

# International Symposium on Bilingualism 12

*The Next Generation*

June 23-28  
University of Alberta  
Edmonton, Alberta, Canada

# Conference Program

# Letter of Welcome to ISB 2019

Bienvenue à Edmonton! Welcome to Edmonton!

We are pleased to be hosting the **12th International Symposium on Bilingualism** at the University of Alberta. 2019 is the International Year of Indigenous Languages according to UNESCO and marks the 50th anniversary of official bilingualism in Canada. The theme of this year's conference is The Next Generation. We build on this theme in two ways. First, we have extended a particular welcome to presentations that recognize the importance of children's language learning for language maintenance and survival. Second, we have welcomed early career scholars for presentations, including two talented and visionary early career scholars to deliver lectures showing the future of research on bilingualism over the next generation.

Over the next few days, we have a busy schedule. In addition to keynotes, oral presentations, and posters, we have the following academic events:

**Workshop on how to publish in Bilingualism: Language and Cognition** (Monday at lunch)

**Launch of the Current Issues on Bilingualism** (Tuesday morning)

**La journée CSJ, a chance to visit the French-language campus of the University of Alberta** (Thursday)

**Business meeting** (Thursday afternoon)

**Featured speaker on the acquisition of Klingon as a foreign language** (Thursday)

**Conversation on why outcomes differ for bilingual children in different communities and with different language pairs** (Erika Hoff, Johanne Paradis, Sharon Unsworth and Virginia Yip; Friday at lunch)

Don't miss out on the social events:

**Welcome Reception** (Sunday). Light snacks and cash bar. Features local musicians Roger Dallaire and Daniel Gervais. Sponsored by Cambridge University Press.

**Opening ceremony** (Monday). Stanley Peltier, indigenous elder and knowledge keeper, and Dr. Laura Beard, Vice President Research office.

**Reception** (Monday). Jazz musicians, cash bar. Sponsored by John Benjamins Publishing.

**Excursions and tours** (Wednesday afternoon). Possibilities include:

**Elk Island/Ukrainian Village** (paid)

**Institute for Innovation in Second Language Teaching** (free)

**Visit to the Legislative Assembly** (free)

**Ghost tour** (free)

**Banquet** (Thursday). At the beautiful Hotel Macdonald downtown.

**Closing ceremony** (Friday). Warrior Woman (an Indigenous drummer) and bannock.

Please visit the exhibitors (Cambridge University Press, John Benjamins, Multilingual Matters, Routledge, Springer). A big thank you to all our sponsors.

ISB12 Organizing Committee: Laurent Cammarata, Monique Charest, Jennifer Dailey-O'Cain, Tracey Derwing, Bill Dunn, Martin Guardado, Kaori Kabata, Elena Nicoladis (chair), Kim Noels, Johanne Paradis, Leila Ranta, Anne-José Villeneuve

ISB12 Staff: Krithika Govindarajan, Bryce Hoy, and EJ Meneses

# Conference Information

## Wi-fi

Use either eduroam or Guest@UofA.

## Wednesday excursions

Space is limited for the excursions to the Institute for Innovation in Second Language Teaching, the Legislative Assembly, and the Ghost tour. Please sign up early at the registration desk.

## Journée Campus St. Jean

Space is limited for the parallel sessions at the Campus St. Jean, the French language campus of the University of Alberta, on Thursday. Please sign up early at the registration desk.

## Ukrainian Village/Elk Island Excursion and Banquet

All tickets for these events have been sold!

## Local dining guide

See the dining guide on-line by our own resident foodie, Jennie Dailey-O'Cain

[Click here for the guide!](#)

## Other information

Volunteers (in their distinctive blue t-shirts) and the local organizing committee members (perhaps in their TNG sweatshirts) will be happy to answer questions.





# Local tips and tidbits

Edmonton is a hockey town; you are visiting during one of the rare weeks when no games are scheduled.

The Oilers and the Oil Kings play hockey (not ice hockey).

The Oilers suck and there's no hope for them for next year, but we are pretty impressed with the Oil Kings. (Well, Connor McDavid decidedly does not suck.)

It is football season: the Edmonton Eskimos play in the Canadian Football League (which is different from the American NFL; there are only three downs in the CFL so it is a much more interesting game).

Edmonton is a grid: streets run north-south and avenues run east-west. Street numbers go up as you go west; avenue numbers go up as you north. Addresses are therefore transparent: for example,

10211 83 Avenue will be located on the southside of 83 Avenue (because the address is odd, not even) between 102nd Street and 103rd Street.

Addresses will sometimes have NW or SW added on; it is extraordinarily unlikely that you will go to the SW part of Edmonton.

Riding a local bus within the city limits costs the same regardless of how far you go. Fare for 90 minutes in any direction for an adult is \$3.25 cash, exact change (drivers do not give change) or an ETS ticket (available at the registration desk).

Edmonton is generally a safe city.

Tipping is usually around 15%.

There is a 5% federal Goods and Services Tax (GST) on, get this, goods and services. There is no provincial sales tax in Alberta.

The West Edmonton Mall is called WEM /wɛm/. Self-guided trip to the West Edmonton Mall (cost of the bus to get there and back).

Space is limited on the free excursions: make sure to sign up at the registration desk as soon as you can.

A British journalist once disparagingly nicknamed Edmonton “Deadmonton”. Edmontonians have embraced and transformed the nickname (the annual Halloween haunted house is called Deadmonton).

Whyte Avenue (said, “Whyte Ave”) is 82nd Avenue. The interesting part of Whyte Ave is between 109th Street and about 102nd St.

If you are staying in Edmonton for the weekend, check out the Old Strathcona farmers market, located one block north of Whyte Ave between 103rd St (Gateway) and 104th St (Calgary Trail). Open on Saturdays from 8am to 3pm.

Bars stay open till 2am.

Restaurant outdoor patios are only open for about three months of the year: enjoy them now!!

The sun will set eventually.

The secret treasure of Edmonton is the river valley. Take time to take a walk (and get lost)!

You may see beavers, coyotes, deer, porcupines, skunks, and even occasionally a moose in the river valley. Please leave them lots of space.

There are no rats or venomous snakes in Alberta.

If you want an emotional reaction from Edmontonians, ask about magpies!

Le repas du matin est le déjeuner, le repas du midi le dîner, et le repas du soir le souper.

The francophone community in Edmonton is small and active. Venture to the Bonnie Doon neighbourhood and you can order your lunchtime

dîner en français at Café Bicyclette!

There are no provincial requirements for a second language in schools.

Do not assume that Edmontonians speak French. Some do. Many don't.

It is a safe assumption that Edmontonians speak English.

Canada has been on the metric system since the 1970s. Edmontonians will know temperatures in Celsius, distances in kilometres, and gas prices per litre. Nonetheless, most will know their height and weight only in imperial measures.

YEG is the code for the Edmonton International Airport and has increasingly come to mean Edmonton.

The city is known on Twitter as #yeg, as in @ISB12YEG. Feel free to spontaneously use this as a hashtag prefix--#yegfood, #yegarts, #yegrivervalley--the one you're thinking of using probably already exists.

Edmonton and Calgary have the sort of rivalry only found among geographically proximate cities that are more similar than either of them wants to admit.

The North Saskatchewan River is a social and psychological barrier even more than it is a physical one (although it is all of those things).

Earlier this year, the UK-based newspaper The Independent wrote a review of Edmonton's dining scene that pronounced it “Canada's most exciting culinary city.” (Please see our dining guide on the conference website for tips on how to best enjoy it!)

You can find delicious maple syrup here from eastern Canada (there are no sugar maples in Alberta). Try some local birch or saskatoon berry syrup, too!

You are visiting at a time when Canadians are coming to terms with the long-standing and

systemic cultural genocide of First Nations and Métis peoples. Reconciliation will be a long, hard road.

At community, formal, and professional events, locals often begin by acknowledging the Indigenous inhabitants of the area and the treaty between them and the settlers that Edmontonians still live under today. When you are attending ISB, you are on Treaty 6 territory.

Edmonton is one of the sunniest cities in Canada: there are nearly 2,300 hours of sunshine a year. Edmonton is home to Canada's largest living history museum: Fort Edmonton Park. Fort Edmonton Park is currently closed for

renovations. Fort Edmonton has a replica of the fur-trading fort, originally established in 1795 to supply European dandies with beaver skin hats.

The coldest day ever recorded in Edmonton was on January 26, 1972. The temperature was  $-48.3^{\circ}$  with a wind-chill dropping it to  $-61^{\circ}$ . That's Celsius, not that it matters when temperatures are that low.

More than 30 species of mosquitoes live in the Edmonton area. You may experience all of them, especially at dusk.



# Conference Schedule

Time / Period	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM		Registration and Welcome	Registration	Registration	Registration	Registration
9:00 AM		Keynote	Keynote	Keynote	Keynote	Keynote
10:00 AM		Coffee	Posters and Coffee	Posters and Coffee	Posters and Coffee. Leave for CSJ at 10:15	Posters and Coffee
11:00 AM		Talks	Talks	Early Career Scholars Lectures	Talks	Talks
12:00 PM		Lunch	Lunch	Lunch	Lunch	Lunch
1:00 PM		Talks	Talks	EXCURSIONS	Business Meetings	Talks
2:00 PM		Coffee and Posters	Coffee		Coffee	
3:00 PM		Talks	Talks		Talks	Closing Ceremony
4:00 PM	Welcome Reception & Registration at the Alberta Art Gallery					Return from CSJ
5:00 PM		Reception				Keynote
6:00 PM					Banquet at Fairmont Hotel Macdonald	
7:00 PM						
8:00 PM						
9:00 PM						
10:00 PM						

# Conference Sponsors



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Language, Communication, and Culture Signature Area

# ISB 2019 Scientific Committee

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 Quin Yow  
 Deanna Friesen  
 Jason Gullifer  
 Junyan Wei

# Sunday, June 23

## Welcome Reception

Start off the week with our Welcome Reception hosted at the **Art Gallery of Alberta** from **4:00 - 7:00 PM**.

