration). However, some proficient learners also used direct translations from Norwegian even when these were ungrammatical in English (e.g., “it stands X” for “there is X”). These expressions did not cause communication breakdowns and did not trigger repairs, likely due to the shared knowledge of Norwegian.

Cognitive and neural correlates of biliteracy proficiency in English-Greek bilingual children

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Most studies examine cognitive effects of bilingualism without investigating the role of biliteracy. Our study investigates whether English-Greek bilingual children with a higher level of biliteracy have enhanced executive function (EF) abilities and whether biliteracy proficiency is associated with white matter brain microstructure. 28 English-Greek bilingual children (Age of onset before age 5) (age $M \pm SD = 10.1 \pm 1.2$ years 19 females) were tested on Greek and English measures of reading skills and online EF measures. We constructed three biliteracy indices (mean, cumulative percentage, and difference) for the three reading measures (decoding, reading rate and reading comprehension) of each language, resulting in nine indices. The EF tasks include the Hearts & Flowers (H&F), Flanker, Corsi span and the CELF-4 Digit Span. Children completed a nonverbal reasoning and expressive vocabulary tests. A subgroup of these children ($n=8$) underwent diffusion brain MRI. Bayesian model comparisons were performed with uninformative priors to examine the associations between the biliteracy indices and (a) EF tasks and (b) fractional anisotropy of eight white matter tracts. The model with the strongest evidential strength comprised the biliteracy decoding in predicting reaction time (Flowers – Hearts) in the H&F task ($BF_{10}=16.4$). Higher biliteracy decoding mean was associated with faster performance in the incongruent condition of the H&F ($BF_{10}=1.83$). Better biliteracy reading comprehension mean was associated with higher Corsi forward span ($BF_{10}=1.55$). Exploratory analyses revealed that higher biliteracy decoding was associated with lower fractional anisotropy in the left superior longitudinal fasciculus (a language and executive control tract; SLF-L; $BF_{10}=3.9$). Better biliteracy decoding skills are associated with faster task-switching, indicating EF adaptability. The association between biliteracy decoding and SLF-L provides preliminary evidence of brain connectivity correlates of biliteracy skills. These results support earlier research with young monolingual readers in showing an association between EF and bilingual reading skills.

Collaborative Language Transformations: Multilingual Parents and the Creation of an Arts-Rich Translanguaging Picture Book

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This paper presents findings from an arts-rich translanguaging book-making project involving Vietnamese-Australian parents, both heritage and non-heritage speakers. The initiative emerged from a partnership between a Vietnamese language advocacy group, a non-profit community publisher specializing in children's literature, and language scholars. Initially, the group convened to create a book with parents and children aimed at fostering engagement with Vietnamese. Through a series of arts-rich activities facilitated by teaching artists and informed by language scholars and community leaders, the parents embarked on a transformative journey. They collectively authored a narrative that reflects their own journeys of language learning and what they wish to pass on to their children. This process enabled the parents to reconceptualize their perceptions of “broken Vietnamese”, framing it instead as a narrative of resourcefulness and complexity. Employing a 'distributed language' (Cowley, 2011) perspective, this study explores the transformative nature of this collaborative endeavour, drawing on diverse data sources collected during six workshops and related events conducted throughout 2023-2024. The findings suggest the critical role of community collaboration and arts-rich approaches in cultivating multilingual identity development. By documenting this grassroots, community-supported initiative, we aim to establish foundational principles for designing multilingual projects that support language learning and multilingual identity development for the broader educational landscape.

Cowley, S. J. (Ed.). (2011). *Distributed Language* (Vol. 34). John Benjamins Publishing. <https://doi.org/10.1075/bct.34>

Communicative Success and Language Attitudes in Estonian-Ukrainian Communication

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Receptive multilingualism (RM) is a mode of communication in which interlocutors use their own languages while speaking to each other (Rehbein, ten Thije, & Verschik, 2012). Since Ukrainian and Estonian are typologically unrelated, Estonians can understand Ukrainian via their passive knowledge of Russian. This type of communication is called mediated RM. Previous studies in RM have found a link between language attitudes (implicit and explicit) and comprehension (Hilton et al., 2022). As a result, positive attitudes are most likely to encourage interlocutors to make more effort to comprehend the language, while negative attitudes would not yield the same motivational effect. The experiment comprised forty participants, equally divided between speakers of Estonian with passive proficiency in Russian and speakers of Ukrainian with passive proficiency in Estonian. They completed an Implicit Association Test (IAT), filled in a questionnaire with an incorporated Matched-Guise Test (MGT) to assess implicit and explicit language attitudes toward Ukrainian and Russian, and participated in online interactions using two MapTasks employing RM. The preliminary results have shown that Ukrainians explicitly preferred Ukrainian speech for its social attractiveness while implicitly favoring Russian speech for its perceived competence. A discrepancy between the outcomes of explicit and implicit assessments of language attitudes was found among Ukrainians. In contrast, Estonians are anticipated to demonstrate both explicit and implicit preferences toward Ukrainian speech and the opposite toward Russian. A link between language attitudes and the communication success of Estonian-Ukrainian interaction was established, suggesting that language attitudes contribute to comprehension.

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Hilton, N., Gooskens, C., & Schüppert, A. (2022). Language attitudes and receptive multilingualism: A cross-linguistic study of intelligibility in Europe. *International Journal of Bilingualism*, 26(1), 87–106.

Community-initiated social media interactions and community self-awareness in Asturian

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Asturian, a UNESCO endangered language, lacks appropriate legal protections in Spain (Alvarez Sancho et al, 2024). One of the immediate consequences beyond language attrition and receding intergenerational transmission, is that social awareness about the language is mediatized by politics. By examining community-initiated questions posted on social media, we analyze the discourse around the existence of the language, its vitality and its internal variation. We have developed TARDIS (Theoretical-Analysis-and-Reflection-of-Digital-Identification- and-Self-Awareness-in-Social-Media) as a methodology for the creation and analysis of social media corpora. Departing from the naturally occurring dialogue online between members of the community, we crafted four diSerent independent subcorpora with a total of 44,014 words and 1,459 participants. The subcorpora were created using the same methodological parameters, as well as an identical community-guided qualitative matrix. However, they represent four separate online multi-platform conversations at diSerent points in time between 2021 and 2024. They, however, reveal the same tensions. When enticed to produce lexical items that are uncomprehensible to outsiders, or when asked about the conditions under which Asturian could gain legal protections, participants show the same themes: while producing Asturian, there is pressure around internal variation, lack (or misuse) of public resources, and a willing to invest in “useful languages” on one side. The other side claims human rights, culture and community tradition as their arguments. Additionally, we show how Asturian language is never understood outside of the context of the political, economic and social pressure points of multilingualism in Spain.

Álvarez Sancho et al. “Asturian: History, contemporary status, and overview of its Linguistic and cultural characteristics”, *Minority languages in Europe online*, Grenoble, Lane and Røyneland (eds.). Berlin, Boston: De Gruyter Mouton, 2023. 10.1515/lme.24006850.

Comparing morphological and phonological cues in grammatical gender assignment in French as a second language

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French has two-way grammatical gender in which noun endings are argued to provide cues to gender assignment. However, endings can involve final segments or suffixes (Carroll, 1999). Furthermore, these cues can clash: some final segments are correlated with one gender in monomorphemic words ([ɔ̃] in *ballon* MASC [balɔ̃] ‘ball’) but cue the other gender when appearing as a final segment of a derivational suffix (-ation [asjɔ̃] in *communication* FEM). Findings diverge concerning which of these formal properties (if any) L2 learners display sensitivity to. This study addresses the extent to which L2 French classroom learners with beginner-to-intermediate proficiency are sensitive to (conflicting) phonological and morphological cues. To evaluate sensitivity to these cues, a metalinguistic task was used in which participants were presented with a noun and asked to indicate its gender (feminine or masculine). Nouns varied according to whether their final sounds involved clashing cues between phonology and morphology or not. Thus, Clash items included 12 monomorphemic nouns with arguably reliable phonological cues (6 masculine with final [ɔ̃] and 6 feminine with final [j]) as well as multimorphemic items (deverbal nouns with the feminine suffix -ation [asjɔ̃] and compounds with verbal heads which are masculine as a result of compounding (*rinçebouche* M [ʁɛ̃sbu] ‘mouth rinse’). No-Clash nouns were similarly distributed in terms of morphology and gender, but cues did not clash (*le gant* M [gɑ̃] ‘glove’ vs. *remboursement* M [ʁɛ̃buʁsəmɑ̃] ‘refund’). Clash and No-clash nouns did not differ in mean frequency. Participants included 17 beginner-to-intermediate level university students of French with L1 English. Logistic regression revealed a significant interaction between Clash and Morphemic conditions such that the weakest performance occurred with multimorphemic nouns in the Clash condition (odds ratio=0.33, $p<.001$). The results suggest that learners are more sensitive to final segment cues in monomorphemic words than cues from derivational morphology (cf., Kupich et al., 2013).

Comparing Real Time Processing of Spanish and English: Bilingual Toddlers with and Without Autism Spectrum Disorder

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Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by differences in social communication and restricted and repetitive behaviors. In individuals with ASD, structural language skills vary widely and predict long-term outcomes, raising questions about bilingualism's potential impact (e.g., Eigsti et al., 2011; Pickles et al., 2014). As rates of bilingualism and ASD diagnoses increase, understanding how to support language development in bilingual children with ASD remains a key concern. This study examines real-time language processing in bilingual toddlers with and without ASD by analyzing eye-gaze patterns in a looking-while-listening task for both English and Spanish. 13 Spanish-English exposed bilingual two-year-olds ($M=2.30$, $SD=0.30$) have been tested thus far with data collection ongoing. Of this sample, 6 participants have been diagnosed with an autism spectrum disorder. Participants completed looking-while-listening tasks for both English and Spanish, where eye gaze was coded using Peyecoder software (Olson et al., 2020) for frame-by-frame (40ms) looks at a target in pairs of familiar word-object pairs. Each condition included 16 word-object pairs, totaling 32 trials, where participants were shown target-distractor pairs and heard a corresponding instruction to locate a target object in English or Spanish, based on condition. Preliminary results showed typically developing (TD) participants spent significantly more time looking at the target object compared to ASD participants ($p=.001$). This difference was significant for Spanish ($p=.017$) and English ($p=.028$) conditions. There was no significant difference in time looking to target between the Spanish and English conditions for either the TD ($p=.421$) or ASD group ($p=.320$). These findings show the ASD group had reduced overall gaze at targets but no difference in gaze behavior between conditions. As data collection continues, future analyses will control for language exposure, language ability, and ASD traits to inform clinical and caregiver decision-making.

Computational Modeling of English-Spanish Bilingual Reading: Effects of Oral Language Profiles and Initial Literacy Instruction

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Research on the literacy outcomes of bilingual students suggests complex interactions among pre-existing spoken language, literacy skills, and L2 literacy instruction. Using a novel connectionist model architecture, we will simulate early elementary school readers and investigate these interactions in bilingual reading acquisition. The simulations will model reading acquisition in English or Spanish for three types of bilingual oral language profiles: English-dominant, Spanish-dominant, and balanced. We will compare word reading accuracy in English and Spanish across the three profiles (i.e., 3 x 2 design). We will pre-train the model on phonological features based on words extracted from age-appropriate corpora (e.g., CHILDES, Educators Word Frequency Guide). Phonetic representations will be derived using the CMU dictionary (English) and Transdic (Spanish). Each model will then receive literacy instruction predominantly in English or Spanish by mapping orthographic input to phonological output, simulating the naming of a printed word. Trained models will be tested on all English and Spanish words used in the experiments as well as standardized assessments of visual word recognition. Word features from the English Lexicon Project and EsPAL databases will be used to analyze and compare model performance across languages and profiles. We predict that 1) phonological features shared across languages will show robust transfer effects regardless of instruction language, while language-specific features (e.g., English /ə/, Spanish trilled /r/) will show minimal transfer; 2) Spanish-trained models will show higher transfer to reading regular English words (e.g., "hand", "mint") compared to English-trained models' performance on Spanish words; and 3) balanced bilinguals will show bidirectional transfer, while language-dominant bilinguals will show stronger transfer effects from the dominant to non-dominant language. Results will provide insights into early literacy instruction for different bilingual profiles, as well as a foundation for future simulations of dual-language instruction effects, including the timing and exposure to both languages during training.

Concept activation during a picture-word matching task improves visual word processing in spoken and literary Arabic: An event-related potential study investigation

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The diglossic situation in the Arabic language, defined as the use of two varieties of the same language (Literary Arabic: LA and Spoken Arabic: SA), had been considered by some authors as a form of bilingualism/pseudo-bilingualism. Previous lexical decision studies using auditorily presented words have shown that SA words were processed faster than LA ones. In contrast, when presented visually, LA words were shown to be processed faster than SA ones. Semantic matching experiments have shown that words are processed faster when preceded by a semantically related (SR) prime word than by an unrelated (SU) one. Event-related potential (ERP) analyses have shown that SU relative to SR words induce an enhanced N400 component. This study examined whether the activation of a concept by an image followed immediately either by its written SA or LA name (SR) facilitates SA word processing, in comparison to unrelated (SU) names. Reaction times (RTs) and the N400 component were analyzed during a picture-word matching task conducted by 25 Arabic-speaking adults. RTs showed significant effects of language variety ($F(1, 24)=13.44$, $p<.005$), and semantic relatedness ($F(1, 24)=28.29$, $p<.0001$; $M=702$ ms for SR and $M=756$ ms for SU). Interaction ($F(1,24)=5.11$, $p=.033$) was due to difference between LA and SA words in SU only. Analysis of the N400 amplitude showed larger N400 for SU than for SR words, but with no effect of language variety. However, analysis of the N400 latency based on difference waves showed an earlier peak for LA than for SA. These results indicate that priming by the image have improved the visual recognition of LA-SR and SA-SR words to the extent that difference between the two varieties disappeared for the image-related words. These results will be discussed in relation to previous findings in bilinguals and the modulation of the N400 component.

Continuous development of narrative microstructure in school-age heritage children

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Previous studies found that microstructure in oral narratives continues to develop in school-age speakers of Mandarin, especially in semantically complex elements such as adverbial clause and evaluative adverb (e.g., Zhang & Mai, 2024). For children who develop their heritage L1 in L2-dominant contexts, the L1 input is significantly reduced quantitatively compared with monolinguals. However, it is unclear whether there is also reduction in terms of input quality, and if so, whether reduction in both quantity and quality of the input necessarily leads to early stabilization of L1 microstructures. To investigate microstructures in heritage children and their parental input, we used the heritage data reported in Mai et al. (2021), in which 27 children (aged 4-14, Mage=7.89) from Chinese-immigrant families in the UK told frog stories in Mandarin. Their parents (N=18) narrated the same stories in a child-directed manner. We also selected child-directed frog stories told by 18 mothers from Beijing (Beijing Child Mandarin Corpus, Mai et al., in prep) as the monolingual input baseline. We found similar performance between the UK parents and the Beijing mothers in mean length of utterance in words and fine-grained grammatical structures. However, the UK parents had lower number of different words (NDW) and Guiraud's index (both $ps < .001$), indicating reduced lexical diversity in the heritage input. Despite that, children's age was positively correlated with two general microstructure measures of lexical diversity (NDW, Guiraud's index) and fine-grained grammatical structures measured in token (bei-structure, noun-modifying clause construction, adverbial clause) and in type (classifier, evaluative adverb, adverbial clause) ($r = .38-.71$, all $ps < .05$), suggesting continuous development in a wider range of fine-grained microstructures in heritage Mandarin children in the UK than in multilingual Mandarin schoolers in Hong Kong (Zhang & Mai, 2024). Microstructures continue to grow in school-age heritage children despite input reduction in both quantity and quality.

Contributions of declarative and procedural memory to early L2 phonological development

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Individual differences (IDs) play key roles in second language (L2) learning. Two such important IDs are declarative memory (DM) and procedural memory (PM). Although DM and PM appear to play a role in other domains of L2 learning, their role in L2 phonology has until recently been relatively unexplored (Morgan-Short, Hamrick, & Ullman, 2022; see for example Saito & Uchiyama, 2024). Our study asks if DM and/or PM predict L2 phonological learning or interact with other IDs known to be important for L2 phonology. Our study addressed this gap with an investigation of IDs that impacted the L2 phonological learning of English speakers beginning their study of Spanish (expected N=50) at the college level. Over nine months and seven sessions, participants completed assessments of DM (continuous visual memory test) and PM (serial reaction time test) as well as other apparently important cognitive IDs: inhibitory control, domain-general auditory processing tasks, and phonological short-term memory. Phonological learning was assessed longitudinally (four times) with an ABX perception task and a 2-Alternative Forced Choice task. The perception tasks targeted spirant /d/ and diphthong /ei/ in two phonetic contexts: within words (hypothesized to be lexicalized knowledge supported by DM) and between words (hypothesized to be rule-based knowledge supported by PM). Logistic mixed effects models fit to data from the initial cohort (n=26) found that for both perception tests, DM and PM predicted accuracy and reaction time, but typically only in interaction with domain-general auditory processing (format, rise time, and duration discrimination). DM and PM were implicated in the early stages of phonological L2 learning, but they did not appear to make unique contributions to specific aspects of L2 phonological learning (lexicalized vs. rule-based phonology). These results may inform facilitative L2 learning approaches for the diverse range of L2 learners.

Contributions of linguistic ability and bilingual experience to working memory and interference control in bilingual children with and without DLD

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The nature and extent of the relationship between cognitive control and bilingual experience in children is unclear because many factors, such as language exposure and proficiency, contribute to it (Gunnerud et al., 2020). Children with developmental language disorder (DLD) exhibit weaknesses in both language and cognitive control, including working memory (Leonard et al., 2007) and interference control (Marton et al., 2012). However, findings on how bilingualism interacts with these cognitive control skills in children with DLD are mixed. This study examines how language ability and bilingual experience influence performance in bilingual English-Spanish children, aged 8-12, with and without DLD, using a recognition and a binding task based on a directed-forgetting paradigm. We hypothesized that bilingual experience would initially predict performance, with language ability becoming a stronger predictor as task complexity increases, especially in children with DLD. Language ability was assessed with selected subtests of the CELF-4/5. Parents reported children's bilingual experience with the Language Experience and Proficiency Questionnaire (LEAP-Q; Marian et al., 2007). Although data collection is ongoing, the preliminary results for accuracy on the recognition task suggest that the best model for DLD children includes language exposure alone ($R^2 = .1353$, $p < .001$), whereas for typically developing (TLD) children it only includes language ability ($R^2 = .0301$, $p < .05$). For the more complex binding task, the best model includes a combination of language ability and bilingual experience in DLD children ($R^2 = .0971$, $p < .001$), while language ability alone predicted performance in TLD children ($R^2 = .1174$, $p < .001$). These findings suggest that bilingualism may support cognitive control in children with DLD under lower task demands, but as complexity increases, DLD-related impairments become more apparent. Further investigation with refined predictors is needed to better understand the mechanisms behind the interaction between bilingualism and DLD.

Conversational support for the non-societal language in bilingual families: language choice in parent-child interactions.

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Many children in bilingual families do not speak the non-societal language (NonSocL) or do not speak it well. One reason may be the degree of parental conversational support for the NonSocL. Such support occurs when parents (1) normally speak the NonSocL to children, (2) affirm children's use of the NonSocL by responding in the NonSocL, and (3) respond in the NonSocL if children speak the societal language (SocL), thus encouraging children to continue in the NonSocL, too. The information on parents' use of such conversational support is limited. This survey study fills that gap through querying mothers' and fathers' language choice in interactions with same aged children (3.5-year-olds) who had all heard a NonSocL and a SocL from birth (N=94). Parents reported on overall language choice and indicated their level of agreement with statements like "when my child speaks to me in the SocL I respond in the NonSocL." Children and parents generally tended to address each other in a single language but children spoke two languages with parents more than the other way around. Parents who addressed children solely in the NonSocL showed overwhelming conversational support for the NonSocL as characterized above. Parents who spoke only the SocL to children usually responded in it, too. Parents who regularly addressed children in both a SocL and a NonSocL showed little support: Only half responded in the NonSocL if children spoke it to them, and most responded in the SocL after children used it. If parents speak two languages with preschoolers and do not pay much conversational attention to what language children are speaking, there may be little they can do to stem the tide from the SocL that will be engulfing children once school experiences start to encroach on what is happening at home.

Conversational turn-prediction abilities in bilingual toddlers

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Turn-taking (TT) is a difficult skill required to have smooth and fluent conversations. Adults achieve this fluency by anticipating the completion point of their interlocutor's conversational turns (CT) relying on contextual, lexico-syntactic and prosodic cues, which children do not have at their disposal. At one year of age, children predict the completion of CTs by relying solely on prosodic cues, especially in infant-directed speech (IDS). They start being able to rely on lexico-syntactic cues between 30 and 36 months of age. It is unknown whether bilingual children's turn-taking abilities follow a similar developmental trajectory, given that they face the additional challenge of learning and differentiating two sets of prosodic and lexico-syntactic cues to CT completion in each of their languages. This study included 30- (N=29) and 42- (N=22) month-old bilingual toddlers acquiring Spanish and Basque, two languages that differ drastically in prosodic, lexical and syntactic structure. Toddlers completed an eye-tracking anticipatory looking paradigm in which they observed interactions between two puppets who spoke in Spanish or Basque and in IDS or adult-directed speech (ADS). To directly test the extent to which toddlers weigh prosodic and lexico-syntactic cues to predict the completion of CTs, the completion points were marked by prosodic and lexico-syntactic cues for half the utterances in each conversation, but only with lexico-syntactic cues for the other half. As previously shown for monolinguals, bilinguals were able to predict more accurately CT completions when the turns were marked by both lexico-syntactic and prosodic cues compared to only lexical cues. As the next step, we will assess directly how infants' degree of exposure to each language influenced their performance across speech registers in that language. Findings from this study will enable us to trace the developmental trajectory and the effects of language exposure on early turn-taking abilities in bilingual children.

Cortical thickness differences in bilingual and monolingual children

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Objective: Prior studies have identified neuroanatomical differences in bilinguals, but most have focused on gray matter volume (GMV) (e.g., Mechelli et al., 2004; Olulade et al., 2015; Schug et al., 2020), and few on cortical thickness (CT) (Felton et al., 2017; Vaughn et al., 2021) even though CT is a more specific (singular) measure. Prior results were often interpreted in terms of language and/or executive control function, but often without directly testing for brain-behavioral associations using measures of these two specific skills. Here we tested for (1) neuroanatomical differences in large groups of cultural early Spanish-English bilingual children and monolingual children, and (2) the associations between the resultant neuroanatomical regions with skill performance. **Methods:** Groups of early Spanish-English bilinguals (N=622, age M=9.8) and English monolinguals (N=608, age M=9.8) matched on demographic variables were drawn from the Adolescent Brain Cognitive Development (ABCD) Study. We tested for between-group differences on vertex-wise CT using the SPM12 (similar for GMV but results not included here) and the CAT12 Toolbox. Resulting areas were tested for associations with performance on Picture Vocabulary and Flanker Task, and (based on the neuroanatomical findings), the Little Man Task for visuospatial performance. Static thresholds were voxel-wise $p < 0.005$ uncorrected; cluster $p < 0.05$ FDR. **Results:** Relative to Monolinguals, Bilinguals had thinner cortex in multiple areas extending across all lobes in both hemispheres and thicker cortex in the left frontal, right parietal and bilateral temporal and occipital lobes. While many of these results converge with several past findings (cited above) none of the regions identified to have CT differences revealed correlations with skills performance. **Conclusions:** These results demonstrate extensive differences in bilingual and monolingual children's cortical thickness but fail to demonstrate that these discrepancies are related to language, executive control, or visuospatial function.

Cortical Tracking of Code-Switching in Naturalistic Speech Perception: Insights from Spanish-English Bilinguals

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Code switching is a critical tool for successful communication between bilingual speakers with overlapping linguistic backgrounds, aiding speakers in contextual adaptation and enhancing listener understanding (Beatty-Martinez et al., 2020; Rayo et al., 2024). In this ongoing study, we have investigated the impact of code-switching on neural correlates of speech perception for a cohort of simultaneous Spanish-English bilinguals from the US-Mexico border region. Specifically, we evaluated how code-switching impacts cortical tracking of speech, an electrophysiological readout of acoustic and linguistic encoding during comprehension (Meyer et al., 2020; Obleser & Kayser, 2019). We recorded 64-channel EEG while healthy adult participants (current n = 7; target n = 30) listened to three naturalistic passages (~3 minutes each) that were constructed so as to contain approximately 50% Spanish content & 50% English. Intra-sentential switching and inter-sentential switching were embedded in each passage with equal frequencies of occurrence. Using a forward modeling approach (Crosse et al., 2016), we quantified cortical tracking of the broadband (1-25Hz) and narrowband envelopes in the delta (1-3Hz), theta (3-7Hz) frequency ranges, which roughly correspond to the rate of phrases/words and syllables in the continuous speech stream (Lakatos et al., 2008). Preliminary findings highlight broadband and band-specific relationships between characteristics of participants' language history and cortical tracking. Planned additional analyses will evaluate the impact of code-switching type and the direction of the switch (Spanish to English vs. English to Spanish) on cortical tracking of speech, as well as how such factors impact encoding latencies as evidenced by multivariate temporal response functions. These findings inform understandings of neural function for bilinguals when listening to naturalistic speech that contains code-switching. Future work may build upon these findings by evaluating the relationship between code-switching and cortical tracking of self-produced speech.

Cracking the code to the letterbox: sign phonological awareness and reading in deaf children

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Learning to read is an issue for many (though not all) children who are born deaf, regardless of the language(s) they acquire (Antia et al. 2020; Vizzi et al. 2022). Historically, compared to their hearing peers, deaf children's reading level is on average subpar achievement, whether they sign or speak (Kyle 2018). Research has shown a weak correlation – about 11% – between spoken phonological awareness and reading comprehension in deaf children (Mayberry et al. 2011). The age of first language exposure and sign language knowledge are among the main factors contributing to better reading skills (Mayberry 2007). Through the case of Flemish Sign Language (VGT) and written Dutch, we examine what role is reserved for deaf children's sign language during the process of learning to read. Does increased VGT phonological awareness enhance deaf children's reading in Dutch? By investigating the role of sign rhyming and fingerspelling and their possible functional connection to learning to read we aim to unravel (part of) the complex reading mechanism. The study combines standardized and newly developed assessments including background and language measures, namely a questionnaire, three non-verbal subtests, a spoken phonological awareness test, a reading comprehension test, and spoken and signed language excerpts of short story retelling. Further, two new assessments were developed. (1) Rhyme Judgment Task for VGT measures children's ability to identify similarity relations in VGT signs. This assessment includes 20 videos of the stimuli each followed by 4 drawings. Children are asked which item rhymes with the stimulus sign. (2) Fingerspelling test includes videos of fingerspelled real words (n=20) and nonsense words (n=15). Children decide on their legitimacy and produce the corresponding sign upon recognition. The collected data includes results of 7 deaf children who were enrolled in the same school for the deaf. Data is currently being analyzed.

Creativity in Bilingual Older Adults: A Systematic Review on Verbal and Non-verbal Performance

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Introduction: Creativity plays a vital role in cognitive health and adaptability in older adults. Bilingualism has been associated with cognitive advantages, such as enhanced executive functioning. However, it has also been linked to lower language performance in each individual language. Thus, the impact of bilingualism on creativity in older adults remains underexplored, particularly when verbal and non-verbal task performance are analyzed separately. Objective: To systematically examine and compare the creativity levels of bilingual and monolingual older adults, focusing on creative abilities such as divergent thinking, cognitive flexibility, and idea generation. Furthermore, we will break down the results separately for tasks that utilize verbal and non-verbal components to distinguish between language use and general cognitive functioning. Methodology: This review will follow PRISMA guidelines. Databases including PubMed, PsycINFO, and Scopus will be searched for studies published in English from 2000 onward, focusing on older adults (aged 65+) and comparing creativity-related outcomes between bilingual and monolingual groups. Inclusion criteria will target studies that (1) assess creativity in relation to bilingualism, (2) involve creativity tests, and (3) report outcomes for bilingual and monolingual older adults separately in verbal and non-verbal domains. The quality of studies will be assessed using the Cochrane Risk of Bias Tool. Expected Outcomes: The systematic review aims to clarify if bilingualism provides a creative edge in later life, potentially identifying whether lifelong bilingual practice fosters enhanced creative skills through neuroplasticity and cognitive reserve. These results will refine theoretical models of bilingual cognition, shedding light on how bilingualism affects the brain's functioning. By understanding how bilingualism differentially affects verbal and non-verbal performance, researchers can explore the role bilingualism plays in cognitive resilience and healthy aging.

Cross-language activation among different-script trilinguals: The effects of individual differences in proficiency and cognitive control on L3 lexical processing

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Do individual differences in proficiency and in cognitive control abilities modulate lexical cross-language activation among different-script trilinguals? Previous research found larger cognate facilitation in the less proficient language (Van Hell & Tanner, 2012), and evidence that cognitive control modulates language processing (Blumenfeld & Marian, 2013). However, the degree to which such modulations are present in trilinguals has not been thoroughly explored. The current study re-analyzes data from 105 moderately proficient Arabic-Hebrew-English trilingual undergraduate students, who completed a semantic relatedness task in their L3 incorporating 28 Arabic-English double cognates, 28 Hebrew-English double cognates and 28 triple cognates. Our previous work (Elias et al., in press) found no differences in facilitation from double and triple cognate primes. Here we explored whether these effects are modulated by individual differences in L1, L2 and L3 proficiencies, measured both subjectively (Language History Questionnaire) and objectively (Semantic Fluency task, Receptive Vocabulary, and Picture Naming), as well as by measures of cognitive control (Card Sort, Color span and Stroop task). Preliminary analyses showed that higher English proficiency was associated with faster and more accurate performance, but all participants showed equal facilitation for double and triple cognates. In contrast, none of the cognitive control measures influenced performance. These results may imply that domain-general cognitive control does not necessarily impact trilinguals' lexical processing, or that the relative homogeneity of the sample prevented detection of such modulations.

Cross-lingual Influence in Latent Multilingualism

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In literature latent multilingualism refers to the presence of multiple languages within a text or discourse, even when they are not overtly expressed. While less visible than overt or manifest multilingualism, latent multilingualism is widespread and plays a significant role in shaping meaning and understanding. Latent multilingualism can be expressed in multiple ways and might encompass various linguistic phenomena, such as translation, allusion, intertextuality, and the influence of one language on another. For this reason, latent multilingualism can be understood through a cross-lingual influence (CLI) lens, which refers to the way in which one language affects another in a specific context or, in this case, text. By employing this linguistic notion to literary texts, we aim to show that in multilingual literature the grammatical structure or the lexis are often transferred from one language to another, leading to latent multilingual literary practices. By taking examples from Italo Svevo's *La coscienza di Zeno*, Tomer Gardi's *Broken German* etc. we also aspire to shift from an error-oriented view of these "broken languages" to a more dynamic understanding of their literary functions.

Cross-linguistic activation in Spanish-Russian bilingual children

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The study aims to add to the growing research on grammatical gender processing in bilinguals. Evidence from naming and translation tasks with adult bilinguals supports the gender-integrated representation hypothesis, showing a gender congruency effect (GCE) where reaction times (RTs) are faster for gender-congruent nouns (Salamoura & Williams 2007; Lemhöfer et al. 2008; Klassen 2016; Paolieri et al. 2019; Sá-Leite et al. 2023). Findings from bilingual school-age children who are presumed to have acquired gender, though their knowledge may still be unstable, particularly in the heritage language (HL) are yet inconclusive (Vorobyeva 2020). The study asks: Does cross-linguistic activation occur at the lexical level in both the heritage and societal languages (SL)? How do language dominance and the degree of transparency of the gender system in the HL modulate the GCE, if at all? Twenty-seven children (ages 5-14) living in Spain participated in a picture-naming task, producing adjective-noun phrases in Russian and article-noun-adjective phrases in Spanish, using 40 gender-congruent and gender-incongruent masculine and feminine nouns. Language dominance was measured by the total and different number of words produced in oral narratives. The preliminary analysis of RT data from 18 children (mean age=10), in Table 1, suggests that lexical retrieval is generally faster in the SL, while the GCE appears only in the HL where interference in the responses arises in the incongruent conditions for both masculine and feminine nouns. We will further address whether the levels of activation involved in the process of gender selection may be modulated by gender transparency and language dominance in a larger data sample.

Table 1. Mean RTs.

Target	gender	Gender congruency	Mean RTs
Russian	M	GC	1402
Russian	M	GI	1529
Russian	F	GC	1463
Russian	F	GI	1514
Spanish	M	GC	1244
Spanish	M	GI	1258
Spanish	F	GC	1266
Spanish	F	GI	1271

Cross-linguistic influence and cumulative cross-linguistic priming in bilingual children's relative clause comprehension

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Cross-linguistic influence in bilingual acquisition has been conceptualised as cross-linguistic structural priming due to long-term prior linguistic exposure (e.g., Serratrice, 2016). Cross-linguistic structural priming has been investigated in children's production, but not in comprehension. Hence, it is unclear whether cross-linguistic influence in children's comprehension can be conceptualized as cross-linguistic structural priming and whether it accumulates due to increased cross-linguistic exposure. In within-language and cross-linguistic priming experiments, we investigate whether: (RQ1) cross-linguistic influence occurs in bilingual children's relative clause (RC) comprehension; (RQ2) we can prime this cross-linguistic influence; (RQ3) RC priming effects are cumulative. Thirty-six English-Dutch and 35 German-Dutch bilingual children (6-to-11 years) participated. RC word order in Dutch is ambiguous between a subject (SRC; The cat that hugs the cow) and an object interpretation (ORC; The cat that the cow hugs), similar to German. English ORC order overlaps with Dutch RCs. Children's Dutch relative clause comprehension was tested in Dutch-to-Dutch and German-to-Dutch/English-to-Dutch priming experiments. Target items were spoken Dutch ambiguous RCs paired with two pictures depicting the SRC and ORC interpretation out of which children had to make a choice. A disambiguated SRC, ORC or neutral prime preceded each target item. Generalized linear mixed effect models showed cross-linguistic influence from English to Dutch (RQ1): English-Dutch children were more likely to interpret Dutch ambiguous RCs as ORCs than German-Dutch children in both priming tasks. ORC primes did not prime ORC choices in the within- and between-language tasks in either group (RQ2). However, there was a positive relationship between children's previous ORC choices and ORC choice on a given trial in within-language (English-Dutch children) and cross-linguistic priming (both groups), showing cumulative ORC priming (RQ3). Our findings suggest that cross-linguistic influence in comprehension in bilingual acquisition is the outcome of long-term cross-linguistic exposure, in line with implicit learning accounts of priming.

Cross-linguistic Influence in Norwegian as a Third Language among Ukrainian-speaking Learners

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Third language (L3) acquisition has become a key area for studying cross-linguistic influence. This study examines L3 Norwegian acquisition among Ukrainian-speaking (L1) learners with English as their second language (L2). We focus on verb placement in four grammatical structures: (1) lexical verbs in main clauses, (2) modal verbs in main clauses, (3) lexical verbs in subordinate clauses, and (4) modal verbs in subordinate clauses. These structures allow us to analyze how prior knowledge of Ukrainian and English influences Norwegian word order, given the similarities and differences between the languages. We investigate the following research questions: RQ1. Does cross-linguistic influence occur from the L1, the L2 or both previously acquired languages? RQ2. Do experiential variables, such as age of onset, proficiency, and current language use modulate the L3 acquisition process? Data were collected through a gap-filling task which was administered in both Norwegian and English. 27 Norwegian adult beginner and intermediate learners enrolled in Norwegian courses have completed the task. An English proficiency test was also conducted to assess participants' L2 proficiency. This language combination helps us identify whether Norwegian word order is influenced by L1 Ukrainian and L2 English, with (non-)facilitation expected from both languages based on structural similarity. Results indicate a strong preference for V-Adv word order in all four conditions, with higher V-Adv preferences in main clauses (conditions (1) and (2)). The findings do not provide evidence for CLI from either language and rather suggest learning of surface level Norwegian word order in main clauses, and overgeneralization of the same word order in subordinate clauses. Furthermore, increased use of Norwegian has been found to lead to a stronger preference for target-like verb-adverb order in main clauses relative to subordinate clauses in Norwegian.

Cross-linguistic influence in the sound system? An analysis of unstressed /e/ and /a/ in North American heritage Norwegian

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This study investigates the phonetic overlap between /e/ and /a/ in unstressed position among North American heritage Norwegian (NAmNo) speakers. The analysis examines whether these phonemes are distinct in NAmNo speech and aims to enhance understanding of heritage language sound systems. We hypothesize a varying degree of phonetic overlap among NAmNo speakers, influenced by the English majority language, but with the phonological oppositions in the heritage language remaining unchanged (Polinsky, 2018; Hjelde, 1992; Natvig, 2022). In Praat (Boersma, 2001), we analyzed vowels in data from CANS (Johannessen, 2015). Our findings indicate overlapping realization of unstressed /e/ and /a/, while stressed /e/ and /a/ remain phonetically distinct. We propose that our English-dominant heritage speakers of Norwegian realize /a/ as [ə] in NAmNo by using the English rule for unstressed vowel realization. While Norwegian phonetically distinguishes between /e/ [voc] and /a/ [voc, dorsal, low, high] in stressed and unstressed positions, English neutralizes distinctive features in unstressed positions (Harris, 1994). We understand cross-linguistic influence as non-suppression of English grammatical rules in the production of Norwegian (Natvig, 2022), suggesting the distinctive opposition between /e/ and /a/ in NAmNo persists. This aligns with previous studies (Hjelde, 1992; Natvig, 2022).

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Cross-linguistic uses of the LexTALE as a measure of language proficiency: Validated percentiles for monolinguals and bilinguals in English, French and German

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Bilingualism research relies on cross-linguistically comparable proficiency assessments that can be obtained easily and quickly. These assessments provide diagnostics for relative proficiency and/or dominance in a bilingual's languages. For the LexTALE (Lemhöfer & Broersma, 2012), a vocabulary size task promoted as a 'quick and valid' measure of global proficiency, the present study establishes validated cross-linguistic norms for comparing the English, German and French versions of the LexTALE in different groups of bilinguals. In a large cross-sectional study, more than 500 monolingual and bilingual speakers with English, German and French as either the L1 or L2 took the LexTALE in both of their languages. Specifically, we tested groups of L1-dominant speakers in their home countries ("monolinguals"), L2-dominant L1 speakers in diaspora ("L1 attriters") and L2 speakers residing in L2 countries ("L2 speakers"). We validated LexTALE scores in each group against more holistic proficiency measures in each language (C-tests; Grotjahn et al.; 2000) and against self-ratings and language usage data in the Bilingual Language Profile (Birdsong et al., 2012). The results show differences in the respective groups' mean scores across languages, indicating that cross-linguistic scales are required to make valid cross-linguistic proficiency assessments or derive relative language dominance scores from the LexTALE. On the basis of the group means and variance, we compute group-specific percentiles to create valid cross-linguistic scales of LexTALE scores for L1 and L2 speakers. The study provides percentiles per language and group to enable cross-linguistic comparison of LexTALE scores for different types of adult L1 mono- and bilinguals and L2 learners. We present the rationale and procedure, the normed percentiles and links to the project website so as to encourage bilingualism researchers to extend the rationale to other languages and language combinations.

Deconstructing Multilingualism and its Association with Cognitive Aging among Older Adults in India

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India's rich linguistic and sociocultural diversity offers a unique opportunity to study the role of multilingualism in cognitive aging. Leveraging the Longitudinal Aging Study in India–Diagnostic Assessment of Dementia (LASI-DAD), we describe the linguistic profile of multilingual older Indian adults and the association of second language (L2) age of acquisition (AoA), L2 proficiency, and L2 daily use with cognitive functioning. The analytic sample included 492 multilingual older adults (Mage [SD]=71[6.4], Myears of education [SD]=7.1[5.6], 27% without any formal schooling, 50% female, 32% spoke ≥ 3 languages). Participants completed a comprehensive language history questionnaire and cognitive battery assessing the domains of executive functioning, memory, and language. Analyses were stratified by education (no vs some schooling) and all models adjusted for relevant sociodemographic factors. Participants reported 17 different first languages represented across five language families: Indo-Aryan, Dravidian, Austro-Asiatic, Tibeto-Burman, and Andamanese. About 39% of participants reported Hindi as their L2, followed by English and Kannada at 13% each. Nearly 60% of participants reported learning their L2 during childhood, and 37% reported using it daily. Around 40% of participants endorsed good-to-excellent L2 proficiencies in understanding and speaking, but about 42% reported very poor reading and writing proficiencies. Among participants with some formal schooling, greater L2 proficiency was only associated with better executive functioning ($B=0.07$, [0.01,0.13]). Neither AoA nor L2 use were associated with cognition among participants with schooling. Among participants without any formal schooling, early AoA was associated with better cognitive performance in language ($B=0.26$, [0.01,0.51]), greater L2 proficiency was associated with better executive functioning ($B=0.12$, [0.03,0.20]), but daily use was not associated with cognitive performance in any of the domains. The aging multilingual community in India includes bi-/multilingual people from different language families, and educational levels. Specific aspects of multilingualism were associated with cognitive performance but differed depending on educational background.

Defining bilingualism: Reconciling self-identification and researcher determination

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Though multilingualism is a spectrum, researchers often employ labels such as “multilingual,” “bilingual,” “monolingual,” or “heritage speaker” to describe their participants. While these labels might be used to describe people, who know multiple languages or the frequency and context of their language use (e.g., Antoniou, 2019; Kroll et al., 2014), researchers often vary in their criteria for “bilingual,” posing a problem for cross-study comparisons (e.g., Surrain & Luk, 2017). In addition, self-identification as bilingual may vary based on individual factors regardless of language proficiency (Fishman, 1965). Lack of consensus about what these terms mean hinders data interpretation and replication. Our research questions, “How do participants talk about their language background?” and “Are these descriptions consistent with researchers’ determinations of ‘bilingual’?”, investigate what “bilingual” means to both participants and language researchers. We collected survey data from 52 participants, 26 of whom were selected based on their self-identification as bilingual. They spoke between 2 and 6 languages ($M = 2.92$) and altogether represented 29 unique languages. We coded our participants’ responses to reflect the categories identified by Surrain and Luk (2017), finding that they rarely reported objective proficiency but instead self-assessed their language knowledge based how and where they used the languages. These results underscore the importance of providing detailed descriptive information about participant language background in multilingualism research. We will also present preliminary data from a survey of language researchers that investigates common criteria for bilingual and multilingual classification. Within these responses, we will explore whether there are disciplinary trends in bilingual identification and categorization, in addition to reporting the most common characteristics of “bilingual” and other multilingual labels. We will use the combined results from layperson participants and researchers to make recommendations for researchers of multilingualism that ensure a more consistent use of terminology.

Degrees of morphological awareness in French Spanish speakers

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Morphological awareness (MA), the ability to perceive and manipulate the internal structure of complex words [1], is crucial in reading achievement. In children, it develops from both exposure to language (L1), and formal instruction (L1 and L2). Declarative knowledge and procedural knowledge accumulate, supporting the mental lexicon's development and the inferential processes underlying reading comprehension [4]. In adults, studies reveal gradual sensitivity to morphological structures in L2 comparable to L1 [2] and show that MA is a key individual difference factor in reading comprehension [3]. Cross-linguistic transfer effects of morphological knowledge in French-Spanish bilinguals and how this interacts with language-specific morphological characteristics is examined. French (FR) and Spanish (SP) differ in both orthographic and morphotactic transparency, which impact reading skills, including MA and transfer ability. Accordingly, L1 SP and L2 FR speakers should show different degrees of MA, and this should affect their L2 performance. This will be tested with:

- 4 groups: FR-SP and SP-FR bilinguals, FR and SP monolingual controls
- 5 MA dimensions: word decoding, morphosemantic and morphosyntactic analysis, relational and distributional knowledge
- 1 text comprehension with literal and figurative meanings

We aim to redefine MA as "degrees of MA," highlight morphology's role in structuring the bilingual lexicon, and explore its influence on L2 acquisition.

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Developing a Questionnaire on Adults' Beliefs about Child Language Development and Bilingualism

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The language environment is a key factor in children's early language skills (Anderson et al., 2021). Parents' beliefs about language development shape the quantity and quality of language input (Leung & Suskind, 2020). In a bilingual context, these beliefs may also influence language choice in interactions with children (King et al., 2008). The aim of our study was to develop a reliable, criterion-referenced questionnaire to assess beliefs about early language development and bilingualism and how they align with evidence-based knowledge. We began by reviewing existing instruments and literature on language-supportive parenting behaviours. Based on this review and expert input, we drafted 88 items, which were pilot-tested online with 98 participants. Following the pilot, individual items were eliminated based on difficulty, negative impact on reliability, or redundancy. The resulting 31-item questionnaire has moderate difficulty, good reliability, and takes approximately 10 minutes to complete. It addresses dimensions such as quantity and quality of language input, preverbal communication, infant-directed speech, responses to language errors, and media exposure. Importantly, it also includes items specific to bilingualism and bilingual development. To evaluate the final version of the questionnaire, we conducted an additional study with 415 participants who completed the questionnaire online. We will present findings on its reliability and item difficulty. We hypothesise that there is a positive correlation between participants' education and the alignment of their beliefs about language development with scientific knowledge. Our tool provides a valuable resource for future research investigating how parental beliefs relate to children's language outcomes, exploring cross-cultural differences in these beliefs, and evaluating educational interventions.

Developing the Teacher Attitude Scale for Translanguaging Practice

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Translanguaging is a pedagogical practice whereby students' full linguistic repertoires are celebrated and utilised in the classroom (e.g. Garcia, 2009). Translanguaging theory and practice are evolving concepts in multilingual education – the empirical evidence base of translanguaging is scarce (Singleton & Flynn, 2022). Research in other fields suggests that positive teacher attitudes correlate with improved student performance and motivation (e.g. Tang & Hu, 2022). Initial studies indicate a connection between teacher attitudes and translanguaging pedagogy. However, to date, most of such studies have been carried out with small participant groups and exclusively in the context of language teaching (e.g. Nambisan, 2014), questioning the generalisability of the findings. To address the need for more empirical research and better measurement of translanguaging, this talk discusses the development of the Teacher Attitude Scale for Translanguaging Practice (TAS-TP) that measures teachers' attitudes towards translanguaging in the classroom. TAS-TP is designed to generalise beyond the language teaching context, to all levels of education, different subjects and different language contexts. Existing literature and experts in translanguaging were consulted to construct a pool of 38 candidate questionnaire items, selected to reflect different aspects of translanguaging practice. A total of 502 teachers involved in multilingual education filled out the candidate items. Based on an exploratory factor analysis, the TAS-TP was then reduced to 22 items ($\alpha = 0.93$) across four factors of translanguaging: use of student dominant language within the classroom ($\alpha = 0.85$), engagement with multilingual classroom interactions ($\alpha = 0.88$), engagement with multilingualism ($\alpha = 0.9$), and proficiency with multiple languages in student interaction ($\alpha = 0.8$). Convergent validity was also tested against existing translanguaging measures. The final TAS-TP is a psychometrically constructed, reliable measurement tool with clear application for reflections around classroom practice and future studies on translanguaging pedagogy.

Development of decoding skills in second language learners. A comparative study of monolingual native French-speaking, bilingual native French-speaking and newcomer non-native French-speaking primary school children.

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Previous literature suggests that decoding skills develop at the same rate and efficiency in monolingual and second language learners. This study aimed to refine this view by contrasting different profiles of second language learners. To this end, we recruited 77 children who had been exposed to French at least since kindergarten and at most since birth (referred to as "native French-speaking bilingual children"); 180 children who had recently arrived in France and for whom learning to read might be more difficult because they had to learn to speak and read at the same time (referred to as "newcomer non-native French-speaking children"). We also included a monolingual group of monolingual French-speaking children. They completed word and nonword reading tasks. All groups were matched for duration of primary school attendance. While monolingual and bilingual native speakers performed similarly on both tasks, the newcomer children scored lower. Interestingly, the difference between the groups was significantly higher on the word reading task than on the nonword reading task. These results suggest that the word reading skills of the newcomer children may be influenced by their vocabulary knowledge in French, probably because they had much less exposure to French than the bilingual French-speaking children. Interestingly, the scores of the newcomer children were more heterogeneous than those of the native children. To account for this heterogeneity, we examined the contribution of a number of contextual factors to decoding performance. We found that the fact that the children had started to learn to read in another language and had been exposed to Latin orthography played a significant role in the newcomers' scores, demonstrating cross-linguistic transfer of decoding skills. These findings have important clinical implications for the identification of newcomer children with reading difficulties. Indeed, they suggest that native psychometric tests cannot be used without some adaptation.

Development of societal language morphological and lexical knowledge in bilingual children

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Acquisition of societal language includes both lexical knowledge, which depends on exposure to specific words (tokens), and morphological knowledge, mainly driven by cumulative exposure to language patterns (types). The current study examines how these two sources contribute to potential gaps between heritage language speaking children and their monolingual peers (e.g. Shahar-Yames et al., 2018). Across two studies, we map the developmental trajectory of lexical and morphological knowledge. A first study of 148 monolingual and bilingual kindergarten children found group differences in both vocabulary and morphological knowledge. Importantly, bilingual children reliably recruited their morphological knowledge, especially when processing pseudo-words. A second study of 135 bilingual and monolingual 2nd and 4th graders again found persistent group differences in vocabulary, but a more complex pattern in morphological knowledge. All children performed equally well in a morphological comprehension task, and performance improved with age. In contrast, in both real-word and pseudo-word morphological production tasks monolingual children outperformed bilingual children in 2nd grade, but the group difference narrowed in 4th grade. Detailed error analyses across all tasks revealed that monolingual children recruited more morphological elements than bilingual children (Michaly & Prior, 2024). Taken together, these findings emphasize that a nuanced investigation of morphological knowledge separately from vocabulary is crucial for accurately describing societal language acquisition. They also highlight the enormous promise of morphologically-based interventions for supporting Hebrew acquisition among bilingual children.

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Development of Spanish locative copulas in Catalan-Spanish bilingual children

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While the distribution of Spanish locative copulas with [+/-dynamic] subjects (event vs. objects; *La graduación es en el auditorio* vs. *El atril está en el auditorio*) has received limited attention (e.g., Leone-Fernández et al., 2012; Dussias et al., 2014), research on its acquisition by children is almost nonexistent, particularly for bilingual children (with the exception of Cuza & Guijarro-Fuentes, 2020). This study fills this gap by examining the production of the Spanish copulas *ser* and *estar* in locative constructions by Catalan-Spanish bilingual children of different ages and language dominance. The Catalan and Spanish copular systems partially overlap, introducing complexity in acquisition: both languages select *ser* with events, whereas Spanish selects *estar* with objects and Catalan alternates between *ser* and *estar*. This partial overlapping can lead to crosslinguistic influence, possibly modulated by age and language dominance. Three groups of bilingual children (N=118, 7–14 years old), classified into three age ranges and by their Catalan-Spanish language dominance, including different language contexts, performed an Elicitation Oral Production Task. Participants had to produce a copular sentence prompted by an event or object uttered by the experimenter and represented visually (*Ayer la boda... fue en la playa...*, *Ayer la sombrilla... estaba en la playa...*). The task included 6 events and 6 objects. For event location, our bilingual children gradually produced *ser*, resorting to an initial overextension of *estar*. For object location, all groups accurately used *estar*, behaving adult-like (Cuza & Guijarro-Fuentes, 2018; Perpiñán, 2015). There was no effect of language dominance, only an age-related effect. Overall, these findings support an early mastery of *estar* and a protracted development of locative *ser* mainly due to age, as previously attested (Cuza & Guijarro-Fuentes, 2020). This developmental trajectory may be further attributed to children's gradual ontological development of event nouns and the representation of their dynamic properties.

Dialectal Variability Shapes Early Language Development: Evidence from Mispronunciation Sensitivity in 13-Month-Old Infants

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Research has extensively compared monolingual and multilingual language acquisition, but less attention has been given to how variations within monolingual environments influence development. As multidialectal learners navigate multiple dialects similarly to how multilinguals manage multiple languages, the question of how this dialectal variability shapes early language development naturally arises. Previous research has shown that dialectal differences can significantly affect language acquisition: research by Durrant et al. (2015) found that 20-month-old English infants exposed to bidialectal input failed to detect word mispronunciations, a skill mastered by their monodialectal peers at 12 months. Similarly, Kartushina and Mayor (2022) found word comprehension in Norwegian 12-month-olds only among monodialectal infants. The current study aimed to investigate the effects of dialectal variability on infants' early word comprehension and mispronunciation sensitivity. We adopted a Sequential Bayes Factor approach and tested 99 13-month-old Norwegian infants from both monodialectal and bidialectal households on eight familiar words using an EyeLink eye-tracker. The analyses revealed distinct patterns. While monodialectal infants demonstrated word comprehension ($M = 0.04$, $SD = 0.09$, $BF = 5.17$), their sensitivity to mispronunciations was limited ($M = .02$, $SD = .09$), with only anecdotal evidence ($BF = 0.52$) suggesting any awareness of such variations. In contrast, bidialectal infants showed both strong word comprehension ($M = 0.06$, $SD = 0.10$, $BF = 7.39$) and sensitivity to mispronunciations ($M = -.03$, $SD = .09$, $BF = 19.11$). These findings suggest that infants exposed to multiple dialects may develop more robust lexical categories at an early age and that these categories might develop differently compared to their monolingual peers. Although the results indicate important differences in language processing between monodialectal and bidialectal infants, further research is needed to better understand the underlying mechanisms and the precise nature of these developmental distinctions and the role of exposure to linguistic variability.

Different Trajectories: Using Mouse Tracking to Investigate Bilingualism

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Bilingual and monolingual speakers often respond to the same task in different ways. Using traditional end-point measures (accuracy and reaction times) it is possible to miss important differences that emerge in more nuanced ongoing measures. The mouse-tracking paradigm (a measure of how participants respond by using a computer mouse) allows researchers to determine when (and to what extent) participants get distracted by the incorrect response and when (and to what extent) participants focus on the correct response. In a Stroop task, bilingual adults took longer to initiate a mouse movement but then moved more efficiently towards the correct response than monolingual adults. In a Lexical Decision task, children with high oral proficiency (L1 readers, older children attending a bilingual school) had stronger phonological activation (more deviation towards the incorrect option when responding to a pseudohomophone) as well as stronger orthographical activation (more efficient movements towards the correct option later in the trajectory). These findings highlight how bilinguals and monolinguals respond to the same task in consistently different ways. End-point measures fail to capture the differences that emerge when opposing processes (facilitation and interference) emerge during participants responses. By measuring the ongoing response trajectory, it is possible to observe when and how bilinguals and monolinguals use different approaches to complete a task. Understanding bilinguals ongoing responses has important implications for theoretical models of bilingualism.

Differential effects of family input in the two languages of Greek-German bilingual children

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Bilingual acquisition studies suggest that language input from the family is more crucial for children's heritage language (HL) development than for children's L2 development [4]. However, few studies have examined input effects in both languages of heritage bilinguals (e.g., [3]). Our study examines the predictive role of current family input (CFI) in the HL-Greek and in the L2-German for Greek-German children's morpho-syntactic abilities in both languages, using sentence-repetition tasks (SRT) (Greek: [1]; German: [2]). Children's chronological age, age of onset of L2 German (L2-AoO), and short-term memory (STM), measured via forward digit-span, were also considered to control for effects on SRT-performance [3]. We tested fifty-two children (Age=6;0–12;8 years, Meanage=8;9; regular contact to Greek from birth; L2-AoO=0;0–6;9 years, MeanL2-AoO=1;11). CFI in Greek and in German were assessed via PABIQ [5]. SRT-responses were scored for target structure (1=maintained; 0=changed). A generalized linear mixed-effects model was conducted for each language. Children's performance in HL-Greek was predicted by CFI in Greek (Estimate=1.092, $\Pr(>|z|)<0.001$) and STM (Estimate=0.557, $\Pr(>|z|)=0.005$), whereas children's performance in L2-German was predicted by L2-AoO (Estimate=-0.380, $\Pr(>|z|)=0.031$) and STM (Estimate=0.523, $\Pr(>|z|)=0.001$). Our results demonstrate that CFI in the HL boosts children's HL morpho-syntactic abilities, whereas CFI in the L2 does not improve their morpho-syntactic abilities in the L2-German. We are currently investigating whether parents' low German proficiency may explain this lack of CFI-effects in German.