There will be light snacks and a cash bar.

Sponsored by





# Monday, June 24

## Opening Ceremony

9:00 - 9:30 AM  
CCIS 1 - 430

Join us Monday morning for ISB 12's Opening Ceremony at the **Centennial Centre for Interdisciplinary Science's** (CCIS for short) located at the University of Alberta

**Sam Pelltier**, Elder and Knowledge Keeper &  
**Laura Beard**, Vice-President Research Office, University of Alberta

# Keynote

9:30 - 10:30 AM  
CCIS 1 - 430



**Erika Hoff**  
*Florida Atlantic University*

***Common Patterns and Individual Differences  
in the Bilingual Development of Children in Immigrant  
Families***

Bilingual children in immigrant families share the experience of using a language at home that is not the majority language of the country in which they live. Their experiences vary in how much they hear that heritage language at home, in their parents' levels of educational attainment, and their own language learning abilities. Using data from a longitudinal study of largely middle-class U.S.-born children from homes in which Spanish is spoken, either exclusively or in combination with English, we describe the common patterns and individual differences in bilingual development that arise from these shared and variable sources of influence.

The modal pattern of bilingual development between 2 and 5 years among these children is one in which the children are relatively balanced bilinguals at 2 years and become English dominant by 5 years. Another common pattern is an increasing gap between children's receptive and expressive skills in Spanish.

There are individual differences in children's rates of English and Spanish growth between 2 and 5 years, and, as a result, there are differences in their skill profiles at age 5. While the most frequent pattern is to have strong English skills and relatively weaker Spanish skills, some children are strong in both languages and some children are weak in both languages.

Both these common patterns and individual differences can be traced to influences of the quantity and quality of children's language exposure, influences of children's own language use, and influences of individual differences in children's phonological memory skills.

# Coffee Break

10:30 - 10:50 AM

## Monday Theme Sessions

### [Multilingualism, Gender and Migration: Negotiating Identity, Power and Repertoire in Globalising Contexts](#)

*Kristine Horner, Chair*

*Location: BS M 145*

*Time: 10:50 - 12:30 PM*

### [The Dynamics of Heritage Speakers: A Comparative View](#)

*Shanley Allen & Hieke Wiese, Chairs*

*Location: CCIS L1 140*

*Time: 10:50 - 12:30 PM*

### [Multilingualism and Translingual Creativity in the Age of Nativism](#)

*Natasha Lvovich, Chair*

*Location: BS M 145*

*Time: 1:30 - 5:30 PM*

### [Language and thought in bilinguals and second language learners](#)

*Bene Bassetti, Chair*

*Location: CCIS 1 140*

*Time: 1:30 - 5:30 PM*

### [English and multilingualism: Language policies in higher education](#)

*Jasone Cenoz & Durk Gorter, Chairs*

*Location: CCIS L2 190*

*Time: 1:30 - 5:30 PM*

### [Implication and Challenges of a National Framework for Bilingual Assessment in Canada](#)

*Samira El Atia & Shahrzad Saif, Chair*

*Location: CCIS L1 140*

*Time: 1:30 - 5:30 PM*

### [Innovative approaches using resting-state functional connectivity to understand](#)

[bilingualism and cognition](#)

*Gigi Luk, Chair*

*Location: CCIS 1 430*

*Time: 1:30 - 5:30 PM*

# Talk Schedule

MONDAY	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Aurora Bel	Kristine Horner	Simona Montanari	Elena Schmitt	Francesco Goglia.	Karita Mård-Miettinen	Siqi Ning	Shanley Allen & Hieke Wiese	Megha Sundara
10:50-11:15	Ily Hollebeke & Esli Struys <a href="#">Gaining Insight in Family Language Policies of Language Minority Families in Flanders</a>	Mingyue Michelle Gu <a href="#">Constructing Classed Linguistic Practices across Borders: Family Language Policy in South(east) Asian Families in Hong Kong</a>	Adel Chaouch Orozco, Jorge González Alonso & Jason Rothman <a href="#">Evidence for the role of prime frequency on L2-L1 masked translation priming effects</a>	Elena Schmitt <a href="#">Attrition of Genre in L1: Systemic Functional Perspective</a>	Aki Tsunemoto, Pakize Uludag, Kim McDonough & Talia Isaacs <a href="#">Exploring the relationship between L2 English speakers' fluency and accentedness ratings and linguistic measures of phonological accuracy and fluency</a>	Luz Mary Mora D <a href="#">Assessment and leveling of communicative competence in ESOL</a>	Cathy Cohen, Audrey Mazur-Palandre & Efstathia Soroli <a href="#">Language exposure effects on receptive vocabulary and narrative productivity in French/English bilingual elementary school children</a>	Heike Wiese, Artemis Alexiadou & Esther Jahns <a href="#">Emerging Grammars in Heritage Speakers' Language Use</a>	Enni Vaahtoranta, Sebastian Suggate, Jan Lenhart & Wolfgang Lenhard <a href="#">Predictors of Dual Language Learning : L2 exposure predicts vocabulary and morphology but not phonological awareness</a>
11:15-11:40	Susana Eisenclas, Andrea Schalley & Grace Qi <a href="#">Back and Forth: Young children's sojourning as an organised family language management strategy</a>	Mark Fifer Seilhamer <a href="#">Gender, language learning, and capital conversion in neoliberal Taiwan</a>	Figen Karaca, Evangelia Daskalaki & Juhani Järvikivi <a href="#">Online Comprehension of Evidentiality in Turkish as an Immigrant Language</a>	Maki Kubota <a href="#">Individual differences in second language attrition in bilingual returnee children</a>	Piotr Romanowski <a href="#">Translanguaging moments from a Ukrainian minority school in Poland</a>	Cirsten Carlson <a href="#">Teachers' L2 English performance and elementary children's development of English</a>	Judy Kupersmitt & Elena Nicoladis <a href="#">A developmental study of presenting simultaneous events in monolingual and bilingual narratives</a>	Oliver Bunk, Natalia Gagarina, Kateryna Lefremenko, Maria Martynova, Christoph Schroeder, Luka Szucsich, Rosemarie Tracy, Wintai Tsehaye & Heike Wiese <a href="#">Left and Right Sentence Peripheries in Heritage Speakers' Language Use</a>	Elma Blom <a href="#">Domain-general cognitive ability predicts bilingual children's receptive vocabulary in the majority language</a>

MONDAY	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
11:40-12:05	Fatma Said <a href="#">The role of family language policy and perceived language emotionality in the maintenance of Arabic as a heritage language</a>	Kristin Horner <a href="#">Navigating the Social and Linguistic Order in Multilingual Luxembourg: An Analysis of Migrant Women's Language Biographies</a>	Aleksandra Tomic & Jorge Valdos Kroff <a href="#">Code-switching could aid prediction of the unexpected</a>	Lari-Valtteri Suhonen <a href="#">Cross-Linguistic Influence in Early Word Learning</a>	Francesco Goglia <a href="#">Onward migration from Italy to the UK: sociolinguistic implications for the second generation</a>	Xueyan Hu, Wei Sun & Jing He <a href="#">French Listening Ability Development in the Context of Content Based Third Language Learning</a>	Jessica Cox, Ashley LaBoda, Linned "Lulu" Gomez & Mollie Patrick <a href="#">"Then we are wondering and-- y esperando-- hoping as well": Sociopragmatic and psycholinguistic roles of codeswitching in US Spanish-English bilinguals' autobiographical narratives</a>	Tatiana Pashkova, Yulia Zuban, Vicky Rizou, Artemis Alexiadou, Sabine Zerbian & Shanley Allen <a href="#">Emerging Grammars for Referent Introduction in Heritage Speakers' Two Languages</a>	Margreet van Koert, Nihayra Leona, Maurits van der Molen, Judith Rispen, Jurgen Tijms & Patrick Snellings <a href="#">The Influence of L1 onto L2 Regarding the Acquisition of Vocabulary and Morpho-Syntax</a>
12:05-12:30		Discussant: Jennifer Dailey-O'Cain	Lorenzo Garcia-Amaya <a href="#">The effect of syntactic complexity on pausing in L1 and L2 Spanish: Data from a sentence-creation experiment</a>	Andrea Takahesu Tabori, Dennis Wu & Judith Kroll <a href="#">Second Language Immersion Suppresses the Native Language: Evidence from Learners Studying Abroad</a>		Karita Mård Miettinen & Siv Björklund <a href="#">Teacher discourses on bilingual co-teaching: case studies in Swedish immersion in Finland</a>		Anke Lüdeling, Martin Klotz & Thomas Krause <a href="#">A structured multi-layer register corpus of heritage languages and majority languages</a>	Megha Sundara & Victoria Mateu <a href="#">Dual language input facilitates English-learning infants' word segmentation abilities</a>

## Lunch

12:30 - 1:30 PM  
CCIS Lounge



## How to Publish in BLC

12:30 - 1:30 PM  
CCIS 1 440

# Talk Schedule

MONDAY	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Laura Spinu	Natasha Lvovich	Megha Sundara	Bene Bassett	Jasone Cenoz & Durk Gorter	Gigi Luk	Viorica Marian	Samira El Atia & Shahrzad Saif	Nicholas Henriksen
1:30-1:55	Michael Korenar <a href="#">Production and perception of anaphora in stories with and without a topic-shift: Linguistic processing in late bilinguals</a> <div style="border: 2px solid red; padding: 2px; display: inline-block; color: red; font-weight: bold;">CANCELLED</div>	Steven Kellman <a href="#">Linguaphobia and Its Resistance in America</a>	Nan Xu Rattanasone, Hui Chen, Ivan Yuen & Katherine Demuth <a href="#">Did You Say 'dark' or 'duck'? L2 Representations of Phonemic Vowel Length</a>	Henriëtte Hendrik & Annie Claude-Demagny <a href="#">Spatial information in narratives: How second language learners adapt (or not) to target language expression and organisation</a>	Durk Gorter <a href="#">English medium instruction in higher education in Europe and multilingual policies</a>	Gigi Luk, Sibylla Leon Guerrero, Laura Mesite & Veronica Whitford <a href="#">Differential correlations between onset ages of second language acquisition and neural networks in bilinguals: A resting-state approach using fMRI</a>	Maria-José Ezeizabarrena & Amala Munarriz Ibarrola <a href="#">Different gender options for mixed DPs do not imply different grammars</a>	Ann Senior <a href="#">From Defining Language Descriptors to Development of Language Tests</a>	Veronika Makarova <a href="#">Doukhoborese (Doukhobor Russian) in Canada</a>
1:55-2:20	Núria de Rocafiguera, Rut Benito, Aurora Bel <a href="#">Bilingual Spanish anaphora resolution: evidence from judgement and processing experiments</a>	Adrian Wanner <a href="#">The Bilingual Art of Wassily Kandinsky</a>	Jeffrey Steele & Matthew Patience <a href="#">Relative Difficulty in the L2 Acquisition of the Phonetics of French Coda Obstruent Voicing</a>	Barbara Mertins, Anna Marklová, Elena Panfilova & Hanna Solberg Andresen <a href="#">The Effect of Grammar on Perception and Verbalization of Locomotion Event in Monolingual and Bilingual Children and Adults</a>	Catherine Siew Kheng Chua & Johannah Li Mei Soo <a href="#">The use of English in Singapore higher education in the globalised era</a>	Sibylla Leon Guerrero, Gigi Luk, Laura Mesite & Veronica Whitford <a href="#">Control Networks in Intensive Bilingual Second Language Acquisition</a>	Stephanie De Anda, Lauren Thayer & Margaret Friend <a href="#">Building a Network: How Young Spanish-English Learners Organize their Lexicon</a>	Monique Bournot-Trites <a href="#">CLB/NCLC or CEFR for Canadian schools?</a>	Antonia Rubino <a href="#">Agency, identity and multilingualism in the discourse of Italo-Australian youth</a>
2:20-2:45	Carla Contemori, Ohood Asiri <a href="#">Anaphora resolution in English L2 learners: an analysis of different discourse contexts</a>	Natasha Lvovich <a href="#">Multilingual and Artistic Alchemy of Leonora Carrington</a>	Simona Montanari, Robert Mayr & Kaveri Subrahmanyam <a href="#">Bilingual speech sound development during the preschool years: The role of language proficiency and cross-linguistic relatedness</a>	Luna Filipović <a href="#">How bilinguals remember events: Advantages and disadvantages of bilingualism for eyewitness memory</a>	Jasone Cenoz <a href="#">Towards sustainable multilingualism in Higher Education: Basque, Spanish and English at the University of the Basque Country</a>	Eleonora Rossi, Esra Kurum & Kiney Bice <a href="#">Dynamic changes in resting state EEG after short-term new language learning</a>	Takayuki Kimura & Shigenori Wakabayashi <a href="#">Every Is Not All: Difficulty in Scope Interpretation</a>	Michelle Chen, Jennifer Flasko & You-Min Lin <a href="#">The CLB as resources for test development and validation</a>	Etaferahu Hailu Tessema <a href="#">Sociolinguistic Functions of the social variety of Fedwet used by the Gurage Women</a>

MONDAY	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
2:45:3:10	Tihana Kraš & Maja Miličević Petrović <a href="#">(In)stability at the discourse-syntax interface: Evidence from Croatian-Italian simultaneous bilinguals</a>	Elena Schmitt <a href="#">Linguistic Mechanisms of Literary Codeswitching</a>	Nuria Sagarra & Joseph Vincent Casillas <a href="#">Looking forward: frequency and proficiency effects in suprasegmental cues to L1 and L2 lexical prediction</a>	Bene Bassetti <a href="#">Counterfactual story comprehension in Chinese speakers of English as a Second Language</a>	Discussant: Enric Llorca	Discussant: Judith Kroll	Siqi Ning, James Bartolotti & Viorica Marian <a href="#">Bilingualism Changes Semantic Distance Between Concepts</a>	Sara Trottier <a href="#">L'évaluation de la seconde langue officielle des militaires canadiens</a>	Nicholas Henriksen, Lorenzo Garcia-Amaya & Jiseung Kim <a href="#">Uncovering the geographic origins of bilingual immigrant communities: Spanish-Afrikaans bilingualism in Patagonia</a>

**CANCELLED**

# Monday Coffee Break and Posters

3:10 - 4:40 PM

[\(M-1\) Interaction between signed and spoken languages in deaf mother and child's book-sharing activities](#)

*Takashi Torigoe & Wataru Takei*

[\(M-2\) Gliding in Spanish-English bilingual children. Two case studies.](#)

*Miriam Rodríguez Guerra & Leah Fabiano-Smith*

[\(M-3\) Inhibitory Control and Bilingual Word Learning](#)

*Beatriz de Diego Lázaro, Andrea Pittman & Restrepo Laida*

[\(M-4\) A doctor's foreign accent affects perceptions of competence](#)

*Chin Lorelei Baquiran & Elena Nicoladis*

[\(M-5\) The Two Sides of the Bilingual Experience](#)

*Ethan Kutlu, Beatrice Villanueva & Holly Redman*

[\(M-6\) Storybook Reading Practices of Bilingual Families: The Role of Language Proficiency](#)

*Ana Maria Gonzalez-Barrero, Nicholas Salama-Siroishka, Daphnée Dubé, Melanie Brouillard & Krista Byers-Heinlein*

[\(M-7\) FAMILY LANGUAGE POLICY AND IDENTITY FORMATION IN TRILINGUAL CHILDREN: THE CASE OF CHINESE-VIETNAMESE FAMILIES IN AUSTRALIA](#)

*Eliane Thiravong, Ruying Qi & Bruno Di Biase*

[\(M-8\) The impact of bilingualism on pronoun interpretation in focus and non-focus constructions](#)

*Aurora Bel, Rut Benito & Núria de Rocafiguera*

[\(M-9\) Sustaining heritage language literacy through language brokering: A survey of Spanish-English bilingual brokers](#)

*Katarina Antolovic & Belem G. López*

[\(M-10\) Collaborative Learning through Multilingual Inquiry: Examining How Students, Families, Teachers and Researchers Create Multilingual and Multimodal Books](#)

*Gail Prasad, Esther Bettney & Jungwon Hyun*

[\(M-11\) L1 and L2 phonological activation in L3 lexical learning: an ERP study](#)

*Stanislav Mulík, Mara Pimentel & Haydée Carrasco-Ortiz*

[\(M-12\) Narrative abilities in bilingual children with autism](#)

*Piyush Sone, Sapna Bhat, Prarthana Shivabasappa & Vishnu KK Nair*

[\(M-13\) Gender agreement production by multilingual Russian heritage speaking children in Catalan/Spanish environment](#)

*TAMARA VOROBYEVA & AURORA BEL*

[\(M-14\) The identity of Malaysian Mandarin by Malaysian Chinese and Mainland Chinese college students: an index for global Mandarin](#)

*Xiaomei Wang*

[\(M-15\) Cantonese heritage speakers' online processing of English: Evidence from eye movements in the visual world paradigm](#)

*Haoyan Ge, Stephen Matthews & Virginia Yip*

[\(M-16\) Subject-Verb code-switching between French and Spanish: The view from language dominance](#)

*Juana Licerias, Kassandra Ayala-Nájera & Estela García-Alcaraz*

[\(M-17\) The processing of cognates in second language learning: strengthening lexical connections in the developing bilingual lexicon](#)

*Jamile Forcelini*

[\(M-18\) Growing up monolingually: Experiences of language loss by adult mixed-ethnic children in Japan](#)

*Janice Nakamura*

[\(M-20\) Family Language Policy among second and third-generation Turkish parents in Melbourne, Australia.](#)

*Tülay Et-Bozkurt*

[\(M-21\) A Sociocognitive Cross-sectional study of Metasyntactic Awareness and Cross-linguistic influence in French-Norwegian bilingual children in Oslo](#)

*Sébastien Lucas*

[\(M-22\) Priming cross-linguistic influence: evidence for shared syntax in bilingual children?](#)

*Sharon Unsworth*

[\(M-23\) How different code-switching types modulate bilinguals' executive functions - a dual control mode perspective.](#)

*Julia Hofweber, Jeanine Treffers-Daller & Theo Marinis*

[\(M-24\) Moving towards the majority language?: 1pl verbal morphology in Picard](#)

*Julie Auger & Anne-José Villeneuve*

[\(M-25\) Ethnolinguistic Vitality, Ethnic Affiliation, Parental Effort and Heritage Language Maintenance in Southern California](#)

*Sara Castro, Madeleine Holtz, Nubia Ku & Malcolm Finney*

[\(M-26\) Family Language Policy in Three Generations: Bilingual Strategies in Swedish-Finnish-speaking Families](#)

*Sannina Sjöberg*

[\(M-27\) Developing abstract representations of passives: Evidence from bilingual children's interpretation of passive constructions](#)

*Elena Nicoladis & Sera Sajeew*

[\(M-28\) The Impact of Bilingual Childrens Interactional Context of Conversational Exchanges on Attentional Control](#)

*Hwajin Yang, Wee Qin Ng, Andree Hartanto & Sujin Yang*

[\(M-29\) The role of language switching in the cognitive functioning of bilinguals](#)

*Rita Gross & Kaori Kubo Germano*

[\(M-30\) Implementing Dual Language Programs in Low-Income Neighborhoods with Shifting Demographics in Urban Centers in the U.S](#)