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Direct object marking and its predictive processing as an animacy cue among child heritage speakers of Spanish: Evidence from eye-tracking and spoken production experiments

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While a large body of research has established that many adult heritage speakers (HSs) display linguistic behavior that differs in many ways from monolingual speakers of the same language (e.g., Montrul & Bowles, 2009), we do not yet have a clear picture of how the heritage language (HL) develops in childhood, particularly during school-age, a critical time characterized by drastic changes in HL input and exposure. Research is particularly scarce when it comes to language processing in this age-group. The present study investigates how child HSs of Spanish use differential object marking (DOM)—a vulnerable feature in heritage Spanish (Jegerski & Sekerina, 2019)—in spoken production, as well as whether they use DOM as a cue to anticipate upcoming sentence constituents. Fifty child HSs of Spanish from the Netherlands and the United Kingdom participated in two elicited production tasks and an eye-tracking task using the visual world paradigm. In production, child HSs of Spanish exhibited both omission and overuse of DOM, while the age-matched monolingual controls were target-like. Moreover, the current use of, and richness of exposure to the HL significantly predicted the accuracy of their use of DOM. The eye-tracking data revealed target-like predictive use of DOM as an animacy cue in the monolingual children, but not in the HSs. We argue that the lack of predictive behavior can be explained by their unstable grammatical representation of DOM, due to the polyfunctionality and low perceptual salience of the phenomenon, and the qualitatively and quantitatively different linguistic input HSs receive.

Jegerski, J., & Sekerina, I. (2019). The processing of input with differential object marking by heritage Spanish speakers. *Bilingualism: Language & Cognition*, 23(2), 274–282.

Montrul, S., & Bowles, M. (2009). Back to basics: Incomplete knowledge of Differential Object Marking in Spanish heritage speakers. *Bilingualism: Language & Cognition*, 12(3), 363–383.

Do Emotional Facial Expressions Influence Language Control While Bilinguals Switch Between Their Languages?

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In bilingual conversations, faces can be important cues telling a bilingual which language to use with each conversation partner. The emotional expression shown by those faces can also be crucial in communication and can influence attention and control processes. Research on attentional capture suggests that negative emotional expressions, like anger, capture and hold attention more strongly than neutral faces. Given the role attentional control might play during bilingual production too, increased attentional capture in response to negative facial expressions might therefore also influence language selection and switching. This study therefore aims to examine how emotional facial expressions can influence bilingual language switching. We are testing Turkish-Albanian bilinguals (target $n = 96$) who are fluent in both languages and regularly use both languages. In addition to language proficiency and use measures, participants complete a cued language-switching task in which they name simple pictures. For each picture, the language choice is indicated by the gender of a face presented with the picture (e.g., female face for Albanian, male face for Turkish). Crucially, these faces show either a neutral or a negative expression. On some trials, participants switch languages while on other trials they can use the same language as on the previous trial ("non-switch"). The analysis will examine the influence of neutral versus negative expressions, and the potential interaction with trial type (switch/non-switch), on naming times. Based on previous research looking at attention and emotions, we hypothesise that angry facial cues facilitate language selection, resulting in faster overall naming and smaller switching costs (smaller difference between switch and non-switch naming times), compared to neutral faces. This research could provide new insights into the interplay between emotion and language control, advancing our understanding of the cognitive mechanisms involved in bilingual language processing and the role of emotional cues during language switching.

Do individual variables modulate L2 morphological processing? A masked priming study

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The role of morphology during the recognition of second language (L2) derived words is a hotly debated issue. A recent meta-analysis on masked priming studies has shown differences in how L1 and L2-derived words are processed. Thus, whereas significant morphological priming effects were observed during L1 word recognition (priming for transparent [e.g., fighter-FIGHT] and pseudo-derived [e.g., corner-CORN] conditions but not for the orthographic condition [e.g., brothel-BROTH]), no differences across conditions were observed in L2. Although interesting, there are not many studies on the processing of L2-derived words, and they are characterized by a scarce control of individual (e.g., L2 proficiency; linguistic profile) and lexical (e.g., cognateness) variables that have been seen to modulate lexical access. Having this in mind, the present study aimed to examine such variables' contribution to the recognition of L2-derived words. To that end, European Portuguese-English non-native speakers with different degrees of L2 proficiency performed a masked priming lexical decision task in English. Results showed morphological priming effects in EP-English non-native speakers, regardless of individual variables. These findings indicate that the underlying mechanisms of morphological processing of derived words are similar in L1 and L2.

Does a Bilingual Experience affect Gyrfication and Sulcal Depth in ADHD?

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Objective: Attention Deficit Hyperactivity Disorder (ADHD) is attributed to dysfunction of the cortico-striato-thalamo-cortical-loop (Barkley et al., 2006). Studies of children with ADHD report less gyrfication (Mous et al., 2014; Ambrosino et al., 2017; Wolosin et al., 2009) or no differences (Shaw et al., 2012; Forde et al., 2017). While gyrfication reflects prenatal neurodevelopment (Mutlu et al. 2013), it may be affected by the bilingual experience over time (Del Maschio et al., 2019), raising the question whether an early dual-language experience affects gyrfication aberrations in ADHD. In contrast, sulcal depth (SD), also reported to be altered in children with ADHD (Li et al., 2015), reflects heritability (Levy et al., 1997), and would be less likely affected by experience (Winkler et al., 2010). **Methods:** Early Spanish-English bilingual and native English monolingual children with and without ADHD (>65 or < 65 on the Child Behavioral Checklist Attention Syndrome Scale, respectively) from the ABCD Study were matched on socioeconomic status, Matrix Reasoning, and Picture Vocabulary (N=227, age 9.9 years). We tested for main effects of Diagnostic Group, and Language Background, and their interactions (voxel-wise height threshold $p < .005$ uncorrected, cluster-level extent threshold $p < .05$ FDR) on magnetic resonance images using CAT12 toolbox in SPM12 controlling for sex, study site, age, CBCL Anxiety/Depression Syndrome Scale, and medication. **Results:** For gyrfication and SD, there was no main effect of Diagnostic Group nor an interaction. However, Bilinguals exhibited relatively greater gyrfication in bilateral supplementary motor area, left superior temporal gyrus, right middle cingulum, inferior parietal lobule, and precuneus. Bilinguals also had relatively greater SD in left precentral gyrus, right posterior cingulum, and middle frontal gyrus. **Conclusion:** There is no differential effect of an early dual-language experience on gyrfication or sulcal depth in ADHD. However, some of the neuroanatomical differences in bilinguals suggest early developmental/genetic influences.

Does a speaker's social background matter in L2 learning?

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L2 learners are exposed to different input forms (i.e., aural or written) through various sources. Previous literature (e.g., Babel & Russell, 2015) suggests that individuals' assumptions about a speaker's ethnic or racial background can modulate speech processing. This paper investigates whether L2 learners exhibit biases towards input (in this study, written input) from speakers of different racial backgrounds. 48 Arabic L2-English learners completed an online task using Gorilla (<https://gorilla.sc>). At the exposure phase, participants read and heard non-words while viewing images of two purported instructors. In one condition, a female Middle Eastern face spelled the middle consonant with a single letter in a word, while a female South Asian face spelled it with two identical letters in the same word; in another condition, the two orthographic representations were reversed. Participants were asked to judge the two different orthographic representations presented by a third speaker, without an image, to determine whether they preferred inputs based on the faces they saw on the screen. Results were obtained through inferential statistics using mixed-effects logistic regression. Seeing instructors' faces did not impact learners' preferences for the written inputs, providing no evidence for the influence of a speaker's race on learners' preferences for input in L2 learning. However, the findings showed that whether the middle consonant was spelled with a single or two letters had a significant impact on the selection between the two inputs. Participants tended to select the written input with two identical letters. This result may be driven by their belief that handling complex spelling showcases their proficiency and reflects advanced literacy skills, particularly due to their high exposure to English opaque orthography.

Babel, M., & Russell, J. (2015). Expectations and speech intelligibility. *The Journal of the Acoustical Society of America*, 137(5), 2823-2833.

Does bilingualism relieve students' anxiety in the Basque Country?

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Students who know two or more languages have demonstrated advantages in acquiring additional languages due to their broader linguistic repertoire and wider experience as language learners. Likewise, the number of languages known has been associated with foreign language (FL) anxiety, suggesting that students who are proficient in more languages may suffer less from FL anxiety, considering their stronger familiarity with the challenges of language acquisition (Santos et al., 2017). In the bilingual Basque Autonomous Community (BAC) in Spain, where Basque and Spanish are official languages, bilingual students may therefore be expected to experience less anxiety in the FL classroom. Given that English is learned as an FL in the BAC and Basque is a minority language and the second language (L2) of many students, we conducted a study to further investigate the allegedly positive effect of bilingualism on reducing anxiety in the learning of both English and Basque. This paper focuses on the relationship between bilingualism and anxiety across three educational stages, i.e. primary, secondary and tertiary education. To our knowledge, no previous study has delved into students' anxiety in an L2 (the minority language) and an L3 (English) throughout all the stages of the educational system. The study was based on a mixed-methods approach in which data were collected from 1030 students in the BAC, through an adapted version from the Foreign Language Classroom Anxiety Scale (FLCAS) questionnaire along with 35 interviews. Results indicate that L1 Basque speakers experience less anxiety than bilinguals and L1 Spanish speakers in Basque lessons, whereas no differences were found in the FL classroom, which somehow challenges the extent of the benefits of bilingualism on language anxiety.

Santos, A., Cenoz, J. & Gorter, D. (2017). Communicative anxiety in English as a third language. *International Journal of Bilingual Education and Bilingualism*, 20(7), 823-836.

Does L1 grammatical gender facilitate the acquisition of L2 grammatical gender? A study with English and Russian-speaking learners of L2 Spanish.

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Grammatical gender has been widely investigated in Second Language Acquisition (SLA) research and is reported to be one of the most problematic features for L2 learners. Yet, the focus has mostly been on L1s with no grammatical gender. Therefore, the aim of this study is to determine whether the presence of gender in the L1 influences the acquisition of gender in the L2 by comparing L2 learners with gendered and ungendered L1s (Russian and English). The focus has been on how the noun ending —transparent endings (1a-b) versus opaque endings (2a-b)— plays a role in this acquisition, as gender transparency marking has been shown to facilitate noun recognition and it has been a key element in the identification of gender agreement violations.

1. a) Me gusta el libro nuevo que estoy leyendo Masculine transparent congruent

(‘I like the M new M book M transp that I am reading’)

b) El playa sucio Feminine transparent non-congruent

(‘the M dirty M beach F transp’)

2. a) La nariz roja Feminine opaque congruent

(‘the F red F nose F opaque’)

b) La cinturón negra Masculine opaque non-congruent

(‘the F black F belt M opaque’)

Thirty-seven L1 Russian adults and 39 L1 English adults evaluated 40 sentences in Spanish with a complex determiner phrase (determiner + noun + adjective) (1a). The nouns were either transparent (1) or opaque (2), balanced in gender (masculine (1a, 2b) vs. feminine (1b, 2a)) and grammatical (congruent (1a, 2a) vs. ungrammatical (1b, 2b)). Results revealed that the L1 Russian group showed the highest degree of sensitivity to incongruencies (1b-2b). Indeed, this sensitivity to incongruencies was more prominent when they judged determiner phrases with transparent endings (1b). This points to the presence of gender in the L1 and gender transparency in the Spanish nouns as facilitators in the acquisition process of grammatical gender in L2 Spanish.

Does language experience (and EF) shape pragmatic competence over the adult lifespan?

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For decades, psychologists have theorized that executive functions (EF) underlie pragmatic competence [1,2]. Here we hypothesize that one's linguistic background also shapes pragmatic skills over the adult lifespan. Recently, this has been investigated in child pragmatic development with studies revealing that bilingual preschoolers are more successful than monolinguals at perspective-taking [3], integrating eye gaze and pointing [4] and producing intelligible gestures [5]. Bilinguals' increased sensitivity to contextual cues has been attributed to an underlying pressure to monitor the dynamic communicative contexts they are in to determine which language a speaker is using, their intended message, and how to respond. An alternative interpretation relates to the seminal (though not uncontroversial) finding that bilingualism may be associated with enhanced EF. It has been theorized that bilinguals recruit inhibition and switching to monitor the linguistic environment and select the appropriate language while suppressing the other [6]. However, results are mixed [7,8]. This disparity may be driven by a reliance on static, binary categories to classify participants (e.g., bilinguals vs monolinguals), rather than accounting for language use as a spectrum of experiences. To address this, we will measure individual differences in one's language background, pragmatic skills, and EF over the adult lifespan. Specifically, we will measure Norwegian adults' (n=200, ages 18-90) pragmatics (perspective-taking, conversational implicatures, co-speech gestures, prosocial speech acts, and turn-taking), EF (inhibition, switching, and working memory) and language background (through EMA [9] and language questionnaires). Using regression models, we will test the separate and combinatorial effects of language experience and EF on pragmatic abilities for the first time.

[1] Brown-Schmidt (2009).

[2] Nilsen & Graham (2009).

[3] Liberman et al. (2017).

[4] Yow & Markman (2011).

[5] Wermelinger et al. (2020).

[6] Kroll. et al. (2014).

[7] Paap & Greenberg (2013).

[8] de Bruin et al. (2015).

[9] Jylkkä et al. (2021).

Does mixed-language input impact processing in bilingual toddlers with and without autism?

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Mixed-language is common in the input of bilingual toddlers (e.g., Bail et al., 2015). Prior studies have revealed that switches between languages may carry processing costs compared to single-language input (e.g., Byers-Heinlein et al., 2017). However, this work has been limited to neurotypical children. Bilingual children with Autism Spectrum Disorder (ASD) may have significant difficulties with language switches because of core deficits in social communication and fluctuating deficits in language and executive function. The current study examines how bilingual toddlers with and without ASD process mixed-language input. Data collection is ongoing, and 13 two-year-old ($M=2.30$, $SD=0.30$) toddlers (6 ASD) have been tested thus far. We assessed toddlers' processing of familiar word-object pairs (8 English, 8 Spanish) in real time with a field-of-two looking-while-listening task. Yoked target-distractor pairs of familiar visual objects were presented with an English or Spanish sentence (e.g., 'Where is the bed?'/ '¿Dónde está la cama?') across 32 trials. We measured frame-by-frame (40ms) eye movements offline using Peyecoder software (Olson et al., 2020) to index looks to target. Switch trials were coded as a test trial in the incongruent language of the prior trial and stay trials were coded as a test trial in the same language of the prior trial. For example, target 'rana' (frog) following 'bed' was a switch trial, but target 'towel' following 'bed' was a stay trial. Preliminary analyses with a mixed-effects logistic regression model indicated that toddlers with ASD demonstrated significantly lower proportion looks to target ($p<.05$), but the effect of trial type (-.5 stay, .5 switch) and the interaction between trial type and ASD was not significant. Our complete dataset and results will contribute to our understanding of the mechanisms that support processing of mixed-language input and provide caregivers and providers with strategies for structuring language input for bilingual children with ASD.

Does orthography hinder L2 prosodic attunement? Evidence from brief exposure to a novel language

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Mastering prosody is a different task for adults learning a second language than for infants acquiring their first. While prosody crucially aids L1 acquisition, it is often considerably challenging for adult L2 learners. Is this difficulty due to an age-related decline in language-learning ability or to unfavorable learning conditions? We investigated whether brief passive exposure to a novel language enables adults to attune to its prosody and whether this ability is affected by orthographic input. We exposed Czech-speaking adults to 5 minutes of Māori speech under one of four conditions: (a) audio-only (n=43), (b) audio with shallow orthography (Māori Latin script, n=44), (c) audio with deep orthography (n=47), or (d) audio with an unfamiliar script (Hebrew characters, n=40). After exposure, participants heard low-pass filtered clips (800 Hz cutoff) of new speakers in Māori or a related language (Malay) and indicated if the clips matched the language they'd heard, with the filtering preserving prosody while removing most segmental information. Post-test results showed above-chance recognition of the exposure language, indicating successful prosodic sensitization. However, recognition accuracy was lower for participants exposed to the novel-language speech along with deep-orthography transcriptions or orthography with unfamiliar characters. These results suggest that alphabetic orthography diverts attention from prosodic elements, hindering perceptual attunement to new language rhythm and intonation. Our findings highlight a potential downside to the common practice of introducing orthographic input early in formalized L2 instruction, and support an approach that prioritizes listening over orthographic exposure in order to align L2 and L1 acquisition more closely. The distraction caused by non-transparent or unfamiliar scripts may impair learners' ability to process prosodic cues, which are essential for language acquisition even beyond the phonological level. Further research should explore the developmental and neural mechanisms underlying this orthography-prosody interaction and assess its generalizability across various language combinations.

Does overt production facilitate language prediction in L2 speakers?

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Previous research suggests that overt production facilitates predictive processing in native speakers. In a previous study [1], participants read highly and low constraining sentence contexts, followed by a picture of the final noun of the sentence, which they had to name as fast as possible. In two separate blocks, participants were asked to read the sentences aloud or silently. The authors found that reading aloud significantly increased picture-naming speed for highly constraining sentences, supporting the hypothesis that language prediction involves the production system [2]. However, it remains unclear if this mechanism extends to L2 speakers, who may not use this mechanism to the same extent due to lower production abilities [3]. Differences in the use of the production system to predict may help explain persistent differences in predictive processing between L1 and L2 speakers [4-5]. To explore this question, we use the same procedure as in [1] to test Spanish-English bilingual speakers with a wide range of L2 production abilities. Participants read highly constraining sentences in Spanish (L1) and English (L2), aloud and silently, while we measure the naming times of the final picture. In the L1, we expect to replicate the findings of the original study. In the L2, however, we predict that reading aloud will facilitate prediction only when L2 production ability is high; when production ability is low, we expect to find no benefit from reading aloud. These findings will offer insights into the role of production abilities in L2 predictive processing, contributing to the broader understanding of second language prediction mechanisms.

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[2] Pickering & Gambi (2018). *Psychol Bull*.

[3] Pickering & Garrod (2013). *Behav Brain Sci*.

[4] Kaan & Grüter (2021). *John Benjamins*.

[5] Schlenter (2022). *Billing Lang Cogn*.

Early bilingualism vs. L2 grammatical competence: On the use of the future tense to express conjecture

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This talk examines the differences between bilingual competence (Catalan/Spanish bilinguals) and competence at advanced levels of an L2 (L1 French, L2 Spanish) in the use of the future tense to express conjecture and concession. The Romance future can receive conjectural interpretations but has different restrictions in each language. In French and Catalan, conjectural future is rare and tends to be limited to stative predicates; in Spanish, it is more widespread. Moreover, in Spanish, the conjectural future can appear in concessive constructions, which is rare in Catalan and non-existent in French. Through a set of multiple-choice items, we assessed the frequency of use of the conjectural future and the awareness of aspectual restrictions. The tasks required (a) choice between the future tense and two other forms of expressing conjecture in a series of utterances; and (b) judgement on the acceptability of a set of constructions with Future tense conveying conjecture. The participants were 33 L1 French speakers with advanced L2 Spanish, and 64 Catalan/Spanish bilingual speakers; 32 with Catalan as their dominant language and 32 whose Spanish is dominant. These groups' responses were compared with those of Peninsular Spanish monolingual speakers. Both French L1 speakers and Catalan/Spanish bilinguals seldom used the conjectural future in Spanish, in contrast to Spanish monolingual speakers. However, bilinguals (irrespective of their dominant language) showed awareness of the aspectual constraints of Spanish, but French L1 speakers tend not to differentiate between grammatical and ungrammatical uses. As for bilinguals, our data point to a convergence in their internalised grammars: a unified semantics of the future of Catalan and Mallorcan Spanish exists for our bilingual participants, tending to exclude conjectural and concessive uses. Implications include potential for L2 instruction on grammatical indicators of evidentiality and evidence of the sensitivity to these uses in both monolingual and early onset bilinguals.

Early Childcare Attendance and Parental Language Skills as Predictors of Children's Societal Language Development

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Previous research has shown a strong correlation between the societal language skills (SLS) of parents and their children with a migration background. Attending early childcare has been shown to weaken this correlation and has thus been identified as a factor promoting equal opportunities for children from diverse family backgrounds. The present study examines whether parental SLS correlates with their children's SLS and whether this correlation is stable across a time sequence of ten years. Additionally, the study investigates whether the attendance at early childcare facilities is associated with children's SLS and whether this association changes or remains stable over time. The data were collected as a part of a mandatory full census language assessment, covering ten cohorts of children assessed annually between 2015 and 2024. 12719 preschool children who speak German as a second language were assessed (MAge = 36 months; 48% female). The results confirm previous findings, showing a significant correlation between parental and children's SLS ($\beta_{2015-2024} = .43, p < .001$). Furthermore, a positive association was found between attending early childcare facilities and children's SLS ($\beta_{2015-2024} = .39, p < .001$). A notable cubic moderation effect of time was observed: Until 2020, the importance of parental SLS on their children's SLS decreased, indicating the increasing role of attending childcare facilities. However, starting in 2020, the relationship between parental and children's SLS relapsed and became stronger again, while the impact of attending early childcare facilities on children's SLS declined sharply. This shift is likely due to the closure of childcare facilities during the COVID-19 pandemic. From 2022 onward, as the attendance of early childcare facilities increased, parental SLS as a predictor of their children's SLS stagnated. These findings offer critical insights for policy-making, showing that early attendance in childcare facilities is crucial for improving children's SLS.

Early Vocabulary Development in Monolingual and Bilingual Infants: The Role of Child-Parent Interaction

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Previous work suggests that the mere amount of speech children hear significantly predicts their vocabulary outcomes (Bergelson et al., 2023). In addition, there is evidence that the quality of speech (i.e., the amount of exposure to infant-directed speech) may be a better predictor of vocabulary outcomes than mere quantity of speech (Gilkerson et al., 2017; Weisleder & Fernald, 2013). Our investigation builds upon this literature by examining the role of language environment in early word learning for children growing up in bilingual communities. We focus on word learning between 12 and 15 months - a younger age than previously examined. We investigated whether the quantity (i.e., adult word count) and quality (i.e., child-parent conversational turns count) of input predict receptive and expressive vocabulary development in a sample of 24 monolingual Basque and bilingual Basque-Spanish infants. Measures from the Language Environment Analysis (LENA) system and the BCBL Communicative Development Inventory (BCBL CDI) were employed to address these questions. We found no evidence that mere amount of exposure (i.e., adult word count) at 10 months predicts vocabulary outcomes at 12 and 15 months. However, results from a set of linear regressions suggest that child-parent conversational turns at 10 months predict (conceptual and total) receptive vocabulary growth between the ages of 12 and 15 months. Specifically, the more conversational turns bilingual children (N = 10) had with their parents, the faster the speed of word learning. This pattern was not found for monolingual children (N = 7), but we aim to reevaluate this interaction within a larger sample of participants (data collection is ongoing). We further explore the current findings in the context of existing literature on language development, highlighting the role of conversational turns in supporting vocabulary development in infancy.

Education Modifies Multilingual Cognitive Benefits in India, Mexico, and South Africa

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Multilingualism may protect against cognitive aging, but its independent contribution is often confounded with socioeconomic factors, like education, which can covary with contexts in which multilingualism arises. Additionally, cognitive studies underrepresent low- and middle-income countries, despite their rich linguistic and socioeconomic diversity. Leveraging international cohorts from the Harmonized Cognitive Assessment Protocol (HCAP) Network, we examined main and joint effects of multilingualism (monolingual vs. multilingual) and education (no/<primary vs. ≥primary) on executive function, language, and memory in older adults from India (N=4,088), Mexico (N=2,042), and South Africa (N=631), using linear regressions adjusted for sex/gender and age. Higher education was associated with better cognition across domains and countries ($p's < .01$), while multilingual effects varied by country. In India, multilingualism was positively associated with all domains ($p's < .05$); in South Africa, this effect was limited to language ($p = .01$); whereas in Mexico, multilingualism was negatively associated across domains ($p's < .01$). Education modified the association of multilingualism on cognition in most domains and cohorts. In India, cognitive benefits of multilingualism were present among those with no/<primary education and more pronounced in executive function and memory among those with ≥primary education. In South Africa, the multilingual benefit in language was driven by those with more education, but absent in other domains. In Mexico, multilingual participants with no/<primary education performed worse across domains than their monolingual counterparts, while those with more education did not differ from each other. While education consistently increased cognition across domains and countries, multilingual benefits differed across countries. In India and South Africa, these benefits often appeared at higher educational levels, whereas in Mexico, they did not. It is unclear whether multilingual benefits at higher educational levels reflect a synergy between early-life educational opportunities and cognitive-linguistic factors, or if they indicate residual socioeconomic confounding. Further research is needed to clarify the life-course determinants shaping multilingualism cross-nationally.

Effects of bilingualism on cultural identity and self

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Cultural identity is complex and consists of multiple aspects of an environment that one lives in (Fishman, 1999). Language is one major factor that contributes to creating one unique cultural identity of an individual. In order to overview this relationship, the current study examined how bilinguals with distant languages and cultures, such as Japanese and English, would see their cultural identity, advantages and disadvantages of being bilingual, and themselves. A total of 78 bilingual and multilingual participants (48 females and 30 males; aged between 18 and 26) took part in the study by answering the questionnaire. While most of them had spent time living abroad (average 6.62 years; SD=4.87), there were a few who had never lived outside of their “home country”. The questionnaire contained personal and background questions and 12 main questions. The participants were given the options to answer it in English, Japanese or Korean to avoid forcing them to frame their identity in the common test language, e.g. English. This is because “cultural values are activated along with language mode” (García-Sierra and Ramírez-Esparza, 2014). The results show that the majority (69%) feel that they have a strong sense of belonging to a certain culture, while those with more than 5 years outside their “home country” tend to feel more confused about their cultural identity. The disadvantages include confusion in identity, lack of language proficiency and difficulty to learn and keep several languages. The data are further discussed in terms of the order of strength in cultural belonging, length of stay and self-description.

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García-Sierra A. & Ramírez-Esparza, N. (2014). ‘The Bilingual Brain: Language, Culture and Identity’, In V. Benet-Martínez & Y. Hong, *The Oxford Handbook of Multicultural Identity*, Oxford University Press, 35-56.

Effects of first language proficiency and dominance on the conceptual representations in simultaneous bilinguals

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We investigated the effects of language proficiency (LP) and dominance (LD) on conceptual representations in Ukrainian-Russian simultaneous bilinguals through three experiments conducted in an all-English environment: a non-verbal categorisation task, a memory recall task, and an object categorisation task using EEG. Participants also completed a self-rated language dominance questionnaire (Gertken et al., 2014) and language proficiency tests in Ukrainian, Russian, and English. Across all experiments stimuli comprised nouns with matching (Type1) or mismatching (Type2) grammatical gender in Ukrainian and Russian. Nouns were paired with a gendered character (Experiment 1), male/female name (Experiment 2), or face (Experiment 3), and placed in congruent or incongruent condition based on nouns' grammatical gender and the second stimulus' biological sex. Treating bilingualism as a continuum, LD and LP were analysed as continuous variables on a scale from -100 (solely Russian) to +100 (solely Ukrainian). Scores spanned widely, indicating no ceiling effects. For Type1 stimuli, we found significant grammatical gender effects for accuracy and reaction times across all experiments for LP only. For Type2 the results were more contradictory. In Experiment 1, we found LP (but not LD) effects on categorisation, with participants more proficient in Ukrainian rating the congruent pairs in Ukrainian as more similar, compared to the pairs that were congruent in Russian. In contrast, Experiment 3 showed LD effects on categorisation but no LP effects. This may reflect an age-related effect on LP vs LD measures. Experiment 1's younger, more test-experienced group (Meanage = 30) scored higher in proficiency tests, while Experiment 3's older group (Meanage = 39) reflected better on their linguistic experiences in the LD questionnaire but performed worse in LP tests. EEG results did not demonstrate any significant effects for either language assessment. These findings suggest a nuanced interplay between LP and LD in shaping conceptual representations in simultaneous bilinguals.

Effects of the linguistic environment and lifelong bilingualism on cognitive control in older adults

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Bilingual individuals develop expertise in language-switching, balancing cognitive stability, (protecting goals from interference) with cognitive flexibility (adapting to changing demands; e.g., Green, 1998; Dreisbach & Fröber, 2019). This study used a cued task-switching paradigm to investigate how older adults' lifelong bilingual experience interacts with their cognitive control skills. The goal was to determine whether language use, language dominance ratio, and multilingual diversity contribute to older adults' cognitive adaptability, reflected by cognitive stability (indicated by mixing costs) and flexibility (indicated by switching costs). Bilingual older adults ($n=33$; mean-age=63.33) who spoke Hebrew and another language(s) completed a questionnaire assessing their language-dominance-ratio in relation to the primary language of the environment and multilingual-diversity (Gullifer & Titone, 2020). They completed a cued task-switching paradigm with frequent- and infrequent-switch trials varied under controlled response-congruency conditions. Mixed-regression analysis revealed that participants with higher dominance-ratio scores showed larger switching costs and response-congruency effects ($p's < .001$). The observed effect on switching costs resulted from faster responses on stay trials ($p=.011$), and response-congruency effects from faster congruent trials ($p=.005$), demonstrating cognitive stability in participants with higher dominance-ratio scores. In contrast, the multilingual diversity index had no interaction with task-switching performance. Only the measure incorporating the primary language of the environment showed a significant interaction with task switching, underscoring the role of the social context in studying effects of bilingualism on cognitive control. The findings suggest that different aspects of the bilingual experience contribute uniquely to cognitive stability and flexibility. Notably, older bilingual participants sustained high accuracy, potentially through stable cognitive strategies, suggesting that slower response times in aging may reflect adaptive processes. Selecting context-sensitive bilingual experience measures that align with the characteristics of the research population (e.g., cultural context) and the objectives of the study is crucial to better understand how lifelong bilingualism may contribute to more efficient cognitive processing.

English Gapless Relative Clauses in Mandarin-English Bilingual Children

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In English, canonical (“gapped”) RCs contain a syntactic gap associated with an antecedent, as in (1). “Gapless” RCs such as (2) are less acceptable and rare, although they are also present in spoken English (Radford, 2019). Conversely, gapless RCs are common and natural in Mandarin, dependent on semantic-pragmatic inferencing conditions (Matsumoto et al., 2017). Shang et al. (2021) found that monolingual Mandarin children produce gapless RCs as early as 2;0. In the absence of research on gapless RCs in English-learning children in general, this study investigates English gapless RCs in Mandarin-English bilingual children, with monolingual children as a reference baseline.

(1) the lady who ____ was talking in the commercial. (Alex, 5;4)

(2) funny tricks that children will be happy. (Madison, 4;10)

We analyzed 352 tokens of English RCs produced by 6 Mandarin-English bilingual preschoolers (2;8-6;11) in naturalistic play sessions, recorded longitudinally in the Hong Kong Mandarin-English Child Corpus (Mai et al., in prep) and by 6 age-matched English monolinguals (2;1-5;0) in CHILDES. After controlling for age and English proficiency, the bilingual children produced RCs more frequently than the monolinguals ($t = 2.14$, $p = .03$), and the bilinguals are more likely to produce gapless RCs (8.5%) than the monolinguals (1.6%, $X^2(1, N = 352) = 5.77$, $p = .02$), suggesting productive use of RCs by the bilinguals, and cross-linguistic influence from a language that allows semantics/pragmatics-conditioned gapless RCs (Mandarin) to a language that imposes strict syntactic constraints on relativization (English). Our findings also indicate how syntactic features percolate linguistic boundaries to facilitate translanguaging (Li, 2018) in which bilingual children employ Mandarin grammatical structures in English utterances in a manner of structural borrowing to optimize resources in both languages. Analysis of the English input to examine the provision of gapless RCs in child-directed speech is in progress.

Every and todos/as los/as: Distributive and collective interpretations among Spanish-English Heritage speakers

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Recent approaches to the study of heritage acquisition focus on variability within and across speakers (Putnam & Sánchez 2013, Perez Cortés et al 2016) in lexical frequency (Giancaspro 2017) or lexical access (López Otero 2020) to account for the apparent divergence between heritage speakers' (HS) and other groups of native speakers' grammars. One area where variability among HSs has been less studied is quantification (Syrett et al 2017). Here we focus on HSs' interpretation of quantifiers in subject position (todos/as los/as vs los/las/les in Spanish and every, all the, and the in English) across two predicate conditions favoring either collective or distributive interpretations (e.g., compartieron la pizza 'shared the pizza' and tocaron el piano 'played the piano', respectively). Twenty-three HSs of Spanish and two comparison groups of monolingually-raised English speakers (MES, N=14) and monolingually-raised Spanish speakers (MSS, N=19) completed picture-selection tasks: the HSs completed them in both Spanish and English and the comparison groups in their first/dominant languages only. Results of GLMM analyses show group differences between the HSs and the MSSs ($\beta = -1.23$, $SE = 0.32$, $z = -3.88$, $p < 0.01$) but not between the HSs and the MESs ($\beta = 0.62$, $SE = 0.40$, $z = 1.55$, $p = 0.12$), consonant with the HSs' dominance in English. Nevertheless, the HSs' interpretations in both languages were mostly guided by predicates and not by the presence of quantifiers in the subjects, unlike in the comparison groups. Within-group effects in the HSs indicate that lexical language dominance assessed using the MiNT (Gollan et al 2013) ($\beta = -0.35$, $SE = 0.17$, $z = -2.09$, $p = 0.04$), patterns of language use, particularly use of Spanish with their family ($\beta = -0.29$, $SE = 0.13$, $z = -2.22$, $p = 0.03$), are predictors for the HSs' interpretations.

Evidence from brain potentials on the effects of language-specific terms on object categorisation between native and bilingual speakers

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The question of whether language influences thought and perception has been a focal point in cognitive neuroscience, particularly in debates surrounding the controversial Whorfian hypothesis, which suggests that language shapes cognition. A growing body of electrophysiological evidence now supports the language-thought relationship. By moving beyond inconsistent behavioural measures and adopting a neurophysiological approach to assess this correlation, the current goal has shifted to understanding how language affects other areas of cognition rather than proving their binding existence (Thierry, 2016). This study examines the extent to which language-specific terms affect early stages of visual perception and object categorisation (see Boutonnet et al., 2013). We will use a visual oddball paradigm, in which participants perform an object detection task while event-related potentials (ERPs) are recorded. We aim to test 45 participants: 15 native Italian speakers from Trieste, 15 native Croatian speakers from Rijeka, and 15 Croatian bilinguals from Rijeka, who have Italian as their second language. Our stimuli will consist of four types of concrete objects: two that have different labels in Italian but the same label in Croatian (e.g., bus: corriera [autobus] and pullman [autobus]) and two that have different labels in Croatian but share a single label in Italian (e.g., shoe: cipela [scarpa] and tenisica [scarpa]). This double dissociation aims to test whether categorical distinctions between the two languages influence preattentive perceptual processes (see Casaponsa et al., 2024). By focusing on the visual mismatch negativity (vMMN), an ERP component elicited in response to an unexpected mismatch in a repetitive sequence of visual stimuli, we predict: 1) a greater vMMN in native speakers of a language that presents categorical contrasts compared to native speakers of a language that does not mark such a distinction, and 2) a greater vMMN in bilingual speakers when exposed to two objects with different labels in Italian.

Examining the Variability of Infant-Directed Speech in Monolingual and Bilingual Australian Mothers

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Infant-directed speech (IDS) is the register that many parents and caregivers use when interacting with infants and studies have shown infants demonstrate a preference for IDS over adult-directed speech (ADS). The acoustic and prosodic characteristics of IDS are well-documented and include slower tempo, longer pauses, shorter sentences, hyperarticulation of vowels, heightened and varied pitch, and increased positive affect. It has also been shown that IDS facilitate early language acquisition in infants prior to 12 months, and word learning in the second year. However, most of the research is with monolingual populations, and there is very little research on how monolingual and bilingual IDS compares. As such, the current study investigates how IDS and ADS differs between the two populations of mothers from Australia, monolingual mothers and bilingual mothers of Indo-Aryan background. It is predicted that there will be pitch differences found between the monolingual and bilingual mothers. It is further predicted that differences will be found dependent on child age, with the mothers of younger infants expected to show more hyperarticulation for both monolingual and bilingual IDS. Methodology Sixty mother-infant dyads (30 monolingual, 30 bilingual, child age range 6 – 15 months) participated in one-on-one play sessions to record mothers' natural IDS. Following this, the mothers participated in a short interview with a researcher to elicit ADS. Results & Discussion Data collection is still underway. To measure the differences between IDS and ADS and also how monolingual mothers' IDS differs from bilingual mothers' IDS, acoustic and statistical analyses will be conducted. This will include measuring vowel duration, pitch (F0) and pitch range, and formant frequencies to determine how much variation is contained within. Registers will also be measured for vowel hyperarticulation for comparison between monolingual and bilingual mothers. These findings and implications for the research will be presented at the conference.

Exploring Differences between Mothers' and Fathers' Language Attitudes in Multilingual London

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A growing number of children worldwide are multilingual (e.g., Wu et al., 2020) with great variability in language skills (e.g., Bohman et al., 2010). This variability is shaped by input quality and quantity (e.g., Kalashnikova & Carreiras, 2021), which can depend on how parents expose infants to family and society languages (Verhagen et al., 2022). Parental language choices are influenced by their attitudes towards family languages (e.g., Kircher, 2022). Although crucial for understanding early multilingual acquisition, these relationships have been minimally explored in specific multilingual communities. The current study investigated the language attitudes of parents raising multilingual infants in London. Using a newly developed questionnaire, 131 mothers and fathers from 67 families rated their attitudes towards their languages across three main themes: 1) their emotional resonance with the language, 2) the significance of the language in their personal life, and 3) its importance in bringing up a multilingual child. Contrary to previous work that found gender differences in language attitudes, our results showed that mothers and fathers had similarly positive attitudes towards English - the society language. However, gender differences emerged in attitudes toward the L2, such that mothers rated their L2 higher than fathers when considering emotional resonance and the importance of the language but not its role in raising a multilingual child. Both parents rated their L1 higher than L2 when considering emotional resonance, but rated their L1 and L2 similarly when considering the importance of language and raising a multilingual child. Unlike previous work, our results showed that parents were more likely to use L1 (alone or with another language) with their infant, regardless of their attitude scores. Future research can build on our questionnaire to further investigate the factors that impact parental language attitudes in various contexts, including fluency and language use with others.

Exploring 'Home' and 'School' Vocabulary of Bilingual Children

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Our presentation explores the composition of bilingual vocabularies, emphasizing words predominantly encountered in "home" and/or "school" contexts. While previous studies suggest bilingual children aren't disadvantaged in acquiring "school" vocabulary in their majority language (Bialystok et al., 2010), our research extends these findings by examining both languages of Polish-English bilingual children. We conducted two studies. In Study 1, 292 Polish and English parents and teachers classified words from vocabulary tests as: "home", "school", heard in both contexts, or neither. Results showed significant overlap in the vocabulary used by parents and teachers. Monolingual children, exposed to the same language at home and school, hear most of these vocabulary items in both contexts. In contrast, Polish-English bilingual children who hear Polish at home and English at school encounter the same vocabulary items in context-specific ways. Study 2 compared the receptive vocabulary of Polish-English bilingual children with that of Polish and English monolingual peers (N = 110, aged 4.5-7 years) on the vocabulary items used in Study 1. Bilingual children knew fewer words overall than monolinguals, with fewer "home" words in Polish and fewer "school" words in English. This context-specific exposure impacts bilingual vocabulary, challenging previous research indicating no disadvantage for bilinguals in acquiring "school" vocabulary. However, both bilinguals and monolinguals showed high comprehension for words heard in both "home" and "school" contexts (note, for monolinguals most of the words fell into this category, for bilinguals only few). Our findings underscore the importance of context-specific exposure in bilingual vocabulary development, emphasizing the need to provide bilingual children with diverse language input across "home" and "school" settings. Practitioners should consider that bilingual language proficiency is heavily influenced by exposure to specific vocabulary within varied contexts.

Exploring multilingualism in Italian L2 learners: a longitudinal study through linguistic silhouettes

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This paper aims to examine the evolution of the perception and representation of the Italian language and bi-/multilingualism among learners of Italian as an L2, employing the linguistic silhouette from a longitudinal perspective. The linguistic silhouette tool allows for the appreciation of learners' diverse linguistic and cultural repertoires, providing an analysis that also consider the motivational and affective aspects of language learning (Busch, 2018; Melo-Pfeifer, 2017; Carbonara, 2023). Multimodal tools have already demonstrated their effectiveness in language learning studies, as they allow for a focus on the subjective experience of the learner, highlighting the emotional and psychological fabric of the learning. The investigation focused on the administration of the linguistic silhouette to L2 Italian learners (A2-C1), enrolled in Italian language courses at the University for Foreigners of Siena, before and after their exposure to these learning pathways. The qualitative and multimodal analysis of the 240 silhouettes collected, together with interviews, provides a nuanced understanding of the dynamics that permeate Italian language learning in linguistically and culturally diverse contexts, offering a detailed overview of the transformations in learners' perceptions of their own repertoires. The results not only contribute to the current literature on the relationship between learning experience and linguistic representation but also inform more conscious pedagogical practices that consider the multilingual repertoires of students.

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Exploring neural mechanisms of bilingual language control in a language switching task: An fMRI study using a functional localizer approach

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Two intriguing phenomena have been observed under the context when bilinguals need to switch between their first (L1) and second (L2) language: (i) switching to L1 is associated with bigger costs than switching to L2 (a.k.a. asymmetric language-switch cost), and (ii) L1 production becomes overall slower than L2 production (a.k.a. reversed language dominance). These index bilingual language control (BLC) mechanisms based on which bilinguals navigate between their L1 and L2. However, it remains unclear whether the asymmetric language-switch cost and reversed language dominance reflect the same mechanisms at the neural level. Here, we addressed this question in an fMRI study in which we examined the indices of BLC in four functionally-defined networks in the brain. We tested 45 Polish-English bilinguals using the language switching task (LST), in which participants named pictures in L1 or L2 based on color cues. To explore whether the control draws on language-specific or domain-general mechanisms, we examined brain responses within four functionally-localized networks, each identified at the individual-subject level: the established Language Network (Fedorenko et al., 2010), and domain-general Multiple Demand Network (Duncan et al., 2010), as well as a novel domain-general task-switch network, and a language production network, each aiming to emulate the established networks. For each subject, based on the functional localizer tasks, we identified functional regions of interest (corresponding to 10% of the most active voxels). From these regions, we drew estimates of brain responses to the LST. Our results revealed that the asymmetric language-switch cost and reversed language dominance were only reflected in the domain-general networks but not in the language-specific networks. Our findings suggest that the asymmetric language-switch cost and reversed language dominance in language switching engage domain-general rather than language-specific mechanisms.

Exploring plurilingual teaching and learning approaches in higher education language classrooms: Utilization, attitudes, and experiences of teachers and learners

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Research findings from neuroscience and psycholinguistics demonstrate that languages in our brains are interconnected (Riehl, 2022). Moreover, studies in educational research show that plurilingual approaches in language classrooms offer diverse benefits, such as metalinguistic abilities, and helpful strategies to learn an additional language (Piccardo et al., 2021). Despite evidence highlighting the importance of plurilingualism in education, research indicates that its theoretical principles have not yet been widely implemented in teaching and learning practices (Galante, 2018). Taking up this research gap, this doctoral thesis aims to evaluate the utilization of plurilingual teaching and learning approaches, as well as attitudes and experiences towards these approaches in language classrooms of language centers in higher education in Germany. This evaluation was done by conducting an online survey that addressed both teachers' and learners' perspective. The survey consisted of closed statements and open questions to get the best results of both quantitative and qualitative approaches (convergent mixed-methods design), and compensate for their restrictions. The poster will focus on the qualitative part which is analyzed by a structured content analysis. At the conference, findings of these open questions will be presented.

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Exploring Semantic Organization in Noun and Verb Domains in Korean-English Bilingual Children

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This study examined the semantic organization in 12 Korean monolingual (MO) and 23 Korean-English bilingual (BI) children (ages 3-10) across noun and verb domains. Both completed the Word Association Identification Task (WAID; Kan et al., 2024), where they identified semantically related pictures, and the Korean Free Word Association Task (WAT); BIs additionally completed the English WAT. BIs outperformed MOs on the WAID (noun: $F(1,33) = 8.56, p = .01$, verb: $F(1,33) = 3.89, p = .05$). Within the WAT results for BIs, a main effect of response type (paradigmatic association [PA] vs. syntagmatic association [SA]) was observed (noun: $F(1,88) = 11.87, p < .001$, verb: $F(1,88) = 7.43, p = .007$), with PA more dominant for nouns and SA more prominent for verbs. There was no main effect of stimulus language (Korean vs. English), nor an interaction between response type and stimulus language. Including MOs with Korean stimuli, similar PA-SA patterns appeared, with a main effect of response type (noun: $F(1,66) = 4.42, p = .04$, verb: $F(1,66) = 14.88, p < .001$). An interaction effect was found between group and response type for verbs only ($F(1,66) = 4.29, p = .04$). For verbs, the PA-SA difference was less pronounced in BIs than MOs. There was no main effect of group in either domain. Regression analyses, controlling for age and English exposure within BIs, revealed that PA for Korean stimuli was predicted by PA for English stimuli (noun: $\beta = 0.73, SE = 0.12, t = 6.20, p < 0.001$, verb: $\beta = 0.49, SE = 0.19, t = 2.52, p = 0.02$), and vice versa (noun: $\beta = 0.92, SE = 0.15, t = 6.20, p < 0.001$, verb: $\beta = 0.51, SE = 0.20, t = 2.52, p = 0.02$). SA for Korean stimuli was predicted by SA for English stimuli (noun: $\beta = 0.62, SE = 0.10, t = 5.88, p < 0.001$, verb: $\beta = 0.82, SE = 0.20, t = 4.06, p < 0.001$), and vice versa (noun: $\beta = 1.05, SE = 0.18, t = 5.88, p < 0.001$, verb: $\beta = 0.56, SE = 0.14, t = 4.06, p < 0.001$). These results suggest a potential bilingual advantage in semantic organization and cross-linguistic semantic association processing in bilinguals, illustrating bilinguals' interconnected language development.

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Exploring the influence of speaker-internal and community factors on Turkish-English bilinguals' speech production patterns

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Previous sociophonetic research in diaspora communities has shown intergenerational patterns of production in the heritage (L1) and societal language (L2), with first generation speakers often displaying L1 and L2 patterns that reflect the heritage language. To date, there has been a dominant focus on how speaker-internal factors, such as age of acquisition (AoA) and length of residence (LoR), influence speech production. The present study explores the additional influence of bilinguals' local community on L1 and L2 speech production patterns – with the aim to explore if residing in a community with a majority diaspora population (dense community) influences speakers' L1 and L2 phonetic realization. Participants were 60 Turkish-English bilinguals (34 women, M age = 37.3 years, AoA range: birth to 45 years) from two London Boroughs: 1) Haringey, home to the UK's largest Turkish community (n=30), and 2) Kingston-Upon-Thames, a smaller, less dense Turkish community. Participants were recorded producing an English and Turkish wordlist. We conducted an acoustic-phonetic analysis of monophthong vowels (first and second formant, duration) and plosives (voice onset time - VOT). Participants also completed a background questionnaire, to gather information on language-use patterns. Our phonetic analysis revealed the well-known influence of AoA – bilingual speakers who had acquired English and Turkish in childhood displayed distinct production patterns in both the L1 and L2, whereas those who acquired their L2 (English or Turkish) later showed an influence of their L1. This pattern was especially evident for plosives, with fewer differences found for vowels. Our preliminary analysis of community type suggests it does not appear to influence speech production. We are currently exploring individual differences, to better understand how community density influences bilinguals' language use patterns, and how this in turn influences their phonetic realization in English and Turkish.

Exploring the relation between Executive Functions and Morphosyntactic Skills in 5- and 6-year -old Bilingual Children Speaking Polish as Their Heritage Language

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Bilingualism is often associated with enhanced executive functions (EF), including cognitive flexibility, working memory, and inhibitory control (e.g., Bialystok, 1999; Carlson & Meltzoff, 2008). The bilingual advantage hypothesis suggests that managing two languages can improve cognitive processes like inhibition and task-switching (Carlson & Meltzoff, 2008). While this hypothesis has been explored in various language pairs, there is little literature regarding how these cognitive benefits manifest specifically in Polish-speaking bilingual children. Recent research suggests that bilingual cognitive advantages may stem from adaptations in the attentional system rather than the direct transfer of language processing skills (Bialystok, 2024). Our study aims to check if EF measured with a subtest on inhibitory control from the IDS-II and the Polish parents scale Comprehensive Analysis of Cognitive Processes (KAPP, Oryśka et al. 2022) and language exposure quantified using Polish adaptation of PABIQ data (Mieszkowska et al., 2021) predict morphosyntactic skills measured with Sentence Repetition Task (SRep, Przygocka, et al., 2021). Data collection is ongoing, with 15 bilingual children tested so far. We will have tested at least 30 bilingual and 30 monolingual children by May 2025. We hypothesize that bilingual children will score higher on the EF than monolingual children, and EF scores will predict morphosyntactic skills. Additionally, we hypothesize that this relationship is moderated by language exposure, with higher language exposure strengthening the link between EF and morphosyntactic skills. While the bilingual advantage in EF has been well-studied in other language populations, our study focuses on Polish-speaking bilingual children, a rather underrepresented group in bilingualism research. By investigating a language with complex morphosyntactic structures, we contribute to understanding how bilingualism affects cognitive and linguistic skills in different language contexts.

Exploring Transformative Pedagogies in Linguistically Diverse Classrooms: A Critical Review of Translanguaging, Funds of Knowledge and Critical Consciousness

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This paper critically examines the role of transformative pedagogical frameworks—translanguaging, funds of knowledge, and critical consciousness—in supporting identity construction, self-esteem, and agency among linguistically minoritized students in bilingual classrooms. Minoritized bilingual students often encounter deficit-based views that devalue their linguistic and cultural assets, which can negatively impact their self-perception and agency within educational spaces (García & Wei, 2014; Paris, 2012). My research explores how these frameworks enable educators to combine and leverage students' cultural and linguistic resources to challenge deficit perspectives and reshape power dynamics in the classroom (Valenzuela, 1999; Moll et al., 1992). This review emphasizes the importance of situating language education within a social justice framework. The proposed research aims to answer the following questions: How do translanguaging, funds of knowledge, and critical consciousness shape the identity and self-esteem of linguistically minoritized students? and In what ways do teachers navigate and potentially reshape power dynamics in the classroom through these approaches? Through a critical review of existing literature and qualitative studies in bilingual education, this research will analyze how these frameworks influence student identity and self-perception. I will examine case studies and ethnographic accounts, focusing on teacher-student interactions and classroom dynamics within linguistically diverse settings (Gutiérrez et al., 2002; García, 2009). This analysis seeks to offer insight into the practical and ideological shifts necessary for empowering minoritized students. Ultimately, this study aims to expand the current understanding of transformative pedagogy within linguistically diverse classrooms. By investigating the direct impact of these frameworks, this research will contribute to a growing body of work on inclusive, social justice-oriented educational practices (Palmer, 2018). Findings from this study could serve as a valuable resource for educators, helping them create classrooms that affirm students' linguistic diversity, enhance their agency, and foster a sense of belonging and confidence.

Exploring Translanguaging Practices in an EFL Classroom in a Preparatory School Context

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The dominance of the monolingual approach in foreign language teaching has led to the prohibition of students' L1 use in class. However, bi-multilinguals have a different linguistic repertoire that contains elements from different languages and has distinct learning paths due to diverse language learning experiences (Cook, 1992). Thus, when learning a new language, they connect to their prior knowledge, their first language or other languages they know (Cenoz & Gorter, 2011). The L1 prohibition imposed by the monolingual approach prevents students from benefiting from their pre-existing resources. To address this challenge, researchers and teachers have begun to incorporate translanguaging pedagogy into their teaching. Although numerous studies shed light on the topic, there is little research in the Turkish context on how translanguaging pedagogy is implemented in the language classroom. The aim of this study is to investigate the translanguaging practices of an EFL teacher in the context of a preparatory school. Data was collected from session recordings and transcription was coded using the framework developed by Sahan and Rose (2021) to examine language functions from a translanguaging perspective. The data was coded and analysed using the Computerized Language Analysis (CLAN) program. The analysis revealed that the teacher used translanguaging primarily to explain content and for classroom management. The results are discussed with implications and possible applications for teachers and course designers.

External Factors in the Reactivation of Heritage Turkish: A Study of Turkish-German Returnees

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This study investigates the reactivation of heritage language (HL) Turkish among Turkish-German returnees upon their reintegration into Turkey. It explores the impact of external factors such as duration of residence in Germany, age at return, and frequency of Turkish language use in Germany on HL proficiency. Data were collected from 28 returnee participants and compared to a control group of 28 Turkish monolinguals. Participants' language proficiency was assessed through a cloze test and an error correction task, focusing on vulnerable morphosyntactic structures such as converbs, evidentiality, and direct object case marking. Descriptive statistics revealed that returnees scored significantly lower on the cloze test ($M = 36.21$, $SD = 3.83$) compared to the control group ($M = 39.68$, $SD = 0.61$), with a Wilcoxon signed-rank test showing significant differences ($W = 134$, $p < 0.000$). The returnee group also performed worse on the error correction task ($M = 26.14$, $SD = 2.95$) than the control group ($M = 28.8$, $SD = 1.21$), with a significant difference ($W = 181.5$, $p = 0.000$). Further analysis using random forest models revealed that frequency of Turkish use in Germany was the most important predictor for cloze test performance ($p = 0.01998$), followed by years spent in Turkey ($p = 0.03996$). For the error correction task, the length of residence in Germany ($p = 0.002997$) and Turkish class attendance ($p = 0.01798$) were significant predictors. These findings highlight the substantial variability in HL proficiency among returnees, influenced by both individual language experiences and external factors. The study underscores the complex relationship between language exposure and heritage language reactivation, suggesting that maintaining high levels of language use in the migration context supports more successful HL reactivation upon return to the heritage language environment.

Factors Affecting Reading Comprehension in EAL Learners: A Corpus-Based Analysis

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Researchers (e.g., Hessel & Murphy, 2019; Spencer et al., 2017; Townsend et al., 2016) have shown that academic English vocabulary plays an important role in EAL learners' academic achievement. Previous studies (Coxhead et al., 2010) have looked at the coverage provided by general-purpose (e.g., Nation's (2012) British National Corpus/Corpus of Contemporary American English (BNC/COCA)) or general academic word lists (e.g., Coxhead's (2000) Academic Word List (AWL); Gardner & Davies' (2014) Academic Vocabulary List (AVL)) over the texts that EAL students are likely to use in the classroom. However, these studies have all made use of general word lists, which may not be reflective of the actual vocabulary EAL learners are likely to encounter in the classroom (Green & Lambert, 2018; Greene & Coxhead, 2015). The study discussed in this presentation compares the differences in coverage provided by general and EAL-specific word lists. To measure the coverage of the different word lists, we first compiled a large corpus of just over 15 million words covering 9 different content areas commonly taught in EAL classrooms. We then measured the coverage of the corpus using Green and Lambert's (2018) Secondary School Vocabulary List. Finally, we compared the coverage provided by these two lists to the coverages provided by Nation's (2006) BNC/COCA and a combination of West's (1953) General Service List (GSL) and Coxhead's (2000) AWL. The results of our analysis showed that the EAL-specific word list provided the best coverage of the texts that EAL learners are likely to use in the classroom. We will discuss the implications of this in the classroom, especially because many of the pedagogical choices and assessment tools used in the EAL classroom are based on more traditional word lists such as the AWL and the BNC/COCA.

Falling for False Friends: Generation, Cognate Status, and Error Correction in SLA

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Second Language Acquisition (SLA) research highlights the dual influence of cross-linguistic transfer from a first language (L1) to a second language (L2), with positive transfer facilitating learning and negative transfer introducing challenges. Cognate status—whether words share form and/or meaning across languages—plays a critical role, often aiding vocabulary acquisition through positive transfer. However, findings are mixed for false cognates, where misleading form similarity may hinder learning through negative transfer. A variety of learning studies have also demonstrated a generation effect, where generating a response (guessing) followed by feedback can enhance retention. In prior work, we found that generation effects varied across word types, with cognates consistently benefiting more from guessing than non-cognates or false cognates. Mixed findings for false cognates, however, generated further questions about how participants learn these word types and the types of errors they produce. We therefore conducted two experiments with English-speaking adults learning Dutch-English cognates, false cognates, and non-cognates. Experiment 1 used a 2-answer forced-choice recognition task to assess how learners develop lexical representations and respond to generation under targeted response conditions. Experiment 2 introduced a 5-answer forced-choice task to capture nuanced error patterns. For example, for the Dutch word "magazjine," options included: 1) Warehouse (correct), 2) Magazine (false cognate lure), 3) Factory (related to correct answer), 4) Newspaper (related to false cognate), and 5) Bicycle (unrelated). Results showed that false cognate lures, such as "Magazine," frequently misled participants, indicating heightened negative transfer and greater interference when false cognates closely resembled L1 vocabulary in form but not meaning. Overall, these findings clarify the role of generation and feedback in managing transfer effects, highlighting that specific forced-choice tasks can enhance error monitoring. Results reveal how learners navigate cross-linguistic interference and refine L2 lexical knowledge, offering insights that could inform strategies to optimize SLA outcomes.

Foreign Language Teaching Anxiety Among In-Service English Teachers

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Teacher emotions are vitally important for the classroom environment and students' language attainment; however, studies concerning foreign language teaching anxiety (FLTA) remain scarce. This study examined FLTA through administering questionnaires to 235 in-service teachers to investigate the impacts of educational stages and teaching experience on FLTA. The statistical results show that secondary school teachers exhibit significantly higher levels of FLTA than their primary counterparts, especially in "lack of student interest" and "fear of negative evaluation". Novice teachers are significantly more anxious than experienced teachers in the dimension of "teaching inexperience", while no other differences are shown in other aspects. No interaction effects are found between the two variables. Pedagogical implications for understanding FLTA in different educational and experiential stages and corresponding anxiety-reducing strategies are discussed.

**Fostering mediated healthcare communications in plurilingual and pluricultural contexts:
Analysis of triadic medical visits between female patients, medical staff and non-professional
mediators in Catalonia, Spain.**

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This paper presents exploratory findings of an ongoing qualitative investigation which aims to provide a comprehensive overview of mediated intercultural communication in the healthcare field within plurilingual and pluricultural contexts in Catalonia, Spain. Within this broader project, we specifically focus on analysing interactions involving non-professional mediators or interpreters, particularly husbands, accompanying female patients to gynecological appointments with healthcare personnel (midwives) in which intimate issues of sexual and reproductive health are discussed. Multimodal data from these triadic interactions has been video-recorded and analysed following conversation analysis methodologies. Key findings reveal diverse strategies and techniques utilized or overlooked by non-professional mediators in their interpreting task between patient and medical staff, including mainly omissions, reformulations and additions of information, as well as instances where mediators respond on behalf of the patients for whom medical questions are addressed and communication is being mediated. Non-verbal aspects of communication, such as the use of gestures and the direction of gaze, also emerge as relevant strategies that can either facilitate or hinder effective communication by including/excluding patients from the interaction. The paper concludes by discussing significant emerging themes, including the double vulnerability experienced by female patients from migratory backgrounds, who often lack familiarity with the hosting sociolinguistic and sociocultural contexts, and who run the risk of being marginalized or excluded from conversations concerning their own (sexual/reproductive) health. Additionally, the physical positioning and assertiveness of their non-professional mediators, along with issues regarding gender imbalances and power, can play a role in enhancing the vulnerability of female healthcare users with low communicative autonomy in these particular mediated contexts.

From minority schools to schools of multilingualism?

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Between 2021 and 2023, a research team conducted almost 120 qualitative interviews with bilingual and multilingual pupils aged between 10 and 14 years at the BG/BRG for Slovenes in Klagenfurt/Celovec - a secondary level school, which was primarily founded for the “autochthonous” Slovene minority in southern Austria. The interviews lasted between 35 and 55 minutes and were conducted in Slovenian or German - depending on the interviewees' wishes. The survey was conducted using guided interviews, a semi-standardised survey instrument. The interviewees' language repertoires are on the one hand biographically determined, on the other hand the acquisition or expansion of at least four languages is subject to the school concept. The topics of the survey were institutional, family and individual contexts of language acquisition and the use of the minority language Slovene in mainly German speaking Austrian society from pre-school to secondary school level. A certain part of the study focussed on emotionality and multilinguality, especially as this is an ‘essential component of identity’ (Angerer-Pitschko & Wakounig 2022, p. 12). Results indicate e.g. that the BG/BRG for Slovenes, which was originally founded as a school for minoritised minority members, now also has an immense diversity of language biographies and language variations among its students. The survey revealed a high level of language sensitivity among the young people interviewed. The contribution also discusses questions on translanguaging and intercomprehension strategies of bi- and multilingual pupils bilingual school settings.

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General and mathematical language contribute to numerical performance differences in linguistically diverse third graders

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General and mathematical language are important predictors of mathematical abilities. Both factors are particularly important in multilingual education contexts, such as Luxembourg, where many students do not speak the language of math instruction at home, which may thus impact their performance in mathematical tests. The present study investigated how general and mathematical language contribute to individual differences in third graders attending schools in Luxembourg (N = 598, 49% girls). All children performed a series of newly developed numerical and arithmetic tasks. We also devised and administered a receptive vocabulary measure with 45 general and 16 mathematical language items. Further measures included demographics and rapid automatized naming (RAN). In general, it appeared that children who were speaking the language of instruction at home (L1 learners; 44%) scored overall higher than their peers speaking other languages at home (L2 learners; 56%). More fine-grained analyses revealed that these effects only concerned the tasks assessing basic numerical skills. Stepwise regression analyses controlling for sex, age, socioeconomic status and performance in RAN indicated that performances of L1 versus L2 learners no longer differed when taking general and mathematical language levels into account. Mediation analyses confirmed that general and mathematical language both significantly mediated the relationship between the effect of language background and basic numerical task performance. These results confirm and extend previous studies reporting that lower language proficiency contributes to underachievement of L2 learners. In addition, they highlight the specific contribution of mathematical language to numerical performance of elementary-school children with diverse language backgrounds, extending findings in preschool children. Our findings underscore the importance of considering general and mathematical language skills when assessing math performance in linguistically diverse children. Vocabulary training and active use of mathematical language might help foster math abilities and reduce achievement gaps related to language backgrounds.

Gradient Tone perception in L2 Mandarin

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In this study we examine how English speakers acquiring Mandarin as an additional language and Mandarin heritage speakers perceive Mandarin tones and, subsequently, how their production relates to their perception. Participants were recruited from L2 Chinese classes and the Chinese community in the US Midwest. Participants (n=4, n=3; data collection is ongoing) completed a VAS task for which the anchor points were the same Mandarin monosyllables with tones 2-4 or 2-3. Participants also carried out a production task in which they read different Mandarin monosyllables with the same tonal pattern and English sentences with pitch accent on the final word that corresponded to either rise-fall or rise (Mary vs. Mary?). The VAS results will be analyzed separately and then together with the production results to provide insight into possible differences across learners of distinct profiles and language use experience. We predict that the Mandarin heritage speakers will show a more categorical perception pattern for the VAS task (steeper slopes) than the L2 learners, who will perceive it more like intonation, which has been argued to be less categorical for non-tonal language speakers. In terms of production, we predict that L2 speakers with less variability in their production of the pitch-accent target words will perceive the Mandarin tones in a more categorical fashion. This study will contribute to the nature of categorical perception in different groups of bilinguals with distinct language experiences and specifically, provide insight into the nature of gradient perception in a tonal heritage language.

Grammar Activation and Cognitive Load in English-Norwegian Bilingual Code-Switching

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This study investigates the dynamics of bilingual grammar activation in English-Norwegian code-switching, with a focus on the Verb Second (V2) syntactic constraint in Norwegian. Using acceptability judgment tasks and eye-tracking methods, the project explores how V2 and V3 word orders in non-subject-initial declaratives are processed, revealing insights into bilingual mental lexicon structure and the cognitive mechanisms underlying code-switching. The study aims to answer three primary research questions: (1) What do native speakers perceive as acceptable in V2 versus V3 constructions? (2) Do bilinguals process both grammars concurrently, or is switching cognitively costly? (3) How do individual differences in bilingual proficiency and language dominance influence code-switching behavior? Two participant groups, native Norwegian speakers (L1) and English speakers learning Norwegian (L2), will complete an acceptability judgment task and a self-paced reading and eye-tracking task to measure processing load and sentence acceptability. In the acceptability judgment task, participants will rate sentences on a Likert scale from 1 (completely unacceptable) to 7 (completely acceptable). Sample sentences include a V2-conforming sentence, *sent på kvelden leser hun en bok* ("Late in the evening reads she a book"), and a V3 variant, *sent på kvelden hun leser en bok* ("Late in the evening she reads a book"), which violates Norwegian syntactic constraints. Statistical analysis will compare the acceptability of V2 and V3 constructions, while eye-tracking data will assess the cognitive load of switching between languages, particularly focusing on language direction (L1 to L2 vs. L2 to L1). The study further considers individual differences, using proficiency assessments and executive function measures to understand how these factors predict code-switching efficiency. Expected results suggest that V2 word order will be rated as more acceptable than V3, with lower cognitive load associated with high-proficiency participants and those with strong executive function skills will exhibit lower switching costs.

Grammatical gender acquisition in Spanish-English bilingual preschoolers in Australia

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As both a lexical feature (gender assignment) and a syntactic feature (gender agreement), gender marking in Spanish offers insights into language processing. Homeland Spanish-speaking children generally achieve high accuracy by age four. However, research on heritage language (HL) bilinguals shows variable outcomes, from near-native performance to mismatches suggesting a distinct gender system. The causes of these inconsistencies remain unclear, with studies on how English gender properties impact bilingual acquisition showing mixed results. Language exposure is likely relevant, as studies have found it to be a significant predictor of bilinguals' Spanish gender performance. However, most research has used controlled tasks rather than naturalistic methods, limiting ecological validity. Furthermore, HL use in Australia is understudied. Unlike other English-speaking countries with a majority HL, Australia's smaller Spanish-speaking population relies mainly on home exposure, with limited educational support. In this study, we examined grammatical gender accuracy and types of mismatches among bilingual preschoolers in Australia, focusing on individual differences (language exposure) and linguistic factors such as noun type or lexical-semantic class (animate vs. inanimate), gender (masculine vs. feminine), and morphological transparency (canonical endings, gender-specific derivational suffixes, and opaque nouns). Participants included preschool children who speak Spanish as an HL (N = 20) and as an additional language (AL) alongside English (N = 13). They completed retelling and comprehension tasks via Zoom, with audio recordings transcribed using automatic-speech-recognition AI and checked by the first author and a student RA. All noun phrases were noted and coded by linguistic factors. We hypothesized that HL bilinguals would demonstrate high accuracy, with mismatches like those of native Spanish speakers, due to high Spanish exposure and balanced language dominance. We will discuss how our findings compare to previous research on both HL and AL early bilinguals prior to the schooling system, and their implications for models of bilingual language acquisition

Heritage Language Abilities in Bilingual Arabic-German Children with and without Development Language Disorder: Comparing a Standardized Test Battery for Spoken Arabic to an Arabic LITMUS-Sentence Repetition Task

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Purpose: To avoid misdiagnosis with developmental language disorder (DLD) in bilingual children, it is recommended to evaluate both languages. However, unlike their monolingual peers, bilingual children acquire their heritage language under adverse input conditions. Focusing on Levantine Arabic, the study evaluates the clinical utility of a standardized test for Arabic (ELO-L) and an Arabic LITMUS-sentence repetition task for ruling in/out DLD in bilingual children acquiring Arabic as a heritage language in Germany. Both tools were developed for the Lebanese bilingual context, where Arabic is acquired in a majority diglossic context. However, it is still unclear whether they can be reliably applied in heritage contexts. **Method:** Forty-five Arabic-German bilingual children (5;6-9;1) participated in the study: 18 typically-developing children with early exposure to German (heritage BiTD), 9 heritage bilingual children with DLD (heritage BiDLD) and 8 typically-developing late-successive bilingual children. In addition, 24 monolingual Arabic-speaking typically-developing children were included as controls. **Results:** Unlike monolingual and late-successive bilinguals with typical development, a sizable proportion of the heritage BiTDs resembled their BiDLD peers performing in the pathology range in at least two of the five subtests of the ELO-L. Expressive/receptive vocabulary and morphosyntax production were particularly affected by reduced input conditions. In contrast, the Arabic LITMUS-sentence repetition task was robust against variations in heritage language input and did not disadvantage heritage BiTD children, who performed on par to their typically-developing monolingual and late-successive peers on most structures, while BiDLDs showed poor performance (see Figures 1-5). **Conclusions:** Sole reliance on standardized tests for assessment of heritage language bears a risk of over-diagnosis with DLD for heritage bilinguals. The Arabic LITMUS-sentence repetition task, on the other hand, could be administered as a first estimate of heritage language abilities in heritage and late-successive bilingual children. However, special attention should be paid to aspects vulnerable in heritage contexts.

How accented speech affects word recognition in bilingual and monolingual children

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Bilingual children are more likely to encounter foreign accents in their everyday environment than their monolingual peers (Levy et al., 2019). The current study examined how adaptation to foreign-accented speech was affected by short- and long-term exposure to accents. We expected that bilingual children would be more accepting of words that included vowel shifts than monolinguals due to more experience with accents. Further, we expected that short-term experience with accents in the lab would increase acceptance of vowel shifts regardless of linguistic background. Participants included 3 to 5-year-old Canadian children classified as monolingual ($\geq 70\%$ weekly English exposure; $N = 94$) or bilingual ($< 70\%$ English exposure; $N = 59$). Children first heard a story read by either: (1) a speaker producing all words following General North American English (GNA) norms or (2) a Spanish-accented speaker producing words with Spanish-influenced vowels. After listening to the story, children were tested on their acceptance of English words produced with vowel-shifts by both speakers. After exposure to the GNA English story, there was a significant interaction between test speaker and language group ($\chi^2(1) = 7.01, p < .01$). Bilingual children did not differ in acceptance of vowel shifts across speakers, but monolinguals were significantly more likely to accept vowel shifts produced by the Spanish-accented English test speaker than those produced by the GNA English test speaker. However, following the Spanish-accented story, both groups accepted vowel shifts at similar rates regardless of the speaker ($\chi^2(1) = .01, p = .93$). Contrary to our hypothesis, bilingual children were not more accepting of vowel shifts than monolinguals. After exposure to the majority accent (GNA), they appear to be less accepting of a different accent (Spanish) than monolinguals. However, exposure to foreign-accented speech led to more similar performance across language groups. Findings suggest both short- and long-term exposure to speech variability affect accent adaptation.

How discussing bilingualism influences language perspectives: Measuring Spanish learners' attitudes towards bilingualism in the Midwest

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This study investigates second language (L2) Spanish learners' attitudes towards bilingualism and language learning. Attitudes play a significant role in student success (Cummins, 2000), and "negative attitudes...can reduce learners' motivation and harm language learning, whereas positive attitudes can do the opposite," (Merisuo-Strom, 2007, p. 228). Despite their importance, few studies explore how to improve language attitudes, in addition to measuring them. In response, this research aims to assess whether a brief classroom intervention involving a short lesson on bilingualism can improve language attitudes. The lesson covered topics such as definitions of bilingualism, characteristics of bilingual people, common myths and realities, opportunities for using languages other than English in the U.S., and more. Participants consisted of 166 novice-intermediate L2 Spanish learners from multiple Midwestern universities in the U.S. Students were randomly divided into two groups: Group 1 received the lesson on bilingualism before taking a survey on language attitudes, while Group 2 took the survey before receiving the lesson. The online survey, adapted from the Language Attitudes Questionnaire (Cook, 2001), included quantitative questions that measured attitudes towards bilingualism and language learning. The total time for the lesson and survey was approximately 20 minutes. Results indicated that students in Group 1 exhibited stronger and more consistently positive attitudes towards bilingualism and language learning as compared to Group 2. Additionally, the differences were larger among intermediate-level students as compared to novice-level students. These findings suggest that knowledge about bilingualism as a concept has a positive correlation with students' language attitudes, particularly as they advance in proficiency. This study offers valuable insights for L2 educators and researchers as it presents a realistic approach to improving attitudes in the language classroom. Future research will investigate the long-term effects of the lesson and its influence on actual language proficiency.

How do Bilingual Adults Read and Solve Verbal Math Problems? Exploring Effects of Lexical Text Characteristics and Individual Differences in Language Use.

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Prior research has investigated the relationship between language skills and mathematical abilities (Xu & Spelke, 2000) and attitudes (Luk et al., 2024). However, studies on numerical cognition often overlook linguistic factors (Daroczy et al., 2020), and research on bilingualism and mathematical skills tends to emphasize comprehension over calculation aspects in word problem solving (Peng et al., 2020). To address this gap, we examined 69 French English bilingual adults using a rapid serial visualization paradigm (RSVP) with mathematical word problems (e.g., “Sally bought 2 apples, Annie bought 5 apples, and Rose bought 3 apples”). After each problem, participants responded a question (e.g., “How many apples do Sally and Annie have?”) with a probe solution that was either correct (“7”) or incorrect (“5”). Participants accepted or rejected the probe by pressing a key and reading times were recorded. We investigated four main questions: (1) Do bilinguals process exact (addition) versus inexact (comparison) mathematical operations differently? (2) How do task demand (accepting vs. rejecting a probe) affect these processes? (3) To what extent lexical factors of nouns, like word frequency and concreteness, influence reading times? (4) How do individual differences in general and math specific language use moderate these effects? Results showed exact operations yielded longer reading times than inexact ones, and rejecting incorrect solutions required more time than accepting correct ones. Interestingly, lexical factors and individual differences in language use modulated this pattern such that high-frequency words reduced reading times when accepting correct probes but not incorrect rejections, while more concrete words resulted in lower reading times for incorrect rejections but not correct acceptances. Furthermore, greater use of English in both general and mathematical specific contexts, led to faster reading times for exact but not inexact operations. These findings show that lexical, individual, and mathematical factors interact to influence bilinguals' math problem-solving.

How does typological distance of bilingual children's language pairs impact their cognitive performance? A Study of Mandarin-English and Mandarin-Cantonese bilingual children

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Inconsistent findings regarding bilingual cognitive benefits have prompted researchers to examine differences in bilingual experience. However, the impact of typological distance (TD) of target language pairs on cognitive outcomes in bilingual children is understudied (Lee, 2022). Relevant research on younger bilinguals showed cognitive differences between bilingual groups, though findings were mixed (Garraffa et al., 2015; Ross & Melinger, 2017). This study investigated whether TD modulates bilingual cognitive benefits and how it shapes executive function (EF) in Mandarin-dominant bilingual children learning a typologically similar (Cantonese) or different language (English). We predicted that even minimal TD between target languages spoken by children can lead to advantages in EF (Antoniou et al., 2016; Lu et al., 2023). We compared Mandarin-Cantonese (n=17) and Mandarin-English bilingual children (n=19) aged 3;4-6;10 with Mandarin-speaking monolingual controls (n=48) matched for age, nonverbal intelligence, socioeconomic status and Mandarin language proficiency, using cognitive tasks including Zoo Location (Wechsler, 2012) for assessing visual-spatial working memory, Forward/Backward Digital Span (F/BDS, Semel et al., 2003) for verbal working memory, the adapted Fish Flanker task (Eriksen & Eriksen, 1974) for interference inhibition, and Dimension Change Card Sorting (DCCS-B) (Zelazo, 2006) for shifting. Both bilingual groups were faster and/or more accurate than monolinguals in Flanker ($p < .05$) and DCCS-B ($p < .01$), particularly at younger ages, suggesting bilingualism enhances inhibition and shifting, regardless of TD. In more demanding working memory tasks, however, only Mandarin-English bilinguals outperformed monolinguals in Zoo Location ($p < .01$), revealing benefits from processing typologically distant languages. Both bilingual groups outperformed monolinguals in BDS ($p < .05$) at older ages. At higher L2 proficiency levels, Mandarin-Cantonese bilinguals outperformed Mandarin-English bilinguals in FDS, indicating advantages in phonological working memory with typologically similar languages. Our findings suggest that TD modulates cognitive performance differently depending on the task and participants' age, highlighting its importance in shaping bilingual cognitive advantages.

How well can children write in their heritage language? Findings from a three-year study on Japanese-English bilingual children in Japan

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When heritage language (HL) education is absent from the formal school system, children must rely on home and community-based programs to learn to read and write in their HL. However, developing HL literacy during late childhood and adolescence becomes challenging as children often prioritize extracurricular activities over HL instruction. This longitudinal study aims to explore how HL literacy develops during this vulnerable period. Our 19 Japanese-English bilingual participants (aged 9–12 when first tested) learned English as a heritage language (HL) in Japan. Their English writing skills were assessed annually over three years using the Test of Written Language (TOWL), a US-based standardized writing assessment. The results revealed that most children's English writing abilities developed steadily over time. Eleven children remained within the Average range of same-aged U.S. peers, while eight progressed to the Above Average, Superior, or Very Superior bands. Notably, this group included six children who had discontinued weekend HL school attendance in their final year of writing assessment. These findings demonstrate that children can continue developing HL literacy even without sustained participation in community-based HL lessons, suggesting that home literacy practices may also play a pivotal role in supporting HL literacy development throughout late childhood and adolescence. The participants' high level of English writing proficiency indicates that HL children, as a distinct sub-group of native speakers, can reach their full potential as first-language users of their HL. These findings contribute to the ongoing debate about ultimate attainment in HL learning with home and community support.

I see what you are trying to do. Siehst du, der kann schon Englisch. Investigating metaphor use in German-English bilingual children

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How do children acquire metaphorical meaning? A widely-shared assumption is that children learn the literal sense of an expression first and later on extend it metaphorically. Alternatively, children may learn metaphorical senses from contexts in which both a literal and a metaphorical meaning applies and only later learn to differentiate the two (Grady, 1997; Johnson, 1999). In (1), for example, a father literally sees what his child is doing but he also metaphorically sees, i.e. understands, the purpose of the child's activity.

(1) I see what you are trying to do but I won't let you.

In this project, we aim to investigate a) when children start to use see to mean know (or understand, realise), and b) which role the (bilingual) input from their caregivers play? While previous research has mainly focused on monolingual children, we are interested in whether, in bilingual contexts, (metaphorical) input from one language may influence the (metaphorical) output in the other language. We explore these questions using data from two highly dense corpora of 2 German-English bilingual children (corpus of child 1: age = 2;3 to 3;11, 47,812 child utterances, 180,293 caregiver utterances; corpus of child 2: age = 2;3 to 3;9, 37,995 child utterances, and 193,993 caregiver utterances). We retrieved every instance of the lemmas see and German sehen in the input and the output, and coded these for metaphoricity as well as for the language and the constructional pattern they occurred in. Our research is in progress but preliminary results show that the parents produce literal and metaphorical uses of see / sehen that are tied to language-specific constructions respectively, the children on the other hand primarily use the verbs literally.

Immediate semantic integration in children's first and second language

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Despite several studies in adults, there is a gap in the literature on semantic integration of newly learned words in children, in both their native (L1) and second language (L2). It is essential to know how these processes work in children as they are at a crucial point in their linguistic development, as well as to guide educational practices accordingly to their capacities. To this end, in the present study, a semantic priming experiment was conducted, specifically a lexical decision task with a mixed design incorporating both priming within the L1 and cross-language priming from L2 to L1. 40 Spanish native children (Mage = 11.37) participated in the study. They were presented with new words linked to an image and a description that could appear either in their L1 or in their L2. Subsequently, in the semantic priming task, the new words acted as primes, while L1 words (semantically associated or non-associated to the primes) and pseudowords were presented as targets. The results reveal immediate semantic integration, irrespective of the language of learning, and point to a more immediate pattern of integration than in adults. As a follow-up, a new study will be designed with a larger sample in both children and adults and the testing phase will be carried out both immediately after training and after a 24-hour consolidation period.

Impact of Cognitive Control and Language Interaction on Symptom Manifestation in Bilingualism: A Case Study of Aphasia and Apraxia of Speech

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Bilingualism enhances cognitive control across the lifespan by engaging memory, attention, and executive functions, especially in less proficient languages. This cognitive profile differs from monolinguals and influences symptom manifestation in disorders like aphasia and apraxia of speech (AOS). We examined a bilingual patient with cognitive and communication symptoms suggestive of aphasia and/or apraxia of speech (AOS). Aphasia affects language, while AOS is a motor speech disorder; both often result from left-hemisphere strokes and can appear alone or together. The evaluation involved quantitative assessment, case history, and analysis of language, speech, and cognition. Executive functions were assessed through the Simon task, Stroop task, Symbol Digit Test, and Wisconsin Card Sorting Test. The participant's mother completed the LEAP-Q questionnaire on language use pre- and post-morbidly. Aphasia symptoms were measured with a picture description task and mean length of utterance (MLU) in each language. Since no English-Spanish AOS tools exist in the USA, a Scale for Buccophonatory Apraxia was translated and modified for English, then administered in both languages by native and bilingual clinicians. The patient is a 36-year-old bilingual (Spanish-English) male, fluent in both languages before his condition. Post-morbidly, he exhibits aphasia symptoms such as semantic paraphasias, phonemic paraphasias, and language mixing in both languages. Rater scale scores indicate significantly higher apraxia symptoms in Spanish. The differing aphasia and AOS scores in English and Spanish reflect distinct profiles in each language for this patient. We discuss these scores considering the patient's bilingual proficiency, exposure, and usage before and after the stroke, alongside aphasia symptoms like pathological language mixing and results in executive functions. We propose that cognitive control impairment may underlie the observed language mixing and variable AOS severity across languages. These findings support the dynamic cognitive control model, advancing our understanding of cognitive-communication disorders in bilinguals and underscoring the need for further research.

Inclusion of multilingualism in daycare and school

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In many countries around the world, the student population in both early childhood education and care (ECEC) and mainstream education (primary and secondary schools) has become increasingly linguistically diverse due to international migration. To address the educational disadvantages faced by multilingual migrant students in most education systems (OECD, 2023), various strategies have been developed to integrate students' diverse linguistic repertoires into pedagogical practice (Lengyel, 2017; Gogolin et al., 2020). However, many questions regarding the implementation and the outcomes of these pedagogies remain unanswered (Poza, 2017). How can the linguistic repertoires of multilingual children and adolescents be incorporated into classroom practices? What are the effects of integrating their heritage languages in ECEC and school settings on various dimensions of educational success and participation? Which factors promote or hinder multilingual practices? In light of these questions, we will share insights from an ongoing systematic review of 77 international empirical studies on the inclusion of migration-related multilingualism in linguistically diverse ECEC and school settings. We will provide an overview of the approaches used to investigate the inclusion of multilingualism in the studies (e.g., methodological approaches, theoretical lenses, learning contexts). Subsequently, we will focus on the different forms of multilingual practices presented in the studies and discuss first results regarding factors that promote or hinder the inclusion of multilingualism in the classroom and effects of multilingual practices on migrant students' educational success and participation.

Gogolin, I., Hansen, A., McMonagle, S. & Rauch, D. (Hrsg.) (2020). Handbuch Mehrsprachigkeit und Bildung [Handbook Multilingualism and Education]. Springer.

Lengyel, D. (2017). Stichwort: Mehrsprachigkeitsforschung [Keyword: Multilingualism Research]. Zeitschrift für Erziehungswissenschaft, 20(2), 153-174.

OECD (2023). PISA 2022 Results (Volume I): The State of Learning and Equity in Education. OECD Publishing.

Poza, L. (2017). Translanguaging: Definitions, Implications, and Further Needs in Burgeoning Inquiry. Berkeley Review of Education, 6(2), 101-128.

Inclusive practices when conducting psycholinguistic research with refugee children

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In recent years, attention has increasingly turned to sampling bias in applied linguistics, where children are particularly underrepresented (Plonsky, 2023). The urgency of including a greater diversity of language learners in linguistic research partly relates to issues of generalisability, but also the need to address topics of social importance for those in contexts of marginalisation. The present study builds on work aiming to develop inclusive and accessible research practices with migrant language learners (Ganassin et al. 2024, Shepperd, 2022), and extends these approaches to include refugee children in psycholinguistic research. As our project specifically investigates the influence of psychological trauma and socio-emotional wellbeing on language learning, methodological and ethical choices are discussed in relation to sensitive topics and the potential vulnerabilities of our participants. Reflections are shared from data collection with around 35 Ukrainian refugee children (10-12 y/o) across seven primary schools in the Netherlands, who completed a multi-session psycholinguistic test battery. Three priorities are highlighted from our reflections. For all three, it is necessary to hold onto potentially contrasting ideals and weave together an appropriate blend during the research process. 1. Seeking sensitivity to the vulnerabilities of refugee children in research, without denying agency, resilience and capabilities. 2. Building flexibility into experimental designs and procedures, so as to reduce the burden of participation on a group already experiencing complex and unpredictable pressures, without compromising on rigour. 3. Involving members of the community in design and data collection, valuing opportunities for collaboration and sharing linguistic and cultural expertise, without undermining theoretically- and empirically-informed choices. We aim to share lessons that we have learned and demonstrate approaches that can be adapted for further research tackling vital topics with difficult to reach populations.

Ganassin et al. (2024). doi:10.1080/14708477.2024.2411083

Plonsky (2023). doi:10.3390/languages8010075

Shepperd (2022). doi:10.1016/j.rmal.2022.100031

Incremental sentence processing in late L2 learners: Exploring the effect of L2 proficiency and working memory on lexical anticipation

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L1 and L2 speakers use linguistic cues from the input to anticipate upcoming information in a sentence. In a series of eye-tracking studies on prediction during incremental sentence comprehension, Borovsky and colleagues tested monolingual English speakers (1) and English-dominant bilinguals (2) who listened to sentences like “The pirate hides the treasure” while viewing a four-picture visual display, containing a target object (“a treasure chest”), as well as agent-related, verb-related or unrelated distractors (e.g., “a pirate”, “a bone”, “a cat”, respectively). Both groups made use of information contained in the agent (pirate) and action (hides) to predict the theme (treasure), but higher vocabulary size resulted in faster predictions. In addition, English-dominant bilinguals made more locally coherent predictions (i.e., looked at the verb-related but globally incoherent “bone”) relative to English monolinguals. What is yet not clear is how speakers process such sentences in their non-dominant L2 English, and the role of L2 proficiency and cognitive abilities. Therefore, in this study we recruited 47 native Spanish speakers (mean age = 22) who achieved functional proficiency in English during adulthood. Results from 39 participants (8 participants’ eye-tracking data were removed due to technical issues) suggest that L1-dominant late L2 learners of English with higher vocabulary size in L2 English predict the theme based on the semantics of the agent and the action faster than those with lower vocabulary size. Preliminary findings from the working memory task indicate that it might influence the timing of the effects, especially for locally coherent predictions. These results will be discussed within relevant proposals for the mechanisms of L1/L2 prediction in sentence processing, such as prediction-by-association and prediction-by-production (3, 4).

(1) Borovsky, Elman, & Fernald (2012). <https://doi.org/10.1016/j.jecp.2012.01.005>

(2) Peters, Grüter, & Borovsky (2018). <https://doi.org/10.1017/S0142716418000383>

(3) Pickering & Gambi (2018). <https://doi.org/10.1037/bul0000158>

(4) Schlenter (2023). <https://doi.org/10.1017/S1366728922000736>

Individual variation in bilingual phonological development

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Phonological development in young bilingual children depends on several factors, including child-internal factors and language-based factors. Overall, bilingual children's speech production skills are more variable than their monolingual peers. This variability has not been well-accounted for, likely because most studies of early phonological development in bilingual children have small sample sizes (cf. Core & Scarpelli, 2015). A small body of literature has found that language and phonological skills are interrelated in early speech and language development, and a few studies have explored these relations in young bilingual children (e.g., Kehoe, Friend, & Poulin-Dubois, 2021; Parra, Hoff, & Core, 2011). We use data from 220 30-month-old children: 41 monolingual English-speaking (22f, 19m), and 179 bilingual Spanish-English speaking children (91f, 88m), all born in the U.S., exposed to Spanish and English from birth, and producing words in both languages at 30 months. We gathered input on the children's language learning environment (relative input in English for bilingual children ((31.57%, SD = 25.47), mother's level and language of education (SES), and other demographic variables. Child-level factors include children's expressive vocabulary in each language (MB-CDI and IDHC) and gender. Phonology outcome measures include percent consonants correct in Spanish and English, consonant inventory in each language, and consonant accuracy in each language. To date, analyses found that English-only speaking children produce consonants more accurately than bilingual children, ($t(214) = 2.47, p = .041$); use more consonants ($t(214) = 2.86, p = .005$), and produce some (but not all) English consonants more accurately than bilingual children. We also found relations between speech production skills and English vocabulary size ($r(160) = .537, p < .001$) for bilingual children. Additional analyses will explore sources of individual differences in speech production in English and Spanish to understand the heterogeneity of skills in bilingual children.

Insights from Language Comprehension: Cognitive effects of Code-Switching and L2 Proficiency in Bilinguals' Habitual and Manipulated Language Use Conditions

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According to the Adaptive Control Hypothesis (ACH; Green & Abutalebi, 2013) and the Control Process Model (CPM; Green & Li, 2014), bilinguals' engagement in different language use patterns can yield adaptive effects on their cognitive control performance. Intensive dual language switching, for example, may enhance domain-general cognitive control efficiency. While substantial evidence supported ACH and CPM in cognitive control contexts (e.g., Lai & O'Brien, 2020), fewer studies have examined these frameworks in bilingual language comprehension. This study investigated the effects of code-switching comprehension on bilinguals' cognitive control and compared how these effects vary across habitual and manipulated bilingual language use conditions. Forty Chinese-English bilingual adults participated, with their habitual code-switching engagement assessed via two questionnaires (Hartanto & Yang, 2016; Rodriguez-Fornells et al., 2012) and a code-switching reading frequency judgment task (adapted from Hofweber et al., 2016). Participants' English (L2) proficiency was measured using the LexTALE test (Lemhöfer & Broersma, 2012). In Experiment 1, participants completed the Simon and spatial Stroop tasks to assess inhibitory control. Mixed-effects models examined the relationship between their habitual code-switching engagement and inhibitory control performance. In Experiment 2, participants completed a flanker task interleaved with self-paced reading of different bilingual utterances. Results from Experiment 1 indicated a positive relationship between participants' L2 proficiency and inhibitory control efficiency, while their habitual code-switching comprehension engagement showed no significant effect. In Experiment 2, consistent with ACH and CPM, participants performed better on the flanker task following exposure to Chinese-English intersentential switching sentences reading (i.e., switching between languages at the clause level), revealing the facilitatory effect on inhibitory control. However, L2 proficiency did not show significant cognitive effects in this condition. Overall, the study addressed the differential cognitive effects of code-switching comprehension across habitual and manipulated conditions, highlighting the nuanced role of bilingual language use in cognitive control development.

Internal restructuring and contact-induced change in German heritage varieties

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The different constellations of heritage language communities provide an interesting basis for research into the interplay between contact-related language change and internal language restructuring processes (Rosenberg 2020, Wiese et al. 2022). In this context, German as a heritage language offers an attractive testing ground, as different sociolinguistic settings on the one hand and diverse language constellations on the other allow us a deeper understanding of the various processes of language change that are at work in heritage languages. Against this background, this paper illustrates two different development processes of heritage German, namely the reduction of case marking and the development of the verbal bracket (discontinuous word order of auxiliary and infinite verbal parts). The study is based on a corpus of spoken data (interviews, elicitation tasks) involving 120 speakers from German minority communities with diverse sociolinguistic backgrounds (Barossa-German in South Australia, Volga-German Russia and Blumenau-German in Brazil) and from second-generation heritage speakers of German in the USA and Australia. Our results point to the same restructuring developments in the case system based on phonological reduction, replacement with other constructions, and article omission – albeit at different stages. However, there are significant differences in the development of word order, some of which can be attributed to the influence of language contact or language processing. Not only can differences be observed between the different language communities, but also between individual speakers. These can be explained by extra-linguistic factors. In this context, access to literacy proves to be the strongest predictor.

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Wiese, H. et al. (2022). Heritage Speakers as Part of the Native Language Continuum. *Frontiers in Psychology*, 12, 717973.

Internal, proximal and distal predictors of language acquisition in Heritage bilinguals with and without Developmental Language Disorders

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As suggested by Paradis (2023), different sources of individual differences may intervene in shaping language acquisition in Heritage Bilingual (HB) children; these include internal, proximal, and distal factors. In the present study, for each of these levels, we investigated predictors of different subcomponents of language proficiency in heritage bilingual children with and without developmental language disorders. The study included 168 participants between 4 and 7 years old: 102 were HB children with typical development and 66 were HB with DLD. Parents were interviewed on children linguistic history and family socio-economic status (SES) and children socio-emotional well-being. Children were administered a battery of cognitive tests (nonverbal IQ) and linguistic tasks (nonword repetition, morphosyntactic comprehension and production, sentence repetition). The regression model included nonverbal IQ and age at first exposure as internal predictors, L1 and L2 exposure in the family context as proximal factors, and finally SES as a distal factor. The results showed a complex pattern of predictors that differed for the DLD and TD groups. For the TD group, SES was the main predictor of morphosyntactic comprehension, whereas nonverbal IQ was the main predictor of nonword repetition. The models for the DLD group were weaker, with age at first exposure as the main predictor for nonword repetition and SES for sentence repetition. Including emotional aspects significantly changes the pattern of predictors. The study suggests that predictors may vary in clinical populations and shows that internal and distal aspects may play a more prominent role than proximal factors.

Interpretation of null objects in Cantonese-English bilingual children

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This study presents a comprehension experiment on the interpretation of null objects (henceforth N.O.s) in 76 successive Cantonese-English bilingual children in Hong Kong (Mage=6;4; Range=4-7). Previous studies show monolingual and bilingual children with different L1 and L1/L2 pairs omit direct objects in spontaneous and elicited production, but few addressed the interpretative properties of the N.O. in place of the direct object (Perez-Leroux et al., 2018). English N.O.s are allowed with an arbitrary/generic reading (e.g. John did not eat N.O.), presenting a parametric contrast with Cantonese where N.O.s always have a specific reading. Monolingual English-speaking children (Mage=5;2) who no longer produce anaphoric N.O.s are found to still interpret 50% of N.O.s as anaphorically linked (Perez-leroux, 2022) indicating that N.O. use is a late phenomenon. Based on the Timing Hypothesis (Tsimpli, 2014), we predict that bilingual children's acquisition of N.O. will be late too and will depend on input quantity and not to the semantics of genericity. A truth-value judgment task modelled on Perez-leroux (2022) was conducted with Hong Kong children, who were asked to judge the truth value of sentences like 'John did not eat $\emptyset$ (N.O.)/it/anything (NPI)' in different stories in Cantonese and English respectively. The data was fitted into generalized linear mixed-effects models with the dependent variable Reading (Specific vs. Generic), with Condition (Null vs. Pronominal vs. NPI), Age, language proficiency and input variables as fixed factors. The results show that bilinguals can differentiate between the pronominal and the NPI reading in both languages from very early on, but manifested a delay in comprehending the generic reading in English until age 7;0. The results suggest the lateness is not due to the conceptual difficulty of genericity but to less input, hence, they take a longer period to tease apart the licensing mechanisms for N.O.s in the two languages.

Investigating Cognitive-Linguistic Influences on L2 English Spelling: Insights from Real Word and Pseudoword Error Analysis

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Learning to spell in English as a second language (L2) is challenging, requiring precise recall and production of phonological and orthographic word representations (e.g., Kahn-Horwitz et al., 2012). Consequently, this cognitive overload can negatively affect writing skills development (e.g., Graham et al., 1997; Kellogg, 2008). The present investigation explores the influence of cognitive and linguistic factors on young L1 German learners' L2 English spelling accuracy and errors. We explored whether the participants (N = 101) use the same underlying cognitive (phonological awareness, phonological short-term memory, working memory, nonverbal intelligence) and linguistic skills (L2 English receptive grammar and vocabulary) when spelling real words and pseudowords. Additionally, we focused on the predictors of phonological and orthographic misspellings. Results showed higher accuracy in spelling real words than pseudowords. Using correlations and linear mixed model analyses, we found L2 grammar knowledge significantly predicted both real word and pseudoword spelling accuracy, as well as the number of phonological errors, which was the predominant error category. L2 English vocabulary knowledge predicted real word spelling accuracy, while nonverbal intelligence was a predictor for pseudoword spelling accuracy. Children's phonological short-term memory skills positively predicted the number of orthographic errors, identified as phonologically plausible but lacking orthographic conventions. Our findings highlight the complex interplay of skills underpinning children's L2 English spelling attainment and illuminate learners' developmental progress toward proficiency.

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Kahn-Horwitz, J., Sparks, R. L., & Goldstein, Z. (2012). English as a foreign language spelling development: A longitudinal study. *Applied Psycholinguistics*, 33(2), 343–363. <https://doi.org/10.1017/S0142716411000397>

Kellogg, R.T. (2008). Training writing skills: A cognitive developmental perspective. *Journal of Writing Research*, 1(1), 1–26. <https://doi.org/10.17239/jowr-2008.01.01.1>

Investigating the association between the linguistic background and executive function

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The relationship between bilingualism and executive function has been the focus of research for the past two decades, yet findings remain inconsistent (see Bialystok & Craik, 2022). To address this, recent studies have highlighted the importance of how bilingual language experiences are operationalized, how cognitive control are measured and the methodologies used to analyze the connection between language experiences and cognitive control. This paper aims to contribute to this stream of research and has two main goals. The first is to develop a new data collection tool that would allow complex and detailed operationalization of language experiences in line with recent theoretical frameworks and reviews (De Cat et al., 2023). The designed questionnaire was found to have high internal reliability and was validated with objective test of language proficiency. The second goal is to investigate the relationship between language experiences and executive function, analyzing multiple language experiences that vary along a continuum and interact with each other (e.g., DeLuca et al., 2019). Current results indicate that even when accounting for a variety of background data (e.g. social and economic status), language experiences remain significant predictors of executive function.

Bialystok, E., & Craik, F. I. M. (2022). How does bilingualism modify cognitive function? Attention to the mechanism. *Psychonomic Bulletin & Review*, 29(4), 1246–1269. <https://doi.org/10.3758/s13423-022-02057-5>

De Cat, C., Kaščelan, D., Prévost, P., Serratrice, L., Tuller, L., Unsworth, S., & The Q-BEx Consortium. (2023). How to quantify bilingual experience? Findings from a Delphi consensus survey. *Bilingualism: Language and Cognition*, 26(1), 112–124. <https://doi.org/10.1017/S1366728922000359>

DeLuca, V., Rothman, J., Bialystok, E., & Pliatsikas, C. (2019). Redefining bilingualism as a spectrum of experiences that differentially affects brain structure and function. *Proceedings of the National Academy of Sciences*, 116(15), 7565–7574. <https://doi.org/10.1073/pnas.1811513116>

Investigating the Interactions of Short- and Long-Term Blocking Effects in the L2 Acquisition of the German Perfekt

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Blocking concerns, the effect of second language (L2) speakers' prior language experience on learning linguistic cues that express one idea (e.g. past tense) in multiple ways (e.g. adverbial cues and verbal morphology). Previous research provides evidence for long-term blocking, whereby cross-linguistic differences lead L2 speakers to rely on an L1 cue to the disadvantage of a new L2 cue, as well as short-term blocking, whereby the initial learning of one cue makes the later learning of another cue more difficult (Ellis & Sagarra, 2010). However, studies have not investigated instructed L2 speakers' acquisition of cues that cannot co-occur within a sentence. In the present study, beginning L2 German speakers (N = 20) learned the present perfect tense. Unlike English, in which the auxiliary verb is always "have", German uses two different auxiliary verbs, "haben" "have" or "sein" "be", with any given verb taking only one auxiliary, as in (1) and (2).

- 1) Er hat geschlafen
He has slept
"He has slept"
- 2) Er ist geflogen
He is flown
"He has flown"

Using a pretest, posttest, delayed posttest design, three experimental groups completed a meaning-based output treatment that differed only in the order of auxiliary introduction: "haben" initial, "sein" initial, and both auxiliaries simultaneously. In all three groups, long-term blocking from participants' L1 English would promote "haben", which was reinforced by short-term blocking among the "haben" initial group and countered in the "sein" initial group. Results from a fill-in-the-blank test showed that the "haben" and "sein" initial groups were more accurate on whichever auxiliary they learned first, providing evidence for short-term blocking. The "haben" and both, but not the "sein", groups, favored "haben" over "sein", providing evidence for long-term blocking. Thus, short-term blocking can deemphasize L1 patterns and instead draw L2 speakers' attention to a novel L2 cue, promoting its acquisition.

Investigating the role of the production system and L1-L2 similarity in L2 language prediction

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Research suggests that prediction in the L2 might differ from L1 prediction in the use of the production system. For instance, while the production system appears essential for generating lexical predictions in the L1 [1], it has been proposed that bilingual speakers with less experience speaking in their L2 might struggle to fully engage this prediction mechanism during L2 comprehension [2]. Additionally, L2 prediction may also be influenced by the similarity across the languages of the bilingual speaker [3, 4]. These two factors may contribute to the difficulty often encountered in L2 prediction [5]. To investigate the influence of those factors on L2 prediction, we test Spanish-French bilingual speakers (Experiment 1) reading highly constraining sentences in both languages, ending in predictable or unpredictable noun phrases, during EEG recording. While reading, participants perform a secondary task that either blocks their production system or not. We expect a reduction of the N400 effect when blocking the production system in the L1 but not in the L2, following the hypothesis that L2 prediction does not rely on the production system. In Experiment 2 we test English-French bilinguals reading in their L2 and compare their predictive effects to those of Spanish-French bilinguals. We anticipate that Spanish-French bilinguals will show a stronger N400 effect for prediction in French than English-French bilinguals because Spanish has gender-marking rules similar to French and English does not. Together, these findings will help clarify how the production system and L1-L2 grammatical overlap shape predictive processing in L2, contributing to our understanding of second language prediction.

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Is Four Better than Two? The Influence of Bilingual and Multilingual Metrics in an Implicit Bilingual Statistical Learning Task

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The nature of the relationship between bi-/multilingualism and statistical learning is still uncertain, particularly in tasks of greater complexity. The present study introduces a novel bilingual statistical learning task with an entirely implicit cue for which language stimuli belong to. Words presented to participants in a training phase were constructed from two invented languages, and needed to be segmented into morpheme-like units (i.e., chunks of associated pseudoletters) for word part co-occurrence to be understood as the language membership cue. Participants were then tested on novel items formed of within- vs. between-language morpheme combinations, as well as random chunks intermittently mixed with morphemes to probe whether participants learned the morphology. A multilingual questionnaire was also administered, capturing many dimensions of multilingualism to be used as predictor variables. Results indicate that participants successfully segmented words into morpheme-like chunks, the presence of which in testing affects participant responses. This effect was increased the more balanced a participant was over their first two languages. However, participants couldn't distinguish within- and between-language strings; contrary to syllables and individual visual symbols, they do not seem to track association statistics between pseudoletter chunks. These results are discussed utilising novel methods for handling and applying multilingual data.

Is it the feeling or the body sensation? Evaluation of emotion prototypicality in a second language.

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It has been demonstrated that the emotion triggered by affective words is usually reduced in a second language (L2) compared with a first language (L1). A reason may be that L2 words are disembodied (Pavlenko, 2012). But is it equally true for all the words of the emotion lexicon? Emotion words (i.e., words naming emotions, like “happiness”) vary in terms of emotional prototypicality, which means that their representativeness of the semantic category of emotion differs as well as the degree of emotion they express. Although there are several features that contribute to the representation of affective meaning in highly emotion prototypical words (e.g., valence, arousal), prior work has shown that feelings and interoception (internal bodily sensations) associated to L1 words strongly determine their emotional prototypicality (Ferré et al., 2023). This study aims at determining which features that contribute to emotion prototypicality are more sensitive to the use of an L2. To do so, we presented English-Spanish bilinguals with 478 Spanish emotion words that they rated based on their level of valence, arousal, prototypicality, interoception and feeling. The analyses will contrast the variables across each other as well as with the ratings obtained in native speakers of Spanish (Ferré et al., 2023). We expect to find significant overall differences between L1 and L2 ratings, larger for interoception, in line with the predictions of the disembodied view. The findings will shed lights on the reduction of emotion response often reported in L2 literature. Moreover, the ratings will serve as a methodological tool, providing a database of emotion words in L2 Spanish that include new critical features like emotion prototypicality, feelings and interoception.

Is iterative coercion always more costly than subtractive coercion? An event-calculus account of processing costs of aspectual coercion in L2 English by advanced L1 Slovak vs. L1 Spanish learners.

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Aim: The study presents two experiments examining the processing of aspectual coercion by advanced L2 English learners with L1 Slovak and L1 Spanish. **Background:** Aspectual coercion, resulting from a semantic mismatch between predicates and adverbial modifiers, is accomplished via null coercion operators (deSwart 2000) or via a series of predictive processing steps in the information updates needed to make a sentence true (Bott 2016). In English and in Spanish, aspectual coercion has no explicit markers, while in Slovak, verbal prefixes and suffixes function as type shifters (Filip 1993). **Method:** To examine the processing costs of aspectual coercion in English by the three participant groups, a modification of Oliver Bott's (2016) self-paced reading paradigm based on the pragmatic theory of event calculus was designed. This theory proposes a scale of processing costs based on differences in the number of predictive processing steps involved in different coercion types, which allows to test whether the proposed scale (iterative coercion of accomplishments>subtractive coercion of accomplishments>iterative coercion of semelfactives) is reflected in the processing of the coerced conditions by all participants irrespective of their L1 or if L1 transfer can be detected. A subsequent acceptability judgment task will test the same conditions. **Hypothesis:** The results might show (i) L1 transfer in L1 Slovak speakers, e.g., divergence from the predicted scale of processing costs or showing more pronounced processing costs in all coerced conditions compared to L1 Spanish learners of English and English NSs, or (ii) task effects, e.g. rejection of coerced conditions in acceptability judgments by L1 Slovak speakers or by both groups of L2 English learners, while showing no processing costs in these conditions in self-paced reading. The study provides new insights into processing of aspectual coercion by L2 learners and has pedagogical implications for teaching coercion to L2 learners of English.

Is the Second Language Emotionally Embodied? Investigating the Role of Facial Feedback in Bilingual Emotional Word Processing

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Bilinguals consistently report diminished emotional resonance in their second language (L2) compared to their first language (L1), but underlying mechanisms remain poorly understood. Language embodiment theories provide a useful framework for investigation. In L1, research shows that the facial expressions generated upon reading an emotional word (e.g. a frown for “death”) could retroactively influence this emotional processing, a phenomenon called “Facial feedback” (FF). Indeed, experimental blocking of FF hinders the emotional judgement of words and their subsequent recall (Baumeister et al., 2015; Niedenthal et al., 2009). Only two studies have explored this in L2 and revealed a lack of muscle activation during L2 emotional word processing (Baumeister et al., 2017; Foroni, 2015). Our goal was to address this gap and examine, through facial blocking manipulations, the impact of FF on L2 emotional judgment and processing. French-English bilinguals are being recruited to perform an emotional judgment task in which they classify words as emotional or non-emotional and a free recall task of the same words. The stimuli, matched for linguistic characteristics, were manipulated based on their emotional category (angry, disgusting, sad, exciting, soothing, neutral). As both language and FF are manipulated within subjects, the study consists of two phases (L1 and L2) with two sessions each. Within each phase, each session is completed either by allowing participants to move their facial muscles freely, or by biting down on chopsticks to impair FF. Preliminary findings suggest that blocking FF indeed weakens some emotional judgments on L1 words by increasing non-emotional response rates, but has unexpectedly no effect on emotional word recall. Data currently being collected will test FF's role in L2. If L2 word processing is embodied and benefits from FF, similar blocking effects should appear in L2; otherwise, only L1 should be affected by blocking manipulations, reflecting the disembodiment of L2.

Is there a bilingual advantage in foreign language phonological acquisition? Training Spanish-Basque bilinguals in the acquisition of lexical tones in a multi-session study

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Early bilingualism has been shown to enhance adult foreign language (FL) phonological learning [1,2]. We examined whether bilingual proficiency influences lexical tone acquisition in Spanish-Basque bilinguals. Given that both Spanish and Basque are non-tonal languages, we predict that if higher Basque proficiency is linked to better learning outcomes, this would indicate a bilingual advantage in FL learning. In a multi-session study, we tested 20 native Spanish speakers (out of 50 planned) with varied proficiency in Basque, which they had acquired before age 2 years in immersion. Participants were trained on 20 pseudowords with lexical tones, each associated with an image. After three sessions, they were tested on pseudoword perception and production. For analysis, perception data were assessed for accuracy and reaction time; production data focused on F0 acoustics. Preliminary perception results showed that higher Basque proficiency was linked to better accuracy and faster reaction times. However, no link was found for production data, likely due to the small sample size, as acoustic analysis requires a larger sample for adequate statistical power. As we gather more data, we expect the association between bilingual proficiency and tonal perception to strengthen and a link with production to emerge, based on previous findings [2]. In conclusion, preliminary results suggest a bilingual advantage in FL learning on the perceptual level, though not yet evident in production, underscoring the role of early bilingualism in enhancing sensitivity to novel phonological contrasts in adulthood.

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[2] Spinu, L. E., Hwang, J., & Lohmann, R. (2018). Is there a bilingual advantage in phonetic and phonological acquisition? The initial learning of word-final coronal stop realization in a novel accent of English. *International Journal of Bilingualism*, 22(3), 350-370.

Is three languages too many? A mixed-methods study of concerns among parents raising young trilinguals

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Many parents have concerns about the effect of bilingualism on their children's development and future outcomes, despite expressing positive views of its effect on children generally. While research with parents of trilinguals is rare, there is evidence that parents view acquiring three languages as particularly challenging (Quirk et al., 2024). We shed further light on such concerns with a questionnaire-based study of 30 parents raising 3- to 4-year-old children in Quebec, Canada, with French, English and a third language. Parents replied to an open-ended question about their main concerns regarding their child's developing trilingualism and reported their agreement on a scale from 1 (not at all) to 5 (completely) with statements of concerns about children's language exposure and fluency attainment, the effect of trilingualism on their cognition and emotional well-being, and concerns specific to languages not spoken widely in their society (heritage languages). In the quantitative analysis, parents' overall concern strength was moderate ($M=2.32$, $SD=0.64$). Exposure-fluency concerns were strongest ($F(3, 87) = 17.17$, $p < .001$), and cognitive concerns were marginally stronger than emotional well-being concerns (adjusted $p = .098$). In a qualitative analysis of the open-ended responses (1,219 words), the words school, read, and write were found to be frequent, consistent with the finding that parents of young multilinguals worry about their children's future school experiences (Quirk et al., 2024). Children's willingness to speak heritage languages and the difficulty of mastering three languages were also repeatedly mentioned. Thus, parents expressed concerns that are similar in nature to those reported for bilingual contexts, as well as concerns focused on the unique experiences of young trilinguals.

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Israeli Teachers' Beliefs about Multilingualism and Heritage Language Maintenance

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This study examines the influence of Israeli teachers' language backgrounds and age on their attitudes toward students' bilingualism and home language maintenance. Prior research (De Angelis, 2011; Otwinowska, 2013, 2017; Haukas, 2016; Alissari et al., 2019), suggest that educators' linguistic backgrounds influence their attitudes toward multilingualism, often balancing support for linguistic diversity with a focus on majority language acquisition. While previous research comes primarily from Europe and the U.S., this study examines the role of the unique linguistic situation in Israel. Israel has two official languages (Hebrew and Arabic) as well as numerous communities speaking other home languages. Since Israel's founding in 1948, language policies promoted Hebrew under a "melting pot" ideology, intended to unify the nation through a common language. A major shift followed an increase in linguistic and cultural diversity, caused by the 1990s immigration wave, which led to a growing emphasis on multilingualism and support for heritage languages in education. Our study also aims to see to what degree the educational policies espoused in official documents are reflected in the beliefs and practices of teachers of various subjects, i.e., not only language or bilingual education teachers. We adapted the questionnaire used by De Angelis (2011), employing a 5-point Likert scale to assess teachers' beliefs regarding language knowledge, home language maintenance, and pedagogical practices. 113 teachers from varied sectors of the Israeli education system, aged 18 to 70, participated, with both monolingual Hebrew-speaking (54.9%) and multilingual (45.1%) teachers represented. The results show that all participants widely recognize the importance of home language maintenance. While there are no significant differences between different age groups, findings reveal that multilingual teachers demonstrate more favorable attitudes towards multilingualism compared to monolingual Hebrew-speakers. Whereas the latter exhibit a stronger tendency to prioritize Hebrew, multilingual teachers tend to provide more support for linguistic diversity.

L1 to L2 oral translation: Working memory and L2 proficiency

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The objective of this study was to examine the roles played by L2 proficiency and working memory (WM) in L1 to L2 oral translation in advanced French L1 learners of English. Oral translation between the two languages of the language learner can be considered as a challenging task, with most research suggesting translating from the L1 to the less well known L2 constitutes the most difficult task. Research, much of which has been carried out on consecutive interpretation, in which the interpreter listens to a text or passage before having to produce it in another language, provides evidence that this skill places considerable demands on the storage and processing functions of WM (executive function, EF) (see Zheng & Kuang, 2022). Some studies have reported significant links between WM and oral translation carried out with students training for consecutive interpretation (Dong et al, 2018). Reading span, considered to reflect WM, has been found linked to interpreting accuracy (Tzou et al, 2012). The advantages of increased WM span have been similarly reported for fluency in consecutive interpretation (Yenkimaleki & van Heuven, 2017). At the same time, L2 proficiency is a strong predictor of various L2-based tasks, such as reading and fluency measures, and has been found to outweigh WM as a contributor to the development of interpreting skill (Cai et al, 2015). This study aims at providing further clarity on the roles of WM and L2 proficiency in L1 to L2 oral translation: WM (EF) measures included composite complex and backward digit span tasks; phonological short-term memory measures consisted of nonword repetition and serial recognition tasks. A standardized L2 test was used to measure L2 proficiency. Initial results from a subset of the cohort revealed only L2 proficiency predicted translation results. Final results will be presented in the poster.