*Higinia Torres, Rimbau*

# Talk Schedule

MONDAY	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Natalia Meir	Brian Rusk	Julija Vaitonye	Bene Bassetti	Heather Blair		Dejan Ivković		Eleonora Rossi
4:40-5:05	Rama Novogrodsky Natalia Meir <a href="#">Bimodal-Bilingual Language Acquisition: Evidence from deaf children acquiring Israeli Sign Language and Hebrew</a>	Laura Fernandez Arroyo, Nuria Sagarra & Cristina Lozano <a href="#">Predictive mechanisms of idiomatic expressions in native and non-native speakers</a>	Alexandre Chauvin & Natalie Phillips <a href="#">Individual Differences in the Use of Visual Speech Cues and Sentence Context to Aid Speech Perception under Noisy Conditions in Young and Older Bilinguals</a>	Jyotsna Vaid <a href="#">The cognitive impact of biscriptality: Preliminary studies and a agenda for research</a> <b>CANCELLED</b>	Antje Endesfelder Quick & Backus Ad <a href="#">Individual differences in Code-mixing: the use of partially schematic patterns in three German-English bilingual children</a>		Dejan Ivković <a href="#">Multilingualism, collaboration and experiential learning with multiple modalities: The case of Mondovision</a>	Thao Tran-Minh <a href="#">Pertinence du DELF dans le contexte canadien : le cas du Campus Saint-Jean</a> <b>CANCELLED</b>	Alexis Hervais-Adelman & Laura Babcock <a href="#">The Neurobiology of Simultaneous Interpreting - Where extreme language control and cognitive control intersect</a>
5:05-5:30	Elena Koulidobrova, Tatiana Luchkina & Jeffrey Palmer <a href="#">Testing two models of Sign Language phonology in ASL: deaf L2 learners vs native signers</a>		Julija Vaitonyte, Linda Drijvers & Asli Özyürek <a href="#">Gaze allocation during gestural enhancement of degraded speech in native and non-native listeners</a>	Jeanette Altarriba <a href="#">How Emotion and Language Influence Thought and Action in Monolingual and Bilingual Speakers</a>	Heather Blair, Miao Sun, Jackie Filipek & Hongliang Fu <a href="#">What children who are literate in Chinese bring to the reading of English</a>	Nick Wong, Pedro Lok & Alfred Jones Tsang <a href="#">Predicting translinguaging moments for Kongish speakers: A quantitative analysis on Facebook Page Likes distribution</a> <b>CANCELLED</b>	Gulab Chand & Urjani Chakravarty <a href="#">Multilingual Modality: A Mapping of Boundaries in Public Service Announcements</a>	General Discussion <b>CANCELLED</b>	Eleonora Rossi, Isabel Eyer & Judith Kroll <a href="#">The linguistic and neural effects of short novel language learning</a>



## Reception

5:30 PM

Enjoy a relaxing monday evening listening to jazz and mingling with other conference goers at our reception **hosted at the CCIS Lounge.**

Light snacks and a cash bar will be provided

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# Tuesday, June 25

## Keynote

8:30 - 9:30 AM  
CCIS 1 - 430



**Roy Lyster**  
*McGill University*

***Cognitive support or social prestige: The use of English L1 in immersion***

In school-based additive bilingual programs, competition between target languages for time and status inevitably leads to the habitual use of one language over the other—with the language of prestige being the categorical winner. In spite of this, in language immersion programs where English is the majority language and one of two languages of instruction along with a minority language such as French, Spanish, or Mandarin, there have been calls for students to draw more freely on the language they know best for cognitive support. Understandably, such calls are inspired by the positive results of research confirming the many benefits of L1 use by minority-language students. However, the benefits of English L1 use by majority-language students have not been adequately substantiated by research to justify more use of English than is already the case in immersion programs.

Accordingly, this talk will question the generalizability across all instructional settings of translanguaging practices that come into play in social interaction between bilinguals as they make use of their shared linguistic resources. Specifically, an argument will be made against more use of English in Canadian and US immersion programs targeting minority languages such as French or Spanish: Both in one-way immersion, where more use of the majority language has been associated with plateau effects in minority language development, and in two-way immersion programs, where more English in the curriculum has not proven to further enhance the English language proficiency of minority-language students. Arguably, in both cases, more use of English serves to reinforce the societal language imbalance that favours majority-language use.

Given the absence of research demonstrating that more use of the majority language results in higher levels of proficiency in the minority language, this talk will address two main questions regarding immersion programs. First, what instructional strategies are more likely

than use of the majority language to scaffold both content learning and continued development in the minority language? Second, because immersion students still need to make strong connections between both languages of instruction for the purpose of biliteracy development, how can teachers implement crosslinguistic pedagogy as a means for students to benefit from the dynamic relationship between the two languages while developing a sense of contextual integrity for each language on its own?

# Tuesday Coffee Break and Posters

9:30 - 11:00 AM

[\(T-1\) Bilingualism in the elderly by Ellen Bialystok: a review of the articles published in 2012-2017](#)

*Luana Breda Cristiano, Gabriel Sousa Andrade, Plinio Marco Toni & Genner Mateus Secco*

[\(T-2\) Preparing for a Multilingual Reality: The Case of a Bilingual Teacher Preparation Program in India](#)

*Anuja Sarda & Martha Allexsaht-Snider*

[\(T-3\) Novel Word Learning and Executive Function in Active and Inactive Bilinguals](#)

*Athena Szeto & Cassandra Foursha-Stevenson*

[\(T-4\) Multilingual Effects on Mandarin Production: Cognitive Control and Allocation of Attentional Resources](#)

*Hsiu-ling Hsu*

[\(T-5\) The relationship between perceptual ratings of accentedness and prosodic features of the English speech of bilingual children in Canada](#)

*Youran Lin, Stephanie Limacher & Karen Pollock*

[\(T-6\) Parent-reported Beliefs, Practices, and Outcomes of Dual Language Learners in Hispanic vs. Non-Hispanic Families](#)

*Juliana Ronderos, Marissa Ramos & Anny Castilla-Earls*

[\(T-7\) Language Maintenance in Children with Cochlear Implants](#)

*Anny Castilla-Earls, Ferenc Bunta, Melissa Montenegro & Juliana Ronderos*

[\(T-8\) The Cognitive and Neurological Effects of Bilingualism on Healthy Ageing and Dementia](#)

*Toms Voits, Christos Pliatsikas, Holly Robson & Jason Rothman*

[\(T-9\) Kam-Mandarin bilingual children's comprehension of subject- and object-relative clauses](#)

*Wenchun Yang, Angel Chan & Evan Kidd*

[\(T-10\) Receptive vocabulary of children in a multilingual forest school](#)

*Julia Boegaeva*

[\(T-11\) How do Western and heritage cultural internalizations predict EFL students' language motivation and confidence?](#)

*Nigel Mantou Lou & Kimberly Noels*

[\(T-12\) Sentential Biasing of Lexical Tone Perception in Heritage and Native Mandarin Speakers](#)

*Hanna Zhang & Philip Monahan*

[\(T-13\) The Relationship Between L2 Learners' Vocabulary Knowledge and the Lexical Diversity of Their Writing](#)

*Shizuka Brooks & Gavin Brooks*

[\(T-14\) Identifying Student Motivation and Agency in Language Learning](#)

*Tristan Verboven*

[\(T-15\) Overt and Null Subjects in Late L1 Attrition of Bulgarian and Near-Native L2 Acquisition of German](#)

*Dobrinka Genevska-Hanke*

[\(T-16\) Plural formation in Moroccan heritage speakers in France](#)

*AMAL EL HAIMEUR*

[\(T-18\) The expression of temporal relations in oral and written narratives of personal experience: A comparative developmental study of L1 & L2 Spanish](#)

*Judy Kupersmitt, Melina Aparici & Elisa Rosado*

[\(T-21\) Native-language dominance predicts linguistic and cognitive transfer to the non-dominant language in preschool-age bilinguals](#)

*Jonathan Robinson Anthony, Irina Potapova, Henrike Blumenfeld & Sonja Pruitt-Lord*

[\(T-22\) The role of L1 lexical gender in the processing of L2 gender agreement: an ERP study](#)

*Mara Pimentel, Stanislav Mulík & Elia Haydée Carrasco-Ortiz*

[\(T-23\) Form-based associations in L2 acquisition - the impact of Swedish å, ä, ö](#)

*Gisela Håkansson & Catrin Norrby*

[\(T-24\) The Implementation of Translanguaging Pedagogy at Zayed University in the United Arab Emirates: Challenges and Success Stories](#)

*Telma Steinhagen & Ahmad Aljanadbah Aljanadbah*

[\(T-25\) A translanguaging instinct in pre-service teachers - and a move from spontaneous to pedagogical translanguaging?](#)

*Jonas Iversen*

[\(T-26\) Next generation multilingualism and social cohesion in Singapore: Educational discourses](#)

*Daniel Kwang Guan Chan & Gilles Forlot*

[\(T-27\) The persisting role of orthography in the L2 speech of highly proficient Korean- and Farsi-English-speaking bilinguals in Canada: acoustic evidence for language-specific effects](#)

*Yasaman Rafat, Veronica Whitford, Marc Joanisse, Natasha Swiderski, Sarah Cornwell, Mercedesh Mohaghegh, Celina Valdivia, Nasim Fakoornia & Parastoo Nasrollahzadeh*

[\(T-28\) Investigating the acquisition of Mexican Spanish rhotics by Haitian Creole speakers: a socio-phonetic approach](#)

*Natasha Swiderski & Yasaman Rafat*

[\(T-29\) Avoiding Monolingual Bias in Attrition Research: Comparing Bilingual Attriters to Bilingual Non-Attriters](#)

*Anastasia Sorokina*

## Launch of Current Issues on Bilingualism

10:30 - 11:00 AM  
BS M 141

## Tuesday Theme Sessions

### [Designing Teaching and Learning through the Prism of Children's Plurilingualism: Theory, Practice, Partnership and Policy](#)