L2 learners are more likely to imitate a native than a non-native speaker displaying native-like phonetic patterns

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Speakers subconsciously adjust their pronunciation toward ambient speech, with phonetic shifts occurring even in the short term, such as within a single conversation. These adjustments are influenced by social factors, such as speaker attractiveness and role in the conversation. Although imitation is clearly important in L2 speech learning, the relationship between language distance and social factors in L2 phonetic imitation remains unclear. This study investigates varying vowel duration (VVD) before a voiced or voiceless coda in English, a prominent feature in English but negligible in languages like Polish or Czech. Zajac et al. (2014) measured L1-Polish L2-English learners' imitation of VVD, confounding model speaker status (native vs. non-native) and the presence of VVD. We eliminate this confound. Twenty-four advanced Czech learners of English listened to a 3-minute English recording (without coda obstruents) made by either an American or a Czech speaker. The learners then shadowed (immediately repeated) the same speaker's productions of 10 CVC minimal pairs differing in word-final voicing and 28 fillers. The stimuli were manipulated to either display native-like VVD or neutralize it. We tested whether L2 proficiency (measured by LexTALE; Lemhöfer & Broersma, 2012) predicted VVD presence and whether imitation depended on the model speaker's nativeness. Proficiency predicted pretest V/C ratios: only more proficient learners exhibited VVD in a pretest word-reading task. During shadowing, learners imitating the native speaker adjusted their V/C ratios significantly more than those shadowing the non-native model. High-proficiency learners showed minimal adjustment, as their pronunciations were already close to the native model. Imitation of speech without VVD, regardless of the model speaker, was minimal. Our results suggest that phonetic imitation requires a sufficient initial phonetic difference between the model and the imitator, with the model's nativeness and target-language phonetic patterns needing to be congruent. Both linguistic and social-psychological factors thus influence phonetic imitation.

L2 nominal compound processing: an eye-tracking study on L1 Italian sequential bilinguals of English

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Compounding is a very productive word formation process (Bauer, 2017), likely to exist in all languages of the world (Dressler, 2006). In L1 research on nominal compound processing, the meaning interpretation of a compound has been found to be contingent on the semantic relation that exists between its constituents (Ji et al., 2011). Studies on its role in L2 processing, however, are scarcer. By considering Italian – where compounds are tendentially left-headed, and their interpretation is semantically constraint – and English – with right-headed compounds whose interpretations are freer –, the study aims to shed light on how L2 English compounds are processed by Italian sequential bilinguals of English, thus deepening the understanding of L2 acquisition and bilingual cognitive flexibility. Hypotheses. This study aims to explore how L2 (English) compounds are processed and to determine whether the properties of L1 (Italian) compounds, such as headedness and semantic interpretation, affect this process. Given Italian's left-headed compound structure, we hypothesize that it will interfere with and potentially slow the processing of English right-headed compounds. Moreover, we expect the preferred interpretation of English compounds to be influenced by the more semantically constrained Italian interpretations. Methods. After administering an English proficiency test, participants engage in three tasks. During a production task, participants are asked to name novel compounds with constituents linked by varying semantic relations as quickly as possible. The aim is to investigate to what extent Italian compounds' headedness and semantic relations influence compound production in English. To analyze participants' reading patterns and processing efficiency, a reading task involving nominal and deverbal English compounds – which in Italian correspond to prepositional compounds, Verb-Noun compounds, or monomorphemic words – is administered using eye-tracking technology. Finally, participants perform a visual world eye-tracking task with novel compounds to evaluate whether the Italian semantically constrained compound interpretations influence English compound processing.

L2 Spanish intonation by Japanese-Spanish bilinguals

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This study presents an analysis of Spanish intonation produced by native speakers of Japanese. The analysis focuses on the nuclear configurations of 828 declarative tokens in the semi-spontaneous Spanish speech of 12 Japanese-Spanish bilingual speakers living in Valencia, Spain. Results of the analysis show that the speakers can produce the prosodic differences between two declarative utterance types that are differentiated in peninsular Spanish by pitch peak timing and final boundary contours. Specifically, the speakers of this study favored rising final boundary tones when maintaining their turn and the falling final contours for the end of turn. Results show interlanguage with greater variation in final contours and pitch peak placement than predicted. The study contributes to acoustic research on learner intonation by late bilinguals, particularly in a language contact situation involving an Asian language and a romance language pair.

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L2 word processing: The case of Turkish derivation

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The question of how L2 speakers process morphologically complex words at the early stages of visual word recognition has been widely investigated in the psycholinguistic literature. However, much research has been conducted on inflected word forms, while studies on derivation remain scarce. Derived word forms provide an interesting venue to be investigated. While some derived forms are labelled as transparent (singer is someone who sings and can be decomposed), there are also derived forms that are labelled as opaque or pseudo-derived (corner is not someone who corns and cannot be decomposed) and these words were compared to form/control words (freeze has a nonmorphological relationship with free). The limited number of previous results are inconclusive. Some studies found no difference between L1 and L2 speakers (1); however, there are also studies that found significant group differences (2). The present study compares the performance of 61 L1 Turkish speakers to 16 L2 Turkish speakers on a masked priming experiment. The L2 group was highly proficient speakers of Turkish with Russian as their L1. The stimuli consisted of 66 words in total divided into three categories: transparent (words like singer), opaque (words like corner) and form (words like freeze). The preliminary results indicate no significant group differences in the early stages of visual word recognition processes. While both groups decomposed transparent and opaque words, the form condition was not decomposed indicating that both L1 and L2 speakers employ the morpho-orthographic decomposition and the transparency of the word does not affect the processing route.

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2. Zhang et al., (2017). Parallel morpho-orthographic and morpho-semantic activation in processing second language morphologically complex words: Evidence from Chinese-English bilinguals, *International Journal of Bilingualism*, 21(3), 291-305.

Laayli' kuxa'ano'one: Yucatec Maya goes mainstream

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Recent work points to an 'indigenous turn' as Western scientists embrace indigenous ways of knowing, imagining and seeing the world (Dudgeon & Bray 2023). YouTube and other social media outlets have taken notice and carefully track the monetization of indigenous content creators and Hollywood producers are getting in on the game as well. This paper investigates the effects of artistic production in maya' t'aan and how social media audiences take up the extra-propositional meanings of hearing it performed in contemporary forms of pop culture. Building on Cru's (2015, 2018, 2023) groundbreaking work on Yucatec Maya rappers Pat Boy and the ADN Maya Colectivo, this paper looks at a track that the group has in a major Hollywood blockbuster film (Black Panther: Wakanda Forever, 2022) and the responses of social media users upon hearing Yucatec Maya in the song and in the film. It considers the emancipatory possibilities of contemporary music, film, and social media for promoting indigenous/endangered/marginalized languages and cultures as well as social media's inherent tendency to depoliticize forms of public activism and reproduce the social order (Roberts, 2014: 93).

Language and Early Literacy Skills of Bilingual Children in Comparison to Monolingual Peers: The Preliminary Results

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Introduction: Bilingual children who grow up in environments with limited developmental support are at an increased risk of lower academic achievement compared to their monolingual peers (Melby-Lervåg & Lervåg, 2014). Critical environmental factors influencing these outcomes include parental socioeconomic status, language proficiency, and educational background (Bonifacci et al., 2020). While the academic skills of bilingual school-aged children and the impact of these factors have been extensively studied, there is limited research on the foundational skills that contribute to school readiness in bilingual preschoolers. **Method:** The participants were children aged 5;0-5;11 years. The control group included monolingual Turkish- and German-speaking children, each with 10 participants. The study group comprised bilingual Turkish-German-speaking children, categorized based on their parents' migration time to Germany. Children whose parents were born and raised in Germany (Bil-Born) and those whose parents moved to Germany after obtaining a bachelor's degree (Bil-Late) were assessed. The children's receptive and expressive language, phonological awareness, vocabulary, letter knowledge, and print awareness skills were evaluated using standardized tests in both languages. **Results:** Across all measures of language and early literacy skills, Bil-Late children demonstrated higher mean scores compared to Bil-Born children. Notably, Bil-Late children performed comparably to their monolingual peers. Statistical analyses are ongoing, and detailed results will be presented at the congress. **Conclusion:** These preliminary findings highlight the significant impact of family background on the linguistic skills of bilingual preschool children, underscoring the role of parental education and socioeconomic factors in shaping early language and literacy development.

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Language Attitudes of Cross-border Commuters in Multilingual Luxembourg

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Around 228,000 cross-border workers from France, Germany, and Belgium commute daily to Luxembourg (STATEC, 2023). The often-monolingual cross-border commuters face a complex multilingual situation arising through institutional, societal, and individual multilingualism, which mainly involve Luxembourgish, German, French, and English (De Bres & Franziskus, 2019; Mathä et al., 2022; Purschke & Gilles, 2023). To discuss possible consequences of this constellation, this project addresses two research questions: First, this study aims to identify what attitudes cross-border workers hold towards multilingualism and the individual languages used in Luxembourg. Second, this research examines the reasons that motivate these attitudes. Investigating language attitudes is paramount to understanding social cohesion within the taxonomy of sociolinguistics and to helping developing language policies (Kircher & Zipp, 2022). Previous research in Luxembourg is mainly concerned with the diverse language ideologies of cross-border commuters, ranging from monolingual nationalist to multilingual ideologies (De Bres & Franziskus, 2019; Franziskus, 2017). These lines of research mostly employed qualitative approaches and found that cross-border workers feel discriminated against and excluded by Luxembourgers' language choice and language use (De Bres & Franziskus, 2019; Franziskus, 2017). However, the perception varies depending on the country of residence (Franziskus & De Bres, 2015). With Purschke's (2015) constructivist REACT model, this project aims to gain insight into cross-border commuters' perception of the sociolinguistic situation in Luxembourg. Moreover, the influence of social and biographical variables is investigated. As a method, language attitudes were measured and analyzed using an online questionnaire. Semi-structured interviews were conducted subsequently for a closer analysis of the elicited attitudes by inquiring about reasons motivating their attitudes and deconstructing discourses about languages and their speakers. The results mainly suggest strong attitudes towards Luxembourgish, French, and multilingualism in general. Nevertheless, the two languages compete, and negative implications of multilingualism emerge when delving deeper into the data.

Language attitudes towards dialects in Lithuania

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A large part of the Lithuanian population is bilingual, using both the standard Lithuanian language and the regional dialect in many domains. Some dialect users refer to their dialect as a language rather than a dialect. The paper analyses the language attitudes of the population towards dialects. The study uses a theoretical model that identifies three components of language attitudes: cognitive, emotional and behavioural. The research is based on the data collected by the research project carried out in 2020-2021, using quantitative and qualitative methods: an online survey (sample: 1003 respondents) and in-depth interviews with informants of different ages and living in different parts of Lithuania. The paper analyses attitudes towards dialects among residents of four different ethnographic regions of Lithuania, examining all three components of language attitudes and their interrelations. Both quantitative and qualitative data are analysed. The main part of the paper consists of an analysis of direct linguistic attitudes expressed in the answers to survey and in-depth interview questions concerning linguistic beliefs about dialects, positive and negative emotions related to dialects, their use and users, and the linguistic behaviour declared by the respondents. In addition, quantitative data covering implicit attitudes expressed in the description of the dialect user are analysed. Correlations between trends of dialect use, attitudes, and different social factors are examined. Particular attention is paid to the age factor and its relationship with language attitudes. The results show that the cognitive and emotional dimensions of language attitudes are associated with highly positive evaluations of regional dialects. The younger participants of the study have a particularly positive attitude towards dialects and are more tolerant of the use of dialects, not only in the private sphere but also in the public sphere. However, these positive evaluations are not always related to the behavioural component.

Language barrier as discourse in professional study abroad: The role of the different faces of bilingualism

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Language barriers are presumed to exist when students go on study abroad without the requisite language proficiency to communicate with host country counterparts (Mancini-Cross, et al., 2009). Yet, in interviews with study abroad sojourners, the root of such barriers is often considered to be the host, rather than the sojourners themselves (Tran & Bui, 2023). In our longitudinal study, additional language learning was expressed as a personal learning goal of some participants while on study abroad (Dressler, 2023), but in follow-up interviews with sojourners 2-4 years post-sojourn, the discourse of language barriers emerged. Since these former sojourners represented participants with a variety of experiences with additional language learning, we were interested in determining whether these differences influenced how they indexed the discourse of language barriers and whether they recognized their agency in the situations described. A nexus analysis revealed that the discourse of language barriers was tied to the participants' different faces of bilingualism or monolingualism (Scollon & Scollon, 2004). The findings from this study shed light on the prevalence of sojourner privilege in this discourse and provide implications for how it can be addressed in study abroad.

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Language choice alignment in bilingual speakers

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Bilinguals can access multiple word forms within one language (“sofa”/“couch”) and across languages (“pomme”/“apple”). Research shows that within one language, speakers align their word choices with the interlocutor, likely because the partner’s choice facilitates retrieval for the speaker through priming. However, alignment can also be intentional, for example to build rapport or help the partner (audience design). Although bilingualism research has focused on switching alignment (e.g., Kootstra et al., 2020), bilinguals also show language-choice alignment by using the interlocutor’s preferred language (e.g., Kapiley & Mishra, 2019). However, previous work has mostly examined alignment in terms of overall language choice rather than through specific words, even though priming-related mechanisms predict both lexical and language-choice alignment should be driven by the interlocutor’s choice for individual words (e.g., French for “horse” and English for “rabbit”). In this research, we examined bilinguals’ alignment at the word level, examining whether language-choice and lexical alignment involve similar underlying mechanisms. We tested the influence of automatic priming and more intentional audience-design factors on both types of alignment. Participants (116 Bulgarian-, French-, and Welsh-English bilinguals across two studies, with a high proficiency in and use of both languages) completed picture-naming tasks with different interlocutors. Language alignment was measured as the frequency of using the same language as the interlocutor for a picture. Lexical alignment was assessed through the inclusion of within-language synonyms. Results showed strong language and lexical alignment. These alignment types correlated, with further analyses suggesting priming as a key mechanism involved in both. Furthermore, neither language nor lexical alignment appeared influenced by more intentional alignment in response to different conversation partners. Together, this suggests bilinguals align both language and lexical choice at the word-form level, likely driven by previous exposure to those forms priming lexical retrieval within and across languages.

Language choice in bilingual interaction: Effects of alignment and cumulative semantic priming

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How is bilinguals' choice of language influenced by their interlocutor's language choice, if they share the same languages? In monolingual interaction, conversation partners often copy each other's linguistic choices, e.g., referring expressions (Brennan & Clark, 1996) and syntactic structures (Branigan et al., 2000). Does alignment also occur at the level of language choice, in multilingual interaction? Previous work indicates bilingual participants tend to align switching behaviour with their partner (Kootstra et al., 2020), and that bilinguals associate certain topics with one of their languages (e.g., de Bruin & Martin, 2022). Here, we examine if bilinguals align with their perceived interlocutors on (voluntary) language choice on a trial-by-trial basis, and whether that tendency is modulated by semantic category: Do speakers learn associations between categories and languages during an experimental session? In Experiment 1, 96 bilingual adults (Dutch L1, English L2) performed a picture matching and naming task with a virtual partner (recordings of a confederate), with free language choice. Their partner named items from two prime categories in Dutch (e.g., animals; clothing) and two in English (e.g., food; people). Half of the 56 naming trials were paired with a same-category prime, and half with an unrelated-category prime. Logistic multi-level models showed that language choice was affected by prime language but this priming effect was unaffected by semantic relatedness of the primes and targets. Additionally, participants did not adopt their interlocutor's language/category associations over time. In Experiment 2 (in progress), we replicate this method but replace semantically-related primes with identity primes. We expect stronger priming of language choice when prime and target are identical, potentially leading to more alignment of language choice and to speakers adopting their partners' language/category associations. Results will provide new insights into determinants of language choice and the influence of interlocutors in bilingual interaction.

Language Control in Bilingual Comprehension

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Bilingual comprehension is an immensely intricate process in which both languages are activated simultaneously, leading to cross-language interference. The process that helps bilinguals navigate through this interference is called language control, and it does so by increasing their chances of selecting words in the target language (Declerck, 2019). While language control has been extensively explored in the production literature, there is a significant gap in understanding how this process works during comprehension. Therefore, our goal is to investigate the presence and nature of reactive language control during written bilingual comprehension. In the present study, we will test bilingual Dutch-English speakers. To this end, we will utilize the Bilingual Flanker paradigm with a semantic categorization task and introduce an additional condition – neutral condition (non-words) to the original paradigm (Declerck et al., 2018). Through this approach we aim to provide insight into the underlying mechanism of language control. While in production-based literature there are a few measures that account for this claim (i.e., asymmetrical switch costs, reversed language dominance, etc.), these measures have not been as indicative in comprehension studies (see Declerck & Koch, 2023). Ultimately, this ongoing study will give us the opportunity to answer crucial questions about inhibition as the most probable underlying mechanism of language control during bilingual comprehension.

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Declerck, M., Snell, J., & Grainger, J. (2018). On the role of language membership information during word recognition in bilinguals: Evidence from flanker-language congruency effects. *Psychonomic Bulletin & Review*, 25(2), 704–709.

Declerck, M., & Koch, I. (2023). The concept of inhibition in bilingual control. *Psychological Review*, 130(4), 953–976.

Language Dominance and intergenerational change: the case of Catalan Differential Object Marking in Catalan-Spanish bilinguals

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Our study examines the offline acceptance and online processing of Differential Object Marking (DOM) in Catalan-Spanish bilinguals in Central Catalunya. Although both languages display DOM, prescriptive grammar descriptions show distributional differences. Empirical research on Catalan reveals variation in acceptance (Perpiñan, 2018; Puig-Mayenco et al., 2018; Benito, 2017, 2023), production (Pineda, 2023; Benito, 2023), and processing (Puig-Mayenco et al., 2018) of DOM among younger adults, suggesting Spanish dominance modulates Catalan DOM, with asymmetries in acceptance and production data (Benito, 2023). This study explores how language dominance and age affect acceptance and processing of DOM in 69 Catalan-Spanish bilinguals. Two experimental tasks were used. The first, an acceptability judgment task (AJT), included 96 tokens across four conditions (Proper Name, Human Definite DP, Human Indefinite DP, Indefinite Inanimate DP) plus 48 fillers. Half of each condition's tokens included DOM. In Spanish, DOM is required for the first three conditions according to prescriptive accounts, while Catalan does not require DOM in any condition. The second task, a self-paced reading task (SPR), used the same conditions and tokens in a segment-by-segment moving-window paradigm. Participants (Group A [n=41]: mean age = 16.87; Group B [n=28]: mean age = 48.72) with varying degrees of LD completed both tasks. Preliminary results show age and an age x Language Dominance interaction in DOM acceptance and processing. Younger participants (Group A), regardless of language dominance, preferred DOM in the AJT and showed no sensitivity to DOM presence or absence in contexts where Spanish allows it. Older participants (Group B) displayed effects of language dominance: Spanish-dominant participants preferred tokens with DOM, while Catalan-dominant participants dispreferred them and were more sensitive to DOM absence in expected contexts in the SPR. We discuss these findings in relation to proposals on LD, language contact, and linguistic change in Catalan DOM (Benito, 2023).

Language education for Ukrainian refugees in Germany – A pilot study with students at a secondary school learning L2 German

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Since the beginning of the Russian war against Ukraine in February 2022, over 210,000 Ukrainian students have arrived in Germany and are being educated in German schools (KMK, 2024) – sometimes without any (prior) knowledge of the language of instruction. Even after two years, very little is known about their second language (L2) learning and their L2 language skills (but see Orobchuk & Skintey, 2024). The Osnabrück Language Learning Assistance Project (“Sprachlernassistenz Osnabrück”, SLA) was created against the background that many schools do not have enough capacities to support the L2 learning of the new young refugees. In the SLA project, university students receive extra-curricular courses on L2 teaching and apply their knowledge – voluntarily – in various schools in Osnabrück, Germany in order to help Ukrainian students in their acquisition of German as an L2. So far, over 100 volunteers have participated in the project. In order to gain more insight into the language learning situation of the Ukrainian refugees supported by the project, we have conducted a pilot study with 16 Ukrainian adolescents (aged 11–16 years; $\bar{x}$ AOA 2;5) at a secondary school which takes part in the SLA project. By means of a questionnaire, we collected data on their multilingual practices, the forms of language education they receive and wish for, their learning motivation and ambitions as well as their L2 competencies. We would like to present these data and discuss the impact of language support by university student volunteers.

KMK (2024). Geflüchtete Kinder/Jugendliche aus der Ukraine an deutschen Schulen. Online: <https://www.kmk.org/dokumentation-statistik/statistik/schulstatistik/gefluechtete-kinderjugendliche-aus-der-ukraine.html>.

Orobchuk, D. & Skintey, L. (2024). Lifeworld dimensions in language education and the integration of refugee students in Germany: Results from a study with Ukrainian refugees. In: *Glottodidactica*, 51(1), 45–66.

Language of Instruction and First Language Impact on Chinese-English Biliteracy: A Comparative Study in International Schools

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This study examined the effects of the medium of instruction and children's first language on their Chinese-English biliteracy skills. A total of 190 second and third-grade children from three international schools participated. While all three schools followed the International Baccalaureate (IB) curriculum, one school used a Chinese-English dual-language system for instruction, whereas the other two employed an English-medium instruction/Chinese-as-a-foreign-language approach. Children were grouped by mother tongue as either Chinese-speaking or non-Chinese-speaking, and they were assessed on a range of language and cognitive skills related to early literacy in Chinese and English. Results indicated that at the dual-language school, native Chinese-speaking children outperformed their non-native peers in most Chinese reading and writing skills, while both groups performed equally well on foundational cognitive and English literacy skills. Similarly, in the English-medium instruction schools, native Chinese-speaking children scored higher than non-native Chinese-speaking peers on Chinese literacy skills, with both groups performing comparably on English literacy measures. Notably, non-native Chinese-speaking children in the dual-language school outperformed their counterparts in the English-medium schools in Chinese literacy. These findings are discussed in the context of Chinese and English language acquisition, language use, and exposure.

Language outcomes after narrative intervention in bilingual school-age children with hearing loss

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Bilingual children with hearing loss (HL) are at higher risk of language delays than their hearing peers. Oral narrative skills are crucial for language development and predict future literacy and academic success (Shiro & Hoff, 2021). While narrative interventions have been shown effective for monolingual children with HL, research on bilinguals is limited. This study evaluated the effects of a six-week bilingual (English-Spanish) narrative intervention on the language outcomes of three children with HL (ages 6–8 years). A multiple-baseline single-case research design was used to assess language changes across baseline, intervention, and maintenance phases. At baseline and maintenance, participants were asked to retell a story without visual support. During the intervention, children completed three narratives per session following Story Champs procedures (Spencer & Petersen, 2016) across twelve 40-minute sessions (six per language). We measured language macrostructure using a probe that assessed retelling ability. We measured language microstructure by transcribing children's retellings and coding for syntactic and lexical measures. Participant 1 showed significant improvements in English macrostructure, being able to produce more complete and coherent stories. The other two participants showed macrostructure gains (story grammar and episode) though these were not statistically significant. All participants presented significant increases in lexical diversity, reflected by the number of total and different words used in both languages. The families valued highly the intervention received, especially in Spanish, given the scarcity of bilingual therapies available to them. In conclusion, narrative intervention shows promise in improving story retelling and lexical diversity in bilingual children with HL.

Shiro, M. & Hoff, E. (2021). A multidimensional approach to Spanish–English bilingual preschoolers' narrative skills. *Journal for the Study of Education and Development* 44(2), 370-400. <https://doi.org/10.1080/02103702.2021.1888493>

Spencer, T. D. & Petersen, D. B. (2016). *Story champs*. Language Dynamics Group, LLC.

Language Policies and Ideologies in a Catalan Primary School: Impact on Learning Environments and Language Practices

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In Catalonia, promoting linguistic diversity and the Catalan language in education is significantly challenging. Despite being official, Catalan holds a minority status, and linguistic diversity, including Spanish, is often viewed as a threat (Rodà-Bencells, 2009). The language policy designates Catalan as the primary instructional language to support its use, but this strategy fosters negative attitudes and reinforces a monolingual mindset (Trench-Parera, 2016). While many scholars have examined language ideologies to understand educational limitations of this strategy (Rodà-Bencells, 2009), there is a notable gap in research on how language policies and ideologies shape the learning environment and practices. This research addresses the gap by examining how language ideologies and policies are portrayed in the learning environment and practices through participants' perceptions. The study focuses on the design, language representation and use in a Catalan primary school, drawing on Laihonon and Szabó's (2018) concept of spaces as (un)visible reflections of policies and ideologies. I adopted ethnographic methods, involving classroom observations and walking interviews to pupils and teachers. Discourse analysis is applied to analyse how language constructs social meaning and power dynamics within the school. Preliminary findings reveal that Catalan is perceived as the norm with limited presence of other languages. Participants divided language use by time and space, reinforcing linguistic hierarchies. Notably, pupils' languages were represented once in an artwork, highlighting the need for multilingual materials. This research proposes a framework for interventions that value multilingual abilities.

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Rodà-Bencells, M. (2009). Language planning and policy and multilingual education in Catalonia. *Working Papers in Educational Linguistics*, 24(2), 57-78.

Trenchs-Parera, M. (2016). Multilingualism in Catalan secondary schools: An exploration of language practices and challenges. *APAC ELT Journal*, 82, 5-12.

Language Production and Comprehension for Tense Acquisition In L2 German

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There are ongoing debates in second language acquisition research regarding the benefits of production-based versus comprehension-based instruction (PBI/CBI), although a growing number of studies reports benefits for instruction that emphasizes language production, especially for increasing durability of learning (Keppenne et al., 2021; Hoppman & MacDonald, 2018; Shintani, 2015). One reason for the benefit of PBI may be that the generation of language (retrieval versus recall) leads to more robust consolidation of language-relevant memories (MacDonald, 2016; Roediger & Karpicke, 2006). Previous research has generally examined learning of either individual items (e.g. irregular verb inflections) or patterns/rules (e.g. regular inflections) but not both. The present study investigates this question by looking at the acquisition of regular and irregular simple past forms in L2 German. Using a pretest-posttest-delayed posttest design, beginning L2 German learners completed either a comprehension or production-based training on 3rd-person singular past-tense verb inflections. The training targeted 24 verbs, including 12 regular and 12 irregular verbs. Across 6 training blocks, participants were exposed to present and past tense verb forms in communicative contexts that encouraged participants to establish the connection between the targeted verbal inflections and their meaning (specifically tense). Learning was then measured through a comprehension task and a written production task in an immediate-posttest and a delayed-posttest 7 days later. Preliminary results (n =13) suggest that PBI and CBI both lead to similarly high comprehension accuracy for both regular and irregular forms, but greater gains for regular versus irregular verbs in production. Further, the PBI group showed more durable improvement in production for both regular and irregular verbs than the CBI group. Data collection is ongoing with targeted sample sizes of 24 participants per group. Provisionally, results underscore the importance of a memory-enhancing role via language production for learning both regular and irregular forms.

Language Proficiency and Dominance Shape Bilinguals' Performance on the Alternate Uses Test of Creativity

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Creativity involves forming new associations between existing concepts. Because words that are unrelated in one language may be phonologically related in another language, we hypothesized that bilingualism may facilitate creativity through unique cross-linguistic associations. In the current study, we examined how language proficiency and dominance influenced creativity in the Alternate Uses Task (AUT; Guilford, 1967). One hundred and twenty Spanish-English bilinguals completed the AUT and Multilingual Naming Test (MINT; Garcia & Gollan, 2022) in Spanish and English. Participants were given 10 AUT trials (5 in each language) in which they were asked to provide as many creative uses as possible for common objects. The novelty of each response was assessed using automatic scoring approaches that leverage word embeddings and semantic distance from large language models to score creativity. Linear mixed-effects models revealed that relative language proficiency (i.e., difference between English and Spanish MINT scores) influenced the number of ideas generated in the AUT. Specifically, greater English dominance was associated with more ideas being generated in English than in Spanish. Additionally, we found that increased Spanish proficiency led to more creative responses in Spanish than in English. Cross-linguistic differences in creativity may occur because processing a less proficient language requires more cognitive resources, leaving fewer resources available for creative thinking. We conclude that bilinguals generate ideas differently depending on the language they use, shaping how creativity is expressed across languages. These findings have implications for how creativity is measured in bilingual individuals and for our understanding of the relationship between language experience and creative thinking.

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Guilford, J. P. (1967). *The Nature of Human Intelligence*. McGraw-Hill.

Language Shifts in Bilingual Children and How Parents Respond: A Mixed-Methods Study

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Bilingual families' language practices are rarely examined with children's language outcomes. This study used a mixed-methods design to examine longitudinal changes in children's English and Spanish (RQ1), along with parents' perceptions (RQ2) and responses to these changes (RQ3). Data came from bilingual children (n=32) and their parents (n=30) living in the Houston area. Families were administered standardized tests of vocabulary/morphosyntax (child) and questionnaires regarding language use/proficiency (parent) yearly over a four-year period (Time 1 [T1]-Time 4 [T4]). At T4, parents participated in an open-ended Zoom interview in their preferred language regarding their perception of their child's language skills and their practices/activities. Parents' interview data was transcribed and analyzed using content analysis. Response analysis was used to create clusters of themes, and each excerpt was read by the team to ensure it was part of a unified voice. Wilcoxon signed-rank tests were used to analyze T1-T4 parent data. Multilevel Modeling (MLM) was used to estimate children's growth in vocabulary and morphosyntax standard scores in both languages. RQ1: MLM models showed growth in English and plateau effects for Spanish in vocabulary/morphosyntax. RQ2: Qualitatively, the most common patterns were Spanish-to-English shift (n=7, 22%) and English improvement (n=7, 22%). Quantitatively, parents rated children's English as significantly different ($Z = -3.137$, $p = .001$), with higher ratings at T4. Children strongly preferred English over Spanish by T4 ($Z = 3.364$, $p = .001$). RQ3: Qualitatively, parents reminded children to use Spanish (n=12, 38%), along with other strategies. Quantitatively, at T1, most mothers reported using Spanish only (n=14) or mainly Spanish (n=12) with their children. Although the distribution of responses changed towards speaking more English at T4, this was not significant ($Z = 1.608$, $p = .168$). Conclusion: Overall, most children experienced growth in English and maintenance in Spanish. This pattern aligned with parents' perceptions, and parents reported various strategies to support growth in both languages.

Language Use and Exposure in Bilingual Maltese Families: An Exploratory Analysis of Family Language Practices and External Contexts

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Research on Family Language Practices (FLPs) demonstrates the critical role of home environments in shaping language outcomes (Schwartz, 2010; Spolsky, 2009). Recent studies indicate that external contexts such as school and community environments can also impact language outcomes (Ronderos et al., 2022; Sun et al., 2020). This Malta-based study provides an analysis of language use and exposure across the home and external contexts and also explores the contextual patterns of language use and exposure across families with varying FLP profiles: Maltese-Dominant, English-Dominant, Balanced bilingual and trilingual households. Data were collected from 54 participants aged 5 to 14 years, using the Q-BEx language background questionnaire (De Cat et al., 2022). Trilinguals were analysed separately while other participants were categorized into three groups based on their FLP ratios. These were calculated by dividing Maltese use and exposure by that of English at home. The results reveal that Maltese and English language use and exposure are relatively balanced, but more in-depth analyses indicate that within specific contexts, one of the two languages dominate. English is more prevalent in formal environments, while Maltese plays a more significant role at home. Heritage languages only see high use and exposure at home, this contextual variation highlights the challenges of maintaining heritage languages in environments that prioritize Maltese and English. When comparing different FLP profiles, Maltese-Dominant families favour Maltese use in all settings, while English-Dominant families show a consistent preference for English across contexts. The Balanced group leans toward English in most contexts but without the strong preference shown by the English-Dominant group, indicating less polarized language preferences. Finally, Trilinguals favoured English and Maltese over heritage languages across all contexts except the home, which raises some concerns about the practical opportunities to engage meaningfully with their heritage language.

Language-Mixing in (CLIL) education: The Impact on Reading Comprehension and Fluency

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Despite numerous theoretical recommendations for incorporating both the L1 and L2 in (CLIL) education, practical implementation remains limited. This underscores a need for quantitative evaluation of how language-mixing influences learning outcomes. Yet, previous studies investigating language-mixing and listening comprehension report contrasting results (Antón et al., 2016; Caira et al., 2025). This is mainly attributed to the differences in L2 exposure at school and L2 proficiency between both sets of participants, although this hypothesis needs to be further examined (1). Additionally, both studies leave us with no indications concerning other modalities (2) and types of language-switching (3). Therefore, in the present study, we aim to remedy those gaps by including participants with varying degrees of L2 exposure at school (1), as well as investigating their reading comprehension and fluency (2) and adding an intra-sentential language-mixing condition (3). Using a recognition task design, participants will be tested across four language contexts: single-language L1, single-language L2, inter-sentential, and intra-sentential language-mixing contexts. We hypothesize that students with lower L2 exposure will experience a mixing cost in reading comprehension compared to L1. This cost may be absent in higher-exposure students, consistent with prior auditory recall findings (Antón et al., 2016). Overall, this study will contribute novel insights into how language-mixing impacts reading proficiency in classroom settings by bridging the gap between the research fields of bilingualism and education.

Antón, E., Thierry, G., Goborov, A., Anasagasti, J., & Duñabeitia, J. A. (2016). Testing Bilingual Educational Methods: A Plea to End the Language-Mixing Taboo. *Language Learning*, 66(S2), 29–50. <https://doi.org/10.1111/lang.12173>

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Lexical Choices Across Registers in Heritage Speakers

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Heritage speakers (HS) are bilinguals exposed to at least two languages from early childhood (Rothman 2009). Since they typically acquire their heritage language in informal contexts and have limited access to formal education in it, recent research has increasingly considered register in heritage language studies (Wiese et al. 2022). Specifically, several studies have observed register leveling in HS—a tendency to use informal structures in formal situations—though most research focuses on syntax and syntax-pragmatics interfaces (Özsoy et al. 2022; Iefremenko, submitted). Our study aims to extend this focus to the lexicon, advancing register research in bilingualism. To address this, we analyzed a corpus of approximately 95,000 tokens from oral and written texts elicited from 128 Russian HS in Germany and the U.S. and 64 monolingually raised Russian speakers in Russia. Data were collected using a method that elicits language use across formal and informal contexts. We focused on the most frequent referents and conducted analyses in R using tidyverse and lmer. Results showed that speakers consistently used register-appropriate nouns in their productions, suggesting that register leveling in HS may be restricted to less salient linguistic features at the interfaces, rather than affecting the lexicon. This finding prompts new research questions, which we explore through eye-tracking studies, being now conducted with the same population.

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Rothman, J. (2009). Understanding the nature and outcomes of early bilingualism: Romance languages as heritage languages. *International Journal of Bilingualism*, 13(2), 155–163.

Wiese, H. et al. (2022). Heritage speakers as part of the native language continuum. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.717973>

Lexical Diversity in Multilingual Student Texts

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In general, multilingual children have lower vocabulary competence than monolingual children when considering only one language (but more when considering all languages). If sufficient input is provided in all languages, however, the Complementarity Principle (Grosjean 2016) hypothesizes equivalent vocabulary for monolinguals and multilinguals speaking the same language. It is our objective to evaluate the vocabulary of monolingual and bilingual students who have been studying together for several years and should, according to the Complementarity Principle, have a comparable vocabulary. For the analysis of student texts, we will use three sets of texts taken from the LEONIDE corpus (Glaznieks et al., 2022). The sets were built to take into account the language background of the students (monolingual German-speakers, bilingual German-speakers, and multilingual non-L1-German-speakers). Due to the fact that the texts of the students are not equal, we will utilize the Lexical Diversity Measure to compare the vocabulary of each student. It has been shown that learner characteristics profoundly influence measures of lexical diversity, range, and sophistication (e.g., Meurers 2015). This poster will try an evaluation of different tools and measures for lexical diversity, including an evaluation of the RNN-tagger developed by Schmidt (2019). Considering school-related topics, we expect that the vocabulary of monolingual and bilingual students after a sufficient period of schooling is equally large. Moreover, we hope to gain knowledge about which measures of lexical diversity are more useful for (short) student texts. Consequently, lexical diversity measures would likely be useful tools for comparing the vocabulary of individual texts, and the expected results would have important implications for the judgement of the vocabulary of multilingual individuals.

Lexical representation and recognition of spoken Mandarin words: Effects of speaker variability and tonal similarity in L1 and L2 listeners

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The present study explored two key aspects of spoken word recognition in native (L1) and second language (L2) listeners of Mandarin. We investigated, first, whether listeners abstract away from specific features, such as individual speaker characteristics, during lexical access, and second, listeners' ability to discriminate between lexical items with different levels of acoustic similarity by varying lexical tone. We addressed these questions by using a repetition-priming paradigm. Participants heard three tokens of a monosyllabic prime word followed by a target word that either matched (same) or mismatched (with a similar or dissimilar tone or a different vowel) the prime. Four different speakers produced the four tokens on each trial. We recorded event-related potentials (ERPs) throughout the experiment and behavioral responses to the targets. Repetition effects for the primes and tone discrimination for the targets were examined independently. For the primes, ERP results revealed an immediate N400 reduction from the first to the second prime in the L1 group, while the L2 group demonstrated a significant N400 effect between the first and third prime. For the targets, behavioral results showed that similar-tone mismatch trials were less discriminable (indexed by d-prime scores) than dissimilar-tone mismatches in both groups, while the L2 group showed lesser ability to discriminate dissimilar-tone compared to vowel mismatch trials. ERP results revealed distinct patterns for similar-tone (N400) and dissimilar-tone (P3) mismatches in both groups. Additionally, the L2 group exhibited an increased N2 for dissimilar-tone mismatches. Our study partially supports abstractionist models of lexical representation, as reflected in the L1 priming results, while the repetition effects observed in the L2 group provide evidence for the co-existence of exemplar-based and abstract representations of spoken words. Importantly, our findings demonstrate the impact of tonal similarity on listeners' discrimination capabilities, even for native speakers.

Linguistic and Cultural Identity of the Deaf in Japan : Self-perception of bilingualism

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Deaf individuals often navigate unique linguistic and cultural environments that shape their self-perception of bilingualism. For Deaf people, bilingualism involves proficiency in both a sign language, such as Japanese Sign Language (JSL), and a spoken or written language, like Japanese. This bilingualism, however, presents complexities distinct from typical hearing bilingualism. Deaf bilingualism frequently involves different sensory modalities (visual vs. auditory), which can impact language acquisition, fluency, and usage. Sign language is often the primary language through which Deaf individuals engage with the world, fostering a strong Deaf cultural identity. This identification with Deaf culture can influence how Deaf individuals perceive themselves as bilingual, with sign language playing a central role in self-identity and community belonging. This study examines how Deaf individuals in Japan perceive their own bilingualism. In Japan, there is only one bilingual and bicultural school for the Deaf, where students are taught in Japanese Sign Language, and written Japanese is taught as a second language. Students at this school often have a strong cultural identity as Deaf individuals and perceive themselves as bilingual in Japanese Sign Language and written Japanese. However, most Deaf individuals in Japan attend schools where they may not perceive themselves as bilingual or experience a sense of community belonging, instead seeing themselves as accommodating to the hearing majority. Deaf individuals from different backgrounds were interviewed to explore their self-perception of bilingualism. Their linguistic and cultural backgrounds significantly influenced their perceptions, and their views on Japanese Sign Language affected whether they considered themselves bilingual. Additionally, proficiency in written Japanese tended to impact their responses. Further research is needed to interview a broader range of Deaf individuals, but this study provides valuable insights into Deaf identity and bilingualism in Japan.

Linguistic development in unimodal and bimodal bilingual children: the role of distance in the morphosyntactic richness of known languages

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In unimodal bilinguals, distance in morphological system complexity between languages seems to modulate linguistic skills development (e.g. Blom et al., 2012). However, no studies have examined how exposure to a sign language influences the development of a spoken one in bimodal bilinguals, considering also morphosyntactic differences between languages. We aim to address this gap, investigating whether early exposure to a family language with a poorer inflectional system (Italian Sign Language (LIS) and Mandarin Chinese) influences the acquisition of a language with a rich inflectional system (Italian) focusing on morphosyntactic structures existing in one but not both languages. Participants will be 4-to-8-year-old hearing children speaking Italian (i) exposed only to Italian at home, (ii) exposed to Mandarin Chinese at home, and (iii) exposed to LIS at home. General(ised) linear mixed models will be conducted for between-group comparisons including family language proficiency and age as covariates. Data collection will start in November 2024, planning to collect most of the data before the conference. Children will undergo non-verbal cognitive assessment, lexical and grammatical evaluation in comprehension and production in Italian, Mandarin and LIS, clitic pronouns elicitation test and acceptability judgements task focused on serial verbs and relative clauses. Parental and children's questionnaires will capture linguistic background. We expect to find family language influence on Italian in unimodal bilinguals with a similar performance in bimodal bilinguals, given to morphological similarity between Mandarin Chinese and LIS. The influence of family language proficiency is expected. This study allows us to analyse the effects of being exposed to a home language, independently from the modality and focusing on the influence of morphosyntactic distance, which is important for clinical language evaluation. Additionally, it might represent a first step toward promoting bimodal bilingualism in deaf children.

Blom, E., Paradis, J., & Duncan, T.S. (2012). *Language learning*, 62(3), 965-994.

Linguistic justice in Catalan health care: from theory to empirical evidence

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This research aims to analyse the potential consequences for the Catalan-speaking minoritised language group (MinLG) when they receive health care in Spanish instead of their initial or preferred language, Catalan. While many in this group are bilingual and can communicate in Spanish, previous studies in less bilingualised contexts, such as the United States, indicate that language-discordant care can lead to negative outcomes, such as poorer diagnoses, slower recovery, increased anxiety and mistrust (De Moissac and Bowen, 2019; Zhao et al., 2021; Seale et al., 2022; Olani et al., 2023). In Catalonia, it is often assumed that language-discordant care is less problematic due to the high bilingualism among Catalan speakers. However, there is limited research confirming this assumption in such bilingual contexts. Additionally, proficiency in Spanish can vary significantly across different age groups and regions, meaning that not all Catalan speakers are equally bilingual (EULP, 2018). Accordingly, this study aims to explore the effects of receiving health care in Spanish on Catalan speakers through observations in consultation rooms and interviews with both patients and doctors. As such, it will examine the impacts of language discordance and the reasons behind these effects. To assess the influence of bilingualism on the consequences of language-discordant care, the research will also analyse personal networks (Sorolla, 2016; McCarty et al., 2019) to understand each participant's linguistic environment and exposure to both languages. Moreover, and related to the informants' level of bilingualism, the study will include speakers from all age groups, from children to the elderly, residing in two areas: The Metropolitan Area of Barcelona and Western Catalonia, which have different levels of Spanish proficiency and use.

Linguistic Profiles in the Basque Country: A Snapshot from 15 Years of Psycholinguistic Experiments

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The Basque Autonomous Country is a bilingual society where Basque and Spanish are both official languages. Although virtually everyone is a proficient Spanish speaker, Basque proficiency varies across different municipalities and households. Since its establishment in 2009, the Basque Center of Cognition, Brain and Language (BCBL) has conducted psycholinguistic experiments, collecting socio-demographic and linguistic data from thousands of participants. Over 15 years of recruitment, the BCBL has built a large dataset on linguistic profiles that reflects the region's bilingual society. We analyzed demographic and linguistic profiles from 7,138 individuals, examining relationships between participants' L1 (self-reported first language) and their age of acquisition (AoA), exposure, and proficiency in Basque, Spanish, and English. We also derived bilingualism and trilingualism indices to capture variability in linguistic profiles. Participants' median age is 33 (range 18-85), 65.6% are female, and 66.8% hold higher education degrees. The L1 of the participants is unbalanced, with the majority of participants (61.2%) reporting Spanish as their L1, 19.3% reporting both Basque and Spanish, 13.8% Basque only and 5.6% at least another language as their L1. AoA, proficiency, and exposure metrics generally indicate higher proficiency and exposure in participants' L1, with Spanish showing a ceiling effect on proficiency. Our indices reveal a bias toward Spanish across groups, suggesting a Spanish-dominant bilingual context. While the analysis may reflect a geographic bias given the BCBL's urban location in San Sebastian, this study offers a valuable snapshot of the Basque Country's bilingual landscape, highlighting its linguistic diversity and Spanish-dominant tendency. The proposed indices provide a basis for examining bilingualism as a continuous spectrum in future research.

Linguistic similarity between a bilingual's languages modulates the effect of input.

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Investigations into the effects of input on bilingual language development have typically focused on a single bilingual population at one time [1], leaving a gap in our understanding of how the effect of input is modulated by the properties of the bilinguals' languages. Bilingual children acquiring languages that are linguistically close may benefit from overlapping lexical and syntactic properties and might therefore require less input in the target language compared to bilingual children acquiring languages that are more distant. By examining these dynamics in children with different language pairs, we aim to contribute to a more nuanced understanding of how input shapes language proficiency in bilingual children. To that end, the present study investigated input effects on the Dutch proficiency of bilingual Dutch-German children (linguistically close) and bilingual Dutch-French children (linguistically more distant). Participants were 292 children (ages 5 – 8) in four groups: children acquiring Dutch and French in France (n = 75) and the Netherlands (n = 72) and children acquiring Dutch and German in Germany (n = 77) and in the Netherlands (n = 68). We measured Dutch language proficiency with the LITMUS SRT-NL [2] and we collected information on language input via the Q-BEx questionnaire [3]. Preliminary findings show that although children in France and Germany do not differ in their exposure to and use of Dutch, Dutch-German children score significantly higher on Dutch language proficiency than Dutch-French children. What is more, Dutch-German children scored significantly higher on Dutch proficiency than Dutch-French children with the same amount of input in Dutch. This suggests that linguistic similarities between a bilingual's languages modulate the effect of input.

[1] Kaltsa et al., (2019). 10.1177/1367006918819867

[2] De Jong et al. (2021). 10.21827/32.8310/2021-96

[3] De Cat et al. (2022). 10.17605/OSF.IO/V7EC8

LOAN VERB ADAPTATION STRATEGIES WITH SERBIAN-ROMANI BILINGUALS

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The study investigates adaptation strategies of Serbian-origin loan verbs (SLVs) in Gurbet Romani (GR) by Serbian-Gurbet Romani bilinguals. GR in Serbia is characterized by numerous SLVs, adapted using various indirect insertion strategies (Wohlgemuth, 2009). SLVs get integrated into GR using two characteristic vowels: -o- (Serbian čitati 'read' → Romani čitol), or i- (Serbian raditi 'work' → Romani radil), the latter one being the default strategy (Mirić & Ćirković, 2022; Simonović 2024). However, the factors determining the adaptation strategies have not yet been systematically studied. We will test whether the adaptation strategy choice depends on the theme vowel class of SLVs, and/or the morphological complexity of SLVs. We will create a sentence completion task which crosses Theme Vowel Class (encompassing 3 common classes: i-i, a-a, a-je) and Morphological Complexity (complex, simple). Fifty Serbian-GR bilinguals will complete the task online through Psytoolkit, starting with 5 practice trials. At each trial, the participants will see a sentence in GR without a verb, and will complete it by putting the provided Serbian verb in the past or present tense form. A language background questionnaire will also be administered to ensure that only the participants who read and write in both languages are included. The number of experimental items will be limited to 42 + 20 fillers, to avoid attention drop. If the adaptation strategy depends on the theme vowel of the SLV, we expect more i-class adaptations with i-i verbs. If it depends on the morphological complexity of the SLV, we expect more default (easier) i-class adaptations with complex verbs. The results would shed more light on factors shaping loan verb adaptation processes in this under-investigated bilingual group, showing whether economy (vowel retention, default) is the guiding principle, in line with the minimality principle (Paradis & LaCharité, 1997) or Lexical Conservatism (Simonović, 2015).

Long-term educational outcomes from early bilingualism and language learning in secondary school

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Dual Language Learners (DLLs) in the U.S. who master the societal/instructional language of English early do better academically later compared to those who take longer to reach L2/English proficiency. Taking foreign language (FL) courses in school is also linked to stronger academic performance. Research links bilingualism to enhanced cognitive skills, which may contribute to improved educational outcomes, but longitudinal research examining educational outcomes for DLLs is rare. We examine how early bilingualism and later additional FL courses in secondary school link to academic achievement at the end of schooling. Using longitudinal data (n = 33,326) that followed students from age 4 throughout high school, multiple regression analyses, controlling for student gender, race, poverty, disability, school readiness, and prior academic performance, found significant effects of early bilingualism and later FL courses on both grade point average (GPA) in 12th grade and likelihood of graduation. Early bilinguals (achieved L2/English proficiency by 1st grade), and later bilinguals (mastered L2/English later) showed stronger marks from teachers in 12th grade compared to monolingual students. FL enrollment also positively predicted 12th grade GPA. Importantly, no interaction emerged between bilingualism and FL enrollment on GPA, suggesting that early language exposure has lasting effects, and that FL learning later also benefits students regardless of early bilingualism. Students enrolled in FL courses were more likely to graduate from high school than those who did not. While there was no main effect of early bilingualism on graduation, there was a significant interaction with FL enrollment. For students who did not enroll in FL courses, early and later bilinguals showed higher odds of graduation compared to monolinguals, underscoring the impact of early language exposure and the chance for later language learning to have an effect. Results emphasize the importance of both early bilingualism and later language learning for promoting academic success.

Long-term Outcomes of Dual Language Immersion Programs: Second Language Performance in Bilingual Adults

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Dual-language immersion (DLI) programs that provide academic instruction in two languages have been gaining popularity in the United States (Escobar & Potowski 2015). In this study, we examine how experiences in DLI programs influence native English speakers' retention of Spanish into adulthood. We plan to recruit 200 native English speakers, ages 18-25 through the online experimental platform Prolific. Data collection is expected to be completed by January of 2025. Participants will report attending a Spanish/English DLI program before 18 years of age, and be characterized by varying levels of language ability (from typical to developmental language disorder [DLD]). In the current study, we ask the following questions: 1.) How does exposure time in DLI programs affect Spanish language outcomes? And 2.) How do Spanish proficiency outcomes differ between individuals with and without DLD? Participants will complete our DLI Experience Questionnaire, designed for this study to record individuals' diverse experiences in DLI. We will also collect information regarding other types of Spanish exposure. Spanish proficiency will be indexed by measures of expressive vocabulary and reading fluency. We predict that: 1.) Longer immersion in DLI will be associated with better Spanish performance, even after accounting for overall Spanish exposure; 2.) Higher overall language ability will be associated with better Spanish performance. This research will enhance our understanding of the educational characteristics that are most effective in producing long-term maintenance of second language skills, thereby informing both the theories of bilingualism, and the development of more effective DLI programs.

Escobar, A. M., & Potowski, K. (2015). Capítulo 8.2: Modelos de programas de educación bilingüe. *El Español de los Estados Unidos*. (pp. 224-231) Cambridge University Press.

Thomas, W. P., & Collier, V. (1997, November 30). School effectiveness for language minority students. NCBE Resource Collection Series, no. 9. ERIC. <https://eric.ed.gov/?id=ED436087>

Long-term variability in L2 motivation, retirement anxiety, self-efficacy, and L2 trajectories of third age learners

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The transition from work to retirement is marked by high inter- and intra-variability in retirement resources and socio-affective profiles, such as motivation, retirement anxiety, and self-efficacy. Second language (L2) learning, a complex and engaging activity, has been linked to enhancing emotional, social, and motivational resources later in life, in both a classroom setting (e.g. Pfenninger & Kliesch 2023) as well as in naturalistic learning contexts (e.g. Pot et al. 2019). According to the resource-based dynamic model (Wang et al., 2011), critical life events, like retirement, can contribute to affect variability (Röcke & Brose 2013) as retirees engaging in more pre-retirement activities such as L2 learning are expected to have greater retirement resources (Yeung & Zhou, 2017). This variability may arguably modulate L2 learning during that retirement transition. This study is part of a large-scale longitudinal research project which addresses, inter alia, the following RQ: When do individual differences in social-contextual, emotional, and motivational resources affect English-as-a-foreign-language (EFL) learning over time in retiring adults? This paper examines the language learning journeys of German-speaking adults in Switzerland, aged 62-65, who attended a two-year EFL course, during which they retired at some point. The 27 participants were assessed at 2-week intervals on (1) a range of socio-affective measures via surveys (notably training motivation, self-efficacy, and retirement anxiety), (2) L2 lexical complexity (Measure of Textual Lexical Diversity, MTLD, see Kliesch & Pfenninger, 2021), and (3) demographic measures. Using generalized additive mixed modeling and visual quantitative analyses, this paper aims to identify non-linear L2 trajectories and periods of significant growth with potential occupation thresholds. Outcomes from this study will offer in-depth insight into individual learner profiles, help refine future language-based interventions for older individuals and how they can be used to improve retiree's retirement adjustment and well-being.

Make it hot or keep it cool: unpacking bilinguals' executive functioning in neutral and affective contexts

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The 'hot' and 'cool' model for executive functions (EFs) posits that executive functioning varies according to the motivational significance of a situation. 'Cool' EFs emerge in abstract, affectively neutral contexts, while 'hot' EFs arise in motivationally significant, emotionally charged conditions 1. Evidence suggests 'hot' and 'cool' EFs involve different developmental trajectories 2 and distinct neural networks 3. We tested the 'hot' and 'cool' framework for EFs in bilingual speakers, who have been shown to experience reduced sensitivity to emotional information when operating in their second (L2) versus native (L1) language 4. In order to elucidate putative differences in bilinguals' 'hot' and 'cool' EFs, we administered – to a sample of Italian-English bilinguals (N= 50) –, three tasks with emotional stimuli: a Go/no-go lexical decision task assessing inhibitory control, a switching task assessing cognitive flexibility, and an n-back task assessing working memory 5. Each task employed verbal stimuli with either negative or neutral valence ('hot' vs 'cool' manipulation), presented in Italian or English (L1 vs L2 manipulation). Overall, we expected to observe better performance on cool versus hot trials, as a result of a reduced valence interference on task processing. Moreover, we also expected an interaction, with better performance on hot trials in participants' L2 (English) relative to their L1 (Italian). The findings will shed light on 'hot' and 'cool' EF aspects in bilinguals and reveal whether emotional effects are consistently observed across tasks in the same participants.

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3. Salehinejad et al. (2021). *Brain and Neuroscience Advances*, 5, 239821282110077.

4. Dewaele (2004). *Journal of Multilingual and Multicultural Development*, 25(2–3), 204–222.

5. Miyake et al. (2000). *Cognitive Psychology*, 41(1), 49–100.

Mastering German Compounds: Strategies and Difficulties for Foreign German Learners

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In German, compounding is a key word formation strategy, widely used to label unfamiliar objects and expand vocabulary (Elsen & Schlipphak, 2016). In the context of foreign language teaching, word formation is essential, helping learners interpret new terms and construct novel words. However, specific challenges arise, particularly in guiding students to master German compounding rules. These challenges include difficulties with component inflection, component order, and the use or omission of linking elements (Gärtner, 2012). To assess German learners' ability to name new concepts, a naming test was developed based on elicitation methods (Grela, Snyder & Hiramatsu, 2005). The test includes five subtests in which participants name new items such as animals, body parts, clothing, and trees, each linked to specific attributes (e.g., location, material, user, or appearance). Each subtest begins with an example—such as naming a mouse on the beach "beachmouse"—followed by naming described, AI-generated images. To date, 84 native German-speaking adults aged 18–66 years ($M=38.62$, $SD=13.83$) have participated in the online study, naming a total of 80 items. Of these items, 98.5% were realized as compound-nouns. To investigate how non-native German learners produce novel German compounds, an online study using the same pictures is ongoing. We will analyse their strategies and errors in creating novel words, expecting to observe cross-linguistic-influence from their L1, depending on the headedness of their respective L1s.

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Merrem for teacher education. Multilingual (self-)reflectiveness for the multilingual society

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The education of teachers for the multilingual society, for the heterogeneity in schools and classrooms, is important, but challenging for teacher education institutions. To combat deficit perspectives on students speaking minority languages, and to educate (future) teachers for a critical position with regard to power relations, racism, linguicism and also colonisation, the *merrem*-project was started. It addresses this challenge by aiming to initiate critical reflection that encourages multilingual, (self-)reflectiveness as an ongoing process. The didactic approach in *merrem* follows a biographical approach, fundamentally understood as "a structured form of self-reflection in a professional setting where one works with and on the biography" (Miethe 2021, 185). However, we use the biographies of other student teachers (rather than self-biographies) to open up an intensive (self-)reflection through critically reflective and biography-related tasks. Through the materials we offer targeted exercises with various forms of language from different perspectives along the respective (educational) biographical narratives. For each area, specific exercises were developed to support a critical, reflective deepening with regard to different "forms of language (usage)". All the tasks shall help students order to see and understand their own entanglements in powerful language relationships, which is especially important for students who grew up monolingually. This presentation will introduce this didactic approach which is designed for a seminar with 10 sessions (Pokitsch, Hägi-Mead & Atanasoska, in print), and we will give an outlook on the first evaluation of using the material in teacher education.

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Pokitsch, D./Hägi-Mead, S. & Atanasoska, T. (in print): *merrem*: Ein sprachbiographisches Seminarkonzept für die Lehrer*innenbildung. In: BIOS. Zeitschrift für Biographieforschung, Oral History und Lebenslaufanalyse.

Metaphor production in preschool bilingualism: evidence from corpus analyses

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Metaphors are key to how children process the world around them and engage with their education. However, to date, little is known about bilingual children's development of metaphoric expressions, especially at the early stage of acquisition. As the first piece of research in metaphor production in preschool bilingualism, our study relied on a recent usage-based approach to metaphor identification in child speech (Gaskins et al., 2023) to examine metaphor use in naturalistic interactions of three children acquiring English and German between the ages of 2;03 (or 2;04) and 3;01. First and foremost, our data confirm, that the three bilinguals studied in our project could use some conventional (but not novel) metaphors from the age of 2;03 and that their repertoires of conventional metaphoric expressions reflected their lexical competence in English and German, which in turn mirrored their exposure levels to each of these languages. Second, all three children prioritised metaphoric expressions for time, action, and quantity and started using them on a similar schedule, and this can be explained by high frequencies of such expressions in child-directed speech (rather than embodiment, as previously expected). Moreover, the stage at which given metaphors emerged in productive use appeared similar in each child's two languages, but different when all the three children were compared. This is explained by the notion of conceptual bootstrapping: as metaphors in English and German are based on the same concepts, acquiring their productive use in one language likely triggers their early production in another. These findings are discussed in light of leading metaphor theories; usage-based theory is brought in to explain findings that do not easily fit in within the existing theoretical models.

Gaskins D, Falcone M, Rundblad G. A usage-based approach to metaphor identification and analysis in child speech. *Language and Cognition*, 2023; 1-25. <https://doi.org/10.1017/langcog.2023.17>

Modeling bilingual reading comprehension with language models

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Little remains known about the syntactic interactions between a bilingual's languages. Frank (2014) began to address this gap by training monolingual and bilingual language models (LMs) on Dutch and English. The next-word probabilities assigned by the models were used to predict reading times (RTs) from bilinguals reading sentences in L1 Dutch and L2 English. Strikingly, the monolingual model best predicted the RTs in the L1, while the bilingual model best fit those in the L2. These early findings were taken as evidence of asymmetric influence, where L2 sentence comprehension is affected by a speakers' L1, but not vice versa. However, the language technology landscape has changed dramatically since 2014. A now well-known issue is that multilingual LMs will generally underperform their monolingual counterparts—known (unfortunately) as the “curse of multilinguality”. Crucially, this underperformance is likely an artifact of machine learning, not reflecting anything humanlike or true of bilingualism. Rather than capturing L1 interference, one possibility is that the RTs from Frank (2014) merely show the readers' weaker proficiency in their L2, which happened to align with the “cursed” bilingual model. Troubleshooting this modeling curse is important because LMs present a unique opportunity to study how knowledge of different languages might influence one another. The curse aside, we might otherwise expect monolingual and bilingual LMs to be comparable in their RT predictions for “balanced” bilinguals. Grounding the evaluation of bilingual LMs in this assumption, we thus revisit the overall approach from Frank (2014). Given new eye-tracking corpora (GECO and MECO) and recent advances in language modeling, our ongoing work seeks to design LMs that more closely resemble different profiles of bilingualism (e.g., variable L2 proficiency). We aim to illustrate a path forward for using LMs to guide hypotheses about crosslinguistic influence in bilingual reading.

Frank (2014): escholarship.org/uc/item/02b2t6hn

Monolingual and Bilingual Differences in Reinforcement Learning

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This study explored how bilingualism influences reinforcement learning (RL). While RL theory emphasizes adjusting value estimates based on rewards, bilingualism's impact has been overlooked. Some studies show that bilingualism trains specific brain circuits involved in flexible rule selection and application, while some do not find differences in cognitive performance between monolinguals and bilinguals at all. This study compared RL performance between monolingual and bilingual groups. Results show that monolinguals were faster and more accurate in larger set sizes, while bilinguals showed consistent accuracy regardless of set size. Within bilinguals, English proficiency positively correlated with testing accuracy, while Spanish proficiency showed no significant impact. Bilinguals' performance varied with their self-reported English proficiency, but not for Spanish. These findings highlight the role of English proficiency in RL performance among bilinguals, underscoring the importance of considering language experience and cognitive functions in such studies.

More harm than good? The role of language control in second language acquisition of vocabulary

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In multilingualism research, language control (i.e., the process that mitigates cross-language interference) has been recognized as quintessential for multilingual language use. In contrast, its role during second language acquisition (SLA) and thus during the onset of multilingualism remains unclear. To address this research gap, this study examines the influence of language control on the acquisition of second language (L2) vocabulary. Importantly, while language control aids multilingual processing, it is nevertheless associated with a processing cost, particularly in non-balanced bilinguals. It follows that language control may not be solely beneficial for SLA. In fact, research on domain-general cognitive control, which overlaps partly with language control, suggests that control processes may impair SLA, as they can prevent learners from detecting relevant cues in the respective input (Smalle et al., 2021). We therefore predict that the implementation of increased language control will impede L2 vocabulary acquisition. To test this hypothesis, we have designed a study in which monolingual English speakers acquire 20 Dutch words during three test sessions. Participants complete a picture-word learning task at each session in which they name pictures in either their L1 or new L2. The task thus includes language switch and repetition trials. A subsequent vocabulary test determines participants' learning gains. If language control impedes L2 vocabulary acquisition, we expect learning gains to be lower in language switch than repetition trials, since switch trials require comparatively more language control. Data collection of this study is ongoing. Its results will offer novel insights into the link between language control and SLA, particularly whether language control hinders or rather helps the acquisition of vocabulary in a new language.

Smalle, E. H., Muylle, M., Duyck, W., & Szmalec, A. (2021). Less is more: Depleting cognitive resources enhances language learning abilities in adults. *Journal of Experimental Psychology: General*, 150, 2423–2434.

Morphosyntactic processing in non-standard language bilingualism: Insights from Italian bilingual communities

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While monolingual and bilingual language processing has been widely explored, few studies inquired how bilinguals process each of their two languages [1]. We investigated (i) whether non-standard language bilingualism affects the detection of agreement attraction errors, (ii) whether these grammatical illusions are processed differently between bilinguals' two languages, and (iii) whether differences stem from specific sociolinguistic factors of bilingualism. We tested native speakers of standard Italian (27), and two groups of non-standard language bilinguals: Italian-Pavese (26) and Italian-Agrigentino (28) bilinguals. Pavese and Agrigentino are non-standard, minority languages spoken in Lombardy and Sicily respectively, differing structurally and sociolinguistically from standard Italian [2]. Participants completed an auditory acceptability judgment task in Italian and the LSBQ [3]. Bilinguals also performed the task in their non-standard language. Ratings on a 5-point Likert scale and RTs were recorded. Italian-Pavese bilinguals were the fastest in judging Italian stimuli, while Italian-Agrigentino bilinguals were the slowest. Both bilingual groups showed more accurate ratings for stimuli in Italian. Italian-Pavese bilinguals were faster at judging stimuli in Italian, while Italian-Agrigentino were faster in Agrigentino. In both groups, greater proficiency in the non-standard language led to quicker RTs in that language. Our results revealed processing differences for bilinguals of non-standard languages linkable to specific communicative context demands, and different processing outcomes between bilinguals' two languages.

[1]. Bice, K., & Kroll, J. F. (2021). Grammatical processing in two languages: How individual differences in language experience and cognitive abilities shape comprehension in heritage bilinguals. *Journal of neurolinguistics*, 58, 100963.

[2]. Berruto, G. (1987). *Sociolinguistica dell'italiano contemporaneo*, Carocci.

[3]. Anderson, J. A. E., L. Mak, A. Keyvani Chahi, & E. Bialystok (2018). The language and social background questionnaire: Assessing degree of bilingualism in a diverse population. *Behavior Research Methods*, 50(1), 250-263.

Mothers and children engage in book sharing differently across languages and cultures

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Parent-child book sharing fosters narrative development and transmits cultural values (Rogoff, 1990). Previous research has shown that mothers' narrative styles reflect their cultural backgrounds. For example, Thai mothers are more likely to guide storytelling, while American mothers are more likely to engage in narrative co-construction with their children (Rochanavibhata & Marian, 2021). In our study, we examined cross-cultural differences between Taiwanese-Mandarin and American-English narrative styles of mothers and their preschool-age children during collaborative storytelling. Thirty Taiwanese-Mandarin and 24 American-English speaking mothers and their four-year-olds (age range: 3;11–5;0) engaged in book sharing in their homes while being video-recorded. Videos were transcribed and coded for 16 language measures (e.g., close-ended and open-ended questions, expansion of the other's utterance, etc.). Linear mixed-effects models were utilized to assess differences in narrative styles by comparing the dyads' use of each language measure. Correlations between mothers' and children's narrative patterns were also examined. Consistent with previous work (Rochanavibhata & Marian, 2021), preliminary results revealed that Taiwanese dyads exhibited more instructional narratives, reflecting the didactic emphasis observed in East-Asian cultures (Wang et al., 2000). American mothers displayed more elaborative patterns during story co-construction, encouraging children's self-expression. Cross-cultural differences in book sharing show how cultural contexts shape narrative skills and language scaffolding. These findings inform interventions for language development and parent coaching programs for culturally and linguistically diverse families.

Rochanavibhata, S., & Marian, V. (2021). Cross-cultural differences in mother-preschooler book sharing practices in the United States and Thailand. *Journal of Child Language*, 48(4), 834–857.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.

Wang, Q., Leichtman, M., & Davies, K. (2000). Sharing memories and telling stories: American and Chinese mothers and their 3-year-olds. *Memory*, 8(3), 159–177.

Multilevel models can induce biased individual estimates: a simulation of L3 VOT production.

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In the last decade, the use of multilevel models has increased significantly in applied linguistic research in virtually all its subfields. One advantage of these models is their ability to model repeated measures designs, in which a single participant is subject to multiple trials within a specific experimental condition. Multilevel models feature random effects, which are often used to evaluate whether the impact of specific participants strongly influence the group-level estimate. However, if an empirical individual estimates trends differently from the group-average, shrinkage of these extreme estimates occurs. This shrinkage is done under the assumption that the extreme estimates are actually more likely byproducts of random chance and that the true estimate is closer to the mean (group-level effect), and is thus a correction. It is argued that, in third language acquisition, shrinkage is actually a bias of individual estimates, not a correction. In principle, the L3 learner with two distinct distributions for L1 and L2 VOT could show L3 VOT that is either L1-like, L2-like, or between the two. We simulated experimental data that mimicked designs in which the L1 and L2 came from distinct voicing languages, and the VOT of the L3 was examined within-subjects relative to the L1 or L2. In each dataset, 30 participants were simulated in which the L3 of 10 was L1-like, L2-like (true-effects of 0) or had a true intermediate VOT (an effect of $d = .4$). Different quantities of repeated measures were also tested (increasing by 5). The results showed that when the total data points per language eclipsed 400, the group model returned an intermediate result over 80% of the time, which actually only reflected the truth for 33% of participants. It is shown that more data from each individual reveals the underlying truth.

Multilingual families: language ideologies, strategies, and experiences

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This paper presents a deliberately expansive overview of my PhD key findings. The study involves fourteen case study families who are raising multilingual children in superdiverse bilingual capital cities (Cardiff, Wales and Helsinki, Finland). The data are drawn from interviews with parents and children, observations, and online questionnaires. In these families, a foreign (often heritage) language was acquired with national minority (Swedish or Welsh) and majority languages (Finnish or English). The study is in the field of Family Language Policy (FLP). My multiple case study scrutinises several language communities and represents all three FLP prototypes (Smith-Christmas 2016); autochthonous minority language speakers, contexts with one immigrant parent, and families where both parents are immigrants. Language diversity and variability adds to the field, which has often previously concentrated on one or two languages or family types. The paper shows how parents were driven by specific ideologies to transmit multiple languages. The parents used a variety of language strategies and approaches within the home. A local language community was the crucial pillar to support language transmission. Despite children feeling pride in their heritage and multilingual identity, all participants found some parts of multilingual upbringing difficult (see Müller et al. 2020); particularly foreign language transmission was considered challenging. I present my plans to expand this research among my case study families to contribute to what is currently an unacceptably small body of longitudinal data.

Müller, L.-M. et al. 2020. Bilingualism in the family and child well-being: A scoping review. *IJB* 24(5-6), pp. 1049-1070.

Smith-Christmas, C. 2016. Family language policy: New directions. In: Macalister, J. and Mirvahedi, S. eds. *Family Language Policies in a Multilingual World*. London: Routledge, pp. 23-39.

Multilingualism and migration in a Dutch museum: Renegotiating linguistic norms

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This presentation examines the renegotiation of linguistic norms involved in the deployment of translanguaging strategies in a Dutch community-based science museum. STEM Room is located in an urban neighborhood characterized by low socioeconomic status indicators and ethnolinguistic diversity. It offers weekly science and technology workshops for children aged 6-10. Following a design-based implementation research approach, a research-practice partnership was formed through which translanguaging strategies were developed. Multilingual welcome signs, linguistic portraits, and wordwalls in the home languages of the visitors were some of the strategies employed with the aim to enhance minoritized speakers' participation in science. Methodologically, we carried out a linguistic ethnography which involved participant observation; semi-structured interviews with museum educators, parents, and children; pictures; and artefacts. Focusing on data from the first 17 sessions, we draw on thematic analysis through the lens of intersectionality (Christensen & Jensen, 2012), which highlights how the intersection between language (status), social class, and ethnicity shape the renegotiation of linguistic norms. The results show that the museum initially reproduced a monolingual Dutch norm linked with a deficit perspective on the visitors' linguistic, cultural, and scientific capital. This perspective was partially shaped by the intersection between the lower status of the languages spoken by the visitors (e.g., Arabic, Berber), their lower socioeconomic status, and non-Western migration background. Consequently, the renegotiation of this linguistic norm did not involve only a technical implementation of translanguaging strategies, but also reshaping the educators' perspectives towards the previously unacknowledged types of capital of the children and their families. This study highlights that institutional attempts towards linguistic inclusion in out-of-school settings are embedded in the intersection between language, social class, and ethnicity.

Christensen, A.-D., & Jensen, S. Q. (2012). Doing Intersectional Analysis: Methodological Implications for Qualitative Research. *NORA - Nordic Journal of Feminist and Gender Research*, 20(2), 109-125. <https://doi.org/10.1080/08038740.2012.673505>

Multilingualism in Greek public administration: a fact or fiction?

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Many studies focus on multilingual staff in the workplace and suggest ways to address inequality and improve productivity (Burckhardt, 2021). This study, focuses on the typically monolingual Greek public sector, emphasizing the growing need for multilingual skills. In February and March 2024, we distributed a questionnaire to civil employees from the Ministry of Immigration and Asylum and the Ministry of the Interior in order to explore their linguistic profiles, needs, and attitudes towards multilingualism. We received a total of 243 responses which were analyzed using the SPSS (version 29) program. The findings reveal that while English remains the dominant language for professional use, there is increasing demand for proficiency in languages, such as Arabic, Turkish, Farsi, Albanian, and Afghan-Pakistani. Employees with broader linguistic repertoires and higher education levels displayed more positive attitudes toward multilingualism. Diversity in responses implies that specialized and targeted strategies are necessary to equip Greek public sector staff with the language and cultural skills necessary for their duties. The study also advocates for inclusive language policies, combining government strategies with active employee engagement. Drawing from the employees' experiences, language planning and policy can yield meaningful and practical insights that ensure that state interventions are informed, relevant, and aligned with the needs of all citizens (Johnson, 2023; Oakes, 2023).

“Multilingualism is a richness”: Cultural discourses on multilingualism as prefabricated sequences

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The more often we hear and use a linguistic unit, the easier it is for us to access and use. The more we hear some words in sequences, the more they become associated with each other and categorized to a certain context (Ellis 2012). Prefabricated sequences – also called chunks– have been at the core of usage-based studies on language. At the same time, prefabricated chunks– also referred as lexical bundles – are a prominent area of discourse studies (Hyland 2012). However, in discourse studies, the focus has been on chunks in discourse, not on discourses as chunks, while the usage-based studies have focused on grammatical and lexical chunks, not on prefabricated sequences of societal discourse. In this presentation, I will combine discourse analysis and usage-based linguistics to examine two frequent discourse constructions in a Finnish student essay data of approximately 21 million words. The data stems from the nationwide matriculation examination of March 2022 and it has been analyzed with the corpus linguistic tool AntConc. Both constructions, *Suomi on kaksikielinen maa*, lit. ‘Finland is a bilingual country’ (787 appearances) and *Monikielisyys on rikkaus*, lit. ‘Multilingualism is richness’ (934 appearances) seem to encapsulate the cultural and historical knowledge of two multilingualism discourses widely circulated in the Finnish society. The fact that these constructions are frequent in the high-stakes matriculation examination to the university, indicates that the students perceive these discursive constructions to be generally acceptable ways of organizing knowledge on multilingualism in the Finnish society and in the context of Finnish academic writing.

Ellis, N. C. (2012). What can we count in language, and what counts in language acquisition, cognition, and use. *Frequency effects in language learning and processing*, 1, 7-34.

Hyland, K. (2012). Bundles in academic discourse. *Annual review of applied linguistics*, 32, 150-169.

Multilingualism meets a descriptive universal: Prosodic switches at the crossroads of word order and the prosody of conjunctive coordination

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Many natural languages display the coordination of two elements with one coordinator in a medial position (John and Peter), permitting two prosodic possibilities: proclisis, John and–Peter; and enclisis, John–and Peter. These two prosodic options are related to word order typology as follows: if a language has an enclitic coordinator, then it is OV, as in Japanese (1). If a language is not OV, it cannot have an enclitic coordinator.

(1) Tēburu-no-ue-ni ringo-to mikan-to banana-ga arimasu

There are apples and oranges and bananas on the table.

However, if a language has a proclitic coordinator, we cannot say whether it is OV or VO; English and Basque display proclitization and English is VO (2) while Basque is OV (3).

(2) I want three apples and–a kiwi and–a lemon.

(3) Kafea eta-tortilla eta-zuua nahi ditut.

I want coffee and omelette and juice

This strict relationship between conjunctive coordination word order constitutes a strong descriptive universal (Stassen 2000; Haspelmath 2007). To investigate the strength of this typological universal in the mind of the speaker and to determine the degree of acceptance that switching to the non-canonical prosodic option might have, we administered an oral experimental acceptability judgement task to 60 speakers of convergent (OV–enclisis and VO–proclisis) languages (Japanese, English, and Spanish) and the non-convergent (OV–proclisis) Basque. Our participants significantly aligned with the predictions made by the typological universal: the Japanese speakers significantly preferred enclisis while the English and Spanish speakers significantly accepted proclisis. However, while the Basque speakers preferred proclitic coordination, they showed a significantly higher degree of acceptance of forced enclitic coordination than the Spanish and the English speakers, a result that we attribute to Basque OV word order.

Multiple Domain Assessment model to identify DLD in bilinguals in Germany

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Identifying Developmental Language Disorders (DLD) in multilingual children remains challenging; in 2012, BARMER health insurance reported language disorders in one-third of preschoolers, and by 2022, Commercial Health Insurance documented a 151% increase in DLD cases over the past decade. The SPEAK project seeks to enhance DLD diagnostics using the Multiple Domain Assessment (MDA) model, which provides a detailed analysis of phonological, lexical, grammatical, and text domains to form a comprehensive language profile, crucial for assessing multilingual children aged 4 to 8. SPEAK employs a diagnostic battery including the LITMUS Nonword Repetition task (Grimm et al., 2014) for phonological complexity; the Cross-Linguistic Lexical Task (Haman et al., 2017) for vocabulary comprehension and production; the Sentence-Repetition Task (Hamann et al., 2013), for grammar acquisition; and the Multilingual Assessment Instrument for Narratives (Gagarina et al., 2019) for oral text knowledge. Additionally, a comprehensive parental questionnaire captures information on language use and background. Preliminary results from 117 children (including 42 in therapy) aged 4;1 to 8;11 (MA=6;8) show variability across domains and groups. The phonological domain displayed more variability, influenced by age and exposure, whereas receptive vocabulary was relatively stable, with age affecting phonology more significantly and exposure impacting vocabulary more. Results for grammar and text are still being analyzed. The MDA model for identifying DLD in bilinguals in Germany highlights the need to account for both receptive vocabulary strengths and the complex interplay of linguistic and parental factors that shape multilingual language development. This theoretical approach laid the foundation for the creation of the serious gaming tool Tebik, which should allow the automatic analyses of data.

Naming Accuracy in Bilingual Children's Statistical Word Learning

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Bilingual word learning advantages are often observed in explicit learning paradigms, where objects are ostensibly labeled (e.g., Eviatar et al., 2018). However, bilingual children have been shown to be less accurate at producing novel words (e.g., Alt et al., 2019). To date, no study has examined children's naming accuracy of novel words learned via cross-situational word learning (CSWL), where learners acquire words by tracking co-occurrence statistics of words and referents across trials. In this study, we examined children's naming accuracy for words learned during CSWL. We also examined whether speaker variability would bolster children's naming accuracy (e.g., Richtsmeier et al., 2009) and explored whether bilingual children would be equally sensitive to these effects, if present. Twenty monolingual English-speaking children and 20 Spanish-English bilingual children ages 5 – 9 learned five novel word-object associations in a Single Speaker Condition (one female speaker) and a Multiple Speaker Condition (ten speakers: five females, five males) in a within-subjects design. Productions of correctly identified words (2/2 trials in a receptive pointing task) were transcribed, coded, and analyzed for phoneme-level accuracy. Each correctly produced phoneme received one point. Covarying age, results from a linear mixed effects model revealed a significant effect of Group, with monolingual children demonstrating significantly higher naming accuracy than bilingual children ($B = -.73$, $SE = 0.33$, $t = -2.24$, $p = .03$). Older children compared to younger children also displayed higher naming accuracy ($B = 0.36$, $SE = 0.10$, $t = 3.47$, $p = .001$). The effect of Condition, and the interaction between Condition and Group were not significant ($ps > .05$). Together, these findings suggest that language experience may influence how words acquired via statistical learning mechanisms are encoded and produced. Bilingual children, who typically receive less language-specific experience, may require additional exposure to produce learned words as accurately as monolingual children.

Narrative Macrostructure and Executive Function in Children: Comparing Bilingual and Monolingual Programs

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As Content and Language Integrated Learning (CLIL) bilingual education gains momentum in Australia (Fielding & Harbon, 2022), its impact on children's early language development warrants systematic investigation. We present a prospective cohort study that examined the effects of a bilingual program on children's narrative skills, and their relationship with improvement in executive function (EF). Fifty-eight 5- and 6-year-olds from varying home language backgrounds were assessed at the start (Term 1) and end of the academic year (Term 4) in their bilingual or monolingual programs at an Australian public school. Children listened and retold a story using the wordless picture book *Frog, where are you?* (Mayer, 1969). Narrative macrostructure was scored according to the Monitoring Indicators of Scholarly Language (MISL, Gillam et al., 2017) rubrics, which evaluated seven components: character, setting, initiating event, internal response, plan, action and consequence. Linear mixed-effects models revealed significant interactions between program type and EF development gains in narrative macrostructure total score and story grammar components. While both groups improved overall, children in the bilingual program with greater cognitive development gains demonstrated stronger outcomes in macrostructure total score ($\beta=1.32$, $SE=0.52$, $t=2.53$, $p<.05$), initiating event ($\beta=0.36$, $SE=0.13$, $t=2.72$, $p<.01$), action ($\beta=0.20$, $SE=0.08$, $t=2.48$, $p<.05$) and consequence ($\beta=0.37$, $SE=0.16$, $t=2.30$, $p<.05$). Independent of term and cognitive development, the bilingual program children produced significantly more character ($\beta=0.17$, $SE=0.08$, $t=2.07$, $p<.05$) and plan terms ($\beta=0.29$, $SE=0.12$, $t=2.37$, $p<.05$). Our findings suggest that individual differences in EF development moderate the relationship between bilingual education and narrative outcomes. The cumulative exposure to CLIL through dual languages enhances children's ability to construct coherent narratives, especially for those with greater EF growth. Given the strong association between narrative abilities and later academic outcomes, this study has important implications for educational policy, supporting the implementation of bilingual programs in early education.

Naturalistic Story Listening is Effective at Uncovering Bilingual Brain Development

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Most knowledge on bilingual brain development in children comes from standard laboratory language tasks that involve isolated words/sentences and require task-based decisions. Yet, such methods differ from how people comprehend language daily. To address this gap, we use broad-coverage computational models to examine brain activity through a novel, naturalistic story listening paradigm. Theoretical perspectives posit that bilinguals engage more neural resources than monolinguals when processing language, even in single-language contexts. Therefore, we predicted bilinguals would have stronger frontal and right hemisphere activation during story listening than monolinguals. Participants listened to an English story during fNIRS neuroimaging. Our preliminary sample includes 59 English monolinguals and 24 Spanish-English bilinguals (ages 7-11). Monolinguals had stronger English proficiency as measured with word reading fluency. The target sample is 100 per group. We used the large, pre-trained artificial neural network GPT-2 to quantify predictability of words using next-word surprisal, and then correlated model-predicted brain activity with children's fNIRS-recorded brain activity. We first validate our use of a naturalistic listening paradigm: Consistent with a recent meta-analysis (Enge et al., 2020), we found that more proficient speakers have stronger and more focal left IFG activation. The principal findings indicate that monolinguals showed stronger left frontal activation, whereas bilinguals showed stronger right IFG and STG activation. These patterns are consistent with research using more standard tasks, which has found increased right hemisphere involvement in language processing for early bilinguals relative to monolinguals (Hull & Vaid, 2007). Our naturalistic approach shows that these results are robust to concerns about task demands. This study highlights the benefits of using an ecologically valid neuroimaging approach to minimize task effects as well as advances our understanding of bilingual language comprehension, specifically underscoring hemispheric differences in how the developing bilingual brain processes language.

Navigating Ambiguity: Scope Interpretation in Spanish-English Heritage Bilinguals

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The present study investigates how Spanish-English heritage bilinguals process scope ambiguities in sentences containing the existential quantifier "a" and the universal quantifier "every." Sentences like "a person bought every book" are syntactically ambiguous in both Spanish and English, allowing for multiple interpretations. Research suggests that one interpretation is often preferred due to its lower cognitive demand, though the degree of preference may vary across languages. Notably, studies show that bilinguals may have distinct interpretation preferences in each language, highlighting the complexity of bilingual processing and the ability to manage multiple linguistic systems. This study focuses on heritage bilinguals, whose language profiles are characterized by high proficiency in both languages, often from an early age. Specifically, it examines how Spanish-English heritage bilinguals process scope ambiguities in both languages. The study compares how interpretations and response times vary depending on which language is activated, exploring whether bilinguals show similar processing outcomes in both languages when one interpretation is preferred due to lower cognitive demand. Sixty Spanish-English heritage bilinguals participated in a timed acceptability judgment task to assess their interpretations of ambiguous sentences and response times. Participants also completed proficiency tests and a language background questionnaire to account for factors such as language proficiency. The results reveal nearly identical preferred interpretations (Spanish: $M = 4.19$, $SD = 0.56$; English: $M = 4.14$, $SD = 0.66$) and response times (Spanish: $M = 6.97s$, $SD = 2.70$; English: $M = 6.67s$, $SD = 1.80$) in both languages, with the surface reading consistently favored and associated with faster response times. Notably, language proficiency had no significant impact on these outcomes, highlighting the robustness of these processing patterns. These findings provide new insights into the cognitive mechanisms underlying bilingual interpretation and how bilinguals navigate ambiguities in their two languages.

Neural correlates of emotional interference in bilinguals' first and second language

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The effects of emotional information across a bilingual's two languages, as well as the modulatory role of bilinguals' experience on the direction of such effects, are still a debated issue with no clear-cut answers. Here we present the results of two fMRI studies that examined emotionality effects on bilinguals' word processing during the execution of two variants of the Emotional Stroop Task (EST): 1) The traditional "color-word" version of the EST, where participants need to suppress interference from distracting emotional information (the emotional content of a word) in order to maintain ongoing task demands (naming/categorizing the ink color of the word); 2) The "word-face" variant of the task, where participants need to identify the emotional expression of face stimuli while ignoring the content of overlaid emotional words (incongruent or congruent with the emotion expressed by the faces). Whereas in the "color-word" version of the task the emotional word stimuli are not semantically-relevant to the task instructions (which is expected to result in only mild emotional interference), a semantic conflict is created in the "word-face" variant, arguably resulting in more intense emotional interference. In bilinguals, prior behavioral evidence from the EST is mixed, with studies pointing either to a reduced emotional resonance of the second language (L2) relative to the native language (L1), or to the same amount of emotional interference in the bilinguals' two languages. We aimed to identify the neural correlates of emotion word processing in a sample of native Italian speakers who learned English as an L2, and to evaluate the effects of bilinguals' language background (especially L2 proficiency) on their ability to control for emotional interfering information in L1 and L2. Results shed explanatory light on the neurocognitive mechanisms underlying emotional processing and control in the bilingual brain.

Neural functions of foreign speech imitation in Chinese-English bilingual adults

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Foreign accents in second language (L2) speech production is an inevitable challenge for late bilinguals. The brain functions underlying the foreign accents are poorly understood. In the current study, we examined brain activities during novel speech imitation in Spanish for Chinese-English late bilinguals. We recruited 32 native Chinese-speaking adults (age = 22.6 ± 3.3 y.o.) with English as their L2. All participants had no previous knowledge of Spanish. In the MRI speech imitation task, participants imitated novel sounds in Spanish, English, and Chinese right after each auditory presentation as best as they could. Each word was repeated three times in a row. We evaluated the quality of participants' imitation of Spanish words with voice onset time (VOT) for consonants [d] and [b], and the first and second formant frequency (F1 and F2) for vowels. For the brain functional activities, we examined the functional activities with ANOVA factorial design with the imitation order (t1/t2/t3) and the language (Chinese/English/Spanish). The data analysis is in progress. We hypothesize that brain regions supporting articulatory movements, such as the left supplementary motor area and left postcentral gyrus, will show stronger activations for Spanish imitation than Chinese and English, indicating efforts for novel speech learning. Meanwhile, regions related to auditory processing and somatosensory processing will display higher activation in t2 and t3, suggesting the imitation feedback and articulatory adjustments for later speech production. This study can provide both behavioral and neurological features for foreign speech learning in bilingual language learning, especially the functional process for foreign speech production at the learning stage.

Neural signature of indirect reply processing while listening to foreign accented dialogues

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The interpretation of the sentence ‘Giving a good presentation is complicated’ will differ whether it is a reply to (a) or (b):

(a) What is it like giving a presentation?

(b) Did you like my presentation?

The neurocognitive mechanisms underlying the pragmatic inference of indirect replies (e.g. in reply to (b)), have mainly been studied when dialogues occur in first language contexts. However, we hypothesize that foreign-accented speech may affect such inferences given the cognitive cost it generates (due to linguistic disfluency), as well as native listeners’ limited expectation of the foreign speaker’s linguistic abilities. To test this hypothesis, our ongoing experiment aims to characterize the neural signature of indirect reply processing in foreign-accented dialogues. Accordingly, we measure the event-related potentials (ERPs) of 40 French-speaking students listening to native and foreign-accented dialogues. Each dialogue is preceded by a written context establishing the communicative situation. A total of 144 dialogues are presented, ending in either a direct or indirect reply (e.g. in reply to (a) or (b), respectively). For one-third of the dialogues, participants answer yes-no comprehension questions. Based on the few previous ERP studies of indirect replies and foreign-accented pragmatics, we expect to find ERPs -time-locked to the final word of the reply- that reflect additional cognitive effort when processing foreign-accented indirect replies. Compared to native-accented direct replies, we anticipate a shallower processing. Particularly, we should observe a smaller and delayed N400, indicating a hindered semantic integration of the reply, and a larger P600, reflecting the additional pragmatic processing. Moreover, we will examine explanatory hypotheses of how individual cognitive capacities, such as working memory and non-verbal reasoning, may modulate pragmatic processing in multilingual communication, as previously observed in native-accented contexts. Our results will be discussed in line with the neurocognitive models of language comprehension and pragmatics.

New Language Training to Measure and Promote Neurocognitive Resilience in Healthy Aging

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Bilingualism i.e., the long-term experience of speaking two or more languages has been shown to promote neuroplasticity by engaging memory, attention, and inhibitory control and boost neurocognitive reserves (Stern et al., 2019; Paulavicius, et al. 2020; Anderson, Hawrylewicz & Grundy, 2020; Deluca et al. 2019). However, little is known about the effectiveness of novel, short-term language learning as a tool for promoting healthy neurocognitive resilience in older adults. This study tests the effectiveness of short-term new language training as a neuromodulator in healthy older adults. Research design. In this longitudinal study (2 condition: Language Training, Active Control) x 2 (session: pre-test, post-test mixed factorial design), 20 older adults, aged 60-85 completed first a pre-test that included several neurocognitive tasks (including an EEG-based N-Back task to measure working memory), affective and linguistics tasks. After pre-test, participants were randomly assigned to either the Spanish Language Training (LT) condition or the Active Control (AC) condition. The LT group completed Spanish training for ~50 days (from home using Rosetta Stone). Individuals assigned to the AC group watched selected videos and answered a few questions for a comparable duration of days and time. After the end of the training (LT or AC), participants came back for the post-test. Results: Data from the ERP-based picture naming task at post-test demonstrated that encoding and memory consolidation of new Spanish vocabulary induced a reduction in the N400 for studied words relative to non-studied words. In addition, working memory was measured through the EEG N-Back task at pre- and post-test (Kok, 2001; Finnigan et al., 2011) Our results show an enhanced P200 and P300 at post-test for the older adults who completed the Spanish language training compared to the control group. Overall, these results point toward a positive neuromodulator effect of novel language training in healthy older adults.

No Longer Lost in Translation: A Scoping Review of Multilingual Aphasia Interventions

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Aphasia, a language disorder caused by brain damage, impacts an individual's ability to comprehend or express written, verbal, or gestured language. Global trends in migration and aging have resulted in a cohort of older multilingual adults with neurorehabilitation needs. However, little research has been published regarding multilingual aphasia rehabilitation. Clinicians across international contexts frequently report that the limited evidence base is a barrier to therapy for these populations, perpetuating health inequality faced by various cultural and linguistic minority groups. A team including multilingual aphasia researchers was assembled. A search strategy consisting of English search terms was developed, and a two-step back translation process informed the development of an additional search strategy with search terms in 13 non-English languages. 25% of titles and abstracts and full texts were independently dual screened. Machine translation facilitated screening for authors who were not proficient in a study's publication language. Data were independently dual extracted for 25% of included studies. 73 studies across three languages (English, Spanish, French) were included in the review. Preliminary analysis revealed an evidence base characterised by small sample sizes and methodologies consistent with emerging research (e.g. case series). Included articles were generally impairment-focussed, mostly targeting language deficits and European languages. This synthesis of literature may empower future researchers and clinicians to use novel techniques in developing and implementing multilingual aphasia rehabilitation approaches. Multilingual team members, comprehensive search strategies, and machine translation may enable future multilingualism research (including that outside the field of speech pathology) to integrate publications published in any language. Finally, this review will inform future studies conducted by the research team, including qualitative investigations of multilingual people with aphasia's rehabilitation experiences and evidence-based therapeutic trials.

Normative multilingualism in Love is blind Habibi: what value does each language carry in the mixing?

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The study aims to examine how Arabic speakers draw on their bilingual and multilingual resources and ideologies to index, perform, and co-construct their identities while negotiating social positioning. To achieve this, the study analyzes a collection of 21 conversations among six female and five male participants from eight Arabic-speaking countries: Morocco, Tunisia, Syria, Lebanon, Palestine, Jordan, Egypt, and Saudi Arabia, generated through the Netflix reality show "Love is Blind: Habibi." The study employs the qualitative method of conversation analysis (Seedhouse 2005, Androutsopoulos 2007) along with the sociolinguistics approach of indexicality and identity (Irvine and Gal 2000, Jaffe 2009, Canagarajah 2012) focusing specifically on code-switching and code-mixing practices. The analysis suggests three main findings: 1) Bilingual practices serve as a stylistic resource that reflects both social and ideological identities, enabling participants to position themselves as both, loyal to their local communities and representatives of a global movement. 2) Switching and mixing in the Arabic-speaking context in question are methods for constructing new hybrid identities, allowing the use of English to challenge its dominant symbolism. 3) Bilingualism and multilingualism are becoming more common rather than exceptional, contesting the ideological construct of diglossia and the traditional Arabic social value as a marker of a singular unifying identity. The study concludes by arguing that the increasing visibility of bi/multilingualism in the Arabic-speaking world is more likely to change the symbolic values of former dominant codes, such as Standard Arabic and French in favor of English and the spoken varieties.

On attrition and reinforcement of lexical knowledge in Polish-German returnees

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This study analyses the effects of environmental change on the lexical proficiency of Polish-German returnees. The experimental group includes 22 bilingual speakers, who spent their childhood in Germany and moved (back) to Poland, their (parents') country of origin. Two groups of monolingually raised speakers of Polish and German function as control groups (44 speakers). The study aims at detecting potential processes of attrition of lexical knowledge in German, the former dominant language and reinforcement in Polish, the former heritage language (Flores & Snape 2021). Concretely, we focus on the impact of extra-linguistic variables such as 'age at return' (AaR), 'age of onset of bilingualism' (AoO), 'amount of contact with both languages' and 'length of residence in Poland' (LoR). Few existing studies on returnees show that these variables are crucial for the development of their linguistic competence (e.g. Flores 2010; Taura 2008). However, to which extent these variables impact the lexical knowledge of returnees is debated (e.g. Kubota et al. 2020). Participants filled out a background questionnaire and completed the German and the Polish versions of the LexTale (Lemhöfer et al. 2012). The results confirm a levelling of language dominance in returnees as a consequence of some loss of proficiency in the former societal language (German) and reinforcement of the heritage language (Polish). Proficiency in German and in Polish is predicted by AaR, with speakers who returned during childhood showing higher degrees of proficiency in Polish and lower proficiency in German (line with Flores et al. 2022, on Portuguese-German returnees). We also find an effect of LoR in Poland: longer length of residence in Poland correlates with higher proficiency in Polish and surprisingly also in German. This confirms that lexical knowledge continues to develop during the speakers' lifetime even in contexts of reduced language use.

Opportunities for Shared Writing for Emergent Bilinguals with Writing Needs

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Children's writing can improve when they can share their work with peers (Baker et al., 2003) and participate fully in the writing process. However, Emergent bilinguals with writing needs (EBWNs) are often excluded from key parts of the writing process (McCarthy & García, 2005). EBWNs include bilingual students with disabilities, READ plans and tiered interventions, and students perceived to be below graded level in writing based on teacher assessments. For instance, EBWNs may be pulled from class to receive additional support during writing time, and opportunities for shared writing (OSW) —where students discuss their writing or writing process— are reserved for those who finish their writing task on time or early. EBWNs need access to rich opportunities, to develop needed skills and to engage in the writing process. This study examines how a dual language teacher modifies instruction to include EBWNs in all parts of the writing process for a 3rd-grade Spanish writing unit. Using a case study design, I used ethnographic methods such as interviews, field notes, audio recordings and transcripts, writing samples, and student survey data to explore how one educator supports EBWNs to participate in OSW and what informs her decisions. Preliminary findings suggest that the educator in my study supports EBWNs to participate in OSW by providing individualized support, accepting students' language and ideas without compromising the essence of storytelling, and offering explicit instruction in collaboration. These strategies are rooted in her commitment to authentic writing experiences, viewing students' language and writing from a biliteracy lens, and fostering a sense of ownership of student writing. Implications from this research point to better strategies for general and special education teachers to foster a rich writing community where EBWNs can improve their writing skills and become valued and contributing members of the learning community.

Out of sight, out of mind: The role of salience in the acquisition of L2 morphology

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Salience—the extent to which a feature stands out from its environment—has been posited as an important cognitive factor in second language acquisition (SLA). Goldschneider and DeKeyser's (2001) meta-analysis found key properties to explain morpheme acquisition order in second language (L2) English, which they theorized might all comprise different manifestations of linguistic salience, suggesting its important role in SLA. However, empirical research on that role remains scarce, particularly looking at effects of theorized salient properties individually. We conducted three experiments wherein participants read stories in an English-based semiartificial language as an implicit learning task. Included were two target morphemes, “-o” and “-ulp,” manipulated differently in each experiment to compare properties believed to impact an L2 form's salience: length, boundedness, and contextual redundancy. Eye tracking measured attention to target forms as well as implicit learning thereof (via a grammaticality sensitivity index; Godfroid, 2016). We hypothesized that high-salient forms would yield greater attention and facilitate acquisition relative to low-salient forms. Experiment 1 (length only) found significantly more attention to the high- (longer) than low-salient (shorter) form, but no evidence of implicit learning of either, possibly due to low overall salience of both forms (both bound, redundant). Experiments 2 and 3 (boundedness/redundancy and length) preliminary results again show greater attention to the high- (unbound, non-redundant, and/or longer) than low-salient (bound, redundant, and/or shorter) form, which is compounded in forms with multiple high-salient properties (e.g., unbound and longer). Final results of these later experiments, including implicit learning patterns, are expected by early 2025.

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P600 Responses Reveal Cross-Linguistic Activation: Grammatical Gender Processing in Turkish-German Bilinguals

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A central question in bilingualism research is whether both languages remain active simultaneously, especially when they differ in grammatical structures. This study examines whether early Turkish-German bilinguals activate both languages while processing grammatical gender incongruities in German, a language with a grammatical gender system, in contrast to Turkish, which lacks grammatical gender. Using an auditory event-related potentials (ERP) experiment, we compared bilinguals to German monolinguals, focusing on how they process pronoun-referent gender agreement. In German, pronouns must align with their antecedents' gender for both animate and inanimate nouns, whereas Turkish uses a single gender-neutral pronoun. Participants listened to short stories in which a pronoun either matched or mismatched the referent's gender. In the bilingual group, half of the trials involved a language switch from Turkish to German after the referent was introduced and before the pronoun appeared. Results showed a P600 effect in response to gender incongruencies for both animate and inanimate referents in monolinguals. However, in bilinguals the P600 effect appeared only for animate referents and was absent in trials involving a language switch. These findings suggest that bilinguals' global activation of Turkish may inhibit processing of arbitrary grammatical gender in German, although this inhibition does not extend to biologically gendered referents. In switch trials, local activation of Turkish appears strong enough to override grammatical gender processing in German, even for biologically gendered pronouns. Overall, this study contributes to the bilingualism literature by highlighting cross-linguistic interference from L1 to L2 in L2 dominant speakers of structurally distinct languages.

Parallelism and Repetition of Discourse Markers in Bilingual Counterstories

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This qualitative study explores the use of specific discourse markers in oral counterstories of multilingual Latinas as they share conversations about their experiences coming to the United States. Counterstories push back against the deficit lens of majoritarian stories (e.g., Solórzano & Yosso, 2002). Using methods from linguistic anthropology and narrative analysis (Blommaert, 2001, 2005, 2006), I analyze incidents of parallelism and repetition in the participants' language use and language choices. For multilinguals, repetition of words or parallelism of sentence structures has often been interpreted through a deficit lens and such analysis defies such an approach. The careful analysis of the use of discourse markers in the shared narratives highlight different counterstories within the larger narratives and reveals nuance and purpose to each discourse marker use. The findings actively contest deficit-approaches of language learning and of majoritarian stories of victimhood. Instead, poetics can reveal how multilinguals use crucial functions of repetition and parallelism to foreshadow moments of creating understanding. This approach contributes to scholarship on Latina counternarratives, multilingualism, and oral poetic methods.

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Parent report of bilingual children's proficiency predicts English skills

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Bilingual children's language development is difficult to encapsulate since bilingualism exists on a continuum of proficiency and exposure (e.g., Freeman & Schroeder, 2022). Parents are reliable sources for obtaining bilingual children's language profiles since parents observe their children across diverse linguistic contexts (e.g., Gutiérrez-Clellen & Kreiter, 2003). We examined whether parent report of bilingual children's English proficiency and exposure predicted children's English vocabulary and syntax. Thirty children, ages 3;0-5;0, were included. Participants had a general command of English and were exposed to a language other than English. Parents completed the Child LEAP-Q (Marian et al., 2007) to obtain information on children's language background. Children were administered the PPVT-5 (receptive vocabulary), EVT-3 (expressive vocabulary), SPELT-2 (grammar/syntax), and language samples. Parent report of children's English proficiency was a composite score of understanding and speaking, and English exposure was the percentage of time children were exposed to English at home (LEAP-Q). Regression analyses were conducted for each assessment, along with factors of English proficiency and exposure in separate models. Results revealed that parent report of children's English proficiency was predictive of performance on the PPVT-5 ($\beta=6.40, SE=2.12, t=3.02, p=0.004$), SPELT-2 ($\beta=7.74, SE=1.91, t=4.05, p<0.001$), Type Token Ratio (TTR) ($\beta=0.02, SE=0.01, t=3.04, p=0.003$), and marginally predictive on the EVT-3 ($\beta=3.42, SE=1.96, t=1.75, p=0.080$). Parent report of children's English exposure was predictive of performance on the PPVT-5 ($\beta=7.76, SE=1.90, t=4.08, p<0.001$), EVT-3 ($\beta=5.97, SE=1.72, t=3.47, p=0.001$), SPELT-2 ($\beta=6.40, SE=1.89, t=3.83, p=0.001$), and TTR ($\beta=0.02, SE=0.01, t=2.74, p=0.008$). Results suggest that parent report of bilingual children's proficiency and exposure reliably predicts performance on English language measures of vocabulary and syntax.

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Parental Discourse Strategies and Children's Heritage Language Development: The Case of Chinese Immigrant Families in the U.S.

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Heritage language is at the heart of immigrant families, yet children often start losing their heritage language once they begin formal education. How to support children's heritage language development thus becomes a pressing issue. Previous research indicates that parental language choice and the quantity/quality of parental language input are the major contributors to successful heritage language acquisition (Carroll, 2017; Daskalaki et al., 2020). Lanza (1992, 1997) identified five parental discourse strategies (DS)—parents' responses to the child's language switching— and argued that monolingual strategies encourage more active use of the heritage language. However, Lanza and subsequent studies focus on early bilingualism in one-parent-one-language contexts. This study extends this line of research by examining school-age children—who are at a pivotal stage of heritage language development—in immigrant families, where both parents share the same language. Additionally, it broadens the concept of DS to include not only parents' responses to the child's language switching (DS1) but also parents' responses to the child's difficulties with the heritage language (DS2). Using a sample of 13 Chinese immigrant families in the U.S., this study employs Conversation Analysis to analyze natural parent-child interaction at home. Each family was visited three times, with one hour of conversation recorded per visit. Findings reveal that, for DS1, 1) "move-on" is the predominant strategy; 2) claiming non-understanding and requesting the child to speak Chinese encourages increased Chinese use in the child; 3) providing the equivalent Chinese words/phrases helps to "bridge the gap". Parental DS2 vary greatly: some parents rarely offer help, others help complete the child's utterances, and some proactively explain terms that the child may otherwise not understand. A higher level of DS2 is found to associate with the child's more active use of Chinese.

Pedagogical Practices for English Learners Amidst Varying Degrees of Linguistic Heterogeneity

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Although there has been ample research on best practices for teaching English Learners (ELs) in the United States, prior research has given limited attention to how different classroom compositions may relate to pedagogical practices and ELs' learning. In particular, there is a need to attend to the nuances of linguistic heterogeneity in the classroom, rather than assume all EL classrooms function the same regardless of the linguistic diversity present. Using a qualitative comparative case study approach, this work seeks to answer the following questions: In U.S. secondary school classrooms serving ELs, what pedagogical practices do teachers use amidst varying compositions of linguistic diversity? How, if at all, do these teachers adapt their practices based on students' language backgrounds and different degrees of linguistic diversity in the classroom? The study examines six focal teachers from two schools with differing degrees of linguistic heterogeneity: one school with substantial linguistic diversity and one where nearly all ELs are Spanish-speaking. Exemplar cases with strong teachers were selected in order to identify effective practices. Data sources include interviews with teachers and school leaders, observations of classrooms, teacher team meetings, and professional development sessions, and classroom-based artifacts. Preliminary findings show that teachers attended to students' linguistic backgrounds when leveraging cooperative grouping strategies. For example, at times students were grouped with same-language peers in order to facilitate high-level discussion of course content in home languages. At other times, teachers purposefully formed linguistically heterogeneous groups in order to promote English production, given the role of English as the lingua franca amongst linguistically diverse students. However, heterogeneous grouping was not always feasible at the site where the majority of students shared a home language, limiting those teachers' pedagogical possibilities. By explicitly attending to diverse linguistic contexts, this work adds to understandings of effective pedagogy for ELs.

Perception of English fricative contrasts by L1 Spanish and L1 Portuguese learners

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This study examines the perception of English fricatives /s z ʃ/ among L1-Portuguese and L1-Spanish speakers, focusing on the relative perceptual sensitivity of ESL learners to the voicing (/s/-/z/) and place of articulation (/s/-/ʃ/) contrasts. While Portuguese shares with English its fricative inventory, Spanish lacks both /z/ and /ʃ/. This study explores the extent to which phonemic overlap between the L1 and the L2 enhances perceptual and word learning and whether learners are more sensitive to place than to voicing distinctions, or vice versa, when both are novel. 40 L1-Spanish speakers, 39 L1-Portuguese speakers, and 36 L1-English speakers (as “controls”) were recruited online. Participants completed an ABX task and a two-alternative forced choice task with real words. Stimuli consisted of bi-syllabic minimal pairs with fricatives in word-initial (I say sink/zinc again) or word-final positions (I say ice/eyes again). Contrast conditions included /s/-/ʃ/, /s/-/z/, and /s/-/f/ (as control). Participants also completed three English proficiency assessments, two vocabulary-size tasks and a cloze task (Lemhöfer & Broersma, 2012; Shipley et al., 2009), which were correlated with perceptual performance. Results revealed that L1-Portuguese listeners accurately discriminated fricative contrasts, showing strong sensitivity to both voicing and place distinctions. Performance in the word identification task was also high. L1-Spanish listeners, however, struggled with the /s/-/z/ contrast, with accuracy only slightly above chance, but were more accurate with the /s/-/ʃ/ contrast. The performance difference between the learner groups suggests that the phonological inventory of the L1 shapes how listeners perceive fricatives in an L2, including not only discrimination but also word learning. The findings also suggest that learners who lack both /z/ and /ʃ/ may have a harder time with one than with the other. Not all novel phonemes or phonemic contrasts are equal, and implications of these findings for theory are discussed in the presentation.

Phonetic accommodation in Hindi–English and Telugu–English early sequential bilinguals: The roles of category establishment and phonetic dissimilarity

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Research on speech changes in interaction (phonetic accommodation) has seldom examined interactions between nonnative (L2) and native (L1) speakers in postcolonial contexts [1]. This study investigates how early L2 Indian English (IE) speakers in India accommodate to General American English (GAE). Focusing on Hindi–English and Telugu–English bilinguals (HEBs, TEBs), we hypothesized that L1 phonology would influence the two groups' IE varieties, leading to group differences in accommodation to GAE. We focused on four IE variables that are produced differently by HEBs and TEBs: /s/ and /z/ (contrastive in Hindi), and /l/ and /ɭ/ (contrastive in Telugu). In IE, HEBs' /s/ is more dissimilar from GAE /s/ than TEBs' /s/ is [4,5]. Furthermore, HEBs' IE /l/ is consistently clear [l], whereas TEBs produce clear [l] word-initially and retroflex [ɭ] word-finally [2,3]. In GAE, /l/ is typically clear [l] word-initially but dark [ɫ] word-finally. We are testing how 50 HEBs and TEBs accommodate to a GAE interlocutor in a shadowing task, with 6 items per variable and 3 repetitions per item. Data collection is ongoing, and acoustic analysis will focus on the centroid in target /s/ and /z/ and the first three formants in word-initial and word-final target /l/. Based on evidence that dissimilarity vis-à-vis an interlocutor enhances accommodation [1], we expect participants without a distinct /z/ in IE (i.e., TEBs) to accommodate to GAE /z/ more than participants who already have /z/ but expect HEBs to accommodate more to GAE /s/ than TEBs. Along similar lines, we expect participants whose word-final /l/ is more dissimilar from GAE [ɫ] (i.e., HEBs) to accommodate more to GAE [ɫ].

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Phonological acquisition of early bilinguals in sub-Saharan French speaking areas

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The phonological analysis of early bilinguals sub-Saharan speaking French (dominant language) and a Cameroonian language aimed at proposing a knowledge standard of this understudied population. From 130 children, data was collected using a standardized tool. The evaluation focused on the sounds production and the auditory discrimination of phonological contrasts in French. Generally, more than 90% of children have acquired most consonants and vowels, 80% of the consonant groups evaluated. However, only 70% discriminated against most phonological contrasts, while more than 90% perceived many of the phonological similarities evaluated very well. There was no significant difference according to age or sex, but rather according to SES. The correlation between production and discrimination is weak, about 0.2. The discussion focuses on the link between sound production and perception, comparison with other Francophones, and the impact of the multilingual environment.

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Please submit a 300-word ab[i]stract or ab[u]stract? Investigating individual differences in phonological repair strategies in Brazilian Portuguese-Japanese bilinguals

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This paper explores individual variation in phonological repair strategies in simultaneous bilingual speakers of Brazilian Portuguese (BP) and Japanese. Both languages have a phonological repair strategy that involves vowel epenthesis in illegal consonant clusters (1), but whereas Japanese typically inserts /u/, BP inserts /i/. The English word ‘laptop’, for example, is produced as /rap:uɔp:u/ in Japanese and as /lɛpitɔpi/ in BP. The questions here are: i) Do bilinguals apply these repair strategies separately in each language; or does one language’s strategy spill over into the other? ii) Does language dominance predict the likelihood of any cross-linguistic spillover? Speech data was analyzed from 22 adult BP-Japanese simultaneous bilinguals in Japan. Language dominance was calculated using the LHQ3 (2). Participants completed a multisyllable concatenation task to elicit vowel epenthesis in illegal consonant clusters. They heard a stimulus, e.g. /ag/, followed by a 500 ms pause and a second stimulus, e.g. /bo/, and were asked to produce the resulting nonce word in a Japanese or Portuguese carrier sentence. Acoustic analyses determined the presence and type of epenthetic vowel. A Bayesian model predicting the likelihood of /i/ or /u/ epenthesis revealed that speakers were likely to apply each language’s strategy separately, producing /aguɔbo/ in the Japanese sentence and /agiɔbo/ in the BP sentence. However, individuals who were more dominant in BP were likelier to apply the BP strategy even in Japanese sentences. This suggests that individual factors like language dominance have on quite implicit aspects of speech production in highly proficient simultaneous bilinguals.

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Predictability cues in bilingual language switching: a neurocognitive investigation

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The present study integrates psycholinguistic, cognitive, and neuroscience perspectives by combining behavioral and electrophysiological measures to advance existing knowledge on the consequences of bilingualism. The bilingual brain is constantly interacting with and adapting to the demands of the communicative context. Heritage speakers, who often maintain connections to their heritage language and navigate dual-language environments daily, serve as an ideal bilingual phenotype to study cognitive adaptation and neuroplasticity. In a recent study (1), we found that a sample of heritage speakers of Spanish who have generally become dominant in English, relied on cognitive control strategies differently to regulate each language. Findings revealed that engagement of proactive control was associated with decreased lexical production accuracy, but only for participants in an experimental context in which naming occurred first in Spanish before switching to English. Similarly, slower Spanish reaction times were observed for more proactive speakers. In the next stage of this project, we will measure EEG to further investigate this relationship and to study the role of cues and predictability. In this experiment, Spanish-English heritage bilinguals read mixed-language paragraphs in which language switches are either cued predictably or occur unpredictably, simulating real-life language use. By recording EEG, we expect to identify neural markers of language control under different levels of predictability in language switching, potentially observing different cognitive responses to controlled versus spontaneous language switches, decreased activation as adaptation unfolds, and correlations with individuals' switching experience. Using language-switching paradigms, we aim to observe the neural activation patterns and temporal dynamics of adaptation associated with bilingual control. Findings from this investigation will deepen our understanding of neurocognitive adaptation in bilingual contexts and long-term neural health benefits across the lifespan.

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Predictive Processing of Structural, Lexical, and Inherent Cases in L2 Learners of Russian

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This study investigates whether L1 English L2 Russian learners use case to predict upcoming information in real-time sentence comprehension, focusing on Accusative, Instrumental and Dative cases. Previous studies found that L2 learners do not generally use case as a predictive cue (e.g., Mitsugi & MacWhinney, 2016), unless they have very high proficiency, and case is present in both their L1 and L2 (Hopp, 2015). We hypothesize that L2 learners will rely on word order as a cue for comprehension and will not use case predictively, regardless of proficiency level or the specific cases acquired. The study consists of three tasks. Task 1, a self-paced reading Acceptability Judgment task, looks into which cases L2 learners have acquired. Participants read sentences with either correct or incorrect uses of case and rate them from 1-6. This task will help ascertain whether there is a correlation between cases acquired (Task 1) and the use of those cases as cues for comprehension and predictive processing (Task 3). Task 2, a Word Picture Matching Task using eye-tracking, examines predictive processing with low task demands. Participants hear four words while viewing 4 pictures on a screen and are asked to click on the picture that matches the fourth word as quickly as possible. Task 3, a Picture Matching Task using eye-tracking, assesses whether participants can adopt the strategy of using case, not word order, as a cue for sentence comprehension and predictive processing. Participants hear sentences with varying word orders and cases and match each sentence to one of two action pictures. If learners rely on English word order, accuracy should be higher only in canonical word order. If they use case for predictive processing, fixation proportions to the target picture should be higher before hearing the final noun in both word orders.