*Gail Prasad, Chair*

*Location: BS M 145*

*Time: 11:00 - 12:40 PM*

### [How studying early infancy informs our understanding of bilingual language development](#)

*Stephanie De Anda & Krista Byers-Heinlein, Chairs*

*Location: BS M 149*

*Time: 11:00 - 12:40 PM*

### [The effect of bilingualism on cognitive control under scrutiny](#)

*Julia Festman & John Schwieter, Chairs*

*Location: CCIS 1 140*

*Time: 11:00 - 12:40 PM*

### [What Does Second Language Learning Reveal About Plasticity?](#)

*Mona Roxana Botezatu, Chair*

*Location: CCIS 1 430*

*Time: 11:00 - 12:40 PM*

### [Minimizing cognitive load in Simultaneous Interpreting](#)

*Alexis Hervais-Adelman, Chair*

*Location: BS M 145*

*Time: 1:40 - 3:20 PM*

### [Measures, Modality, & Means: The 3 "M"s to define the bilingual experience](#)

*Klara Marton, Chair*

*Location: BS M 149*

*Time: 1:40 - 3:20 PM*

### [A world of possibilities: Bilingual development in children with ASD](#)

*Tamara Sorenson Duncan, Chair*

*Location: CCIS 1 140*

*Time: 1:40 - 3:20 PM*

**Impacts of language diversity on language abilities, executive control, and brain plasticity in bilingual and monolingual adults**

*Jason Gullifer & Debra Titone, Chairs*

*Location: CCIS L2 190*

*Time: 1:40 - 3:20 PM*

**Advances In Immersion Teacher Education Research**

*Diane J. Tedick, University of Minnesota, Chair*

*Discussant: Roy Lyster, McGill University*

*Location: CCIS L1 160*

*Time: 1:40 - 3:20 PM*

**Teachers' attitudes on multilingualism across countries**

*Andrea C. Schalley, Chair*

*Location: BS M 149*

*Time: 3:40 - 5:20 PM*

**Exploring language learning in bilinguals**

*Laura Spinu, Chair*

*Location: CCIS L2 190*

*Time: 3:40 - 5:20 PM*

**Language disorders in bilingual children**

*Sharon Armon-Lotem, Chair*

*Location: CCIS 1 430*

*Time: 3:40 - 5:20 PM*

# Talk Schedule

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Fatma Said	Gail Prasad	Stephanie De Anda & Krista Byers-Heinlein	Julia Festman & John Schwieter	Laura Babcock	Mona Roxana Botezatu	Fabio Carneiro	Quin Yow	Tamara Sorenson Duncan
11:00-11:25	Thoma Dieter <a href="#">Predictors of bilinguals' naturalistic reading fluency at text level in their L1, L2, L3 and heritage language</a>	Esther Bettney <a href="#">Multilingualism versus Monolingualism for all? Analyzing the dynamic negotiation of language policies at the district, school and classroom levels</a>	Stephanie De Anda <a href="#">What theoretical models predict about early bilingual first language acquisition</a>	Maurits Van den Noort, Esli Struys, Peggy Bosch, Lars Jaswetz, Benoît Perriard, Sujung Yeo, Pia Barisch, Sook-Hyun Lee & Sabina Lim <a href="#">A systematic review of factors modulating the bilingual advantage and cognitive control</a>	Gulsen Yilmaz & Antje Saueremann <a href="#">Complete acquisition in the heritage language: Evidence from indefiniteness in Turkish</a>	Mona Roxana Botezatu <a href="#">Inconsistency: Second Language Proficiency Impacts Sensitivity to Inconsistent Spelling-Sound Mappings in the Native Language</a>	Corinne Mathieu <a href="#">Defining and operationalizing content and language integration for the content-based language instruction classroom</a>	Michael Johns, M Gabriela Puscama & Matthew Carlson <a href="#">It Just Takes Time: Refining asymmetric switch costs using pupillometry</a>	Belinda Daniels, Peter Turner, Randy Morin, William Cook, Dorothy Thunder & Andrea Sterzuk <a href="#">Language camps as an Indigenous language revitalization strategy: The nêhiyawak (Cree Peoples) Language Learning Experience</a>
11:25-11:50	Deanna Friesen & Bailey Frid <a href="#">Strategy Use Predicts Reading Comprehension Success in Bilingual Adults and Children</a>	Gail Prasad Collaborative, Critical and Creative <a href="#">Multilingual Language Awareness: From Theory into Practice</a>	Christopher Fennell <a href="#">How infant research informs the "uniqueness" of simultaneous bilingualism</a>	Gregory Poarch <a href="#">Executive function and child multilingualism: Using Bayes factor analyses</a>	Serkan Ugyun & Claudia Felser <a href="#">Constraints on subject-verb agreement in German/Turkish bilingual speakers</a>	Veronica Whitford <a href="#">Individual Differences in Current L2 Experience Modulate Eye-Movement Measures of L1 and L2 Reading in Bilingual Younger and Older Adults</a>	Josée LeBouthillier & Joseph Dicks <a href="#">An Examination of Elementary French Immersion Students' Extended Oral Output through Literacy-Based Learning Centers</a>	Eleonora Rossi, Kyra Krass, Gitte Joergensen, Megan Zirnstein & Gerry Altmann <a href="#">The Influence of Cognitive Control and Bilingual Experience on Event Processing</a>	Pia Lane <a href="#">Finding a voice - inherent tensions of indigenous language reclamation</a>

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
11:50-12:15	Fatma Said, Beatrice Szczepek Reed & Ian Davies <a href="#">Using dialect to teach formal language: the teaching of Arabic as a minority language in the UK</a>	Jungwon Hyun <a href="#">Parents as Multilingual Experts and Advocates: On family engagement and home language maintenance through collaborative multilingual literacy-based projects</a>	Krista Byers-Heinlein <a href="#">Becoming bilingual in infancy: The Gradual Language Separation Hypothesis</a>	Sophia Czapka & Julia Festman <a href="#">How to detect the bilingual advantage through pairwise matching</a>	Tanja Rinker <del>CANCELLED</del> <a href="#">Heritage language speakers in Germany: Turkish-German and Italian-German children compared</a>	Kinsey Bice & Judith Kroll <a href="#">Competition and Cooperation Change the Native Language</a>	Fabio Carneiro <a href="#">Langage et développement chez les enseignants de langues: les commentaires sur l'agir professionnel comme processus d'intériorisation et développement des savoir-faire</a>	Nick Pandza, Ian Phillips, Valerie Karuzis, Polly O'Rourke & Stefanie Kuchinsky <a href="#">Non-invasive neurostimulation differentially affects cognitive effort in the processing of L2 Mandarin tone</a>	Anuschka van t'Hooft <a href="#">Community documentation of language and culture as a way to contribute to language revitalization The case of Huastec</a>
12:15-12:40	Aline Ferreira & Gottardo Alexandra <a href="#">Vocabulary and Literacy: English Language Learners and Heritage Language Learners</a>	Discussant: Christine Helot	Discussant: Monika Molnar	John W. Schwieter & Julia Festman <a href="#">Extending the bilingual advantage: Self-concepts in reading and writing among mono- and multilingual children</a>	Graziela Dekeyser <a href="#">Lost in Translation? Emotional Confusion among Ethnolinguistic Minority Children: A Family Approach</a>	Monika Schmid <a href="#">Grammatical gender and first language attrition</a>			Vanessa Chivir Adzer <del>CANCELLED</del> <a href="#">Indigenous language revitalization and maintenance: a case study of Tiv language</a>

## Lunch

12:30 - 1:40 PM  
CCIS Lounge

# Talk Schedule

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Deanna Friesen	Alexis Hervais-Adelman	Klara Marton	Tamara Sorenson	Jason Gullifer & Debra Titone	Josée le Bouthillier	Mona Roxana Botezatu-Heng	Diana Carter	Diane J. Tedick
1:40-2:05	Yumi Inoue <a href="#">Over generalized Use of Japanese Intransitive Verb's Potential Form by L1 Cantonese Learners of Japanese</a>	Laura Babcock, Silvia Fanton & Antonio Vallesi <a href="#">Lexical access in simultaneous interpreting trainees</a>	Thorfun Gehebe, Deepti Wadhera, Jungna Kim & Klara Marton <a href="#">Bilingual Young Adults' Proficiency: Does modality matter?</a>	Krithika Govindarajan & Johanne Paradis <a href="#">Internal State Terms in the Narratives of English L2 learners with Autism Spectrum Disorder, Developmental Language Disorder and Typical Development</a>	Jason Gullifer & Debra Titone <a href="#">Language entropy predicts language abilities and executive control: Evidence from the inhabitants of the diverse city of Montréal</a>	Zhilong Xie, Shuya Zhou & Xue Ruan <a href="#">L2 immersion and L2 speaking enhance cognitive control among Chinese-English bilinguals</a>	Padraig Ó Duibhir, Sinéid Nic Andriú & Joseph Travers <a href="#">Supporting students with special educational needs in immersion education</a>	Aviva Soesman & Joel Walters <a href="#">Bilingual Children's Modifications of Codeswitching in Prepositional Phrases as a Window to Linguistic Representations</a>	Laurent Cammarata <a href="#">Exploring the Potential of the Interconnected Knowledge for Integration (IKI) Analytical Tool to Optimize Immersion Teachers' Professional Growth</a>
2:05-2:30	Gulsen Yilmaz <a href="#">An intergenerational look into referentiality: the bare object in Turkish</a>	Christina Lozano-Argüelles & Nuria Sagarra <a href="#">Anticipation of semantic information in interpreter bilinguals, non-interpreter bilinguals and monolinguals</a>	Jungmee Yoon, Klara Marton & Loraine K Obler <a href="#">Language proficiency, lexical knowledge, and the bilingual language context</a>	Tamara Sorenson Duncan, Annie E Richard, Isabel M Smith & the Pathways in ASD Team <a href="#">Majority-language shift in the bilingual households of children with ASD: A cautionary tale for sustained bilingualism</a>	Anne Beatty-Martínez, Christian Navarro-Torres, Paola Dussias, M Teresa Bajo, Rosa Guzzardo Tamargo & Judith Kroll <a href="#">Bilinguals' interactional contexts and immersion status impose different demands on language production and cognitive control</a>	Xiaoqian Li, Shirlyn HM Sia, Yee Ning Tan & W Quin Yow <a href="#">Are Bilingual Children Better Able to Integrate a Speaker's Information Access and Past Accuracy in Communicative Cues Than Monolingual Children?</a>	Kelle Keating-Marshall & Wendy Bokhorst-Heng <a href="#">"Je parle français: Bilingual Identities of French Immersion Middle School Students</a>	Clara GH Chan & W Quin Yow <a href="#">Taxing Language Control Processes Through Elicited Codeswitching Negatively Impacts Executive Control</a>	TJ Ó Ceallaigh, Muiris Ó Laoire & Máire Uí Chonghaile <a href="#">Making the Invisible Visible: Facilitating Language and Content Integration through Professional Development in Secondary Immersion</a>