Preliminary data from Mother Tongues: An ultrasound and acoustic investigation into speech production in bilingual infants and toddlers

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When and how do bilingual babies produce their two languages separately? For this pilot study, the specific research questions of Mother Tongues were: (1) Can ultrasound tongue imaging be used to examine tongue postures and gestures in bilingual children 0-2 years of age? (2) How and at what age do such bilingual children produce language-specific speech articulations? Although ultrasound tongue imaging has been used in several studies to examine infant tongue movements during breastfeeding (Douglas & Geddes, 2018), it has only recently been used to investigate monolingual speech articulation in children younger than 2 years old (Belia et al., 2024: 14 months, n=1; Song et al., 2013, 24-30 months, n=5). So far, we have collected data from 14 children in age from 7-37 months (n=5:7-14; n=4:17-23; n=5:25-37 months). Parent A elicited data in Block 1 in Language X and Parent B elicited data in Block 2 in Language Y. Audio recordings occurred before ultrasound imaging, each for approximately 10 minutes (total experiment = 60-90 minutes). Initial results show that per child in each block a mean of 465 seconds (SD:141) of ultrasound data were collected; of the former, a mean of 78 seconds (SD:124) of usable ultrasound data were collected, in line with comparable ultrasound tongue imaging studies (e.g. Song et al., 2013: 24 tokens per child). Of the usable ultrasound data, an average of 16% (SD:19%) contained co-occurring child vocalisations, whilst an average of 84% (SD:19%) contained no child vocalisations. The ultrasound data with no co-occurring child vocalisations have the potential to reveal “hidden” tongue postures and gestures which are only observable through ultrasound tongue imaging but not evident in the acoustic signal. This study confirms the validity of ultrasound as a tool to investigate language-specific speech articulations in bilingual children 0-2 years of age in future analyses.

Presupposition Sensitivity in Monolingual Turkish and Bilingual Turkish-German Speakers

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Presuppositions (henceforth PSPs) are a core phenomenon of the semantics/pragmatics interface. While the scientific discourse has been primarily concerned with English and other Indo-European languages, little is known about the broader cross-linguistic picture. In general, the investigation into universals and parameters of variation, especially in the realm of pragmatics, still has a lot of field to cover (cf. von Stechow and Matthewson 2008, Beck 2021). This is even more true for bilingual grammar. The current study aims at reducing the paucity of research in presuppositions in bilingual grammar by investigating the acceptability of three Turkish presuppositional triggers *yine* ('again'), *hala* ('still') and *de* ('also') in differing contexts in mono- and bilingual speakers. Critically, it aims to investigate whether PSPs are functionally the same in Turkish and German. No differences are expected between Turkish and German, because the lexically triggered PSP in both languages is hypothesized to be the same. However, there is preliminary evidence that monolingual and bilingual grammar might differ with respect to PSPs. Berezovskaya, Beck and Hörnig (2023) found differences between monolingual Turkish and bilingual Turkish-German speakers in an exploratory study concerned with correlative constructions in Turkish. Participants judged to what extent a target sentence was acceptable in a given context, on a scale from 1 (= completely appropriate) to 5 (=completely inappropriate). A main effect of the three-level factor context (where (i) the assertion and the PSP were both true, (ii) the assertion was true, but the PSP was violated or (iii) both the assertion and the PSP were false) for triggers *yine* and *hala* was found. This result is surprising if we assume that presupposition triggers in Turkish and German give rise to the same PSPs in both languages. The current experimental study sets out to replicate this investigation more systematically explaining the results.

Priming as a testing ground for the influence of the L2 on L3 acquisition

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Structural priming is the speaker's tendency to repeat a grammatical form upon hearing it. Priming effects can also occur across languages, which is often taken as evidence that linguistic representations are interconnected across languages (e.g., Hartsuiker et al., 2004). To our knowledge only one study has used this methodology to investigate links between learners' L2 and L3 (Hartsuiker et al., 2016). Moreover, although priming has been claimed to underlie not only implicit processes, but also explicit ones (e.g., Kootstra & Muysken, 2019), existing L2 research has investigated priming mainly in terms of implicit learning (see Jackson, 2018). We aim at filling these research gaps by testing German learners of L3 Italian to investigate a) whether priming of motion event constructions (Talmy, 2000) can occur from the L2 (English) to the L3 (Italian), and b) whether priming boosts explicit learning mechanisms. We present the design of a work-in-progress L2-to-L3 priming study with a pre-posttest design testing the effects of a priming intervention on cross-linguistic awareness of the L3 target structure.

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Promoting Bilingualism through Secondary School: a Plea for Well-developed CLIL Education

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Since a few years, Ghent University (Ugent; Belgium) has started a training programme for future CLIL teachers, “CLIL” standing for “Content and Language Integrated Learning”, a bilingual approach to language teaching. Our teacher training programme at master level is the only one of its kind in the Flemish educational landscape, which so far only offered programmes to bachelor teacher training students, who traditionally choose 2 subjects, usually a language and a “content” subject. There is a solid legal framework in place (Coyle e.a. 2010, Ball e.a. 2015) and a very large number of Flemish schools have already started a CLIL programme. But if we want to make CLIL a great - and above all a lasting - success, we also need (more) qualified teachers. For this purpose we have created a two-part program: the first course, called "Theory and practice of Content and Language Integrated Learning", teaches future teachers the basics of CLIL didactics. The second part, "Language proficiency", focuses on didactics in the foreign language (French, English or German, in accordance with Flemish legislation). Our program can be called a success, with students from various faculties finding their way to CLIL. Satisfaction surveys measured the opinions of the students, who appear to be very satisfied. After outlining the legal framework in the Flemish community, we will present an outline of the two courses, in the hope of stimulating discussion between participants, as a moment of reflection about bilingualism in general, and in function of quality assurance of CLIL teacher training in particular.

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Ball, Ph., Kelly; K. & J. Clegg (2015) Putting CLIL into Practice. Oxford Handbooks for Language Teachers.

Recruitment of reactive and proactive cognitive control to negotiate activation in language production

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Bilingual speakers engage language control mechanisms in order to switch between languages. These language control mechanisms may include reactive and proactive control tapped respectively by switching and mixing costs. In the current study, we examine to what extent domain-general cognitive control might modulate bilinguals' ability to engage such language-control mechanisms with a language switching task in which 60 Hebrew-English bilingual adults will name 30 pictures across single-language and mixed-language blocks. We will also examine non-linguistic reactive and proactive control using the AX- Continuous Performance Task (AX-CPT, e.g., Braver, 2012). Further, we compare the performance of two groups of bilinguals, with and without Attention deficit hyperactivity disorder (ADHD), matched on Hebrew and English language proficiencies, measured with self-ratings and objective tests using picture naming (the Mint-Sprint 2.0; Gollan et al., 2024) and Lexical Decision tests (Hoversten et al., 2017; Neveu et al., submitted; Siegelman et al., in prep). Because bilinguals with ADHD have weaker domain general cognitive-control relative to their peers we predict that they might differ in their language switching performance, and in the recruitment of reactive and proactive control. Results will elucidate the link between domain-general and language specific control mechanisms and will increase our understanding of the control network engaged by bilinguals to negotiate cross-language activation.

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Replication of Thierry & Wu (2007): Unconscious translation in bilingual language processing

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Considerable research has supported the nonselective access hypothesis that bilinguals automatically activate multiple languages in parallel during language processing. One prominent study (Thierry & Wu, 2007, PNAS, 104) provided evidence that bilinguals unconsciously translate words into their first language while processing their second language. Late Chinese-English bilinguals performed a semantic judgment task on English word pairs that contained a hidden character repetition when translated into Chinese. This implicit repetition attenuated the N400 response in the event-related potential (ERP) signal in Chinese-English bilinguals but not in English monolinguals. While this finding provides some of the strongest support for nonselective access, previous studies have shown inconsistencies in the magnitude and direction of implicit translation effects (Thierry & Wu, 2004, NeuroRep, 15; Wu & Thierry, 2010, J. Neuro, 30), and the effect has not yet been replicated by an independent group of researchers. We therefore set out to conduct a pre-registered, high-powered replication of this influential finding using the same stimuli and experimental procedure. We have collected half of the planned sample size of 60 Chinese-English bilinguals and 60 English monolinguals to date. Data collection and linear mixed-effects analyses on mean N400 amplitudes in the full sample size will be complete by June 2025. To constitute a successful replication of the original findings, analyses should produce a significant interaction between implicit character Repetition (repeated vs. unrepeated) and Group (bilingual vs. monolingual) at a significance threshold of $p < .05$. This finding would support a key claim of the non-selective access hypothesis: that bilinguals automatically access native language translations when processing in a second language. We will discuss the implications of replication success or failure of the original study to bolster the empirical foundation for debates regarding bilingual language control.

RESOLUTION OF ANAPHORIC DEPENDENCIES OF PRONOUNS IN L3 ACQUISITION

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L3 studies that investigate real-time processing are scarce, especially on interface properties (Slabakova & García Mayo, 2015). Addressing this gap, we explore how L1-Japanese L2-English L3-Mandarin speakers resolve anaphoric dependencies of Mandarin third-person pronouns in contexts where both coreferential and disjoint readings are grammatical. We use Mandarin temporal biclausal sentences as (1).

(1) Dang Bill kan zazhi de-shihou, ta zai-chi xiangjiao.

When Bill read magazine at-time he eat-PRG banana.

"While Bill reads a magazine, he is eating a banana."

L1 research showed that L1-Mandarin and L1-English speakers accept coreference between pronouns (he) and sentence-internal antecedents (Bill) (Lust et al., 1996), while L1-Japanese speakers reject this (Nagano, 2015). L2 research has shown L1 influence on anaphora resolution (Zhao, 2014). Therefore, in L1-Japanese L2-English L3-Mandarin speakers (L3), if influenced by L1-Japanese, we predict lower acceptance of coreference in Mandarin than L1-English L2-Mandarin speakers (L2). We use offline and online tasks with L2- and L3 groups. The offline task gives contexts with two gender-matched entities such as 'John and Bill are going to Beijing by train' for (1), and probes pronoun antecedents from sentence-internal (Bill), sentence-external (John), or 'either' (Bill or John). The online task is a time-course-sensitive reading task called the Maze (Forster et al., 2009) that asks participants to complete each sentence by choosing one word from two options at each sentence position. Reading times at main subject pronouns are compared between disjoint-encouraging and coreference-encouraging contexts. Results to date for 13 L2-Mandarin and 20 L3-Mandarin speakers are as follows: L2: 66% selection of sentence-internal antecedents (coreference-only); shorter reading times in coreference-encouraging contexts than disjoint-encouraging contexts ($p = .013$). L3: 23% selection of sentence-internal antecedents (coreference-only); mixed reading time performance. This may suggest cross-linguistic influence from L1-Japanese on L3-Mandarin speakers' coreference acceptance. We explore this result in relation to L3 models.

Returnees are on the native speaker continuum too! A study of individual differences in L2 attrition

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The study explores the impact of extralinguistic factors, including the age of return, language use and attitudes on the processing of L2 collocations among an understudied group of returnees, namely Saudi Arabian heritage speakers and returnees. The novelty of our approach is that we focus on L2 attrition rather than L1 attrition. We examine the performance of returnees who returned to their country of origin at different ages and a group of adult HSs. Receptive and productive knowledge of English collocations was measured with a novel online acceptability judgement task and an online gap-filling task. Spearman correlations were used to analyse the data and mixed-effect modelling analysis was employed to further investigate the data. We found that the age of return and the length of residence in Saudi Arabia significantly influenced the performance of returnees, particularly in the productive task. However, on the receptive task, bilinguals' higher accuracy and faster reaction times were strongly linked to their English attitudes for both accuracy and speed. Our analysis suggests that returnees, as a subset of heritage speakers, should be considered as being on the native language continuum too.

Robust cross-language phonological facilitation across modalities: evidence from Spanish-LSE bilinguals

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Cross-language effects refer to the concurrent activation of a bilingual's two languages when they are only listening to, reading, or speaking one of them. These effects have also been found in bimodal bilinguals who know two languages from different modalities: spoken and signed. This shows that languages do not need to belong to the same modality for one to co-activate the other. The goal of this project was to research phonological cross-language effects in word production in bimodal bilinguals. We carried out two Picture-Word Interference (PWI) tasks: one with 27 Spanish-Basque unimodal bilinguals and another with 29 hearing Spanish-Spanish Sign Language (LSE) bimodal bilinguals. In this task, participants name a picture while ignoring a superimposed written word. For both groups, the written distractor word was in Spanish; the unimodals named the target picture in Basque, while the bimodals did so in LSE. The picture and the word were either unrelated or phonologically related through translation (the Spanish distractor word was phonologically related to the Spanish translation of the target picture). In the bimodal group, we found a facilitation effect: participants responded faster when the target picture and the distractor were phonologically related through translation than in the unrelated condition. These results support the view that bimodal bilinguals co-activate words when they produce signs, causing a priming effect. In contrast, we found no facilitation (or interference) effect in the unimodal group, suggesting that participants suffered competition that offset any phonological facilitation (in line with previous studies). The lack of such competition in the bimodal group supports the notion that this cross-language competition takes place at a late postlexical stage that does not occur when languages have different articulatory systems.

Saying a snail instead of a turtle: Picture naming errors in Polish-Norwegian bilingual children aged 3 to 6 years

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Picture naming errors can provide clues about how children organise their growing vocabularies and indicate the semantic connections available in their mental lexicon, for example when a child says 'a snail' for a picture of a turtle. The question of the organisation of the mental lexicon may be especially interesting in bilingual children since two languages may interact with each other and language dominance may influence the pattern of naming errors in a given language. However, we lack studies that compare picture naming performance in both languages of a bilingual child, as well as in comparison to their monolingual peers. This study aims to investigate the patterns of picture naming errors made by Polish-Norwegian bilingual children and their monolingual Polish and Norwegian peers. The study includes data from 59 Polish and 59 Norwegian monolingual children and 59 bilingual Polish-Norwegian children aged 3 to 6 years. Children were assessed with Cross-Linguistic Lexical Tasks (CLTs). Here, we include the naming part, in which they named actions and objects in Polish, Norwegian or both (in the case of the bilingual group). The coding of naming errors will include: semantic errors, non-semantic errors, omissions, and language-switch errors. We expect that the patterns of errors will be different in L1 and L2, with a prevalence of omissions and relatively fewer semantic errors in a weaker language. We also expect that more exposure to a language will lead to fewer omissions and a prevalence of semantically related responses in the overall pattern of errors. The data has been collected and coding will be completed in early 2025. The study will be important in showing typical patterns of naming errors in bilingual children, taking into account their exposure to L1 and L2, and allowing us to investigate how children organise their growing vocabularies in both languages.

Second Language Acquisition of Minoritized Languages: Case Study of Spanish in the United States

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Language ideologies continue to be a prominent subject in Spanish linguistics (Carreira 2011). They influence not only the identity of the speaker, but also their confidence in their own skills in navigating the language. Individuals who are learning a new language experience different levels of success in their target language due to their preexisting language attitudes. For example, monolingual students with ideologies such as "One Nation, One Language", would have a predetermined attitude towards their target language, which would make it harder for them to successfully acquire the second language. Public awareness around languages in the United States is centered around monolingualism, which is directly tied to the nationalist ideologies that are present in the country, despite it being a multilingual, multiethnic nation (Valdés et al 2003). American language ideologies showcase, on a bigger scale, which language ideologies are prominent on the individual level. This study found that while most participants rejected the concept of "correct" English (88.8%), they were more likely to believe in "correct" Spanish, with 78% feeling their Spanish wasn't as good as that of native speakers. The research revealed a significant disconnect between classroom Spanish and real-world usage, with motivations ranging from career advancement to cultural connection. Departing from the frameworks of Valdés (2003), Kroskrity (2004), and other sociolinguists, I will focus on language ideologies' impact on the acquisition of the Spanish language. By evaluating a survey of students with no prior background in Spanish who are learning the language, I will examine the impact of language ideologies on language proficiency and success in the target L2, Spanish.

Self-evaluations and the language of the beholder: Examining how objective performance and language solidarity predicts L2 and L1 self-evaluations in French-English bilingual adults.

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Bilingualism research relies upon self-evaluation data to quantify people's language habits, proficiency, and experience. However, language self-evaluations can deviate from objective reality for numerous reasons, including people's attitudes about themselves, others, and the languages in question. Here, we investigate this issue by examining how people's self-reported language solidarity modulated the expected relationship between self-evaluations and objective language performance (i.e., LexTALE) for both the L2 and the L1 (Hernandez-Rivera et al., 2024, <https://doi.org/nrvz>). Moreover, we assessed how this impact varied for two different kinds of self-evaluations — value-laden self-evaluations (e.g. how “good” am I at my L2) vs. usage-based self-evaluations (e.g. how often do I use my L2) — for two sociolinguistically distinct groups (i.e. English-L1 vs. French-L1 bilinguals residing in Montreal, n=62). Overall, language solidarity modulated speakers' value-laden self-evaluations in a manner that differed for English-L1 and French-L1 speakers, whereas usage-based self-evaluations were less subject to such effects. Specifically, English-L1 speakers' value-laden self-evaluations underestimated their objective L2-French performance (LexTALE) as L2-French solidarity decreased (English-L1 speakers with higher L2-French solidarity had more accurate value-laden self-evaluations). However, French-L1 speakers' value-laden self-evaluations more accurately estimated their objective L2-English performance as L2-English solidarity decreased (French-L1 speakers with higher L2-English solidarity underestimated their abilities). In contrast with value-laden self-evaluations, participants' usage-based L2 self-evaluations more accurately reflected their objective L2 language performance, in a manner that was less affected by individual differences in language solidarity or sociolinguistic group. This finding was further affirmed by a tighter coupling between L1 usage-based evaluations and L1 objective LexTALE performance scores, compared to a looser coupling for L1 value-laden self-evaluations. Collectively, these data suggest that some self-evaluation measures are subject to attitudinal biases that vary for sociolinguistically distinct groups (e.g., value-laden measures). However, they also suggest that some self-evaluation measures are more resistant to such biases (i.e., usage-based measures).

Self-reported language practices of bilingual couples speaking a lingua franca: An attempt at creating a typology

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This study explores bilingual couples speaking Lingua Francas (LF). Data were collected through in-depth interviews from couples using different types of a third language for their daily communication: (a) English, (b) other natural language, and (c) an artificial language, Esperanto. For each LF type three couples were interviewed. The study has been based on typological representativeness. The main aim was to find out if there exists an interrelation between a specific type of a LF and language practices as reported by those couples, with a special reference to language choice, LF use, and its maintenance. This has permitted to create a typology of these couples' LF practices. The typology set out differences between the three LF categories, but more importantly it also revealed specific universals of bilingual couples speaking any LF. Theoretical framework for this study benefits from the holistic view of bilingualism (Grosjean) and the Dynamic Model of Multilingualism (Herdina and Jessner) as both theories relate to bilinguals in close relationships and accentuate the ever-changing nature of multilingualism. This study aims to add to our understanding of private discourse between partners who have different first languages and use a third language as a LF. The study intends to underscore the importance of integrating the study of private discourse into multilingual research by shedding more light on multilingual proficiency and the gains and losses of becoming a multilingual speaker. The overall results aspire to contribute to the ongoing discussion of bilingual practices at home, the research on bilingual couples, but also, more generally, to the fields of multilingualism, family language policy, and second language acquisition.

Semantic Network Representation as a Measure of Bilingualism

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This study proposes a novel approach to measuring bilingualism through semantic network representation, offering a more dynamic and nuanced measure of bilingual cognitive engagement than traditional metrics. Semantic networks, which model how words and meanings are stored as interconnected nodes, align closely with the mental lexicon's structure, where language processing relies on associative connections. By examining network density, clustering, and connectivity within bilinguals' mental lexicons, we can evaluate the extent of language integration and cross-language processing. This approach could redefine bilingual categorization, capturing the complexity of bilingual cognition and its relationship with executive function (EF). We hypothesize that bilinguals with denser, highly interconnected lexical networks exhibit enhanced executive function performance, particularly in tasks requiring inhibition, switching, and updating. To test this, we recruited two groups of bilinguals: professional interpreters who regularly engage in high-frequency language switching and non-interpreter bilinguals of similar proficiency but without interpreting experience. Participants completed a word association task in both languages to construct individual semantic networks and an EF assessment encompassing inhibition (Flanker task), switching (task-switching paradigm), and updating (N-back task). Results are expected to show that interpreters have denser, more clustered networks and outperform non-interpreters on EF tasks, supporting the theory that frequent language switching enhances cognitive flexibility. Additionally, network properties, such as density and clustering, are anticipated to predict EF performance. This semantic network approach could revolutionize bilingualism research by shifting from traditional categorization to a framework that directly reflects bilingual cognitive engagement. The findings have the potential to resolve debates on bilingual advantage, promoting a refined understanding of how bilingual experiences shape cognitive function and attentional control.

Shaping Bilingual Minds in Early Childhood: Insights From the B-Minds Project

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Recent neuroscientific evidence suggests that the earlier in life the exposure to a foreign language (FL) begins, the greater the benefits that can arise from it. Thus, it is not surprising that the demand for FL programs in early educational settings has increased in the last decades all over the world, and Portugal is not an exception. Evidence for the effects of this early exposure on children's language skills and cognitive development is however scarce. Note that the studies conducted so far, supporting the idea that early FL exposure is beneficial, relied essentially on studies conducted with children raised in bilingual families. Thus, it is unclear whether the same results can be found when such exposure occurs in early childhood educational settings, namely in children attending infant centres targeting children below 3 years of age. Here we present the results of the B-Minds project, a three-year project aimed at assessing the effects that exposing 04-36 months children to English as FL has on several linguistic (both native and FL) and other cognitive measures (executive functioning) collected from the same children in both nursery and preschool settings. Children, recruited from a private infant centre in Porto (Portugal) were exposed to English as FL since the first-months (04-12 months), the first-year (12-24 months) or the second-year (25-36 months) of life through an FL programme where English is not explicitly taught by any English teacher specifically hired for that purpose, but instead used as a vehicle of communication in the daily routines led by children's Educators for approximately 50% of the time. Results were analysed attending both to FL exposure onset and intensity of FL exposure, but also by comparing these results with those obtained by preschool children who were not exposed to English as FL in the first three years of life.

Social-emotional wellbeing of Russian young bilinguals growing up in different language learning contexts in France

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Research examining the connection between language factors and the wellbeing of bilingual children and teenagers (e.g., Müller et al., 2020) suggests that proficiency in all languages, societal (SocL) or non-societal (Non-SocL), influences children's wellbeing. Dual language proficiency enables bilingual children to communicate easily within and outside the home, foster family cohesion, bond with peers and, overall, experience harmonious bilingual development (De Houwer, 2020). However, children acquire languages in different linguistic environments, with a major distinction between those who hear two languages from birth (Bilingual First Language Acquisition, BFLA) and those who learn their second language through childcare or preschool (Early Second Language Acquisition, ESLA). ESLA bilinguals who do not speak well the SocL can experience difficulties when entering (pre)school. Conversely, children in a BFLA setting who do not master the Non-SocL spoken by one parent may face challenges in family communication. Our study explores the social-emotional wellbeing of young children comparing these two acquisitional trajectories. Data were collected in France from 48 5-year-olds who all heard Russian from birth, among which there were 37 BFLA children who also heard French from birth, and 11 ESLA children encountered French in preschool. Data on demographic and linguistic profiles were gathered from both parents through online surveys. The Strengths and Difficulties Questionnaire (Goodman, 1997) was used as an operationalized measure of parental views of children's social-emotional and behavioral skills (SEBS). The ordinal logistic regression used for our sample shows that bilingual learning context is not a significant predictor of SEBS. Age and sex are better predictors: older children and girls, rather than boys, had better-perceived social-emotional well-being. However, fathers in ESLA families were more likely to perceive behavioral difficulties for their children than BFLA fathers, highlighting the importance of considering both parental perspectives in assessing children's wellbeing.

Speaker perceptions of code-switching practices and metalinguistic commentary on bilingual speech

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The scholarly field of code-switching, hereafter CS, is known for long-running debates over code-switching terminology: how do we name multilingual practices and how do we make sure not to misrepresent the way that multilingual speakers use their languages in interaction? In our paper, we turn to the language users to consult their opinion on the definitions and perceptions of CS. Our claim is that the speaker perceptions can be strikingly similar when comparing the reports of those “mixing” Finnish and English on the one hand and Basque and Spanish on the other hand. The metalinguistic commentary on bilingual speech is examined in two very different sets of data from the North-East and South-West corners of Europe: in a digital corpus comprised of 27 000 Finnish matriculation exam essays on the topic of languages, mother tongue and multilingualism, and in a Basque ethnographic interview data comprised of 12 hours of recorded and transcribed metalinguistic commentary on bilingual speech. In these two sets of data, we examine

- how the variety is named (e.g. hybrid forms composed of the names of a lingua franca and a local language “Finglish” and “Euskañol”)
- how CS styles are described (from “mixed” to “intertwined” and from “borrowing” to “intruding”),
- how the language users see the (dominance) relations between the two languages,
- and how metalinguistic awareness is expressed (mixing languages as problem-solving or mixing languages as failing memory).

Despite of the many similarities, this multi-site analysis also discusses the differences in metalinguistic practices between the data. The participation framework and the recipient design typical of each genre, a high stake written exam and an ethnographic interview, account for most of the differences, showing that metalanguage and genre, closely intertwined, affect the reports of speaker perceptions.

Speaking (of) the unspeakable: Advanced Spanish university students' use of swearing in L1 Spanish and L2 English

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Swearing entails the employment of taboo language to display emotions and convey them to interlocutors, fulfilling both intra and interpersonal functions (Stapleton et al. 2022). Swearwords can manifest auto-cathartic or targeted emotional states serving an expletive function, or act as emphatics aimed at boosting the expressiveness of linguistic items (Allan, Burridge 2009). Findings from previous contributions on self-reported use and perception of the emotional weight of L1/L2 swearwords indicate that bi/multilinguals generally attribute to L2 swearing expressions a weaker emotional force, leading speakers to swear more frequently in their L1 (Dewaele 2018). However, research on how L2 learners employ swearing in the target language is scant. To address this issue, this study aims to investigate the frequency of L1 and L2 swearing among 34 advanced Spanish university students of L2 English. It also seeks to examine which categories of swearing (McEnery 2006) are most frequent in respondents' L1 and L2. Participants completed two fill-in-the-gap Discourse Completion Tasks – in L1 Spanish and L2 English. Each task consisted of 12 prompts containing blanks to be filled with an appropriate expression. Unlike previous studies, results suggest that swearing in L2 English is not less frequent than in the same respondents' L1 Spanish. The analysis of the 10 most frequently occurring swearing expressions reveals a key difference. Whilst the L1 list contains no abusive forms, the L2 English list includes two. Overall, expletives and emphatic adjectives stand out in both languages. However, frequencies in the L1 are slightly higher in the case of emphatic adjectives. As Spanish allows both pre- and post-nuclear noun modification (López, Manzanares 2000), it may be posited that the greater flexibility of Spanish for these constructions favours their greater use. The results will be discussed with reference to previous research findings as well as specific preferences in different linguacultures.

Students' listening comprehension in EMI university lectures: Real-time monitoring from a complex dynamic perspective

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Research shows that listening is the most difficult skill to develop in an additional language. As English medium instruction (EMI) forms an increasingly significant part of the multilingual university landscape, this issue gains particular urgency. Our study zooms in on the dynamic nature of listening comprehension in EMI lectures in Swedish universities from a complex dynamic perspective (hereafter CDST; e.g., Larsen-Freeman, 2022). How do multilingual students experience and adapt to the lecturer's speech? What insights can be gained from applying a CDST perspective to analyze students' listening comprehension? The study is part of the ReMoDEL project that utilizes an idiodynamic model for data collection and analysis (Ducker 2022, 2024). Listening comprehension is assessed moment-by-moment during lectures via a footpedal, which pinpoints instances of non-comprehension in real time. Combined with stimulated recall interviews, this method offers a more nuanced understanding of when and why comprehension difficulties arise. In line with a CDST perspective, '(non)comprehension' is understood broadly and is analyzed based on a taxonomy involving various factors: top-down, bottom-up, affective, multimodal, and environmental (Siegel et al, under review). The data were collected from 4 lectures in 4 disciplines and involved 12 participants of different genders and L1s. With few exceptions, the study participants experience and report different moments of and reasons for non-comprehension. From a CDST perspective, English – its structural variety and its function as a lingua franca – is a key agent in the complex system. Its reception by the student audience is not homogenous. Even the use of a standard (near)native variety is experienced very differently depending on the initial conditions of students (e.g., recognizing key phonological features as in stool vs scale; or rhetorical questions). The heterogeneity in the initial conditions along both language and content dimensions results in different dynamics of listening comprehension and different emergent behavior.

Subphonemic sensitivity helps foreign language learning when exposure to the target language is limited

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Listeners differ in how sensitive they are to subphonemic differences (Kapnoula et al., 2017), with higher sensitivity reflecting more gradient perceptual encoding of acoustic cues, likely due to weaker perceptual warping around the category boundary (Kapnoula & McMurray, 2021). Previous work suggests that maintaining subphonemic sensitivity is linked to better foreign language learning (Kapnoula & Samuel, 2024). However, it is still unclear whether and how subphonemic sensitivity interacts with overall exposure to a language. To address this, we recruited 194 Spanish/Basque native speakers and collected measures of subphonemic sensitivity, as well as proficiency in and everyday exposure to a foreign language (English). Overall, there was no correlation between subphonemic sensitivity and exposure. As predicted, we observed a positive link between native-language subphonemic sensitivity and English proficiency. Critically, this link was modulated by degree of exposure to English: When split by exposure, the advantage of subphonemic sensitivity survived only for participants with a low degree of exposure to English. This pattern suggests that higher subphonemic sensitivity facilitates foreign language learning during early stages of learning, but more extensive exposure to the target language can make up for the lack of subphonemic sensitivity.

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Kapnoula, E. C., & Samuel, A. G. (2024). Sensitivity to L1 subphonemic differences predicts vocabulary size in a foreign language. *Language Learning*, 74(4).

Kapnoula, E. C., Winn, M. B., Kong, E. J., Edwards, J., & McMurray, B. (2017). Evaluating the sources and functions of gradiency in phoneme categorization: An individual differences approach. *Journal of Experimental Psychology: Human Perception and Performance*, 43(9), 1594–1611.

Surveying the willingness to use feminine forms of professional titles: an inquiry among Polish monolingual and bilingual women

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In the ongoing discourse surrounding the nomenclature of female professionals and high-ranking individuals, particularly about the creation of feminine forms, the question arises as to how one should address women in positions of authority and professions traditionally associated with males. This linguistic debate is inherently intertwined with broader discussions on gender equality, emphasizing the necessity of ensuring the well-being of all individuals and preventing the marginalization of any social group. This study examines the willingness of Polish monolingual and bilingual women to use feminine forms of professional titles, such as *nauczycielka* (female teacher) or *psycholożka* (female psychologist), in a linguistic and cultural context. The research explores attitudes toward feminine usage, particularly in a society where such forms have recently sparked debate and varying acceptance. The study hypothesizes that language exposure, particularly bilingualism, may influence openness to feminines, potentially due to cross-cultural awareness or different linguistic norms encountered in other languages. A survey method was employed, collecting quantitative data from both 300 monolingual and bilingual women, assessing factors such as perceived professionalism, comfort, and the social acceptability of feminines. The results indicate that overall, the use of feminines is not popular among Polish women regardless of their origin, education and age. Hence, the research findings highlight tendencies that run counter to linguistic inclusivity and the promotion of gender equality in language. Nevertheless, findings indicate a difference between the groups, with bilingual women showing a higher inclination to adopt feminine forms, possibly influenced by exposure to languages with a more established tradition of gendered occupational terms. Monolingual respondents exhibited mixed attitudes, often citing tradition or professional standards as reasons for preferring neutral forms. This study sheds light on the complex interplay of language, culture, and gender in professional settings, contributing to discussions on linguistic inclusivity and identity within Polish society and beyond.

Syntactic Development in Bilingual Children with and without Developmental Language Disorder

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Introduction: Syntactic complexity, or the ability to produce varied and embedded clauses, is a core aspect of language development linked to cognitive and academic growth. Typically developing (TD) children progress from simple to complex syntax early on. In contrast, children with DLD often exhibit difficulties with subordinate clauses, even at older ages, especially with relative clauses (Frizelle & Fletcher, 2014). Though grammatical deficits in monolingual children with DLD are well-documented, syntactic development in bilingual children, particularly those with DLD, remains underexplored. Understanding these developmental patterns is crucial for early identification and tailored interventions. This longitudinal study examined syntactic complexity in bilingual children through English narratives, the second language. Methods: Forty TD and 14 DLD Spanish-English bilingual children completed annual English story-retelling tasks from preschool to third grade. We analyzed the frequency and types of subordinate clauses (Paradis et al. (2021). Results: Linear Mixed Model analyses showed that both groups' syntactic complexity significantly increased with age but differed in pattern. DLD children used fewer relative clauses over time, unlike TD children, who used a consistent mix of adverbial, nominal, and relative clauses. Discussion: Findings reveal distinct developmental trajectories in complex syntax between bilingual children with TD and those with DLD, underscoring subordinate clause use as a potential diagnostic marker. DLD children showed limited growth in the types of clauses. This research highlights the need for further studies to refine assessment and intervention practices for bilingual children with DLD.

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Frizelle, P., & Fletcher, P. (2014). Relative clause constructions in children with specific language impairment. *International Journal of Language & Communication Disorders*, 49(2), 255-264.

Task-Based Analysis of Crosslinguistic Awareness in Multilinguals

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It is widely accepted that one of the cognitive benefits of multilingualism is an increased level of metalinguistic and crosslinguistic awareness. Crosslinguistic awareness is believed to enable the comparison and interaction between multiple languages in multilinguals and their exploitation of previous linguistic resources in additional language learning. However, the relationship between the activation of previously acquired languages in production and linguistic awareness in multilinguals requires further exploration. This exploratory study aimed to investigate the nature of tacit and explicit crosslinguistic awareness using three different types of tasks: (1) a lexical production task, (2) a retrospective reflection task, and (3) a translation task. The participants were 27 high-school students, Croatian-Italian-English trilinguals with comparable age of onset, degree of exposure, and levels of proficiency in each of the three languages. Participants were asked to provide synonyms for 10 English (L3) lexical items in an all-English task. The items had translation equivalents in their L1 (Croatian) or L2 (Italian), as true or false cognates, allowing us to gauge their reliance on prior languages when facing lexical gaps. In a follow-up task, participants were asked about their synonym retrieval process (in 5 items) to assess the type of crosslinguistic awareness in relation to purported evidence of crosslinguistic interaction. Finally, they translated another five items into their L1 and L2 to identify the most readily available translation equivalent in each language. The results suggest that crosslinguistic awareness can manifest itself at different levels of consciousness. We identified three patterns of behavior in relation to the interplay of tacit and explicit awareness which were further brought into relation with factors such as language dominance and psychotypology. Novel insights will be discussed in terms of the relationship between crosslinguistic awareness and crosslinguistic interactions in production of multilingual speakers.

Teacher-child closeness predicts second language acquisition: A multi-informant, multi-method longitudinal study of ethnic minority children from Hong Kong, China

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For ethnic minority children, it may be challenging to learn the host language as a second language. Therefore, it is important to examine factors that may facilitate second language acquisition among ethnic minority children. However, existing work has mainly examined cognitive-linguistic factors, such as oral fluency and executive functions, as correlates. The possible contributions of social-relational factors, such as teacher-child relationships, remain underexplored. Therefore, this multi-informant, multi-method longitudinal study examined the associations of teacher-child closeness with Chinese orthographic knowledge, phonological awareness, morphological awareness, reading, and writing among ethnic minority children living in Hong Kong, China. Data were collected on 157 ethnic minority kindergarten children (49% of them were boys; mean age = 58.15 months at Time 1) who had been learning Chinese as a second language. On two occasions separate by about 6 months, class teachers rated their closeness with each child, and each child individually completed tasks on Chinese abilities. Cross-lagged panel analyses revealed that, controlling for child gender and age, teacher-child closeness predicted increases in orthographic knowledge ($b = 0.20$, $z = 2.55$, $p < .05$), phonological awareness ($b = 0.13$, $z = 2.15$, $p < .05$), and word reading ($b = 0.10$, $z = 2.55$, $p < .05$) in Chinese over time, providing evidence of a relationship-driven model. Theoretically, findings highlighted the importance of considering the larger social-relational context in understanding second language acquisition among kindergarten children. Practically, findings pointed to the potential utility of targeting teacher-child closeness as means to facilitate the Chinese learning of ethnic minority children.

Teachers' Experiences with Censorship in Linguistically Diverse Classrooms

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Banning books in schools presents significant barriers to intellectual freedom and humanization, hindering students' ability to think critically and develop cultural understanding by limiting their exposure to a variety of viewpoints and intricate ideas (Kimmel & Hartsfield, 2019). This form of censorship stifles free expression and intellectual growth often targeting narratives on race, gender, and social justice, reinforcing bias, and silencing diverse voices (Dávila, 2022). This study examines the experiences of graduate students, who also teach linguistically diverse elementary students, regarding book censorship in Texas, U.S. The study, completed through semi-structured interviews, is grounded on narrative inquiry as a methodology for co-investigating with students in "living, telling, retelling, and reliving stories of experience" (Huber et al., 2013, p. 213). Our positionality as bilingual professors of color at a Hispanic-serving university is significant as we support pre-service and in-service teachers in identifying and sharing meaningful children's literature within their unique contexts. Our findings describe educators' tendency to self-censor titles due to fear of negative reactions from families, schools, or the state. This lack of autonomy and agency has led many to question the purpose of teaching and their ability to remain in the profession. The results also provide examples of educators' strategies to resist censorship, such as communicating with families, seeking support from administration, and challenging book complaints, among other methods.

Dávila, D. (2022). The tacit censorship of youth literature: A taxonomy of text selection stances. *Children's Literature in Education*, 53(3), 376-391.

Huber, J., Caine, V., Huber, M., & Steeves, P. (2013). Narrative inquiry as pedagogy in education. *Review of Research in Education*, 37, 212-242.

Kimmel, S., & Hartsfield, D. E. (2019). "It was... the word 'scrotum' on the first page": Educators' perspectives of controversial literature. *Journal of Teacher Education*, 70(4), 335-346.

Telicity in L2 English: A comparison of comprehension and elicited production of telicity marking in spatial and temporal domain by L1 Slovak vs. L1 Spanish learners of English.

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Background: Telicity is marked by determiners (standard accomplishments) or by goal PPs (PP-accomplishments) in English and Spanish and by verbal prefixes imposing a definite and specific quantity interpretation on the object argument in Slovak (MacDonald 2008). Method: To test the effects of these differences on comprehension and production of telicity by advanced L2 English speakers with L1 Slovak vs. L1 Spanish, two complementary tasks were designed testing the acceptability and production of telic and atelic events: (1) Sentence conjunction task with a 2x2 factorial design crossing telicity (telic vs. atelic predicates) and context (semantically matched vs. mismatched clauses indicating event completion or continuation) including both standard accomplishments and PP-accomplishments. (2) Videoclips description task including 2 control conditions (completed events indicated by a finished object or a goal reached by the agent) and 2 experimental conditions (incomplete events indicated by an unfinished object or a goal not reached by the agent, but visible at the scene) comparing speech onset times and verbalization of the object argument/goal PP or not. Hypotheses: Based on previous research (von Stutterheim et al. 2012), the L1 mechanism of telicity encoding might be hypothesized to affect Slovak speakers' event descriptions in L2 English by directing their focus on event endpoints, resulting in later speech onset times and more verbalizations of direct objects and goals in both experimental and control conditions. In contrast, L1 Spanish speakers are expected to pattern with NSs of English by verbalizing the intermediate phase of the event in their descriptions of atelic events and on verbalizing event endpoints more frequently in the control conditions. In the sentence conjunction task, L1 Slovak speakers might show higher ratings of accomplishments in semantically mismatched contexts than the other two groups. The results allow to design pedagogical tasks aimed at teaching predicate telicity to L2 English learners.

Thai Tones in Tune: Where Language Meets Music

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For learners whose first language is not a tonal language, hearing the difference between tones in a language such as Thai can be difficult (Francis et al., 2008; Kaan et al., 2007). Furthermore, better tone perception is also associated with higher musical ability (latent sensitivity to naturally facilitate understanding of music) and musical training (formal learning of an instrument or music theory (e.g., Slevc & Miyake, 2006)). The current study investigates whether a relationship exists between Thai tone perception and learning and musical ability and/or musical training for monolingual English speakers with no prior exposure to a tonal language using two tasks: an AXB discrimination test and an identification test. In this study, we asked if English speakers could differentiate between the low and mid tone contrast in Thai using minimal pairs. The AXB discrimination task results showed a significant interaction between musical ability and musical training such that being high on both variables resulted in most accurate discrimination. Further, reaction time results suggested that training helped participants discriminate faster without lowering accuracy. For the identification task, results showed a significant interaction between musical ability, musical training, and tone. Specifically, for the low tone only musical ability affected accuracy such that higher musical ability overall led to higher identification accuracy, but for the mid tone accuracy dropped with higher musical ability and lower musical training. Further, being high on both musical ability and musical training slowed identification but being high on musical ability and low on musical training led to faster responses. These results suggest that the way a participant approaches and identifies tones depends on their individual differences in musical ability and musical training.

The acquisition of Infinitive forms in Spanish/English bilingual children

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Previous work in child bilingual development has examined how factors such as chronological age, dominance, and crosslinguistic influence modulate the extent to which Spanish-English bilingual children overextend semantic and morphological values from English as a dominant language into Spanish as minority language. Results generally suggest a strong association between increasing age, language dominance and target production with greater morphosyntactic variability in Spanish with increasing age and proficiency in English (Cuza, 2016; Pérez-Leroux et al., 2011). We build on previous work by examining the acquisition of infinitive vs. gerund forms in subject position (Bailar es mi hobby favorito “Dancing is my favorite hobby”) and as the complement of the proposition with the prepositional verb parar a (Lucas paró a/para fumar “Lucas stopped to smoke”) and with the phrasal verb parar de (Lucas paró de fumar “Lucas stopped smoking”), where the two languages overlap or diverge. We tested the developmental trajectory of these forms in 33 child heritage speakers of Spanish (6;1-17;4; M=11;8) all born and raised in the US. We also compared their performance with data from their bilingual parents (n=15), as primary input providers. Results from an elicited production task indicated low use of infinitive forms in subject position due to gerund overextension (~20%). However, the results showed little gerund use with prepositional verbs or phrasal verbs and more reliance on the infinitive. Errors in those contexts stemmed from preposition omission. Parents behave as expected across all conditions. The results are discussed along the lines of recent work suggesting protracted development in heritage language acquisition modulated by crosslinguistic influence, dominance, age and patterns of language experience (Cuza & Solano-Escobar, 2023; Flores et al., 2017; Sánchez, 2019).

The Adaptation of an Aphasia Tool for Maltese - English Bilingual Adults

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Introduction: Due to potential discordant language recovery, bilinguals with post-stroke aphasia (BPwSA) should receive comprehensive testing in both languages with a linguistically and culturally equivalent instrument (Paradis & Libben, 2014). The Maltese - English Aphasia Assessment (MEAA) adapted from the Brisbane Evidence - Based Language Test (B-EBLT) (Rohde et al., 2020) will be a standardised, normed, psychometrically robust assessment for Maltese - English bilingual adults, providing enhanced accuracy in the differential diagnosis of aphasia post-stroke. This will address the lack of published validation data for assessments for diagnosing post-stroke aphasia (Rohde et al., 2022). **Methods:** The study is divided into three phases: 1. Translation and adaptation of the B-EBLT into Maltese 2. Pilot study [Step 1a, N= 15; Step 1b, N = 35] and normative study [N=65] 3. Main study [N =100] commencing soon on BPwSA and participants with stroke without aphasia (BPwS). A Demographic and Language Background Questionnaire (DLBQ) provides the participant's language history and functioning. The Clock Drawing Test (CDT) detects any mild cognitive impairment. Performance in both English and Maltese is assessed on MEAA's 49 tasks (5 subtests): Perceptual, Auditory Comprehension, Verbal Expression, Reading and Writing. **Results (Preliminary):** Analysis of the MEAA normative data indicates participants score significantly higher in English on Verbal Expression ($p=0.043$), Writing ($p < 0.001$) and the total MEAA score ($p = 0.016$). While there is no gender significant difference in performance, age has an effect in all subtests except in Writing ($p = 0.121$). Reliability, validity testing and analysis of the effects of years of education and language dominance are ongoing. **Conclusion/Summary:** The normative data results obtained require further item analysis related to daily language use in different environments. The creation of MEAA will supplement cross cultural and cross linguistic adaptation models of post-stroke aphasia assessment, contributing to comparable tools across world languages.

The Bilingual Math Dilemma: Language Switching Costs in Arithmetic Learning

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CLIL (Content-and-Language-Integrated Learning) is gaining popularity in European schools. Despite its benefits, CLIL presents challenges. When information is retrieved in a different language than it was encoded in, language-switching costs (LSC) in the form of poorer performances occur. Recent studies show that LSC occur in declarative arithmetic knowledge, but it remains unclear whether they emerge in procedural arithmetic knowledge and if they are temporarily stable. To this end we designed two studies. In Study 1, 122 bilingual adult students underwent a four-day training of novel arithmetic facts and a novel arithmetic procedure using either German (L1) or English (L2) number-words. During a post-test and 3 follow up sessions (1 week, 1 month, 3 months after training), participants were then tested in both languages on the trained material. We were able to observe significant LSC in participants' reaction times for the artificial arithmetic facts and the novel procedure, with the latter showing LSC persisting over time, and being reduced through frequent retrieval. In study 2, we investigate which language-dependent knowledge representations bilinguals use when needing to switch between languages of training and testing. Here, 120 German (L1)-English (L2) bilingual students participate in a one-day training on the novel arithmetic procedure. During the post-test session on the next day, participants are tested on the trained material in both languages. Additionally, they also hear lists of spoken words in German (their L1), English (their L2), or Finnish (a language unfamiliar to the participants, used as a neutral distraction). We then examine the influence of this auditory interference on the observed language-switching costs. Data collection for study 2 is still ongoing but first results are already promising. These studies will further our understanding of language-switching costs in multilingual learning environments and provide insights into optimizing educational strategies in contexts like CLIL.

The Cognate Facilitation Effect in L3 Spanish

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The cognate facilitation effect refers to faster processing of words that are cognates between languages (e.g., words that have high orthographic, semantic, and sometimes phonological overlap). This effect has been well-documented in L2 research across various language combinations and tasks, suggesting that bilingual speakers have an integrated and non-selective lexicon (Costa et al., 2000). However, little is known about how this effect manifests in multilingual speakers. Szubko-Sitarek (2011) found additive effects of cognate facilitation, with multilingual speakers responding faster to cognates across three languages than cognates across two languages relative to non-cognates. While Szubko-Sitarek (2011) suggests that L3 speakers have simultaneous activation of L1 and L2 lexical representations, it remains unclear whether the magnitude of the cognate facilitation effect is equal coming from L1 to L3 and from L2 to L3, and how these effects change as L2 and L3 proficiency increase. The present study examines this gap using a lexical decision task by L3 Spanish speakers (L1 German-L2 English). The lexical items of the three languages allowed for three primary stimuli conditions: non-cognate words, two-way cognates (between English and Spanish) and three-way cognates (between German, English, and Spanish). L2 and L3 proficiency were measured using LexTALE tests. Preliminary data show that, overall, response times were faster for cognate words than non-cognate words. However, surprisingly, no difference between two-way and three-way cognates emerged, suggesting that cognate facilitation may not be additive in multilingual speakers. These findings have important implications both for models of L3 acquisition and models of lexical access, such as the Typological Primacy Model (Rothman, 2015), which considers lexical cues to play an important role in determining cross-linguistic typological similarity.

The Corpus of Multilingual Speech (CoMS): Designing a corpus for L3 phonological research

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Corpus phonology presents a promising approach to empirical L3 research, providing researchers local access to oral production data, time-aligned transcriptions, and contextualizing metadata. Yet, between the still-emerging state of phonological corpora and multilingual research, the difficulty of recruiting L3 participants, and the high-quality audio that phonological research necessitates, the scarcity of L3 phonological corpora is unsurprising. Currently, only one available corpus contains L3 oral production data, and its size and data are limiting (see Wulff, 2023). Given this dearth, scholars with little access to target samples experience barriers to L3 phonological research. To address these needs, this project aims to develop a corpus of multilingual speech (CoMS), following recommendations from Wulff (2023) who reports current needs and preferences from 31 acquisition researchers and corpus linguists. CoMS includes the following requested features: informal L1, L2, and L3 interview data from all speakers, extensive demographic and language background metadata, orthographic transcriptions with part-of-speech tags, word/token/type frequencies, and a handbook detailing data collection and corpus compilation. A future phase of development will invite external contributions, building subcorpora with language triads accessible to our colleagues worldwide and strengthening the corpus's representativeness. This presentation will provide an overview of CoMS and its infrastructure, along with demo of the online platform that currently houses L1, L2, L3, and heritage data in English, Spanish, and Brazilian Portuguese. We also aim to maximize the opportunity to gather feedback from a representative sample of researchers during this critical developmental phase.

Wulff, S. (2023). Corpus research. In J. Cabrelli, A. Chaouch-Orozco, J. González Alonso, S. Pereira Soares, E. Puig-Mayenco, & J. Rothman (Eds.), *The Cambridge handbook of third language acquisition*. Cambridge: Cambridge University Press.

The Cost of Language Switching in Frequent Code-Switchers: Cued vs. Voluntary Switching

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While language control in bilinguals has been a subject of interest for many researchers (Costa & Santesteban, 2004; Declerck, Philipp & Koch, 2013), most of these studies target participants who have a compartmentalized use of languages, often using one language in the personal sphere (e.g., home, family) and another in social settings (e.g., at work, with friends) (Gullifer & Titone, 2020). However, some bilinguals use languages in a more integrated manner, frequently engaging in code-switching during everyday conversations. This type of language use, characteristic of the Lebanese population (among others), has been less frequently explored in the literature. It raises the question of whether there may be a benefit of language switching (De Bruin, Samuel & Duñabeitia, 2018). The present study investigates the behavioral costs and benefits of language switching in frequent code-switchers (FCS), using a bilingual picture-naming language switching paradigm, in four different conditions: (1) monolingual Lebanese Arabic, (2) monolingual French, (3) cued bilingual and (4) voluntary/free bilingual. Sixty-two French-speaking Lebanese participants took part in this study. Accuracy scores were significantly lower for the cued condition compared to the three other conditions (Kruskal-Wallis chi-squared = 36.537, $df = 3$, $p = 5.765e-08^{**}$), potentially indicating that task constraints negatively impact FCS's accuracy compared to monolingual and free blocks. In addition, running Welch two-sample and paired sample t-tests across bilingual conditions, a significant reduction of switch costs was found in voluntary switching compared to cued switching, as well as a mixing benefit when speakers switched languages freely. These findings offer promising insights into language switching research in FCS, suggesting that when given the liberty to switch languages freely, they experience lower cognitive costs, and even potential benefits, compared to more constrained, cued language switching contexts. Results remain to be supported by more ecological research that better reflects daily language use.

The different faces of bilingual grammatical language intervention for school-age children with developmental language disorders

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In the United States, approximately 80% of school-age English learners come from Spanish-speaking backgrounds; a demographic shift noted in the growing demand for Spanish-English bilingual classrooms across the nation (NCES, 2024). Over two decades ago, Fey and colleagues (2003) published, *Ten principles of grammar facilitation for children with specific language impairment* which embraced theoretical underpinnings and established evidence-based practices to assist educational practitioners who work with monolingual school-age students with specific language impairment (SLI) specific to morphological and syntactic forms. This poster session will target the original ten principles yet suggestions will offer and support both bilingual and monolingual Spanish-English treatment approaches for students with developmental language disorders (DLD) (Peña et al., 2023). Clinical practices provided here will offer educational practitioners user-friendly strategies with hands-on activities to meet functional objectives and meaningful goals to target during bilingual clinical intervention sessions (Castilla-Earls et al., 2023). While Spanish-English linguistic components are emphasized, suggested recommendations may be applied conceptually towards other multilingual students with language-learning difficulties.

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The different faces of bilingualism: the negotiation of bilingualism from the classroom to territory and viceversa.

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Every level of the educational system - from the Ministry of Education down to the individual classroom - sees language policies being interpreted, negotiated, and reconstructed during their practical application (Menken & García, 2010). This contribution presents a study on how bilingualism and multilingualism influenced political reflection and the planning of school language policies within a network of public schools in Emilia Romagna, Italy. Since 2018, one specific school in this region has participated in the L'AltRoparlante project (Carbonara and Scibetta, 2020), an initiative promoting multilingual teaching practices in public schools across Italy. After five years of successful outcomes from this initial experience, a broader network of schools in Emilia Romagna began adopting this approach, inspired by the positive results achieved by the first school. This expansion has facilitated a broader reconsideration of school language policies based on the project's findings and prompted local municipalities, where the schools are located, to invest in initiatives aimed at revising language policies with a focus on inclusion and the promotion of bi/multilingualism. With the intention of uncovering the mechanisms and dynamics of school language policies (re)planning, this contribution illustrates the findings derived from the analysis of a corpus of semi-structured interviews with the main actors involved in the process such as school administrators, teachers, and local administrators. The results provide a detailed overview of the perceptions, experiences, and challenges encountered during the process of implementing school language policies, particularly in valuing bi/multilingual educational practices, and illustrate how language policies are planned and negotiated across multiple levels of the educational system.

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The effect of bilingualism in the intonation of wh-questions in Basque Spanish

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Across Spanish dialects, wh-questions usually involve fronting of the wh-word to sentence-initial position, as in English. Intonationally, they remain understudied (Henriksen 2014). Neutral information-seeking wh-questions reportedly show a ‘slide’ pattern involving an initial rise and a gradual declination (Navarro Tomás 1944; Quilis 1993, RAE 2011), although there is variation across dialects (Sosa 1999, Hualde & Prieto 2015). In the Spanish of the Basque Country, final rises are widespread. Gaminde et al. (2014) shows they are prevalent (79% of cases), particularly for Basque-dominant speakers, while Delgado (2024) reports that, while widespread (68%), there is no significant effect of Spanish/Basque dominance. Our study analyzes the intonation of information-seeking wh-questions in Basque Spanish from a contextualized reading task, following the Spanish ToBI framework (Aguilar et al. 2009-2024). Results from 22 participants show that 88% of fronted wh-questions involve a final rise (most typically L* H%). Final falls (L* L%) are attested in Spanish-dominant participants only, consistent with Gaminde et al. (2024). In addition, we find that the initial wh-word is mostly realized with a delayed rise (L+<H*) (77% of cases). An initial H* pitch accent (19% of cases) is more frequent in Spanish-dominant speakers and in monosyllabic wh-words (such as ‘qué’ what). These results don’t agree with Gaminde et al. (2014), who reports an almost categorical presence of a high (H*) pitch accent in this position, regardless of language dominance. Our presentation also compares the effect of language dominance observed in this data with that reported for yes-no and wh-in-situ question types in the same dialect (Robles Puente 2013, Elordieta & Romera 2017, González & Reglero 2020).

The Effects of Learning Mandarin on Cognitive Development in Secondary School Pupils: A Pilot Study

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Mandarin learning is linked to improved visuospatial skills, as its character-based writing system requires high visual differentiation (Wang et al., 2020). Mandarin-English bilinguals have demonstrated better working memory and executive functions than monolinguals, potentially due to managing two syntactically distinct languages (Yang & Yang, 2022; Bialystok, 2009). However, limited research has explored how Mandarin, a language structurally distinct from European languages, influences executive functions in young learners whose first language (L1) is not Chinese. This pilot study investigates the effects of intensive Mandarin learning and bilingualism in young learners. Participants included 23 pupils (M age = 12.7, SD = 0.5) from a secondary school in North London. Five bilinguals and six English monolinguals were enrolled in the Mandarin Excellence Project (MEP), an intensive Mandarin programme, for over a year. The remaining 12 monolingual and bilingual pupils were not part of MEP. Cognitive tasks were used to assess executive functions: cognitive flexibility (Color-Shape Switching task), visuospatial working memory (Corsi-tapping task), and inhibitory control (Spatial Stroop task), and an adapted 12-point questionnaire based on Dewaele & Li's (2013) Tolerance of Ambiguity (ToA) questionnaire. Results showed that MEP pupils, particularly bilinguals, demonstrated enhanced cognitive flexibility ($F(1,1287) = 8.20, p = 0.004, \eta^2 < .01$) and inhibitory control ($F(1, 1010) = 6.39, p = 0.012; \eta^2 = .006$). They also reflected enhanced visuospatial memory ($t(189) = -2.59, p = .01$). Although there was no significant relationship between ToA and MEP participation, biliteracy appeared to influence ToA scores ($F(1,22) = 6.28, p = .02$). This study suggests that intensive Mandarin learning, especially alongside bilingual experience, even at a late stage in childhood, may improve cognitive flexibility, inhibitory control, and visuospatial memory. Further research with larger samples is recommended to validate these findings.