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
2:30-2:55	Akiko Zhao <a href="#">How Japanese Bilingual Children Utilize Argument-Omitted Sentence in Direct and Indirect Object Case-markers Learning</a>	Rhona Amos, Kilian Seeber & Martin <a href="#">Pickering Prediction in simultaneous interpreting</a>	Zhamilya Gazman, Lia Pazuelo, Jessica Scheuer, Luca Campanelli, Yasmine Ouchikh & Klara Marton <a href="#">Best practices in assessing language proficiency in bilingual children with and without DLD</a>	Ana Maria Gonzalez-Barrero & Aparna Nadig <a href="#">Language Skills and Executive Functions of Bilingual Children with Autism Spectrum Disorders</a>	Christos Pliatsikas <a href="#">Understanding structural plasticity in the multilingual brain: The Dynamic Restructuring Model</a>	Katy Finch, Anna Theakston, Kamila Polisenska and & Ludovica Serratrice <a href="#">Do learners of English as an Additional Language have a metalinguistic advantage in the primary foreign language classroom?</a>	Xavier Gutierrez, Bill Dunn & Leila Ranta <a href="#">Beliefs about TBLT and their impact on task design in pre-service teacher education</a>	Diana Carter, Agnieszka Konopka, Kevin Donnelly & Mirjam Boersma <a href="#">Cognate-triggered codeswitching in Welsh-English conversations</a>	Diane Tedick & Corinne Mathieu <a href="#">Designing and Implementing a Rubric for Assessing Immersion Teaching</a>
2:55-3:20		Roundtable discussion	Discussant: Liz Pazuelo	Ann Sutton, Elizabeth Kay -Raining Bird, Fred Genesee & Xi Becky Chen & Joan Oracheski <a href="#">French Immersion outcomes of children with special education needs</a>	Kinsey Bice & Judith Kroll <a href="#">Living in linguistically diverse communities bolsters foreign language learning</a>	Anna Rijkers-Baranova, Elma Blom & Elena Tribushinina <a href="#">Unravelling the bilingual advantage in foreign language learning: The role of proficiency in the majority and the minority language</a>			Discussant: Roy Lyster

## Coffee Break

3:20 - 3:40 PM

# Talk Schedule

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Bill Dunn	Lina Abed Ibrahim	Andrea C. Schalley	Julia Festman	Laura Spinu	Sharon Armon-Lotem	Marie Nader	Beyhan Ertanir	Matthew Sung
3:40-4:05	Higinia Torres-Rimbau <a href="#">Implementing Dual Language Programs in Low-Income Neighborhoods with Shifting Demographics in Urban Centers in the US</a>	Shereen Sharaan <a href="#">The Impact of Bilingualism on the Executive Function Skills of Children with Autism Spectrum Conditions and Their Typically Developing Peers</a>	Andrea C Schalley, Beth Anne Paulsrud & Päivi Juvonen <a href="#">Swedish teachers' attitudes, beliefs and knowledge on multilingualism – a qualitative study</a>	Brian Rusk, Adriana Soto-Corominas, & Johanne Paradis <a href="#">Morphosyntactic abilities of early L2 learners in adolescence and young adulthood: Convergence with monolinguals and role of vocabulary size</a>	Sayuri Hayakawa, James Bartolotti & Viorica Marian <a href="#">Effects of Native Language Similarity on Foreign Language Acquisition, Retention, and Transfer</a>	Elma Blom & Tessel Boerma <a href="#">Quasi-universal nonword repetition and narrative performance over time</a>	Tamar Degani, Varad Kreiser & Rama Novogrodsky <a href="#">The joint effects of bilingualism, DLD and item-frequency on children's lexical retrieval performance</a>	Ruth Kircher <a href="#">Raising the next generation of multilinguals in Quebec: An investigation of parents' language choices in communications with their children</a>	Roswita Dressler, Katie Crossman & Colleen Kawalilak <a href="#">The Next Generation of Language Teacher: Blogging about Language Teaching and Learning During Study Abroad</a>
4:05-4:30		Estela García-Alcaraz & Juana Licerias <a href="#">Bilingualism and non-typical language development: code-switching as an indirect way of investigating the status of grammatical gender in the Spanish grammar of an English-Spanish bilingual with Prader-Willi Syndrome</a>	Galina Putjata & Simone Plöger <a href="#">Multilingual teaching practices: The role of language policies and professionalization for teachers' language diversity management A case study with German teachers from different geographical contexts</a>	Maki Kubota <a href="#">How bilingual experience and executive control influence development in language control among bilingual children</a>	Jiwon Hwang, Nadya Pincus & Laura Spinu <a href="#">Exploring phonetic and phonological learning in bilinguals: is there a link between auditory sensory memory and skill?</a>	Sharon Armon-Lotem <a href="#">Comparative use of sentence repetition to disentangle bilingualism from DLD in different language pairs</a>	Vincent DeLuca, Jason Rothman, Christos Pliatsikas & Ellen Bialystok <a href="#">Bilingualism is a spectrum of experiences that variably affect neurocognitive adaptation</a>	Sarah Surrain & Gigi Luk <a href="#">"Spanish at home, English at school": Perceptions of bilingualism and home language usage among Spanish-speaking parents of preschoolers in the US</a>	Amanda Huensch & Nicole Tracy-Ventura <a href="#">To what extent are the linguistic benefits of study abroad long lasting? A 5-year longitudinal study</a>
4:30-4:55		Lina Abed Ibrahim, Istvan Fekete & Cornelia Hamann <a href="#">What Machine Learning can tell us about the role of language dominance in the diagnostic accuracy of German LITMUS nonword and sentence repetition tasks</a>	Kutlay Yagmur & Emilie Diephuis <a href="#">Dutch primary school teachers' opinions, beliefs and knowledge on multilingualism</a>	Christina Flores & Esther Rinke <a href="#">Language internal factors in heritage language development Subject and object realization revisited</a>	Yasaman Rafat & Laura Spinu <a href="#">The effects of bilingualism and musical training on vowel and tone discrimination</a>	Natalia Meir & Rama Novogrodsky <a href="#">Bilingualism does not impede morpho-syntactic development of children with Autism</a>	Fraibet Aveledo, Yolanda Higuera, Ariana Meldaña, Arpita Bose, Theo Marinis, Christos Pliatsikas & Maria Luisa Martinez <a href="#">The impact of bilingualism on cognitive abilities in multiple sclerosis</a>	Fatma Said <a href="#">Parental language policy supports bilingual language development: the importance of qualitative factors in the process</a>	Valeria Sumonte, Susan Sanhueza, Miguel Friz & Andrea Fuentealba <a href="#">A LINGUISTIC AND INTERCULTURAL EDUCATIONAL EXPERIENCE IN CHILE</a>

Tuesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
4:55-5:20			Claire Cunningham & Sabine Little <a href="#">Stories of teachers' struggles in a divided nation: attitudes about multilingualism in the mainstream UK education system</a>	Faustino Montes-Castañeda <a href="#">A preliminary analysis of input and early lexical productions in monolingual and bilingual Totonac acquisition</a>	TS Talk Noah Phillip-Muller <a href="#">The Effects of Syntactic Parameters on Serial Memory Error Patterns in Bilinguals and Monolinguals</a>	Maria Adelaida Restrepo <a href="#">Assessment methods in diagnosis and intervention planning for bilingual children</a>	Marie Nader & Daphnée Simard <a href="#">On the contribution of Linguistic and Cognitive Factors to the Micro and the Macro levels of Reading Comprehension among Heritage Language Children</a>	Beyhan Ertanir, Jens Kratzmann & Steffi Sachse <a href="#">Bidirectional Associations between Language and Socio-emotional Competencies in Young Dual Language Learners from Germany</a>	Matthew Sung <a href="#">Mainland Chinese university students' multilingual experiences in Hong Kong: Multilingual language practices, ideologies and identities</a>

# Wednesday, June 26

## Keynote

8:30 - 9:30 AM  
CCIS 1 - 430



**Virginia Yip**  
*Florida Atlantic University*

*Childhood Bilingualism Research Centre*  
*Chinese University of Hong Kong*

This paper discusses some issues in childhood bilingualism in homeland and heritage contexts in light of the availability of the longitudinal corpora involving Cantonese and Mandarin in monolingual and bilingual contexts. Currently available in the CHILDES archive and contributed by the Childhood Bilingualism Research Centre (CBRC), these corpora are compiled by recording individual bilingual children's speech production regularly and linking their speech data to audio or video files over an extended period of time from age one to five. I will highlight a recent corpus that documents the development of bilingualism in three Chinese heritage children born and raised in the USA: Luna (2;0 - 4;11), Avia (2;0 - 3;11) and Winston (1;07 -

3;07) who have successfully developed Mandarin and English (and Cantonese in Winston's case) in the early years and maintained the heritage language to varying extents (Mai, Matthews and Yip 2018; see website: <https://chilides.talkbank.org/access/Biling/CHCC.html>). With the availability of such heritage corpora, issues of incomplete acquisition, language attrition and maintenance can be addressed more systematically.