The Effects of Paradigm Frequency on Morphological Variability in Heritage Guatemalan Spanish

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Studies in heritage language (HL) acquisition research have recently focused on understanding how lexical frequency (and linguistic experience more generally) shape HL grammars. The present project delves deeper into these lines of research by investigating the extent to which paradigmatic frequency modulates morphological variability in heritage Spanish. Spanish heritage speakers' (HSs) are known to sometimes extend canonically third-person singular (3ps) morphology to first-person singular (1ps) subjects, a variable pattern that can appear both in production (e.g., using 3ps endings with 1ps subjects) and comprehension (e.g., interpreting 3ps endings as 1ps). We examine this morphological phenomenon across four differentially frequent (and morphologically distinct) verbal paradigms: preterite (frequent, synthetic), morphological future (infrequent, synthetic), periphrastic future (frequent, analytic), and present perfect (infrequent, analytic). By comparing these particular paradigms, we assess whether HSs' likelihood of extending 3ps inflections increases with the verb forms that they use and hear least often. Sixteen adult HSs of Guatemalan Spanish completed proficiency assessments in Spanish and English, as well as two experimental tasks that we report on here. In the oral elicited production task, participants used prompts to describe activities that they (and a best friend) do or do not do. In the listening comprehension task, participants heard short audio clips and determined whether the speaker was talking about themselves, their best friend, or possibly either. Thus far, results reveal that HSs extended both their interpretation and use of 3ps inflections more often in lower frequency verbal paradigms (morphological future, present perfect) than in higher frequency ones (preterite, periphrastic future), as hypothesized. This difference, which was observed in both synthetic and analytic verbal paradigms, suggests that relative frequency of experience can account for why HSs exhibit variability more often in some parts of their HL grammar than others, a novel finding with key implications for bilingualism theory.

The effects of study abroad on L2 lexical stress learning: a longitudinal study

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This longitudinal study examines how study abroad (SA) influences Mandarin speakers' perception and production of L2 Spanish lexical stress and explores the mediating role of individual differences in SA. Thirty female Mandarin speakers were assessed for Spanish stress perception and production at two time points: upon arrival in Spain (T1) and after one year (T2) living in Spain. The perception task required distinguishing a sentence-final verb differing only in lexical stress (e.g., *paso* 'I pass' vs. *pasó* 'she/he passed'). The production task involved reading short discourses containing Spanish vowels varying in stress and speech prominence. Nineteen female native Spanish speakers served as a baseline group and did the same perception and production tasks. Individual difference measures included auditory processing abilities in pitch and duration, and a survey on Spanish use during SA. Participants' stress cue weighting was analyzed, focusing on the use of pitch versus duration. Results indicated that learners exhibited clearer stress categories in perception at T2, though pitch remained their primary cue, differing from the Spanish natives. In production, learners lowered the pitch of stressed syllables over time, yet pitch levels remained higher than those of native speakers, and duration use showed no significant change. Notably, a positive perception-production link in cue-weighting was observed at T1 but disappeared at T2. Individual differences played a key role: weaker pitch processing abilities led to reduced pitch cue weighting in perception at T2, while more frequent Spanish speaking during SA sustained the perception-production link at T2. Overall, SA had an unbalanced effect on L2 lexical stress perception and production, which was mediated by both aptitude and experiential factors.

The Expression of Strong Definiteness in Code-switched Context

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Introduction and Background: Both definite noun phrases (e.g. the boy) and demonstrative noun phrases (e.g. that boy) can be used anaphorically, i.e. to refer back to previously mentioned discourse referents; recent work has been investigating the differing pragmatic constraints between anaphoric definites and demonstratives, finding crosslinguistic stability in these constraints across many languages including English, Turkish, Bangla, and German (Saha, Sag, Davidson 2023, Saha 2023, Saha and Davidson 2024), but noting Mandarin as an outlier in the semantics of its demonstrative (Saha, Sag, Cui, and Davidson 2024). In this work we leverage these differences between Mandarin and English demonstratives to understand constraints on code-switching within anaphoric noun phrases. This study aims to a) test the predictions of the matrix language framework (Myers-Scotten, 1993), and b) investigate the interaction between code-switching and the expression of anaphoricity and definiteness crosslinguistically.

Methodology: We conducted two studies, each with contexts plus paired continuations in the design of Saha et al. 2023. The first had Mandarin as the matrix language, with only the nominal code-switched into English (Mandarin demonstrative noun phrase or Mandarin bare noun phrase), the other had English as the matrix language with only nominals code-switched into Mandarin (English definite noun phrase or English demonstrative). Switched nominals were extracted from SEAME corpus and selected to motivate natural code-switching, i.e. (那个 quiz ‘that quiz’, that 唢呐, ‘that suona’). Results: Overall, we observe very similar patterns to that found in monolingual Mandarin and English contexts, supporting the MLF. The Mandarin demonstrative noun phrases is preferred over bare noun phrases in Mandarin-English code-switching while the English definite noun phrases is rated more acceptable than the demonstrative in English-Mandarin code-switching. Additionally, a global cognitive code-switching cost might be responsible for the overall lower acceptability rates in code-switched context than in monolingual context.

The foreign language effect in misinformation: Exploring the impact of language context on credibility ratings of manipulative social media posts

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Previous research on the foreign language effect in misinformation and credibility judgments has predominantly focused on false newspaper-like articles, with mixed findings. This study investigated the foreign language effect on credibility judgments made on authentic and manipulative social media posts. The manipulative posts were designed to reflect common manipulation techniques (impersonation, emotion, polarization, conspiracy theories, discredit, and trolling). A total of 151 Swedish-English bilinguals were presented with authentic and manipulative posts in their native and second language rating each post on perceived credibility, emotionality, and relevance. An effect of language was found for the categories emotion, conspiracy, and trolling: participants rated (fake) posts of these techniques as less credible in L2 than in L1. A reversed foreign language effect was found for the discredit category (i.e., participants rated these posts as less credible in L1 than in L2). No effect of language was found for the categories impersonation and polarization. These results suggest that credibility judgments vary across manipulation techniques depending on the decision-maker's language context.

The Impact of Cognitive Load on Bilingual Language Control

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Bilinguals apply language control to manage the simultaneous activation of their languages, categorized into proactive and reactive control. Proactive control involves anticipating interference, while reactive control addresses interference once it has occurred. Language switching costs often serve as indicators of reactive control, while the reversed language dominance effect is linked to proactive control. Most studies on bilingual language control have been conducted in highly controlled laboratory settings. While these studies provide valuable insights, they often lack ecological validity, as they do not accurately reflect the complexities of real-world, cognitively demanding contexts. In such environments, multitasking and competing sensory inputs can reduce attention and influence language processing. This study investigates how cognitive load, introduced through multitasking, impacts bilingual language control in Chinese-English bilinguals. Using a dual-task design, participants perform picture naming tasks under no-load and high-load conditions to examine changes in language switching costs and the reversed dominance effect. Additionally, we explore how bilinguals adapt their control mechanisms when language switching is either externally cued or voluntarily initiated. We hypothesize that increased cognitive load impairs both reactive and proactive control processes. Specifically, proactive control—which relies on sustained attention to anticipate interference—may weaken under multitasking conditions, thereby reducing the language dominance reversal effect. Similarly, reactive control, responsible for resolving interference during language switches, is expected to deteriorate, leading to increased switching costs. For voluntary switching, we also predict changes in switching patterns due to the increased cognitive load, reflecting participants' real-world language use. Data testing these predictions will be presented at the conference. This study aims to shed light on the interplay between bilingual language control and general cognitive processes in multitasking environments. The findings are expected to contribute to a more ecologically valid understanding of bilingualism and language control, with potential implications for real-world communication and cognitive control theories.

The impact of exposure and aptitude on bilingual proficiency in adult heritage speakers

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Heritage speakers (HSs), raised with a home language that differs from the societal language (Montrul, 2016), often display varying degrees of proficiency in their heritage language (HL) (Wiese et al., 2022). While research has highlighted the critical role of exposure in shaping proficiency (Unsworth, 2016), the influence of language aptitude (Montrul, 2010; Simard et al., 2010) remains underexplored. In this study, we aim to investigate how exposure and aptitude influence the ultimate attainment of both the majority language (English) and the heritage language (Greek) among adult bilinguals. We recruited 31 adult HSs and used a grammaticality judgment task in both languages to evaluate grammatical proficiency. Cumulative exposure to both languages over the lifespan was assessed through a background questionnaire, while grammatical sensitivity—an aptitude component—was measured using the Sentence Pairs task (adapted from the MLAT battery). Mixed-effects models were employed for data analysis. The results indicated that exposure significantly predicts proficiency in Greek, but not in English, whereas grammatical sensitivity predicts proficiency in English, but not in Greek. These findings reaffirm the crucial role of input in maintaining the HL and suggest that grammatical sensitivity predicts performance in the language associated with formal schooling. Overall, sustained input and education in both languages are essential for achieving balanced bilingualism.

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The Impact of Foreign Language on Visual Perspective Taking: Age and Linguistic Dominance Effects

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This study investigates the Foreign Language Effect (FLE) in a Visual Perspective Taking (VPT) task, examining how the use of a native versus foreign language influences cognitive performance and processing efficiency. FLE research suggests that reasoning in a foreign language may reduce cognitive biases and promote more deliberate processing. Building on this premise, the current study compares the performance of children and adults completing a VPT task in either their native language (Catalan) or a foreign language (English), aiming to understand how age and linguistic dominance impact perspective-taking abilities. The sample includes children (N = 35, Mage = 10.5 years) and adults (N = 33, Mage = 24.3 years) who are bilingual in Catalan and Spanish (data collection still ongoing). Linguistic dominance was measured using an index determining dominance between Catalan and Spanish with the Bilingual Language Profile in adults and the Q-Bex in children. Participants completed a VPT task, answering items of varying complexity, designed to assess their ability to adopt visual perspectives. Preliminary results showed that both children and adults performed better in terms of accuracy when completing the task in a foreign language but took longer than the group performing it in their native language. In the adult group performing the task in Catalan, greater linguistic dominance correlated with higher accuracy, though this effect did not occur in the English group nor in children. These results suggest that using a foreign language increases cognitive load, requiring more reflective processing, resulting in higher accuracy but slower reaction times. The relationship between linguistic dominance and accuracy in the adults age group suggests that greater control of the native language may facilitate more accurate performance. These findings shed light on how language and age interact in cognitive tasks and emphasize the role of linguistic experience in visual perspective processing.

The impact of L2 proficiency on the time course of morphological activation: an incremental primed lexical decision study

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While complex words are generally formed by combining morphemes, they differ in semantic transparency, referring to the degree that their meanings align with their constituent morphemes. Using the incremental priming paradigm to track the time course of word recognition, previous L1 studies indicated that the effect of semantic transparency would emerge following the onset of morphological priming effect (MPE). However, the corresponding issue has remained unclear for L2. We hypothesize that L2 proficiency would modulate the MPE differently between semantically transparent and opaque words, with the influence of semantic transparency being manifested earlier or larger for individuals with better L2 proficiency. To test this hypothesis, an incremental priming experiment will be conducted, with SOA (50 ms, 83 ms, and 117 ms), Type (transparent, opaque, and form-related), and Relatedness (related vs. unrelated) as within-subject factors. Three types of related English prime–target pairs will be constructed: (1) semantically transparent pairs, which are semantically, morphologically, and formally related (e.g., singer-SING); (2) semantically opaque pairs, which lack a semantic relationship but are either etymologically (e.g., classic-CLASS) or pseudo-morphologically related (e.g., brother-BROTH); (3) form-related pairs, which are only related in form but unrelated semantically and morphologically (e.g., cashew-CASH). Across these conditions, primes and targets are matched on log-frequency, length, etc. A list of unrelated primes will also be compiled that are matched with the related primes in all variables above except for having lower semantic relatedness with the targets. As a sophisticated linear mixed-effects model will be applied for data analysis, a pilot study of twenty participants will be conducted to perform sample size estimation through bootstrapping simulation. Ultimately, this study will enhance our understanding on how L2 proficiency will impact the role of morphemes in L2 lexical retrieval at an individual level. This research is partially supported by HKRGC-GRF 15609423.

The impact of language similarity on cognitive adaptations to bilingualism

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Several studies have argued that bilingualism can confer adaptations to the human mind and brain [1, 2]. Among the possible moderators of such adaptations, the role of language similarity remains ambiguous, as do its effects on cognitive control mechanisms [3, 4]. While bilingual users of similar languages may exert more cognitive effort due to the increased difficulty of monitoring closely related alternatives [5], the pool of competing alternatives grows when there is less overlap between languages, potentially leading to greater cognitive demands. The first scenario predicts that neurocognitive adaptations to bilingualism will be more pronounced in similar language bilinguals, while the second one in distant language bilinguals. Our work aims to decipher the role of language similarity in bilingual cognition. Our research questions are: (i) Is there evidence for a modulatory role of language similarity on bilingual neurocognition? (ii) Are adaptations to bilingualism more pronounced in similar-language bilinguals, distant-language bilinguals, or is the evidence mixed? We performed a systematic review and Bayesian analysis of studies that compare bilingual populations, following the PRISMA protocol [6]. We find strong evidence for a modulatory effect of language similarity, but mixed evidence with respect to the directionality of the effect, in terms of bilingual adaptations being more pronounced in similar vs. distant language bilinguals. We explain these results discussing several factors, including the absence of a standardized global distance index for measuring what counts as similar linguistic representations.

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The impact of language use vs. age of second language acquisition on cognitive aging

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Many studies suggest bilingualism as a cognitive reserve factor, but the evidence of such bilingual advantage is still controversial. Additionally, there is limited knowledge about which type of bilingual experience has the greatest impact on cognitive decline associated with aging, making it difficult to explain the effect of bilingualism on delaying the symptoms of dementia. To understand the impact of language experience on cognitive aging, we compared the cognitive performance of 2345 cognitively unimpaired individuals aged 44–74 years old from the Alzheimer's and Families (ALFA) study, considering their age of language acquisition and active use of both languages (Catalan and Spanish). We defined three groups: (1) early high-proficient bilinguals (n=1516); (2) late high-proficient bilinguals (n=459); and (3) late low-proficient bilinguals, primarily Spanish-dominant (n=370). High-proficiency bilinguals, whether early ($p < 0.001$ for both tests) or late ($p = 0.02$ and $p < 0.001$), outperformed late low-proficient bilinguals on tests assessing non-verbal reasoning and processing speed (measured by WAIS-IV Matrix Reasoning and Coding, respectively). The performance of the two high-proficient groups was comparable, and their cognitive advantage remained significant after controlling for age, education, and other cognitive reserve factors as occupational complexity, social and physical activities and cultural and intellectual pursuits. The three language groups performed similarly on tests assessing episodic verbal memory measured with Memory Binding Test ($p > 0.05$ in all 4 conditions), visuospatial processing assessed with WAIS Visual Puzzles ($p = 0.10$), semantic verbal fluency ($p = 0.43$), and general cognitive decline as measured by MMSE ($p = 0.78$). This suggests that high proficiency in a second language is associated with better cognitive performance, irrespective of age of language acquisition. Furthermore, the cognitive benefits of actively speaking a second language seems to be limited to non-linguistic functions, with no significant effect on verbal episodic memory or lexical retrieval.

The Impact of Microstructural and Environmental Factors on Narrative Macrostructure: Evidence from Greek-German Bilingual Children

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Background: The different faces of bilingualism can be best understood via the investigation of narrative skills, the ability to produce a comprehensive story. This ability integrates lower-level, linguistic (microstructure) and higher-level cognitive skills (macrostructure). Yet, it remains unclear to what extent lexical and syntactic measures of microstructure explain variance in macrostructure, and how the latter is further affected by environmental factors. This study, grounded in the multidimensional model of narrative organization (MAIN; Gagarina et al., 2012), which operationalizes macrostructure as Story Structure (SS) and Story Complexity (SC), investigates which microstructure components predict macrostructure, and which environmental factors predict narrative macrostructure in the heritage language (HL) Greek and majority language (ML) German of Greek-German bilingual children. Method: 130 picture-based oral narratives (65 Greek, 65 German) were elicited from 65 Greek-German bilinguals at the end of Grade 1 (Mage=7;2, SD= 4.6) using the MAIN. Microstructure measures included lexical: Number of Different Words (NDW); lexical diversity (VOCD-D) and syntactic measures: Mean Length Utterance (MLU); Subordination Index (SI). Macrostructure was operationalized as SS and SC. Environmental factors included home and outside-home language exposure, media and literacy exposure, and maternal proficiency. Results: Linear regressions from 28 participants (full sample analysis of 65 children to be completed before the conference) revealed that only lexical measures of the microstructure predicted SS and SC: NDW predicted SS in German and VOCD-D predicted SC in Greek. Regarding environmental factors, Greek SS was predicted by home exposure and Greek SC by literacy exposure. In contrast, both German SS and SC were predicted by outside-home exposure. Conclusions: The findings suggest that microstructural and environmental factors have differential effects on narrative macrostructure across the two languages, highlighting the importance of vocabulary for both languages, the role of home exposure and literacy development for the HL and the outside-home exposure for the ML.

The Impact of Race on Koreans' Perception of English-Accented Korean in South Korea

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South Korea has traditionally viewed Korean ethnicity and language as deeply intertwined, distinguishing "self" from "other." However, the rise of Korean pop culture has attracted a global audience, leading South Korea into a multi-racial society with a significant increase in foreign residents. As Koreans encounter more foreigners, especially in the media, the assumption that race and language are linked is being challenged. This study investigates how race influences Koreans' perceptions of non-native speakers of Korean, particularly those who speak with an English accent. Drawing from qualitative interviews with three American participants of diverse racial backgrounds—Asian, Hispanic-White, and White—the research explores whether Korean attitudes toward English-accented Korean differ based on the race of the speaker. The participants shared their experiences living in Korea, detailing both positive and negative reactions to their accented Korean from native Koreans. The findings reveal that race impacts how Korean people perceive non-native speakers, with an Asian participant experiencing more tolerance and patience when speaking Korean than White counterparts. The phenomenon aligns with theories of language ideologies and in-group/out-group dynamics, where language proficiency is often racialized, creating preconceived notions about how certain racial groups should speak. Participants also noted tendencies among Koreans switching to English when interacting with White speakers, reflecting assumptions that non-Asian speakers are less likely to speak Korean. In contrast, the Asian speaker was more often given the benefit of her race and allowed to speak Korean without such assumptions. These findings suggest that while South Korea is adapting to its increasing multiculturalism, deep-seated stereotypes linking race and language proficiency remain. The study's implications extend beyond the sociolinguistic field to broader discussions on integration and identity in South Korea's society. As the country becomes more racially diverse, it is crucial to understand how language attitudes may reinforce or challenge existing racial hierarchies.

The influence of morphophonological variables on the acceptability and processing of code-switching within aspectual structures

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This study investigates morphophonological variables in the distributional and processing asymmetry between progressive and perfect constructions in Spanish-to-English code-switching (Los jugadores están winning/*han won the game; Dussias, 2003; Salig et al., 2023). Since purely syntactic explanations of this asymmetry prove to be inadequate, we focus on morphology and phonology adopting a congruence approach (Deuchar, 2007; Sebba, 2009). Two factors are incongruous between the two languages when comparing present to past participles: verb regularity and phonological length. Progressive forms are regular in both languages (V+-ing and V+-ndo) and minimally disyllabic, while perfect forms can vary in regularity between the two languages, and are monosyllabic in English but never in Spanish. Several facts argue for incongruity between aux-past participle constructs in Spanish and English: Dual-route access to regular vs. irregular forms; resistance to incorporation of irregular forms in code-mixing; and divergent phonological schemas for the participle following "haber". We ask whether regularity and phonological length of the past participles modulate perceptions in an acceptability judgment task (AJT) and reading times in an eye-tracking-while-reading task. We predict slower reading times and lower acceptability ratings for sentences containing irregular or monosyllabic participles; that is, when comparing experimental items to a unilingual baseline, the difference should be greater for irregular and monosyllabic participles than for regular and multisyllabic participles. Preliminary data (n = 5) for the AJT task show that the difference between the critical stimuli and the baseline containing irregular participles (mean = 1.42) is greater than for regular participles (mean = 1.3). Likewise, the difference between the critical stimuli and the baseline containing monosyllabic participles (mean = 1.18) is greater than for multisyllabic participles (mean = 0.65). These preliminary results show a tendency toward our predictions, suggesting a potential role for morphophonological factors in the perception and processing of code-switching.

The Influence of Semantic Information on L2 Gender Agreement Processing in French: An ERP Study on the Effects of Proficiency

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Different theoretical perspectives on second language (L2) acquisition differ in whether learners are expected to process L2 features in a native-like manner, especially when these features are absent from their native language (L1). The present study investigates how L2 learners' proficiency influences morphosyntactic processing and modulates their sensitivity to semantic predictive information when L2 features are absent in the L1. Specifically, we use event-related potentials (ERPs) to examine gender agreement processing in French, comparing native French speakers and intermediate and advanced learners of French whose L1 (Mandarin) lacks grammatical gender. Participants' EEGs were measured as they read French sentences, followed by an offline acceptability judgment task for each sentence. We focus on gender agreement between pre-verbal noun phrases and post-verbal adjectives (e.g., *Les filles étaient sérieuses dans la classe* "The girls-fem were serious-fem in the class ") and manipulate the presence of semantic predictive information (i.e., semantic gender, such as the biological gender of the noun, like "girl" being feminine) in the pre-verbal noun. The results showed a P600 effect and delayed left anterior negativity (LAN) for French natives for agreement violations, regardless of the presence of semantic gender. However, no such native-like effect was observed among intermediate Mandarin-speaking learners, even when they demonstrated high accuracy in gender assignment under the semantic gender condition. These findings suggest that, despite having correct gender knowledge supported by semantic predictive information, learners do not exhibit native-like processing of new L2 features when their proficiency has not yet reached an advanced level. Our next step will be to recruit advanced learners to investigate how increased proficiency influences L2 morphosyntactic processing and sensitivity to semantic predictive information.

The interplay between age and input in the acquisition of relative clauses: The case of Turkish-American returnees and L2 learners of Turkish residing in Turkey

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Heritage speakers (HS) exhibit structural variability with relative clauses (RCs) under reduced input conditions (Polinsky, 2018). Permanence Hypothesis (PH) holds that linguistic knowledge acquired during the critical period, underused or underdeveloped throughout childhood, remains available when reactivated in adulthood (Brenner, 2010, as cited in Muāgututi'a, 2018). We ask: i) Is full acquisition possible later in life if HS receive optimal input in their heritage language? and ii) Does early age of exposure play a role in ultimate attainment? We test two populations: i) returnees, who were born in the US and returned to Turkey in later years (Flores, 2020), and ii) late L1-English, L2-Turkish learners residing in Turkey. If PH holds, returnees will pattern with monolinguals; if post-puberty returnees and L2ers pattern more with HS than with monolinguals, this would underline the importance of early age of acquisition. Thirty-two Turkish-American returnees and 25 L2ers were compared to 30 Turkish HS in the US and 30 Turkish monolinguals in Turkey. All groups completed a context-based Acceptability Judgement Task and a Sentence Repetition Task. Analysis of data (binomial logistic regression models) indicated that returnees and monolinguals showed significantly higher accuracy than HS and L2ers in both tasks. Correlations between accuracy, age of return and length of residence in Turkey of returnees were not significant. These findings support PH and suggest that complex morphosyntax is still malleable post-puberty as long as first exposure happens in early years.

Brenner 2010: Conditions for second-language nativelikeness in early childhood

Flores 2020: Attrition and Reactivation of a Childhood Language

Muāgututi'a 2018: Recovering Ergativity in Heritage Samoan

Polinsky 2018: Heritage Languages and Their Speakers

The journey to North Sámi revitalisation: Visual representations of language trajectories

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North Sámi is one of the languages of the Sámi people, an indigenous group in Northern Europe. In coastal Sámi communities the language was suppressed by the Norwegian government, with an official policy of Norwegianisation, interrupting intergenerational transmission (Lane 2023). The aim of this poster is to investigate the motivations of adult new speakers of North Sámi reclaiming their heritage language. Participants have learned Sámi primarily through formal classes as well as community involvement. They participated in a visualization activity where they drew language trajectories to illustrate their journey with the languages in their lives. This visual activity and analysis are adapted from studies employing language portraits, maps, and trajectory grids (Busch, 2021; Choi & Slaughter, 2021; Kvietok Dueñas, 2019). This visualization method allowed participants to remember and reflect upon their interactions with the languages present in their lives and how their experiences with different languages and ways of speaking have changed and developed over time. The participants own examination and reflection on their journey provides insights into the relationship between Sámi language, culture, and identity. This poster shows how different emotions may shape new speakers' lived experiences of language revitalisation and draws attention to the centrality of bodily and emotionally lived experience of language (Busch 2021).

Busch, B. (2021). The body image: Taking an evaluative stance towards semiotic resources. *International Journal of Multilingualism*, 18(2), 190–205.

Choi, J., & Slaughter, Y. (2021). Challenging discourses of deficit: Understanding the vibrancy and complexity of multilingualism through language trajectory grids. *Language Teaching Research*, 25(1), 81-104.

Kvietok Dueñas, F. J. (2019). Youth Bilingualism, Identity and Quechua Language Planning and Policy in The Urban Peruvian Andes [Ph.D., University of Pennsylvania]. In ProQuest Dissertations and Theses.

Lane, P. (2023) From Silence to Silencing? Contradictions and Tensions in Language Revitalization, *Applied Linguistics*, 44(5), 833–847

'The Multilingual World' in the Drawings of Ukrainian War Refugee Children in Poland

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Following the outbreak of the war in Ukraine in February 2022, a significant number of refugees, primarily women and children, arrived in Poland. Many of these children quickly began enrolling in Polish schools and kindergartens, facing the challenge of adapting to a new linguistic environment. This presentation shares insights from the project "Ukrainian Children in Poland: My Multilingual World", conducted at the University of Warsaw between November 2023 and January 2024. The research analyzed 40 drawings created by Ukrainian children to explore how they perceive and navigate their multilingual experiences. Key areas of focus included the children's awareness of their multilingualism and their attitudes toward Polish as an additional language. The study examined whether linguistic diversity was viewed as beneficial or as a source of anxiety, possibly leading to feelings of exclusion or threats to linguistic identity. It also aimed to identify factors affecting language adaptation and social integration, with a particular focus on education. Building on previous studies on children's drawings in sociolinguistic research (Kalaja, Dufva & Alanen 2013: https://www.researchgate.net/publication/288609582_Experimenting_with_visual_narratives; Melo-Pfeiffer 2015: <https://doi.org/10.1080/09658416.2015.1072208>, 2017: <https://doi.org/10.1515/iral-2017-0006>; Melo-Pfeiffer & Schmidt 2018: <https://fordham.bepress.com/jmer/vol8/iss1/2>; Purkarthofer 2018: <https://doi.org/10.1515/applirev-2016-1063>), the project emphasized Ukraine's unique linguistic background and the situation of Ukrainian migrants in Poland. Findings indicate that children generally have a positive or neutral attitude toward their multilingualism, smoothly integrating Polish alongside Ukrainian and/or Russian without major identity conflicts. They recognize their multilingual world as part of a larger, diverse linguistic setting. Although further research is needed to deepen these insights, the initial results offer a promising basis for promoting multilingual integration in Poland's educational and social contexts.

The Neural Development of Mandarin Lexical Tone Processing in Bilingual English-Mandarin Children

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Both language experience and stimulus properties (i.e., acoustical salience) influence the development of lexical tone processing. Event-related potentials (e.g., mismatch responses, MMRS) and behavioral measures show that Mandarin lexical tone processing is immature in monolingual toddlers and preschool children. However, the developmental trajectory of lexical tone processing in bilingual children and how childhood bilingualism affects lexical tone processing remain largely undefined. The purposes of the study are, first, to examine the neurodevelopment for lexical tone processing in bilingual English-Mandarin learning children, and second, to examine the interactions between brain maturation, and stimulus salience in bilingual speech processing. We used a multiple oddball paradigm, and recorded event-related potentials using 65 sensors from bilingual adults and children between 5 and 10 years of age. Mandarin tone 1 (high level tone) and tone 2 (low rising tone) were the deviant tone, and tone 3 (low dipping tone) was the standard tone. Data from 17 adults and 35 children (eighteen 5-7 years old and seventeen 8-10 years old) were included in the analyses. We found, overall, bilingual English-Mandarin children showed different response patterns from those of the bilingual Mandarin-English adults. Based on the source waveforms, children showed a larger first peak (80-280 ms) with earlier peak latency than the adults. Older children showed larger responses compared with younger children, and the adult group showed the smallest responses. Both children groups showed robust response in the late time window (400-600 ms), but the adult group does not show large later responses. The large deflection at 400-600 ms could be P3a (attentional reorienting) in the children. These findings suggest that speech processing in the heritage language such as Mandarin lexical tone are still immature in school-age children.

The preschool completes the house: the house completes the preschool

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Effective interaction between parents and teachers in early childhood education and care is crucial for children's socio-emotional development and well-being. It is even more critical for immigrant families to provide such resources for interaction as family language policy and family funds of knowledge. However, the immigrant groups are diverse, and the diversity of parent groups requires understanding their language policy, expectations from preschool, life circumstances, and worldviews. In turn, teachers bring their classroom language education policy into interaction with parents. Our focus was on the Bnei Menashe parents, who belong to one of the lost tribes of the Israeli community and who returned during the 1980s from India to their ancestors in Israel. The study aimed (1) to explore how the teaching staff addresses the immigrant families' language policy and funds of knowledge and (2) to investigate the parents' and community mediators' perceptions of their language policy, classroom language policy, and expectations from the classroom pedagogy. We conducted an ethnographic case study. Our data set included semi-structured interviews of teachers and three teacher assistants, nine immigrant parents, and three community mediators from one preschool in a town in north Israel. In addition, we collected: Classroom observations, collected language policy documents, photographs of the classroom language landscape, and language resources. Thematic analysis was applied to the entire data set. We found that both teachers and parents reported the diverse steps the teaching staff takes to communicate, including recruiting a teacher assistant from the target community to assist families in negotiating socially dominant language comprehension, providing a regular schedule of valuable notices, memos, and what's up in the community's home language, and using this language to facilitate emotional support. The mediators brought the community's perception regarding the interaction between the house and the preschool and initiatives to empower parents.

The relation between parental language mixing and children's language outcomes: an evidence synthesis.

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Language mixing, also known as code-switching, is the use of more than one language within the same conversation. Even though language mixing is a common phenomenon in the language input of bilingual children, its relation to children's language development remains unclear. In light of the growing prevalence of bilingual upbringing in current societies, it is crucial to investigate how language mixing relates to children's language outcomes. The aim of the current study is to aggregate the existing findings pertaining to this relation and draw an overarching conclusion, in a similar manner to a meta-analysis. To date, six studies have investigated this relation, and their results are equivocal. Their findings vary from a negative relation to a positive relation to no relation at all (Bail et al., 2015; Byers-Heinlein, 2013; Carbajal & Peperkamp, 2020; Place & Hoff, 2011, 2016; Verhoeven et al. [Manuscript submitted for publication]). Importantly, the six studies differ from each other with respect to their context and design, making it impossible to conduct a conventional meta-analysis. However, a newly developed statistical analysis, Generalized Order-Restricted Information Criterion (Approximation) (GORIC(A); Kuiper & Clapper, 2023), makes the aggregation of evidence across studies with different designs possible. The GORIC(A) evidence aggregation combines the support from each study for a central theory and quantifies the overall support. In our case, the central theory is the main hypothesis that is tested in the six studies, namely that parental language mixing is negatively related to children's vocabulary outcomes. It is speculated that language mixing may induce processing costs and hinder children's language development. By combining the relevant data, this exhaustive study provides a robust view of the true relation between parental language mixing and children's vocabulary outcomes. We have received the data from these six studies and expect to have the results by May 2025.

The representation of asymmetric and dissimilar gender systems in the mental lexicon of Polish-Danish bilinguals

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While previous studies have examined either symmetric gender systems with the same type and number of gender values, such as Spanish and Italian (e.g. Morales et al., 2016), or asymmetric systems with differing numbers of gender values, such as German and Spanish (e.g. Klassen, 2016), less is known about the interaction between asymmetric and dissimilar gender systems. This study addresses this gap by using a timed gender decision task (featuring 72 items) with late unbalanced Polish-Danish bilinguals (n = 38), who possess asymmetric and dissimilar gender systems, and a baseline group of Polish-German bilinguals (n = 39), who have symmetric and similar gender systems. Participants' proficiency in Danish and German was assessed via the Dialang placement test. Accuracy and RTs were analysed using (generalised) linear mixed-effects models in R. The results revealed no effect of the Polish gender system on Danish, even for neuter gender, which is present in both languages. In contrast, Polish-German bilinguals showed clear lexical gender congruency effects influenced by their proficiency in German. For masculine and feminine nouns, Polish influenced gender assignment more strongly at lower German proficiency, while for neuter nouns, congruency effects only appeared at higher proficiency levels. Additionally, both groups struggled with neuter gender assignment. These findings suggest that in the bilingual mental lexicon, asymmetric and dissimilar gender systems are represented autonomously. The results from Polish-German bilinguals are attributed to the underuse of neuter gender, potentially masking gender congruency effects for neuter nouns. We are currently collecting picture-naming data from the same population, which we will present alongside the gender-decision data.

Klassen, R. (2016). The representation of asymmetric grammatical gender systems in the bilingual mental lexicon. *Probus*, 28(1). 9–28.

Morales, L. et al. (2016). The gender congruency effect during bilingual spoken-word recognition. *Bilingualism: Language and Cognition*, 19(2). 294–310.

The Role of Attention in Learning from Code-Switched Input

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Bilingual children are commonly exposed to code-switched input during language development. Attentional abilities have been theorized to be an important underpinning for language development, but their role in learning from code-switched input is unclear. It could be argued that code-switching serves as an attentional cue, enhancing learning for children with lower attentional skills. On the other hand, it could be hypothesized that children with difficulties in attention may struggle with learning from this type of input. In the current study, we test the role of attention in bilingual children's learning from code-switched input. The sample included 35 Spanish-English bilingual children (ages 4-5). Background information such as language exposure and experience was collected. The word-learning task involved two conditions: English-only and code-switch. In both conditions, children learned English-like, CVC syllable novel words. Participants completed the task in 1-10 cycles based on achieving a learning criterion of 6/6 accuracy in one cycle or 5/6 accuracy across two cycles. During the exposure phase, each novel object was presented once with four verbal labels. In the code-switch condition, novel words were embedded in both intra- and inter-sentential code-switching, while in the English-only condition, words were embedded in English contexts. The testing phase involved a three-way forced-choice task, with feedback provided in cycles 2-10. Children also completed the Conners Kiddie Continuous Performance Test (K-CPT 2) to assess attentional abilities and the Bilingual English-Spanish Assessment (BESA) to measure language proficiency. We use the detectability score from the K-CPT 2 in our analyses, which is a signal detection statistic relating to participants' ability to differentiate targets from non-targets. Results showed that higher attentional skills (K-CPT 2 detectability) were significantly associated with better performance in the code-switch condition ($p = .046$), suggesting that the efficacy of learning from code-switched input may be influenced from domain-general attentional abilities.

The role of cognitive control and bilingual experiences in cross-language activation of idiomatic meanings

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Research on both lower-level (i.e., single words, see Friesen et al., 2020) and higher-level linguistic constructions (i.e., multi-word constructions; see Jared et al., 2023) has found that language perception in weaker language is affected by the dominant language, specifically through the meaning of the translation, known as cross-language activation priming. However, most studies on cross-language activation priming have focused on the lexical level, which does not fully capture real-world communication. This study will, therefore, test the effects of cross-language activation priming at the multi-word level from the dominant language (L1) to the weaker language (L2) for French-English bilinguals. Participants will listen to sentences in their L2: either filler sentences without idioms or sentences containing L2 translations of L1 idioms. Following each sentence, participants will perform a lexical decision task on a target word, which may be a non-word in English, a word semantically related to the idiom or an unrelated word. Following Jared et al., we expect participants will demonstrate faster lexical decisions for target words related in meaning to the idiom than for unrelated words. Also, we expect greater inhibition control will reduce the facilitatory priming effect while better working memory will enhance the priming. Furthermore, following the Unified Bilingual Experience Trajectory Model (DeLuca et al., 2020), more intense, diverse and prolonged bilingual experiences will decrease the facilitatory priming. The findings will clarify how bilinguals perceive L2 idioms, which are an integral part of daily communication.

DeLuca et al. (2020). Understanding bilingual brain function and structure changes? U bet! A unified bilingual experience trajectory model. *JoN*, 56. <https://doi.org/10.1016/j.jneuroling.2020.100930>

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The Role of English and Spanish Language Skills in Executive Function and Science Readiness

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Spanish-English dual-language learners (DLLs) are a rapidly growing population of children in the US. Research suggests that, compared to monolingual children, bilingual children may experience enhanced executive functioning (EF) skills. This domain general skill is crucial in supporting children's school readiness, as it predicts later socioemotional skills and academic achievement. Moreover, research shows that preschoolers' EF skills are associated with their science readiness. Understanding if each of a Spanish-English DLLs' language skills may support their EF skills differently and, subsequently, enhance performance in academic domains like science can help programs better understand how to support DLL children. The current study uses data collected as part of a larger IES grant during the 2017-2018 school year. We assessed 232 predominantly Latinx Head Start preschoolers to examine the relationship between DLL children's English and Spanish language competence, EF skills, and science readiness, controlling for age. We aim to examine the differential effects of English and Spanish language skills on EF and science knowledge, hypothesizing that stronger bilingual skills will be associated with enhanced EF and science readiness. We further explore whether EF is associated with science readiness, hypothesizing a relationship as assessments are completed in the child's dominant language. Preliminary analyses tested the relationship between science readiness, child language, and EF skills, as measured by PreLAS subtests Simon Says and Art Show (PreLAS2000; Duncan & De Avila, 1998) and Preschool Self-Regulation Assessment (PSRA; Smith-Donald et al., 2007) balance beam and pencil tap tasks which assess behavioral inhibition and cognitive flexibility. We found that Spanish-Dominant DLLs' science scores had a significant relationship to their Spanish language skills ($B=.06$, $p<.001$) and behavioral inhibition ($B=.05$, $p<.01$). This suggests strong Spanish proficiency may support science readiness and EF in preschool DLLs, and further analyses will explore group differences with an English-dominant DLL sample.

The Role of Entrainment in L2 Phoneme Learning

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In conversations, speakers tend to entrain or adapt their communicative behavior to that of their conversation partner (Giles et al., 1987). Research on second language (L2) has shown that L2 speakers improved their pronunciation after interacting with native speakers (Jiang & Kennison, 2022), and entrainment-facilitating tasks such as shadowing and imitation have long been regarded as effective methods in learning L2 pronunciation. However, the underlying mechanisms of entrainment being facilitative in L2 pronunciation learning remain to be investigated. This study addresses this issue by assessing the relationship between L2 speakers' tendency to entrain and their proficiency in pronouncing L2 vowels. One female native speaker of American English and six female Mandarin-speaking learners of English participated in this study as the model talker and the L2 speakers respectively. Stimuli consisted of three target vowels /i, ɪ, æ/ embedded in 36 CVC nonwords. We administered two tasks to measure L2 speakers' pronunciation proficiency (a reading task) and their entrainment degree (a semi-interactive shape-guessing game using pre-recorded responses from the model talker). F1 of the target vowels was extracted in Bark using Praat. L2 speakers' pronunciation proficiency was quantified as the F1 difference to the same item from the model talker. Entrainment was assessed by regressing L2 speakers' F1 onto the model talker's F1, using linear mixed-effects modelling with random slopes that quantify a speaker's degree of entrainment. L2 speakers' pronunciation proficiency and entrainment were then correlated using Pearson's correlation. The analyses showed that all L2 speakers entrained to the model talker. However, the analyses revealed a non-significant negative correlation for speakers' F1 pronunciation proficiency and their F1 entrainment on the vowels ($r=-0.66$, $p=0.15$). Thus, the results suggest that L2 speakers' entrainment tendency may be related to their pronunciation proficiency of certain vowels, but the relation requires further investigation.

The role of explicit learning abilities in first and second language grammatical comprehension

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Most second language (L2) researchers regard it as self-evident that native speakers all converge on the target grammar and that first language (L1) grammar is almost entirely implicit, whereas late L2 grammar learning relies (largely) on explicit mechanisms (Bley-Vroman, 1990; DeKeyser et al., 2010). This study investigated the relationship between two explicit learning abilities – language analytic ability and non-verbal reasoning, traditionally viewed as irrelevant to L1 acquisition – and grammatical comprehension in both L1 and a newly acquired L2. To this end, adult native speakers of English (N=77) were trained in an artificial language with case marking on the object, allowing optional omission of arguments (Verb-Object-Subject; Verb-Object; Verb-Subject), across four sessions. Performance in the final session served as a measure of L2 grammatical comprehension. During these sessions, participants were also assessed on their comprehension of various syntactic structures in their L1 as well as on their non-verbal abstract reasoning and language analytic ability. Results revealed substantial individual differences in comprehension scores for both L1 and L2, with scores showing a positive correlation between the two languages. Notably, both non-verbal abstract reasoning and language analytic ability significantly predicted grammatical comprehension in L1 and L2, showing effects of nearly identical magnitude. Overall, these findings underscore the positive role of explicit learning abilities in both L1 and L2 acquisition (Llompert & Dąbrowska, 2023), challenging traditional dichotomies and suggesting that the cognitive mechanisms underlying L1 and L2 acquisition are more similar than previously recognized.

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The Role of Korean (L1) Input in Facilitating English (L2) Development Among Bilingual Children

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This study aimed to examine the complex relationships between L1 input and children's L1 and L2 vocabulary skills in Korean-English bilingual children. Understanding these dynamics is crucial, as insights into L1's role in L2 development can inform clinical/educational strategies to support bilingual language acquisition. Methods: 161 Korean-English bilingual children (ages 4-7) participated. English and Korean vocabulary was measured using the Peabody Picture Vocabulary Test (PPVT-4; Dunn & Dunn, 2007) and Receptive and Expressive Vocabulary Test (REVT; Kim et al., 2009), respectively. Parental Korean and English use was reported through the Parental Language Environment Questionnaire (Yim et al., 2020). Data analysis was conducted using confirmatory factor analysis (CFA) within a structural equation modeling (SEM) framework to assess the direct and indirect effects of parental language use, REVT, and age on PPVT scores. Age was included as a covariate to control for developmental effects. Results: CFA results showed that children's age significantly predicted both PPVT ($\beta = 1.20$, $p < .001$) and REVT ($\beta = 0.72$, $p < .001$). Parental Korean use significantly predicted Korean vocabulary (REVT; $\beta = 7.60$, $p < .001$), but its direct effect on PPVT scores was not significant ($\beta = -2.86$, $p = .06$), suggesting the role of L1 input in supporting L1 but not directly influencing L2. REVT positively predicted PPVT scores ($\beta = 0.21$, $p = .02$), supporting a mediating effect where L1 proficiency facilitates L2 development. In contrast, parental English use showed no significant effect on either REVT or PPVT. Discussion: The findings suggest that Korean vocabulary proficiency mediates the relationship between parental language use and English vocabulary. The results are consistent with Cummins' Interdependence Hypothesis (Cummins, 1991) and previous research (Pham et al., 2018; Siu & Ho, 2015). This study provides evidence for cross-disciplinary discussion on strategies to support young bilinguals' language development.

The role of language distance in bilingual language processing

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There is considerable evidence that bilinguals experience language co-activation in one-language contexts, i.e., lexical access is language-nonselective (van Heuven et al., 2008). However, most evidence comes from bilinguals of close languages, e.g., Dutch-English (Poort & Rodd, 2022), and it is unclear how generalisable this finding is across different types of bilinguals. It has been suggested that bilinguals of distant languages are less likely to experience language co-activation than bilinguals of close languages (Cenoz, 2003). To address this issue, this study examines the effects of language distance in bilinguals on their language-selectivity by comparing (1) Turkish-English (distant) and Spanish-English (close) bilinguals, and (2) Basque-Spanish (distant) and Catalan-Spanish (close) bilinguals. Participants will complete an L2 semantic relatedness task, deciding whether two words are related to each other in meaning. Critical items are interlingual homographs (IHs) – words with identical spelling but different meanings across languages (e.g., pie in English and Spanish, meaning foot). IHs will be presented with words related to their L1-reading (e.g., toe-pie) or unrelated words (e.g., pie-eve). Cross-language activation should give rise to interference from the L1 meaning of IHs, leading to lower accuracy and longer latency for IHs compared to their control words. We expect bilinguals of close languages to experience more cross-language activation than bilinguals of distant languages.

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The Role of Parent and Child Agency in Heritage Language Maintenance

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Defined as the capacity to act and make choices (Ahearn, 2001), agency is among the most critical factors determining the success of family language policy, where the children can speak their heritage language. While Spolsky's model of language policy remains the most used framework in family language policy, the framework does not explicitly address the role of agency in family language policy. This study extends Spolsky's model of language policy by investigating the role of parent and child agency in shaping family language policy and heritage language maintenance among three Arabic-English bilingual families in Australia with children aged 4-12. Through interviews, observations, audio recordings of parent-child interactions, informal discussions with the children and using thematic analysis, our findings reveal that parental agency could be positive, negative or passive, each affecting the family language policy. Positive parental agency is exercised through collaborative decision-making and creating organic and sustainable language environments that encourage heritage language development. Negative parental agency involves deliberate choices that could hinder or diminish heritage language use. Passive parental agency, a newly identified form and an original finding of this study represents a neutral stance where parents believe in heritage language preservation but take no action to promote it, use or teach it to the children. In contrast, child agency is either positive (children complying and engaging with the family language policy) or negative (resisting or defying the heritage language policy). Child agency tends to be affected by the children's ability to speak the heritage language, influencing the family language policy and heritage language maintenance outcomes. These findings have significant theoretical and practical implications for understanding how different forms of parental and child agency drive family language policy and, ultimately, heritage language maintenance and outcomes.

Ahearn, L. M. (2001). Language and agency. *Annual Review of Anthropology*, pp. 30, 109–137.

The Role of Performance Control and Reflection in Language Learning Attainment: Evidence from English and German Linguistic Courses

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Self-regulation (SR) is asserted to be essential in successful foreign language learning given the importance of goal setting, monitoring one's progress, and reflecting on the choice of learning strategies (Teng & Zhang, 2022). This study explores the impact of SR, specifically through performance control (PC) and reflection (R), on attainment in Standard Linguistic Courses (SLC) in English and German. The courses mostly involve explicit instruction in language subsystems such as phonology, morphology, syntax, and semantics (Rebuschat & Williams, 2012). Unlike prior studies relying on introspective data, ours utilises behavioural data from non-graded Moodle activities and structured reflections, thus capturing observable self-regulatory actions (Winne, 2018). It examines the contributions of PC and R to SLC attainment across languages and explores potential language-specific differences in SR. Our findings are based on data collected at four intervals within a year in which 112 undergraduate students participated in SLC and engaged in monitoring and reflection tasks. Our generalised linear model (GLM) indicates that both PC and R significantly predict attainment, explaining 55.6% of variance in participants' SLC scores. The absence of a significant interaction between language and SR dimensions suggests that SR consistently impacts attainment in both English and German, thus underscoring the broad applicability of self-regulatory frameworks in diverse language learning contexts.

Rebuschat, P., & Williams, J. N. (2012). Implicit and explicit knowledge in second language acquisition. *Applied Psycholinguistics*, 33(4), 829-856.

Teng, L. S., & Zhang, L. J. (2022). Can self-regulation be transferred to second/foreign language learning and teaching? Current status, controversies, and future directions. *Applied Linguistics*, 43(3), 587-595.

Winne P. H. (2018). Theorizing and researching levels of processing in self-regulated learning. *The British Journal of Educational Psychology*, 88(1), 9-20.

The role of situational context in the social evaluation of code-switching

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While several studies have examined the social perceptions of code-switching compared to monolingual varieties (Anderson & Toribio 2007; Guzzardo-Tamargo et al. 2019; Rangel et al. 2015; Rodrigo-Tamarit & Loureiro-Rodríguez 2024), only one (Koch et al. 2001) has examined the importance of context in these evaluations. This is surprising as code-switching has been shown to be conditioned by context (Zentella 1997). Building on Koch et al. (2001), this study aims (i) to examine evaluations of English, Spanish, and code-switching by U.S. Latinx bilinguals; (ii) to analyze how evaluations vary by individual characteristics; (iii) to explore how context influences evaluations. A matched-guise task (Lambert et al. 1960) was created based on the speech of four bilingual speakers (two females, two males) from Texas who recorded utterances of 4-6 seconds in English, Spanish, and code-switching, to be presented in formal and informal contexts. The 24 guises were presented online in Qualtrics. 112 bilingual Latinx listeners at a Texas university (70 women, 42 men; age: 18-54; M: 21.6) evaluated recordings on a six-point Likert-scale for eight social characteristics. Independent variables were language, context, speaker gender, listener gender, self-reported code-switching, course level. For each dependent measure, a separate mixed-effects linear regression model was fitted using the lmer function (Bates et al. 2015) in R (R Core Team 2024) with random factors of speaker and listener. Quantitative analyses found that code-switching guises were perceived as being of less status and less respectful than Spanish and English guises, reflecting monoglossic language ideologies. These perceptions varied by listener characteristics in which code-switching Latinx listeners ascribed covert prestige to code-switching. Finally, qualitative comments indicated that listeners had clear notions of appropriate situational contexts of where and with whom code-switching should and should not occur. The findings point to a need for more nuanced discussions regarding language attitudes of code-switching.

The role of translanguaging in developing tense learning for EFL students in the UAE

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This study investigates the effectiveness of translanguaging in improving English tense learning among English as a foreign language (EFL) students in an Arabic-speaking context, more specifically the United Arab Emirates (UAE). This study addresses key gaps by employing a mixed-method approach to complement the predominantly qualitative translanguaging research (Huang & Chalmers, 2023). Additionally, it expands research into underrepresented Arabic-speaking contexts, being the first to explore translanguaging in the UAE (Tang et al., 2024). Eighty students took part in a quantitative pre- and post-test over a period of 3 months, and qualitative interviews. The results demonstrate that students taught using translanguaging showed a statistically significant improvement in their understanding of English tenses at the end of the semester. The interviews that were thematically analysed revealed that students felt more engaged and confident when given the opportunity to use both the target language and their native language in the classroom, which enhanced their understanding of the English tense structures. The findings suggest that translanguaging fosters a more inclusive and effective learning environment for EFL students, encouraging active participation and better language retention. A broad potential of translanguaging as a valuable method in EFL education, particularly in classrooms with a wide range of linguistic backgrounds is emphasised. A need for further research to explore how translanguaging can be systematically integrated into language teaching frameworks in the UAE and beyond is also highlighted.

Huang, X., & Chalmers, H. (2023). Implementation and effects of pedagogical translanguaging in EFL classrooms: A systematic review. *Languages*, 8(3), 194.

Tang, X., Rouse-Malpat, A., & Duarte, J. (2024). Implementing translanguaging strategies in the English writing classroom in higher education: A systematic review. *AILA Review*.

The Semantic Depth of Japanese-English Bilingual Children

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Purpose: The purpose of this study was to examine the semantic organization of Japanese-English bilingual children. Specifically, this study investigated if there was a cross-linguistic relationship between Japanese and English syntagmatic (context-based) and paradigmatic (category-based) associations, and what the predictors of code switching and use of translation equivalents are. Given the typological differences between Japanese and English, examining how children navigate semantic associations across these languages offers valuable insights into the cognitive processes underlying bilingual language acquisition. **Methods:** The participants were 30 Japanese-English bilingual children aged 2 to 8 ($M = 70.8$ $SD = 22.14$). A word association task (WAT) was administered to examine children's semantic knowledge in both languages. They were asked to generate three responses per word in both Japanese and English, with counterbalanced order. Responses were coded as paradigmatic, syntagmatic, or errors. Code-switched responses were coded as either successful (semantically correct) or unsuccessful (error). Translational equivalents were calculated as the percent of total similar responses across languages out of all responses. Children's lexical diversity (NDW) in both Japanese and English was measured using the Multilingual Assessment Instrument of Narratives (MAIN). **Results:** Multiple regression models revealed significant cross-linguistic relationships. The children's ability to generate both paradigmatic and syntagmatic responses in Japanese significantly predicted their ability in English and vice-versa, even after controlling for age and language input. For code switching, age was not a predictor, but rather, the number of code-switches during the story retell task was. Finally, age was strongly correlated with translation equivalents. **Conclusions:** This study revealed a strong cross-linguistic influence in the semantic organization of Japanese-English bilingual children, as well as convergence toward the use of more translation equivalents with age, suggesting that semantic knowledge is interconnected across languages. Lexical diversity also plays a role, especially in predicting paradigmatic associations in Japanese.

The value of language learning for heritage speakers who study abroad

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Previous literature has explored the factors that college students consider to opt in/out of study abroad (SA) (Anderson & Lawton, 2015; Basterretxea Santiso & Sanz, 2022, 2023). However, more information is needed on minoritized students, including heritage speakers (HSs) (Ortega, 2021). While a handful of scholars have contributed their views on the development of more diverse programs (Quan, 2018; Marijuan, 2023), we still lack information on the factors that drive HSs to study abroad (Guerrero-Rodriguez et al., 2024), despite their increasing numbers (George, 2023). This study aims to amplify the voices of minoritized students in SA research, inform practitioners of ways to diversify SA participation, and consider the role of language skills development as a factor for SA among HSs. Eighty HSs completed Anderson and Lawton's (2015) five-point Likert-scale on Motivation to Study Abroad (MSA) between Spring 2021 and Fall 2024. The original MSA included the following factors: World Enlightenment, Personal Growth, Career Development, and Entertainment, but was later adapted by Basterretxea Santiso & Sanz (2022, 2023) to include Health and Language Skills. For triangulation purposes, participants answered open-ended questions at the end of the questionnaire. Qualitatively, thematic analysis identified language proficiency to be the third factor group, preceded by geographic location and cost. Other factors absent from the MSA were identified: program focus, a break from campus & travel, and cultural immersion. Quantitatively, students' responses run contrary to the views of scholars and practitioners of SA and/or HSs explored in Basterretxea Santiso et al. (Accepted). Specifically, HSs' factors to opt in/out of SA are identical to those identified for non-HSs (Anderson & Lawton, 2015; Basterretxea Santiso & Sanz, 2022, 2023), ranking Language Skills as the third factor. These results suggest that although language development is an important consideration for HSs planning to SA, other factors—world enlightenment, health, geographic location, financial costs—carry even greater weight in their decision-making process.

The vocabulary of simultaneous bilingual children exposed to a minority (Basque) and a majority language (Spanish), both having official status

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Bilingual research on children acquiring minority languages provides a specific scenario for the study of language dominance, where a majority of early simultaneous bilinguals are unbalanced. Such is the case of many early Basque-Spanish bilinguals living in the Basque Autonomous Community (BAC), who have either Spanish, the socially dominant language, or Basque, the socially less dominant one, as their dominant language. Previous studies on children tested with the Basque CDI questionnaires distinguished between (quasi-)Monolingual Basque, Basque-dominant and Spanish-dominant bilinguals, according to their relative amount of exposure to Basque: over 90%, 60-90%, < 60%, respectively. Data revealed significant effects of age and input in the expressive vocabulary of children, where Spanish dominant children underperformed both the Monolingual and the Basque dominant group, but where the Monolingual group did not perform differently from the Basque-dominant one. The current study investigates the effect input on the vocabulary size in Spanish and Basque of a group of bilingual infants (N=60, 16-27 months) living in the BAC. Participants were exposed to two home languages, which are also societal and official languages. Vocabulary data obtained with both the Basque (Barreña et al. 2008) and the Iberian Spanish CDI-2 questionnaires (López-Ornat et al. 2005) revealed significant effects of two input variables in the two languages: relative amount of exposure and inter-parental language. In contrast, these variables did not affect the size of the conceptual vocabulary. The need of redefining dominance in child research will be discussed on the basis of these and additional findings (Hurtado et al. 2014).

Barreña, A. et al. (2008). MacArthur-Bates komunikazio garapena neurtzeko zerrenda euskarara egokitua. UEU.

López-Ornat, S. et al. (2005). MacArthur: inventario de desarrollo comunicativo. [MacArthur: communicative development inventory]. TEA.

Hurtado, N. et al. (2014), Relative language exposure, processing efficiency and vocabulary in Spanish–English bilingual toddlers. BLC 17 (1) 189–202.

They is one, not two: Cognitive control predicts individual ability to interpret inclusive pronouns in L2 English.

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The English pronoun “they” is traditionally used to refer to a plural entity or to a singular entity with unknown gender but, in recent years, the use of singular “they” has been extended to refer to a single individual of non-binary gender. Data from first-language (L1) English speakers found that explicitly introducing an individual’s pronouns may result in near-perfect accuracy in the comprehension of singular “they”, but only in unambiguous single-referent contexts (Arnold et al., 2021). In ambiguous contexts with more than one referent (where “they” could be interpreted as singular or plural), a singular interpretation is approximately at chance at the group level. Here we examine the use of L2 English among bilingual speakers as one vehicle for broader adoption of inclusive language through singular “they”. Specifically, we ask whether variability in the adoption of the singular “they” interpretation is mediated by speakers’ cognitive control, based on the ability to inhibit the traditional plural interpretation. We examined Puerto Rican Spanish-English bilingual speakers’ ability to process singular “they” in unambiguous (one-referent) and ambiguous (two-referent) contexts. Participants read stories featuring three explicitly-introduced characters (Will-he, Liz-she, Alex-they) in unambiguous (single-referent) and temporarily ambiguous (two-referent) contexts, followed by comprehension questions (Examples 1-2). The AX-CPT and Stroop tasks provided indices of cognitive control.

1-Here is Alex. Yesterday, they finished the cake by themselves.

2-Here is Alex with Liz. Yesterday, they jumped into the pool by themselves, but Liz sat in the shade instead.

The results (N=34) revealed that in ambiguous two-referent contexts including a non-binary individual (e.g., Alex), singular “they” interpretations were at-chance at the group level, but bimodally distributed across participants. Among speakers willing to accept the singular interpretation (singular-they acceptance >0%), the ability to adopt the singular interpretation was significantly predicted by inhibition ability as indexed by the Stroop task.

Towards Establishing a Contemporary Phonological Inventory for Philippine Languages

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The Philippines, home to over 180 languages (Philippine Statistics Authority, 2020) shaped by various cultural and geographical factors, currently lacks a comprehensive phonological inventory for its major languages. Although this diversity enriches the nation's culture, the limited availability of phonological data for clinical use is evident, with accessible resources primarily focusing on Tagalog-English phonology (Augustino et al., n.d.). In a country marked by extensive language contact, contemporary variations of languages emerge, highlighting the need for updated studies that reflect these evolving linguistic dynamics (Usero, 2021). This study aims to address this gap by developing contemporary phonological inventories for the eight major Philippine languages. The study aims to recruit 20 native speakers, aged 18 - 50 years old, for each target language. The Language Experience and Proficiency Questionnaire (LEAP-Q) (Marian, Blumenfeld, & Kaushanskaya, 2007; Manuelli, 2011) will be utilized to obtain information on their language use and exposure. Speech samples will be collected through spontaneous speech tasks and sentence elicitation tasks. A randomized set of three prompts will be assigned to each participant which will then guide their spontaneous speech production. For the sentence elicitation tasks, the participants will be given 20 phonemically balanced sentences containing all known phonemes to the language. The collection of the speech data will be done using a portable fieldwork set up consisting of a laptop, noise-canceling headphones, and a microphone. Each sample will be broadly transcribed to identify the consonants and clusters, with those appearing twice in each sample considered for inclusion in the inventory (Dodd & Iacano, 1989). The consonants and clusters will be analyzed based on their complexity (Geirut, 2001; Storkel, 2018) allowing the creation of a multilingual phonological inventory across the major Philippine languages. This ongoing research will provide updated data on the phonology of major Philippine languages for clinic and research purposes.

Translanguaging in Chinese-English Dual Language Education: An Action Research Study in An International School

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There are notable research gaps in curriculum and instruction within Chinese-English dual language (DL) programs. The primary challenge for any DL program is the limited instructional time available to achieve rigorous standards in both languages. This paper reports on an action research project conducted by the International School of Beijing, focusing on maximizing instructional time through translanguaging practices. After a comprehensive literature review, the DL team identified eight evidence-based translanguaging practices at macro and micro levels (Freeman et al., 2018; García et al., 2017; Hamman-Ortiz, 2024). Implemented by 20 teachers from Early Year 3 to Grade 5 over three months, these practices were evaluated using classroom observations, document analysis, focus groups, and teacher surveys. This comprehensive data analysis provided insights into the impact of translanguaging practices from various perspectives. Two key findings emerged: (1) teachers reported high confidence and perceived effectiveness in their instructional practices; (2) translanguaging practices were associated with enhanced student understanding and engagement. The action research highlighted several critical next steps, establishing the DL team as a community of practice and expanding their roles as research-practitioners. This study illustrates how action research at the program level fosters high-quality, evidence-based bilingual education that meets the diverse linguistic and cultural needs of its community.

Freeman, Y. S., Freeman, D. E., & Mercuri, S. (2018). *Dual language essentials for teachers and administrators* (pp. 1-50). Portsmouth, NH: Heinemann.

García, O., Johnson, S. I., Seltzer, K., & Valdés, G. (2017). *The translanguaging classroom: Leveraging student bilingualism for learning* (pp. v-xix). Philadelphia, PA: Caslon.

Hamman-Ortiz, L. (2024). Cultivating a critical translanguaging space in dual language bilingual education. *International Multilingual Research Journal*, 18(2), 119-139.

Translanguaging in the Primary Mathematics Classroom: A Systematic Review

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Translanguaging is a pedagogical approach that refers to encouraging and/or enabling bilingual children to use not only the language of instruction (school language, L2) but their (full) linguistic repertoires, including the languages used at home (home language, L1). Emergent bilinguals have the challenge of learning content subject matter, such as mathematics, whilst at the same time still learning the L2 and the academic registers required to learn the subject matter (Smit et al., 2013). Translanguaging allows students to participate more actively in mathematical discourse and their performance can improve when their L1 is regarded as a valued resource (Moschkovich, 2007). Although the value of translanguaging is becoming accepted, a systematic overview of translanguaging strategies, challenges and conditions within each subject area is lacking. The present review fills this gap within the domain of primary mathematics education. The research question is: What are conditions, challenges and strategies when incorporating the use of translanguaging within primary mathematics education? The review followed PRISMA guidelines. Searches were done in Web of Science and SCOPUS databases using search terms based on the research question. 1482 articles were initially collected. After removing duplicates, abstract and full text screening 43 articles were included in the review. Preliminary results show that translanguaging conditions and challenges depend on the ability of the teacher to speak the students' L1, whether students' share their L1, and students' skills such as capability to read and write in the L1. Digital translanguaging strategies appear to be a promising development within translanguaging.

Moschkovich, J. (2007). Using two languages when learning mathematics. *Educational Studies in Mathematics*, 64(2), 121-144. <https://doi.org/10.1007/s10649-005-9005-1>

Smit, J., Van Eerde, H. A. A., & Bakker, A. (2013). A conceptualisation of whole-class scaffolding. *British Educational Research Journal*, 39(5), 817-834. <https://doi.org/10.1002/berj.3007>

Translation and Language Control: The effects of translation on subsequent language production

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Translation is a cognitively demanding act regularly performed by bilinguals in their everyday lives. Research has primarily examined cognitive aspects during the translation act (e.g., attention, working memory), while little attention has been directed to the post-translation environment especially regarding language control. Our aim was to investigate the “aftereffect” of translation on subsequent language production. We conducted four experiments with different groups of bilinguals (German/Spanish/Greek/Turkish- English) relying on the blocked language order effect paradigm, in which bilinguals perform in three consecutive single language blocks and switch languages from one block to the next (L1→L2→L1). The typical finding is worse L1 performance in Block 3 compared to Block 1, due to the inhibition of L1 in Block 2 that persists into Block 3. In our experiments, block 1 and Block 3 involved a network description task, where six networks of seven connected pictures were described using sentences. Block 2 consisted of a translation task, where six-word sentences presented in written form were orally translated. Across sessions we manipulated the sequence of languages produced (i.e., L1→translation: L1 to L2→L1, L1→translation: L2 to L1→L1, or L2→translation: L1 to L2→L2). To gauge the effect of task switching, one of the sessions included a reading-out-loud task instead of the translation task in Block 2. Results showed higher error rates and more filled pauses in Block 3 compared to Block 1 in the L1→translation: L1 to L2→L1 and L1→translation: L2 to L1→L1 sequences, but a null effect in the L1→reading out loud in L1→L1 and L2→translation: L1 to L2→L2 sequences. These findings demonstrate a decrease in language performance after translating in specific sequences, underscoring the importance of prior linguistic context in bilingual language production. Moreover, the null effect in the L2→translation: L1 to L2→L2 sequence suggests that language control mechanisms underly this post-translation effect.

Trilingual children code-mix to fill lexical gaps and more

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While many studies have examined code-mixing in bilingual children, few have investigated that in trilinguals, who may switch between three linguistic systems and exhibit more complex patterns. This study investigated to what extent code-mixing in early trilingual acquisition is driven by “lexical gaps”, namely, the speaker employing known words from Language A to compensate for unknown words in Language B (Greene et al., 2012; Halpin & Melzi, 2018). We analysed longitudinal data of Winston, a Cantonese-Mandarin-English trilingual born into Chinese parents, and raised in the US (Child Heritage Chinese Corpus, Mai & Yip, 2017; CHILDES). Mixed elements were extracted from three elicitation contexts (i.e., Cantonese, Mandarin, English) from 1;7 to 3;7 and grouped in four subsets corresponding to four sub-periods. We identified mixed items in child utterances and searched for their translation equivalents in the intended language in data subsets up to this sub-period to evaluate whether the mixed item is a filler of the lexical gap. Results show that the proportion of gap-fillers peaked at 80%-100% during the earliest two periods (1;7-1;11; 2;4-2;7) in both type and token, and decreased below 70% in the final period (3;5-3;7). Interestingly, there are language and context effects in the earliest periods, in which Mandarin items were the most frequent fillers in Cantonese contexts (36.5%), whereas English fillers were dominant in Mandarin contexts (100%). Cantonese items were rarely inserted into Mandarin or English utterances (0%-8%). Further analysis reveals that the syntactic category of the gap fillers expanded from content to function words, and that code-mixing in later periods functioned beyond gap-filling to flexibly adapt to the interlocutors’ code-mixing patterns or to create novel language combinations. Drawing on translanguaging studies (Garcia & Wei, 2015; Genesee, 2006), our findings reflect trilingual children’s communicative and social competence in combining resources to convey meanings across languages effectively.

Trilingual toddlers strategically draw on closely-related languages to catch up

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Toddlers that are productive in three languages are quite rare. How they develop this ability based on home input has been understudied (Quirk, Hadeed & Byers-Heinlein, 2024). Mai & Yip (2022) reported the case of Leo acquiring Cantonese, Mandarin and English through naturalistic interaction with caretakers, and showed surprisingly better performance in Cantonese than predicted based on the proportion of Cantonese in total input (26%) alone, probably due to positive transfer from Mandarin, a closely related Chinese language with a larger amount of input (54%) in his case. This study further investigates input-outcome relations in the same triad through three new samples collected using different combinations of a wider range of methods: parental questionnaire, CDIs, speech samples in caretaker-child play, and standardized assessments of receptive vocabulary. 1) In a new case of Louis, analysis of his speech samples from 2;0 to 2;11 shows that Louis developed Cantonese and Mandarin in tandem (peak Cantonese MLUw=3.38, MLU3w=10.67) despite less input in Cantonese than in Mandarin (22% vs. 45%). 2) CDI reports of seven firstborns, despite radically different input ratios, revealed close-to-balanced development of Cantonese and Mandarin at 3;0 (vocabulary opportunity scores: Ms=75%, 63%, $p=.27$). 3) In a longitudinal sample (1;6 to 3;0), six firstborns, who had significantly more input in Cantonese (41%-72%, $M=54\%$) than in Mandarin (13%-36%, $M=24\%$), produced a larger proportion of Cantonese-Mandarin cognates than noncognates ($p=.04$), displayed comparable performance between Cantonese and Mandarin in CDI sentence complexity ($p=.19$), MLUw ($p=.85$) and receptive vocabularies ($ps>.05$). Across the samples, the trilinguals developed productive proficiency more slowly in English than in the Chinese language matched for input proportion. The new samples replicated previous findings with Leo and further revealed how trilingual toddlers with different input distributions strategically draw on closely-related languages in the triad to supplement reduction of input and support language development.

Turkish at fast forward: The use of *bir* in heritage speakers

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Our study highlights the role of language internal factors for crosslinguistic influence (CLI). Recently, it has been pointed out that heritage speakers (HS) anticipate, amplify or accelerate diachronic change (Nagy 2016, Rinke and Flores 2014, Kupisch and Polinsky 2022), especially when incipient changes are already present in the baseline grammars (henceforth the ‘Fast Forward Hypothesis’). We test this idea based on the indefinite article *bir* in heritage Turkish in Germany, Italy and Sweden. Diachronically, indefinite articles develop based on a well-defined grammaticalization cline. Indefinite articles originate from numerals, then their use expands from contexts of specific reference towards non-specific reference. Turkish *bir* is less grammaticalized compared to indefinite articles in many Indo-European languages. While *bir* can be used with specific and non-specific reference (a-b), it can be absent in verb-incorporating, generic and predicative constructions (c-e show examples with simplified translations). It is present to variable degrees in the equivalent German, Italian and Swedish constructions.

a. *Bir kitabı okudum* (I read a specific book)

b. *Bir kitap okudum* (I read a book)

c. *Kitap okudum* (I was book-reading)

d. *Köpek havlıyor* (Dog barks)

e. *Mehmet kasaptır* (Mehmet (is) butcher)

Bir is late acquired (Küntay 2002), and Turkish HS show CLI for specific aspects of in/definiteness marking (Coşkun et al. 2022, Backus et al. 2011, Felser & Arslan 2019, Yılmaz & Sauermann 2023). We test whether contact settings with majority languages having more grammaticalized article systems (German, Italian and Swedish) lead to an expansion of articles use to new contexts, as predicted by the Fast Forward Hypothesis. Amongst, the three settings, Italian has the most grammaticalized article system; Italian the least. We present acceptability judgment data from 30 HSs in Germany, Italy, Sweden, respectively, as well as controls in Turkey, investigating the degree of CLI (internal factor), taking external factors (especially attitudes and language experience) into account.

Understanding Phonological Acquisition and Phonological Neighbourhood Density in Cantonese-English Bilingual Children

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With a growing Cantonese-English bilingual (CEB) population in Hong Kong and in other countries such as Australia, Canada and the United Kingdom, research on typical early bilingual language development has been lacking, posing challenges in clinical practice. The clinical need to understand both typical phonological developmental trajectory and the role of Phonological Neighbourhood Density (PND) in early language development for CEB population is growing. This presentation will comprise of two studies. Study 1 determined the phonological development of CEB children, and Study 2 aimed to further understand the role of PND in the phonological aspects of word acquisition in CEB children. In Study 1, a total of 19 typically developing CEB children from Hong Kong (2 to 5;11) were examined. A language environment questionnaire (Q-BEx), and two sets of vocabulary forms, the Chinese (CCDIs) and the MacArthur-Bates Communicative Development Inventories (MBCDIs), were completed with the parents. The children's phonological skills and development were assessed in both languages using Hong Kong Cantonese Articulation Test, Toddler Phonology Test, Diagnostic Evaluation of Articulation and Phonology and informal language assessment. Results revealed that the CEB children follow a distinct trajectory of phonological development with bi-directional cross-linguistic interactions. In Study 2, five typically developing CEB children (1;6 to 2;11) were included for PND analysis. The procedures paralleled Study 1, where adapted versions of the CCDIs and MB-CDIs were utilised. PND values, based on reported vocabulary measures, were computed for each participant, for each language individually and cross-linguistically. Correlations were found between English and cross-linguistic PND values and the phonological measures in Cantonese. The presentation will provide preliminary results on typical Cantonese-English phonological development, insights on the calculation of PND in bilingual speakers and the role of PND which clinicians can utilise to streamline intervention with CEB children.

Understanding the Growth of English Narrative Skills in Bilingual Children

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Introduction: Narratives consist of macrostructure elements that play a vital role in creating and comprehending stories at school. As children progress through education, their narrative abilities grow increasingly sophisticated and include more elements (e.g., Israelsen-Augenstein et al., 2022). However, understanding how bilingual children develop these narrative skills in their second language remains under studied especially with longitudinal data (e.g., Hiebert & Rojas 2022). This study addresses this gap by exploring the development of English narrative macrostructure elements (e.g., character, initiating event, and consequence) through story retellings in bilingual Spanish-English speaking children. **Method.** We followed 52 bilinguals from preschool through third grade in the US. Children completed yearly story-retellings. English transcriptions were examined using the Monitoring Indicators of Scholarly Language (MISL), which capture narrative complexity over time. We used Growth Curve Model analyses to examine the rate of change in macrostructure and its elements. **Results:** Results indicate that overall English macrostructure showed linear growth throughout the academic years. However, the growth was not linear for the specific elements, initiating event, attempt, and consequence. These elements seemed to decline in the final year of the study. We plan to run an additional growth curve model comparing children with typical and developmental language delay in our presentation. **Discussion:** Results show grade-based narrative milestones to understand narrative development in bilingual children. The results highlight the need to promote and assess narrative skills which are vital for academic success.

Hiebert, L., & Rojas, R. (2021). A longitudinal study of Spanish language growth and loss in young Spanish-English bilingual children. *Journal of Communication Disorders*, 92, 106110.

Israelsen-Augenstein, M., Fox, C., Gillam, S. L., Holbrook, S., & Gillam, R. (2022). Monitoring indicators of scholarly language: A progress monitoring tool for documenting changes in narrative complexity over time. In *Frontiers in Education* (Vol. 7, p. 918127). Frontiers Media

Understanding the LPC code-switch cost through co-registration of ERPs and Pupillometry

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Code-switch comprehension is a recurring topic of interest in bilingual language processing. Many studies have shown a processing cost for intrasentential code-switches in reading time, pupil dilation response (PDR), and event-related potentials (ERPs).^{1,2,3,4} Some ERP studies of code-switching report increased amplitude in the Late Positive Component (LPC), and some studies even report an LPC in absence of other highly robust switch costs like the N400 component.^{3,4} Adding confusion, the LPC is not clearly defined, with ties to syntactic processing, reanalysis, and/or context updating. The current study investigates the code-switch LPC through co-registration with eye-tracking. Forty-eight Spanish-English bilinguals listened to English and Spanish sentences, blocked by language. Within each language block, forty target sentences stayed in the same language, and forty contained an intrasentential code-switch. ERP analysis revealed a significant interaction of posteriority and code-switching in both early and late time windows (500-700ms, $p < 0.001$) (700-900ms, $p < 0.001$), where code-switches elicited larger positivities than non-switches. We expand upon this in two co-registration analyses with pupillometry data: one to correlate LPC amplitudes with pre-trial pupil sizes, and one to correlate LPC amplitudes with the PDR to the critical word. These analyses parallel prior co-registration analyses of the N400 and pupil size demonstrating how attention modulates cognitive processing.⁶ We will discuss how ERP and eye-tracking co-registration can disentangle interpretations of the LPC by linking global integration to attention and cognitive effort.

[1] Altarriba et al. (1996).

[2] Beatty-Martinez et al. (2021).

[3] Moreno et al. (2002)

[4] Litcofsky & Van Hell (2017)

[5] Kaan et al. (2000).

[6] Silcox & Payne (2021)

Unravelling Structural Priming in L2 Sentence Comprehension: The Impact of Verb Bias and Structure Frequency

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Research on structural priming in comprehension shows greater priming effects for infrequent structures among L1 learners and speakers (Fine & Jaeger, 2013; Chen et al., 2022). Inverse frequency effects support implicit learning models of priming, positing that priming is the consequence of speakers experiencing prediction errors when the prime structure they encounter does not conform to the expectations they have had about it (Dell & Chang, 2014). Little is known as to how (inverse) frequency affects comprehension priming among L2 learners. We investigate the role of (inverse) frequency – both in terms of verb bias and structure frequency – in structural priming of English dative constructions to test whether implicit learning models also hold for L2 learners. We conducted two visual world eye-tracking priming experiments testing (1) whether prediction error, occasioned by verb bias, drives structural priming and (2) whether changing the frequency of prime structures affects the directionality of priming in L2 comprehension. In Experiment 1, forty-eight adult L1-German–L2-English learners read verbs biased to double-object-datives (DO, “pay the man the money”) or prepositional-object-datives (PO, “send the money to the man”). Prime sentences differed in Verb Bias (DO-bias/PO-bias) and Structure Type (DO/PO). Subsequently, participants heard target sentences with unbiased verbs (“show”) while viewing scenes depicting the arguments. Gaze data showed (a) only PO-priming; namely, following PO primes, participants looked more at the theme (“the money”) after the verb compared to DO primes, and (b) inverse verb bias effects, namely stronger PO-priming for DO-bias verbs. In Experiment 2 with another 48 L1-German–L2-English learners, we increased the frequency of DO primes as 75% of filler prime sentences contained DO structures. Results now showed DO-priming on top of PO-priming, highlighting the significance of structure frequency on priming direction. We discuss implications of (inverse) frequency in priming for models of L2 comprehension and learning.

Use and Vitality of the Basque Language in Basque Museums' Social Media

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In recent years, museums have added social media to their toolkit of online communication in order to establish a meaningful and interactive dialogue with their public. This two-way communication, however, involves choosing a language that aligns with the target audience. In the case of Basque Country, museums would cater for two languages in their digital communication. Being a co-official language alongside Spanish in the Basque Autonomous Community, Basque is spoken by 36% of the population, with around 600,000 native speakers. The goal of this research is to examine the use and vitality of Basque in Facebook, X and Instagram profiles of Basque museums. A quantitative content analysis of the social networks of the museums distinguished as Euskadi Collection has been carried out, which shows how these entities manage their content language as regards to the use of both co-official languages. Our findings will show that nearly two thirds of the contents created by museums (64%) are bilingual in Basque and Spanish and that just over a third of the publications shared by these entities (38%) include Basque. Likewise, only 4% of the comments posted on museums' social media are in Basque. In contrast, Spanish continues to be the most widely used language (in 88% of the publications), showing the fragile situation in Basque faces nowadays.

Using Network Analysis to Predict the Bilingual Phonological Idiolect

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The Dual-Systems Hypothesis is a theoretical framework that aims to describe the structuring of the bilingual linguistic system as two separated, differentiated systems with points of contact (Paradis and Gensee, 1996). Though described using evidence from child language, this framework was adapted and used in later work to describe the structure of the bilingual phonological system (Fabiano-Smith and Goldstein, 2010); however, the emergence of translanguaging has shifted the perspective of how scholars in the study of language understand bilingualism. First defined by the field of education, translanguaging is a pedagogical approach that highlights the use of the idiolect, or one's unique language, as means to select and deploy linguistic features (Otheguy, Garcia, & Reid, 2015). The idiolect is unitary in nature and linguistic features, such as phonemes, are unbounded suggesting purposeful selection of them to facilitate communication. Using translanguaging to advance towards a bilingual phonological idiolect in place of a dual system, the purpose of this study was to develop a representative theoretical model that better reflects bilingual phonological representation and apply it to predict the speech sound production of bilingual, preschool children. Phonetic inventories from forty, typically developing bilingual children were gathered and frequency of substitution sounds for a given target was calculated. Frequency data was then transformed into contingency tables that underwent social network analysis. Results yielded plots illuminating the network of the bilingual phonological idiolect as well as the systematicity of these substitutions. Additionally, results yielded ways in which this network can be used to anticipate and predict speech sound substitutions that are frequent for non-impaired speech. Researchers concluded that these interactions reveal a more interactive and complex network that could not be parsed into two phonological systems.

Using network science to investigate the role of language context in the dynamics of semantic networks. A study of Lebanese Arabic-French bilinguals

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The lexicon can be particularly sensitive to effects of language use, in active bilinguals (Bailey et al., 2024) and potential attriters (Schmid & Köpke, 2009) alike. Verbal fluency tasks (VFT), involving not only vocabulary knowledge but drawing also heavily on processing related skills and executive functions, are promising to investigate these. They have been shown to be modulated by dominance (e.g., Giovanolli et al., 2023; Laam & Yoon, 2023), however, the results of L1 attrition studies using VFT in long-term immigrants reviewed by Schmid & Jarvis (2014) showed mixed results. But results seem to vary a lot depending on the precise measures considered in the VFT. Recently, Chaouch-Orozco and Martín-Villena (2024) found differences in the degree of integration of semantic networks in both L1 and L2 of classroom learners vs. immersed learners with a network science approach. The present cross-sectional pilot study seeks to challenge this approach with a population of early bilinguals who use both languages in daily life but live in different language contexts. Data collected with an ‘animal’ VFT with 40 Lebanese Arabic-French bilinguals in Lebanon will be compared to data of 40 Lebanese bilinguals living in France. We will focus on the semantic networks in L1 Arabic and L2 French with the general hypothesis that there will be a shift in L1 networks towards less integrated and efficient semantic networks—as reflected by network metrics such as clustering coefficient, shortest-path length, and modularity—when Arabic is no longer the main context language, while the semantic networks for French L2 will be more integrated in the group living in France.

Validation of computerised adaptive CDIs in Polish and Norwegian

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Communicative Development Inventories (CDIs) are widely used in research on language development in young children. However, CDI lists include hundreds of words and many attempts are made to create shortened versions. Computer Adaptive Testing (CAT) enables shortening a CDI while retaining its accuracy. In CAT CDI, the parent is presented with one word at a time, and their response allows the CAT algorithm to estimate the language ability and choose the next word to re-evaluate this estimate. We will briefly present the development process of our CAT CDIs in Polish and Norwegian and present results from an ongoing validation study of the CAT CDIs: Words and Sentences (WS) and Words and Gestures (WG) with parents of children aged 8-36 months. The testing is done online, with the use of a web app, and the time between the testings ranges from 1 to 10 days. So far, parents of 88 Polish monolingual children and 20 parents of Polish bilingual children filled in both a full-item CDI and a CAT CDI (more bilingual data to come). The data from Polish monolingual children reveals positive correlations between the score from the full-item version and the CAT CDI in Polish: $r = 0.89$ for WS, $r = 0.81$ for WG word understanding, $r = 0.57$ for WG word production, and $r = 0.92$ for WG gestures. The CAT model performed well for most participants, though its predictive accuracy was less consistent for those with exceptionally high or low skill levels. We also found that parents were consistent in their responses to particular words in both CDI versions, but their consistency decreased with longer time between testings. As the data expands to include both monolingual and bilingual children, we will also compare the CAT validity between the two groups.

Validation of the Polish Sentence Repetition Task for Bilingual and Multilingual Children

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While substantial research exists on the typical language development of monolingual children, less is known about the language trajectories of bilingual children. However, dedicated research tools designed specifically for bilingual children have been developed, such as the Polish short version of Sentence Repetition Task (SRep, Przygocka et al., 2020), measuring morphosyntactic development. The short version of SRep by is based on the LITMUS-SRep in Polish (Banasik, Haman, and Smoczyńska 2012, unpublished) assessing productive grammar (68 sentences). The shortened version of the task includes 20 target sentences. Internal consistency of the task is high ($\alpha = 0.92$) (Przygocka, 2021). Measuring morphology and syntactic abilities, in addition to the vocabulary, are crucial for acquiring language proficiency in any language. Nevertheless, the abilities that are the most problematic for bilingual children are these associated with morphosyntax. Therefore, the SRep task is a valuable measure for assessing language acquisition of a bilingual children. The aim of the current study is to verify the validity of the SRrep-sv. We hypothesize that SRep-sv is a valid measure for morphosyntactic development of a child. We will compare results obtained by bilingual children aged 5;0-6;11 in the short version of SRep-PL with the scores in standardized tasks measuring language development, including subtasks of the normed Language Development Test - TRJ (Smoczyńska et al., 2015), specifically: Vocabulary Comprehension, Grammar - Sentence Repetition, Vocabulary Production, Grammar - Sentence Comprehension, Grammar - Word Inflection, Discourse - Text Comprehension; Cross-Linguistic Lexical Task (Haman et al., 2015); PABiQ (Mieszkowska et al., 2021). Data collection is ongoing. By the end of May 2025, we plan to have collected and analyzed data from 100 bilingual and multilingual children speaking Polish as their heritage language and English and/or German as their majority language.

Vino, beer and beans: An eye-tracking and EEG co-registration recipe for how phonological overlap across languages boosts semantic associations in bilinguals

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Bilinguals perceive unrelated concepts (e.g., beef and lock) to be more related than monolinguals, due to a more interconnected semantic network (Ning et al., 2020). Yet, there is limited understanding of how language co-activation restructures the lexical-semantic network in bilinguals. This study examined whether phonological overlap across languages increases the density of the bilingual lexical-semantic network. We used a modified version of the Visual World Paradigm (Tanenhaus et al., 1995) and incorporated both eye-tracking and event-related potential (ERPs) measures. Thirty Spanish-English bilinguals and thirty English monolinguals judged the semantic relatedness of picture pairs varying in phonological and semantic overlap while their eye movements and EEG were recorded across four conditions: 1) phonological and semantic overlap [e.g., “beer” (/bɪr/) – “vino” (/ˈbino/), wine in Spanish, where letter “v” maps onto the sound /b/], 2) phonological overlap only [e.g., “beer” (/bɪr/) – “bigote” (/biˈɔte/), mustache in Spanish], 3) semantic overlap only [e.g., “beer” (/bɪr/) – “refresco” (/reˈfresko/), soda in Spanish], and 4) no overlap [e.g., “beer” (/bɪr/) – “caballo” (/kaˈβaɪlo/), horse in Spanish]. Mixed-effects models and bootstrapped cluster-based permutation analyses were performed. Compared to monolinguals, bilinguals looked more to competitors sharing phonological overlap across languages and processed unrelated concepts with crosslinguistic phonological overlap as more semantically related than concepts without phonological overlap (i.e., smaller N400 ERP effect). These findings suggest that co-activation within and across languages strengthens the links between concepts in bilinguals. We conclude that language co-activation rewires the bilingual lexical-semantic network, and these results have implications for understanding bilingual language processing.

Ning, S., Hayakawa, S., Bartolotti, J., & Marian, V. (2020). On language and thought: Bilingual experience influences semantic associations. *Journal of Neurolinguistics*, 56, 100932. <https://doi.org/10.1016/j.jneuroling.2020.100932>

Tanenhaus, M. K., Spivey-Knowlton, M., Eberhard, K., & Sedivy, J. (1995). Integration of visual and linguistic information during spoken language comprehension. *Science*, 268, 1632–1634. <https://doi.org/10.1126/science.7777863>

Visual Bias in Accent Perception: The Influence of Visual Ethnic Cues

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Accent naturally marks in-group membership, impacting social interactions and influencing biases. Research indicates that demographic traits—such as gender, ethnicity, and appearance— affect accent perception, leading listeners to infer a speaker's characteristics based on their accent (Ikeno & Hansen, 2007). Exposure to different languages may, however, enhance interactions with foreign-accented speakers by reducing these biases. This study examines how listeners' perceptions of accents are shaped by the speaker's physical appearance and the listener's linguistic and academic specialization. Specifically, it explores how native English and Spanish speakers evaluate foreign accents and whether physical traits, such as ethnicity, contribute to accent bias. In two online experiments (one targeting English, one targeting Spanish), 490 participants—229 native English speakers and 261 native Spanish speakers— rated L2 speakers' accents from audio recordings paired with images of individuals of different ethnicities (White, Latinx) or an empty classroom. Results showed that physical traits associated with ethnic groups significantly influenced accent perception. For English listeners, ratings were higher for audios with Latinx images, while for Spanish listeners, audios with White images received the highest scores. These findings remained/held across monolingual and bilingual listeners and varied academic backgrounds. These results suggest that visual cues heavily influence accent perception associated with ethnicity, independent of the listener's language background or educational area. The study highlights the deep-seated nature of accent biases, which persist even among bilingual populations who interact with diverse language groups. This has profound implications for bilingual individuals, as such biases can lead to discrimination in various social contexts. This research contributes to the broader understanding of bilingualism, demonstrating how linguistic and social factors intersect in shaping attitudes toward non-native accents.

Ikeno, A., & Hansen, J. H. (2007). The effect of listener accent background on accent perception and comprehension. *Journal on Audio, Speech, and Music Processing*, 2007, 1-8.

Voice Onset Time (VOT) in Japanese-English Returnee Children: A Case of Variable L2 Attrition

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Our longitudinal case study of three Japanese-English returnee siblings examines whether age of return (AoR) to Japan, along with the relative decline in exposure to L2 input, modulates L2 phonetic maintenance in the L1 context. Specifically, we observe potential changes in the voice onset times (VOTs) of English voiceless stops, which are longer than those of Japanese (e.g., Riney et al., 2007). The returnees were born in Japan to Japanese-speaking parents and spent eight years in the US, where English became the dominant language. Upon return to Japan, the returnees (AoR=11, 15, 19) completed five linguistic testing sessions in English over three years. Here, we report production data from two narration tasks. All word-initial voiceless stops were identified in the returnees' five session recordings and VOT was measured for a total of 1380 stops in Praat. Preliminary analysis suggests that the returnees' L2 English VOT values differ over time. CS (AoR=19) consistently maintained values for all three sounds across the five sessions while YS (AoR=15) showed initial maintenance of English followed by assimilation towards Japanese (i.e., gradual shortening of VOTs). On the other hand, KS (AoR=11) did not evidence the same initial maintenance exhibited by her sisters and instead showed consistent gradual assimilation towards Japanese. Our results show an association between AoR and rate of L2 attrition. We found that the older the AoR (CS), the more stable their L2 English VOT values were, and vice versa: the younger the AoR (KS), the less stable their L2 English VOT values. Our findings support the view that attrition is generally a non-linear process and depends on variables such as AoR.

Riney, T. J., Takagi, N., Ota, K., & Uchida, Y. (2007). The intermediate degree of VOT in

Japanese initial voiceless stops. *Journal of Phonetics*, 35(3), 439-443.

Vowel and consonant mutability in English: Evidence from a (new web-based) word reconstruction task

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Listeners are biased to phonological categories. English and Spanish speakers develop a consonantal bias (C-bias) in lexical processes; Mandarin and Danish speakers develop a vocalic bias (V-bias) [1]. Infants rapidly acquire an L1 bias, adults can acquire a new L2 bias in a classroom setting, and proficient bilinguals can switch between biases. To assess this behavior in adults, the word reconstruction task is used [2]. Participants hear a word-like nonword (kibra) and orally report a word by changing either the vowel (cobra) or consonant (zebra). Dependent variables are oral response time, change accuracy (in vowel-change/consonant-change conditions, respectively), and change preference in a free-change condition. This study adapts the reconstruction task to a web-based format and makes four changes: 1) two possible word choices are shown on screen in a free-change condition; 2) oral responses are not collected; mouse click RT is used; 3) the gradient visual analog scale (VAS) replaces binary accuracy as a new variable. Thirty L1 English speakers and 30 L1 Mandarin-L2 English bilinguals took part in the online study. Planned analyses were pre-registered on the Open Science Framework [3]. Both groups numerically favored vowel changes (C-bias), consistent with prior research [1]. No RT difference was found. VAS ratings indicated that L1 Mandarin speakers retain some V-bias even when processing L2 English, suggesting an influence of their L1. This retained V-bias is further attenuated by lexical knowledge, highlighting how proficiency shapes individual flexibility in language processing. These findings open new avenues for understanding the adaptability of phonological biases across languages and speakers.

[1] Nazzi, T., & Cutler, A. (2019). How consonants and vowels shape spoken-language recognition. *Annual Review Linguistics*, 5(1), 25-47.

[2] Van Ooijen, B. (1996). Vowel mutability and lexical selection in English: Evidence from reconstruction. *Memory & Cognition*, 24, 573-583.

[3] https://osf.io/bnxuq/?view_only=4fd266cb9af64f3b83e2343bb310b04a

Vulnerability of Turkish Definiteness in Turkish Heritage Speakers

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In Turkish, if the noun phrase (NP) in the direct object (DO) position is marked with the accusative case marker (ACC) *-(y)I*, then the NP is definite (Ben kitab-ı aldım ‘I took the book’). However, if the NP in the DO position is preceded by the word *bir* ‘one/a(n)’, then the NP is indefinite (Ben bir kitap aldım ‘I took a/one book’). Indefinite NPs with the ACC *-(y)I* are specific and relate to entities that were already mentioned in the preceding discourse (Ben bir kitab-ı aldım ‘I took one of the books’). Previous studies with Turkish heritage speakers (HS) have shown that they use the indefinite marker *bir* more frequently than the monolingually-raised Turkish native speakers (MS) (see Uygun, 2023 and references therein). These results indicate that definiteness is a vulnerable phenomenon for Turkish HS as they have to integrate different language modules (i.e. morphosyntax and pragmatics). The present study investigates to what extent HS are sensitive to morphosyntactic and pragmatic constraints on the correct use of Turkish definiteness. 49 MS from Turkey and 32 HS from the USA completed the acceptability judgment. 23 HS were attriters (ATT) and 9 were incomplete acquirers (INC). Our experimental stimuli were created by manipulating both the plurality of the object (singular vs. plural) and whether the object was preceded by a number (bare vs. nonbare) to test the acceptability of the correct definiteness marking. The scalar acceptability judgement task was implemented as a web-based questionnaire. The preliminary results of the INC indicate significant differences both with the MS and ATT, suggesting that the integration of morphosyntax and pragmatic on definiteness marking is not fully acquired under heritage language conditions, especially when the language is not fully acquired.

Uygun, S. (2023). Vulnerability in processing definiteness: The case of heritage Turkish. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2023.1286407>

Wellformedness phonotactic intuitions in German-French simultaneous bilingual adults

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Monolinguals possess language-specific phonotactic intuitions: this is indicated by wellformedness ratings of nonwords which are more accepted if consisting of probable phoneme sequences (e.g. Bailey & Hahn, 2001). Yet, only two studies investigated sequential bilingual adults' phonotactic intuitions, suggesting that their phonotactic knowledge is not significantly different from monolinguals of their two native languages (Altenberg & Cairn, 1983; Frisch & Brea-Spahn, 2010). Here, we asked if simultaneous bilinguals' phonotactic intuitions are modulated by both frequency and language-specific pronunciations, and how they are modulated by their language experiences. Using a web-based wellformedness judgment task, German (35N) and French (30N) monolingual adults and German-French simultaneous bilinguals (31N) listened to nonwords varying in phonotactic frequencies and were asked to rate on a likert-scale (1-7) how acceptable these nonwords would be as new words of their language(s). Nonwords were pronounced by both a French and a German native speaker. Ordinal mixed-effects models revealed that as expected, judgments were significantly predicted by language-specific phonotactic frequencies: the more frequent the word-initial cluster in the nonword, the higher it was rated. Ratings were also higher when pronunciation was in line with the target language. Importantly, monolinguals and bilinguals did not significantly differ in their intuitions. However, within the bilingual group, the phonotactic effect on wellformedness intuitions was significantly associated with measures of German/French skills obtained via self-evaluations. The higher the language skills in French the stronger the phonotactic effects on ratings in both languages. The phonotactic effects were also stronger in French than in German monolinguals. Hence, our results suggest that regular use and processing of French lead to an enhanced sensitivity to phonotactics than German, establishing cross-linguistic differences in the weight given to phonotactics in adult speech perception. Potential reasons for the cross-linguistic difference will be discussed at the conference.

What are the Cognitive-linguistic Skills Contributing to Chinese Word Reading and Writing Among First and Second Language Learners

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In Hong Kong, China, 93.7% of the population is ethnically Chinese and speaks Cantonese. The ethnic minority population also makes up 8.4% of the population. The second-language Chinese learners are mainly South Asians and Southeast Asians, including Pakistanis, Nepalese, Filipinos, and Indians, whose home languages are Urdu, Nepali, Hindi, and English. This study investigated the acquisition of word reading and writing between first and second-language learners of Chinese living in Hong Kong. It also examined the associations of orthographic knowledge, phonological awareness, and morphological awareness with Chinese word reading and writing among first and second-language learners of Chinese. A total of 480 Chinese children (mean age = 57.77 months; 50% of them were girls) and 347 ethnic minority children (mean age = 57.20 months; 54% were girls) from 32 non-profit making kindergartens. Children were assessed on cognitive-linguistic skills and word reading and writing. Hierarchical regression analyses revealed that controlling for child gender and age, orthographic knowledge, phonological awareness, and morphological awareness were uniquely associated with Chinese word reading and writing among Chinese and ethnic minority children. Overall, the cognitive-linguistic skills explained 36% and 27% of the variance in word reading and 20 and 17% of the variance in word writing among Chinese and ethnic minority children, respectively. Theoretically, findings suggest the roles of three interlinked processes—graphic, phonological, and semantic—in learning Chinese as a first and a second language. Practically, findings pointed to the potential utility of helping young children learn Chinese words by understanding their orthography and phonology.

What are the differences in construction of Polish syntactic structures by bilingual children with typical and impaired cognitive development?

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Sentence repetition task (SRep) is a recognized tool for assessing grammatical abilities across languages (Blume & Lust, 2017). It effectively measures heritage language skills in bilinguals (e.g. Haman et al., 2017; for Polish in Polish-English children) and is valuable for identifying children with language impairment (Bishop et al., 2017; Ward et al., 2024). The aim of our study is to describe the grammatical competencies of bilingual children (speaking Polish as one of their languages), taking into account varying neurodevelopmental profiles and risk factors indicative of neurodivergence. We use the short Polish version of the SRep (Przygocka et al., 2020), with 20 sentences covering three levels of syntactic complexity. We control for variables such as non-verbal IQ (measured with the RCPM), passive vocabulary (CLT Task; Haman et al., 2021), demographic and a language background (PABIQ questionnaire; Mieszkowska et al., 2021). Participants include Polish-English bilinguals with typical cognitive development (n=30) and clinical groups (n=30 each). Groups will be matched by age, sex and language background, e.g., length of language exposition. We collected data from 200 bilingual children with typical development and 30 children with low results in nonverbal IQ test, aged 5 and 6. We are currently conducting research in clinical groups. All the data is planned to have been analyzed by the end of April 2025. We anticipate that this study will reveal syntactic structures particularly sensitive to identifying challenges faced by children in each group. These insights may allow us to outline different paths of grammatical development in dual-language acquisition contexts, as well as assess whether second language properties affect the performance of the SRep across groups. We further expect this research to significantly enhance our understanding of the specificity of bilingualism in the Polish context, contributing to the discourse on its benefits and challenges.

‘What are they feeling?’ Processing others’ emotions during second language comprehension

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Comprehending various types of information during online sentence processing is quick and effortless in a first language (L1). However, in a second language (L2), this process can be more demanding, particularly when emotional content and contextual inferences are involved. Studies using event-related brain potentials (ERPs) suggest that processing in L2 requires greater cognitive resources compared to L1. Given the importance of interpreting pragmatic cues in communication, our study (registered report, In-Principle Acceptance) aims to examine whether L2 users infer unstated emotions during discourse comprehension in a similar way when using their L1 and L2. To investigate this, we designed a within-participant ERP study, recording the brain activity of Spanish L1 speakers as they read sentence pairs in both their L1 (Spanish) and L2 (English). The emotional tone of the target sentence (“Opening a box today, Elaine saw a doll.”) will be shaped by preceding contexts, which will be either emotionally neutral (“Elaine received a doll from her neighbour 10 years ago to keep.”) or negative (“Elaine received a doll filled with cocaine and was sentenced to 10 years in prison.”). We will analyse ERP modulations related to semantic fit (N400) to determine whether emotional pragmatic information interferes with semantic processing in L2 as it does in L1, as well as late reanalysis processes (LPP) associated with emotional responses. We anticipate observing distinct neural patterns, indicated by a main effect of Language (L1 vs. L2) and/or an interaction between Language and Emotion (negative vs. neutral). Our hypothesis is that in L2, users may show reduced sensitivity to emotional content due to weaker emotional conditioning, challenges in integrating semantic and pragmatic information in real time, and the additional cognitive load required to infer implicit meanings from previous discourse context.

"What is your mother tongue? None. I speak Swedish" School children talk about language and their language use.

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There are more than 200 languages represented in Sweden today and more than 100 can be selected for mother tongue instruction in the obligatory school. Many children speak several languages every day, depending on the context and interlocutor. It is not always clear what language is identified as a mother tongue. Since the name 'mother tongue' is reserved to the teaching of languages other than Swedish in school, it is sometimes assumed that Swedish cannot be a mother tongue. Our research questions are: Are these children first or second language learners of Swedish? Are these categories relevant at all in multilingual contexts? Recordings of conversations with 31 children at the age of 9-10 years with different language backgrounds, most of them born in Sweden, have been analyzed with focus both on what they say about their language use, and how they say it (grammar and phonology). The results demonstrate a high level of Swedish grammar according to PT (Processability theory, Pienemann, 1998), which implies that their grammar is not a learner grammar but more like a native speaker grammar. However, acoustic and auditory analyzes reveal that their speech contains both phonological and prosodic features related to varieties

What Mediated Intercultural Communication in Healthcare can look like and how it is perceived: a qualitative analysis in Catalonia

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Language difference represents a major source of communication barrier when providing healthcare services. According to IDESCAT, 16,3% of the population of Catalonia has a foreign nationality and 11,6% grew up speaking a language other than Catalan or Spanish. In this presentation, we look into different kinds of Mediated Intercultural Communication (MIC) solutions. In particular, we explore the perception that different actors have of communication needs and of the solutions that can address such needs, including both human and technological resources. We also look into trust and satisfaction levels as regards distinct mediating human figures, such as intercultural mediators, interpreters, as well as non-professional mediating figures. Data is collected by in-depth video-recorded interviews with 21 key informants that play a direct or indirect role in MIC in healthcare. There are three representatives from each of the 7 profiles identified: 3 healthcare participants, 3 users with limited competence in the official languages of Catalonia, 3 professional interpreters, 3 intercultural mediators, 3 non-professional mediators (family members, volunteers, etc.), 3 adults that used to act as language brokers when they were minors, and 3 indirect actors (those that may not be present in the communication but are in a position to make decisions or influence institutional policies about MIC in healthcare). The results will make it possible to draw a picture of the current state of intercultural communication in such an essential sector to the well-being and smooth functioning of societies as healthcare is. The study of both explicit and implicit attitudes through discourse analysis will delve into an invisible yet impactful dimension: the very diverse and sometimes contradictory perceptions of communication by different actors involved in healthcare services where there are linguistic or cultural barriers.

When High is Thin and Low is Thick: Examining Conceptual Shifts in Pitch Mapping Among Bilinguals

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Studies on several domains including colour perception (e.g., Jameson & Alvarado, 2003) show that learning a language with a different grammatical structure than one's native language may cause a conceptual shift toward the second language (L2). In this study, we aimed to explore this cognitive shift within the domain of pitch metaphors. English uses terms like "high" and "low," while Turkish describes high pitches as "thin" and low pitches as "thick." We examined 1) how pitch metaphors in language affect pitch-thickness and pitch-highness mappings and 2) whether speaking English as L2 would make it easier for native Turkish speakers to learn pitch-height mapping. Native English speakers and Turkish-English bilinguals were asked to associate tones (high/low) with lines (high/low vs. thin/thick) in ways that were congruent or incongruent with the pitch metaphors of their native languages. Participants were found to be equally accurate in associating pitch with spatial thickness and height. Notably, both English speakers and Turkish-English bilinguals struggled to learn incongruent mappings that did not align with the pitch metaphors of their native languages. However, they easily learned incongruent mappings that corresponded to the metaphor used in the other language (e.g., Turkish speakers found it challenging to associate high notes with thick lines but had no difficulty associating high notes with low lines). Furthermore, factors related to bilinguals' background in English—such as age of acquisition, and proficiency—did not predict their ease in learning pitch-height mappings. These findings suggest that the habitual use of metaphors influences the ability to shift from an established mapping. Moreover, speaking a language with different metaphors from one's native language does not appear to affect pitch conceptualization, indicating that bilinguals do not necessarily transfer conceptual frameworks from one language to another.

When I hear ‘cheese’, I prefer ‘sponge’ over ‘chicken’: Visual Preference for Shape Competitors through Written Words in Learners of English as a Foreign Language

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Research on lexical access in the first language (L1) has demonstrated that phonological information becomes active when written words are displayed in visual world paradigm (1). Similarly, when bilinguals perceive written words in the second language (L2), activation of phonological information has also been reported (2). Nevertheless, little is known whether phonological information is activated when written words in the L2 are displayed to learners of English as a Foreign Language (EFL). Therefore, the main objective of the current study was to explore phonological activation of written words through a visual world paradigm in EFL learners whose L1 was Spanish. Participants (n = 63) observed visual displays with 4 written words, either in their L1 or in their L2, while hearing an auditory word (e.g., plate) not represented on the display. We hypothesized that a phonological competitor of the word (e.g., plane) would attract more looks than a semantic competitor (e.g., bowl) or shape competitor (e.g., disc). Indeed, our results suggest a visual preference toward phonological information in the L1, consistent with previous research. In the L2 version of the task, however, participants showed a preference for visual shape information (i.e., the name of the object sharing an outline with the spoken word). To explain this finding, we argue that EFL learners need more time than bilinguals to process written L2 word phonology due to external factors, such as limited exposure to and lack of immersion in the L2. Thus, classroom exposure to written English words and their Spanish translations might result in weak phonological representations of L2 words, strongly influenced by English orthography. We conclude that lexical access is activated differently in the L2 for EFL learners compared to bilinguals.

(1) Huettig & McQueen (2007). <https://doi.org/10.1016/j.jml.2007.02.001>

(2) Mishra & Singh (2016). <https://doi.org/10.1080/20445911.2016.1146725>

When multilingual students meet a monolingual system: the disconnect between foreign language teaching and language diversity

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School systems play a key role in shaping language acquisition through their curricula. Despite prevalent linguistic diversity (Extra & Yağmur 2011), heritage languages (HL) are rarely integrated in European education systems. Multilingualism is often addressed from an educational perspective (Cenoz & Gorter, 2022) rather than by examining foreign language (FL) curricula. This study aims to close this gap by examining how FL policy in Germany is organised and perceived by stakeholders at various levels: (a) micro (children), (b) meso (parents and teachers) and (c) macro (policymakers). Regarding (a), we explore children (N=11, aged 10-11) from multilingual families, focusing on their perceptions of languages in the school environment. For (b), parents' (N=8) views on HL and FL learning, along with teachers interviews (completed=3; target=8), are analysed to explore how schools explain their FL offerings and advise students on FL choices. For (c), a document analysis identifies decision-makers and the legitimisations underlying the FL curriculum. All datasets are analysed using qualitative content analysis (Schreier, 2012). The findings show that (a) children recognise the presence of multiple HLs in school but also note a lack of institutional support. The teacher interviews (b) highlight an interdependence between FL learning and academic success, a view shared by parents who see it as a strong external influence on FL choices. For (c), FL justification patterns are mainly rooted in prestige, with the early school selection process emphasizing academic achievement, which limits meaningful engagement with language diversity.

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When your other language is beyond your senses: phonological and orthographic processing in deaf skilled readers

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Many deaf individuals are bilinguals of a sign and a spoken language, although their experience of the spoken language is conditioned by their limited access to acoustic phonological information. As a result, reading proficiency tends to be lower in deaf populations compared to hearing peers. In this study, we focus on highly skilled deaf readers to investigate which factors might contribute to this achievement. We collect eye-tracking data from 40 prelingually deaf highly skilled readers of Spanish, and 40 carefully matched hearing controls. All participants read sentences manipulated with the invisible boundary paradigm: target words were primed in the parafovea (prior to fixation) with either pseudohomophones (kasa for casa) or transposed-letter pseudowords (mecidina for medicina) and corresponding unrelated replaced-letter pseudowords (e.g. dasa or mevihina) as a baseline. Data collection is currently underway and will be completed in January 2025; we will present full results at ISB15. Based on previous findings (Costello et al., 2021; Fariña et al., 2017) we expect deaf readers to show little or no priming by pseudohomophones compared to hearing readers, suggesting that they do not necessarily access phonological codes during reading. In the orthographic manipulation we expect to replicate previous findings (Belanger et al, 2013): similar facilitation priming by transposed-letter pseudowords in both groups. Previous findings suggest that deaf readers are more sensitive to letter identity compared to position, in which case, we expect replaced-letter pseudowords will elicit weaker facilitation priming in deaf compared to hearing readers. Additionally, we anticipate overall faster reading scores in deaf compared to hearing readers, consistent with previous findings. Our results will provide insight into how bilinguals with limited access to one of their languages can still achieve high proficiency in that language.

Word retrieval in bimodal bilinguals: effects of language background and language dominance

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Hearing children of deaf adults (CODAs) have unique language experience. At an early age, their primary means of communication is often sign language, with reduced spoken input (Brackenbury et al. 2006). For many, spoken language becomes more dominant as they immerse in hearing communities. In this study, we ask whether bimod. biling. adults differ from monolinguals in word retrieval (following Giezen & Emmorey 2016, but in a previously non-researched language, Czech) and whether language dominance modulates their ability to retrieve words. Letter fluency task was administered with 15 bimod. bilinguals (Czech Sign L.) and 15 Czech monolinguals, matched in gender, age, and education. The bimod. bilinguals also filled in the biling. dominance questionnaire (Dunn & Tree 2009). Two GLME models analyzed the number of correctly retrieved words, with random intercepts for participant and letter (B, L, N, P, K, T): one modeled the fixed effect of Language background (mono. x bi.biling.), the other modeled the effect of language dominance in the bilinguals (numeric, -31 to +31). A third, LME model, analyzed the corpus frequency of the retrieved words (Křen et al. 2023) with Language background as the fixed factor, and participant and letter as random factors. Czech CODAs retrieved fewer words than monolinguals by on average 2.5 words per letter ($z = 2.40$, $p = .016$), indicating a potential biling disadvantage. Moreover, the number of correctly retrieved words in CODAs was affected by language dominance: the more dominant in Czech the larger the number of retrieved words ($z = 2.801$, $p = .005$). The corpus frequency of the retrieved words was not found to differ between the groups. Our results confirm earlier findings on verbal fluency in bimod. bilinguals in other languages and provide novel insights into the effects of bimod. biling. experience, demonstrating effects of language dominance on word retrieval.

Word writing in English as a foreign language: crosslinguistic interaction and writing pathways

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The central processing hypothesis suggests that L1 and L2 reading skills are correlated because they share a common cognitive origin. However, less is known about the crosslinguistic relationship of spelling skills. The purpose of this study was to deepen our understanding of the mechanisms of spelling in English as a foreign language (EFL) among Spanish-speaking primary school students by examining the relationship between L1-L2 spelling skills and spelling patterns. A total of 152 native Spanish-speaking children (of second $n = 48$, fourth $n = 56$, and sixth $n = 48$ grades) completed two 48-word dictation tasks, one in EFL and the other in Spanish (L1). Word frequency, consistency and orthographic type were manipulated, while word length and syllable type were controlled. Partial correlations were conducted to analyze the relationship between L1 and EFL spelling, and generalized mixed effects models (GLMM) were run to know how word frequency and consistency affect spelling errors in EFL. The results showed a moderate to high correlation between the number of spelling errors in Spanish and English in all grades. This led us to believe that the central processing hypothesis could also be applied to word spelling. In addition, English lexical frequency and consistency effects were found to have an impact on spelling errors, although the latter was smaller. Moreover, the lexical frequency effect was grade dependent, as the difference in errors between high and low frequency words increases with grade. This suggests a change in spelling strategy, with greater reliance on a lexical strategy in the older grades.

Writing Across Languages: Developing Self-Empowered Strategies for Writing in Heritage Languages

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How do students develop writing strategies when given the opportunity to write in their heritage languages during German lessons? This question was explored in an intervention study at a secondary school in Austria. From February to June 2024, students participated in a project to enhance academic language skills in German and a heritage language such as Bosnian or Turkish. Each week, they listened to podcasts (Ivone & Renandya 2019) and kept listening logs, switching languages to encourage transferability between German and their heritage languages. These journals were intentionally unstructured to foster authentic writing. Sixteen interviews were conducted to provide key insights into writing strategies. Writing strategies in this project are understood as generalized guidelines for managing the writing process (Becker-Mrotzek & Grabowski 2022). While such strategies are known for German, students had to develop their own for their heritage languages, without formal support. German texts were often planned with notes and then written continuously or in large steps, followed by a shorter text in the heritage language, sometimes using the German draft as a template. Some students, however, revised their heritage language texts through multiple versions or holistic corrections (Ortner 2000). The interviews are coded using MAXQDA and analyzed through Kuckartz's Qualitative Content Analysis (2018). Findings show that German strategies are not fully transferable, as students created their own vision of language and text conceptions. This autonomous approach strengthened students' language awareness and highlights the potential of self-developed strategies for fostering empowerment and multilingual self-efficacy.

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