In our ongoing projects, methodological innovations include data collection via video conferencing and 360 o cameras. While most of the existing bilingual corpora in CHILDES are built upon speech data of adults interacting with children in the same venue, recent technological advances provide researchers with exciting alternatives. Our Hong Kong-based research assistants interact with American-born Chinese children residing in the US via Skype video calls, in addition to being regularly recorded by their parents and RAs at home. The combination of traditional home-recording and online video calls captures both parent-child interaction in Mandarin, the heritage language and adult-child interaction in English, the societal dominant language.

Together, the heritage and baseline data allow us to address fundamental questions including the

role of reduced input and its relationship to bilingual development, vulnerability of specific constructions that are subject to attrition, and crosslinguistic influence. Heritage children's development is shown to be on a par with monolingual children initially but the children shift in dominance to English as they approach school age.

## Talk Schedule

Wednesday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Laurent Cammarata	Tamar Degani	Gigi Luk	Adriana Soto-Corominas	Johanne Paradis	Arnstein Hjelde	Jungna Kim & Coralie Herve	Bernhard Brehmer	Leila Ranta
9:40-10:05	Chuan Lin <a href="#">Motivation in learning Mandarin as a foreign and heritage language</a>	Tesni Galvin & Vivienne Rogers <a href="#">Predictive processing of gender in Welsh-English bilinguals</a>		Simone Plöger <a href="#">Multilingual strategies of newly arrived pupils at the transition between preparation and regular class</a>	Eve Higby, Paulina Vasquez-Rocha & Judith Kroll <a href="#">The Scope of Inhibitory Control in Bilingualism</a>	Kyle Jones <a href="#">A multigenerational investigation of the acoustics of English-Modern Hebrew heritage speakers</a>	Coralie Herve <a href="#">French-English bilingual children's sensitivity to genericity and specificity: evidence of implicit and explicit knowledge</a>	Gláucia Silva <a href="#">Learning Portuguese grammar: Perceptions of foreign and heritage language speakers</a>	Anastassia Zabrodskaja, Sviatlana Karpava & Natalia Ringblom <a href="#">Bilingualism and the Next Generation: Evidence from Estonia, Cyprus and Sweden</a>
10:05-10:30	Joshua Katz, Kimberly Noels & Amanda Fitzner <a href="#">Fortasse lingua latina non mortua est: Motivation to become bilingual in Latin</a>	Tamar Degani <a href="#">Context effects in processing of cross-language semantic ambiguity among different-script bilinguals</a>	Kevin McManus <a href="#">Improving Bilingual Language Processing through Language-Switching Training</a>	Liesa Rühlmann <a href="#">Linguicism in School: Experiences of Plurilingual Students in Germany</a>	Myeongeun Son <a href="#">Cross-linguistic syntactic priming in Korean- English late bilinguals</a>	Arnstein Hjelde & Kristin Melum Eide <a href="#">Intergenerational Transmission of Norwegian as a Heritage Language</a>	Jungna Kim, Teresa S. Pisano, Klara Marton, Brett A Martin & Obler Loraine <a href="#">Different interference control mechanisms underlying L2 auditory sentence comprehension in listeners with high and mid L2 proficiency</a>	Bernhard Brehmer, Aldona Sopata, Kamil Długosz & Raina Gielge <a href="#">Null arguments in Polish-German bilingual children: comparing simultaneous vs early successive bilinguals</a>	Gail Cormier <a href="#">Bilingual Students' Attitudes towards Translanguaging</a>

## Coffee Break

3:20 - 3:40 PM

# Early Career Scholar Lectures

11:00 - 12:30 PM  
CCIS 1 - 430



## Angela de Bruin

*To switch or not to switch: The cognitive mechanisms involved in voluntary language switching*

One of the remarkable characteristics of bilinguals is the ability to seemingly effortlessly use two languages and switch between them. Sometimes, this switching is imposed by the circumstances (e.g., the presence of certain interlocutors). This type of language switching has frequently been studied in laboratory studies by asking bilinguals to name pictures or digits in response to a cue, thus instructing the bilingual which language to use and when to switch.

These studies typically show that using two languages is more effortful than using one language. In daily life, however, language switching can also take place freely, for instance when two bilinguals speak the same two languages. In this talk, I will discuss the cognitive mechanisms underlying voluntary

language mixing and switching in Spanish-Basque bilinguals living in a bilingual society. First, I will address how bilinguals decide which language to use and when they switch. I will present evidence from two studies showing that language choice can be very individual and that it is related to individual preferences and lexical access, but can also be primed by linguistic and non-linguistic cues. Second, I will discuss several studies showing that while using two languages in response to a cue may be effortful, voluntarily using two languages can be less effortful and more efficient than having to use one language. The switching context also affects how bilinguals of different ages (e.g., children and older adults) control their languages. Together, these studies show that the cognitive mechanisms underlying language control and switching depend on the context in which bilinguals are using their languages.



## Claire Nance

### *The next generation of minority language bilinguals*

This paper focusses on the linguistic output of speakers issuing from minority language revitalisation programmes. I discuss data from three different studies designed to examine the linguistic outcome of Scottish Gaelic language revitalisation. Specifically, I explore how revitalised varieties may differ from traditional varieties in their phonetics and phonology and discuss the reasons behind this with reference to the social context of minority language revitalisation.

Most of the 58,000 speakers of Scottish Gaelic live in the north-west Scottish Highlands and Islands. Recent revitalisation measures have also led to important populations in urban central Scotland where Gaelic is not traditionally spoken as a community language.

Study 1 investigates the language use of teenagers in immersion education in Glasgow. Analysis of laterals, vowels and intonation indicates that young people are speaking a distinctly Glaswegian variety of Gaelic. I discuss these results with respect to the potential development of new varieties in non-traditional settings.

Study 2 considers fluent adult L2 speakers of Gaelic in central Scotland. Through analysis of their rhotics as well as motivation I demonstrate that in the ideologically-charged setting of language revitalisation, production can align with explicit aims for pronunciation. These results are discussed in terms of creating appropriate language models for revitalisation.

Study 3 examines laterals and stops in children who attend immersion schooling in a traditional Gaelic-speaking community. Results suggest that there are few differences between simultaneous and sequential bilinguals in the sample and are discussed in terms of the creation of peer-group varieties in immersion schooling.

Taken together, these studies suggest new and innovative ways of speaking can emerge from bilingual speakers participating in revitalisation programmes. My final discussion includes the implications of these processes for policy and planning. I explore which forms of language should be promoted as authentic in the bilingual future of language revitalisation.

# Lunch

12:30 - 1:30 PM  
CCIS Lounge

## Excursions

### Elk Island National Park

To the east of Edmonton is the natural playground known to many as Elk Island National Park. Visitors come from all around the world to stargaze under the park's night sky, free of city lights while spreading a cozy blanket across the open fields. Learn about how the bison brought back from near extinction and how the park played a critical role in their survival. Bison, elk and over 250 species of bird species, call Elk Island National Park home, as it has become a paradise for animals, picnickers and campers alike.



### Ukrainian Village

Watch as Ukrainian pioneers come back to life in this living history museum! Listen to the tales of isolation, survival, and persistence of how the Ukrainian immigrants made their impact on Alberta's cultural identity.

### Institute for Innovation in Second Language Teaching

An institution within the Edmonton Public Schools dedicated to enhancing and promoting second language education within a public school board

### Visit to the Legislative Assembly

Take a trip to the symbol of Canada's Federal Government right here in Edmonton!



### Ghost tour

Too many times has history been portrayed as dull and unentertaining. Join the Edmonton Ghost Tour for a more exciting perspective of the city's past. Walk around town to areas of reported ghosts, murders and other paranormal activities!

For more information, please visit our infodesk.

# Thursday, June 27

## Keynote

8:30 - 9:30 AM  
CCIS 1 - 430



**Virginia Zavala**

*Pontificia Universidad Católica del Perú*

*Bilingualisms, political economy and new subject positions: tensions and challenges for the 21st century*

Current globalization processes, increased mobility, and technological advances have brought tensions and challenges for multilingualism in indigenous contexts with regard to how languages are understood (Pietikainen et al. 2016). In this talk, I will discuss how diverse constructions of language and bilingualism intersect with processes of political economy in the bifurcation between two generations of Quechua speakers in Perú. In a context where Quechua is starting to be perceived as a resource that can be exchanged for other symbolic and material capital, Quechua experts, as authorizing agents in the valuation of language

practices and speakers, are being challenged by a new generation of Quechua activists. These latter social actors, with much more access to higher education and new media than their parents, no longer conceive languages as discrete codes linked to fixed ethnolinguistic groups and bounded cultural practices, but display a more fluid, inclusive view of bilingualism and being Quechua. While experts enact recursive moves to position themselves as powerful listening subjects within hegemony, the new generation is trying to disinvent both Quechua and bilingualism in order to reconstitute them in new times. Using ethnographic data from testing practices and selection techniques for recruiting teachers, policies and practices from teacher training programs, and Quechua youth activism in different sites, I will explore how current ideological battles around bilingualism are linked to economic resources, commodification, inequality and new subject positions in the 21st century.

# Thursday Coffee Break and Posters

9:30 - 11:00 AM

[\(Th-1\) Referent re-introduction in bilingual narratives: Is it more vulnerable to cross-linguistic influence?](#)

*Satomi Mishina-Mori, Yuki Nakano & Yuri Jody Yujobo*

[\(Th-2\) Informal Translation and Decision Making Strategies: Examining Effects of Variability in Language Brokering Experience on the Iowa Gambling Task](#)

*Belem López, Mayra Chantal Ramirez & Salvatore Callesano*

[\(Th-3\) Quality of Engagement in Spanish-Speaking Parent-Child Dyads During Free Play](#)

*Anele Villanueva, Allyson Masters, Diane Poulin-Dubois, Pascal Zesiger & Margaret Friend*

[\(Th-4\) The influence of bilingualism on the development of pronoun comprehension](#)

*Kurt Hablado, Derek Phung, Cass Foursha-Stevenson, Elena Nicoladis & Kaley Dallaire*

[\(Th-5\) Production of speech disfluencies in English-French bilingual adults](#)

*Elizabeth Morin-Lessard, Annie Gilbert, Irina Pivneva, Debra Titone & Krista Byers-Heinlein*

[\(Th-6\) Language switching using picture symbols: An investigation of Spanish-English bilingual children with and without language impairments](#)

*Marika King, MaryAnn Romski & Rose Sevcik*

[\(Th-7\) Shifting accents: The effect of experimenter race and accent on bilinguals' speech production](#)

*Emily Shiu & Katherine White*

[\(Th-8\) Canadian Picture Books only for English Learning?](#)

*Yina Liu*

[\(Th-9\) Assessment and leveling of communicative competence in ESOL](#)

*Luz Mary Mora D*

[\(Th-10\) Leisure Reading in two languages: Reading habits and reading preferences of](#)

[bilingual children in Singapore](#)

*Baoqi Sun*

[\(Th-11\) The challenge of multilingualism on assessment: Development of assessment tools in different language versions](#)

*Lea Angela Pradilla*

[\(Th-12\) Do Cantonese-English bilinguals construe motion events differently from monolingual controls? Language production data from an eye-tracking study](#)

*Derek Chan, Kevin Tai & Adam Naroden*

[\(Th-13\) The effects of age and bilingualism on aptitude and working memory](#)

*Vivienne Rogers, Tesni Galvin & Amelia Cobner*

[\(Th-14\) L2 production of Spanish vowels by Shipibo-Spanish bilinguals](#)

*Paloma Pinillos Chavez*

[\(Th-15\) L2 immersion and L2 speaking enhance cognitive control among Chinese-English bilinguals](#)

*Zhilong Xie, Shuya Zhou, Xue Ruan, Hualan Tan & Jia Yang*

[\(Th-16\) Is there an L2-related working memory advantage? Unravelling the effects of culture and task complexity.](#)

*Xu Mengling, Richard Allen & Cecile De Cat*

[\(Th-18\) The realization of nuclear and prenuclear accents in Mandarin learners of English](#)

*Hui-Yu Chien & Janice Fon*

[\(Th-19\) Similect, translanguaging and teaching English as an international language: the case of a Hong Kong's university](#)

*Alfred Tsang*

[\(Th-20\) French vowel production by preschool bilingual children: The impact of language pair and linguistic dominance on the organising vocalic system.](#)

*Marie Philippart de Foy, Véronique Delvaux, Kathy Huet, Morgane Monnier, Myriam Piccaluga & Bernard Harmegnies*

[\(Th-21\) Spanish grammatical gender interference in Papiamentu](#)

*Jorge Valdes Kroff, Frederieke Rooijackers & M Carmen Parafita Couto*

[\(Th-22\) Learning words that look the same across languages: Examining the translation-ambiguity disadvantage in naïve Dutch learners](#)

*Gabriela Terrazas, Akeena Lofters & Natasha Tokowicz*

(Th-23) The effects of bilingualism on pupils in Irish-medium schools with a low socio-economic status: Performance and challenges

*Karen Ní Chlochasaigh, Pádraig Ó Duibhir & Gerry Shiel*

(Th-24) Technology and its transformational role in language maintenance development: the case of Ukrainian language education in Albert

*Olenka Bilash & Alla Nedashkivska*

(Th-25) The Production and Perception of French Voiceless Plosives by English Learners of French with Varying French Experience

*Paige Yi*

(Th-26) Efficient data collection with hard-to-recruit populations: Transparent data peeping for bilingualism researchers

*Esther Schott, Mijke Rhemtulla & Krista Byers-Heinlein*

## Bus Departing for Campus Saint-Jean Leaves at 10:15 AM



## Thursday Theme Sessions

### [From Bilingual to Multilingual Education for Future Generations in Europe: Rethinking Policies, Models and Practices for New Diversities](#)

*Christine Hélot & Andrea Bogner, Chairs*

*Location: BS M 141*

*Time: 11:00 - 12:40 PM*

### [Teacher's beliefs about multilingualism across Europe](#)

*Tanja Rinker, Chair*

*Location: BS M 145*

*Time: 11:00 - 12:40 PM*

### [University immersion programs: Fostering the next generation of advanced bilinguals](#)

*Alysse Weinberg & Jérémie Séror, Chairs*

*Location: Campus St. Jean*

*Time: 11:00 - 12:40 PM*

### [Multilayered language resources in content learning: A look at CBI and CLIL contexts](#)

*Juliet Langman & Tarja Nikula, Chairs*

*Location: CCIS L2 190*

*Time: 2:50- 4:30 PM*

### [Bilingualism and Biculturalism: Unique perspectives and shared insights on the relation between language use and ethnolinguistic identities](#)

*Kimberly Noels, Chair*

*Location: CCIS L1 140*

*Time: 2:50- 4:30 PM*

# Campus Saint-Jean Theme Sessions

## University immersion programs: Fostering the next generation of advanced bilinguals

*Alysse Weinberg & Jérémie Séror, Chairs*

*Location: Campus St. Jean, in Lacerte 3-04*

*Time: 11:00 - 12:40 PM*

Thursday	Campus St Jean
11:00-11:25	Anne Chantal Soucie <a href="#">Towards French Immersion Studies 2.0 at uOttawa</a>
11:25-11:50	Laura Castano Laverde <a href="#">French immersion students and their learning experiences in a work-study Co-op Placements</a>
11:50-12:15	Catherine Buchanan <a href="#">Reflections on the identity of immersion students: Francophiles, francophones or “in-between”?</a>
12:15-12:40	Jérémie Séror, Alysse Weinberg & Thierry Simonet <a href="#">From local to global: Mapping out the evolution and transformation of university immersion students</a>

## Acquisition d'une langue minoritaire dans un contexte linguistique majoritaire: cas de troubles et de développement typique?

*Chantal Mayer-Crittenden, Chair*

*Location: Campus St. Jean in Lacerte 3-04*

*Time: 2:50 - 4:40 PM*

2:50-3:15	Stéphanie Frenette, Gabrielle Dupuis & Véronique Leblanc <a href="#">Le développement d'une langue seconde chez des enfants qui ont un trouble déficitaire d'attention avec hyperactivité avec ou sans trouble du langage</a>
3:15-3:40	Katie Gervias & Anabelle Bouchard <a href="#">Impact de l'exposition linguistique bilingue sur l'acquisition du vocabulaire dans un contexte francophone minoritaire</a>
3:40-4:05	Sara Dubreuil-Piché & Chantal Mayer-Crittenden <a href="#">Répétition de non-mots : identification des enfants qui ont un trouble du développement du langage en contexte linguistique minoritaire</a>
4:05-4:30	Jenna Lachance & Chantal Mayer-Crittenden <a href="#">Test de la répétition de phrases : Marqueur de trouble du développement du langage en contexte linguistique minoritaire</a>

# Talk Schedule

Thursday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Christine Hélot & Andrea Bogner	Tanja Rinker	Victoria Murphy	Jeffrey Steele	Juliet Langman	Elma Blom			Sunny Park-Johnson
11:00-11:25	Muiris Ó Laoire <a href="#">Bilingual Education in Ireland: Rethinking Policies, Models and Practices for New Diversities</a>	Heike Speitz & Jorunn Hegna <a href="#">Student Teachers' Beliefs about Plurilingualism and Multilingual Classrooms in Norway</a>	Christian Navarro-Torres, Anne Beatty-Martínez & Paola Dussias <a href="#">Variability in language regulation is modulated by bilinguals' interactional context</a>	Matthew Carlson, Christianna Otto, Katharina Schuhmann & James McQueen <a href="#">Cross-talker perceptual learning in a second language</a>			Jorge Lemus <a href="#">The Cuna Nahuat immersion program</a>		Sviatlana Karpava <a href="#">The effect of language dominance and exposure on the acquisition of gender agreement</a>
11:25-11:50	Joke Dewilde <a href="#">How bilingual migrant teachers challenge and enforce prevailing monolingual ideologies</a>	Julia Festman, Sandra Bellet, Sabrina Gerth & Verena Gucanin-Nairz <a href="#">Multilingualism in the educational context of Austria</a>	David Palfreyman & Jingjing Qin <a href="#">Business students think across contexts and languages: a comparative study</a>	Mariela López Velarde & Miguel Simonet <a href="#">SOCIOPHONETIC VARIATION IN THE L1 AFFECTS L2 PHONOLOGICAL DEVELOPMENT</a>	Agnieszka Ewa Krautz-Tytus <a href="#">Active and Dormant Languages in the Multilingual Mental Lexicon</a>	Ruying Qi, Wanhua Wu & Bruno Di Biase <a href="#">A comparative study of the acquisition of Mandarin Classifiers in English-Mandarin Bilinguals and Monolinguals in China and Australia</a>	Claudia Marcela Carías & Teresa Leyva <a href="#">La revitalización lingüística y cultural en Honduras: enfoque, iniciativas y desafíos del Grupo de Investigación de las Lenguas Indígenas de Honduras (GRILHO)</a>	Corinne Haigh, Olivier Dezutter & Véronique Parent <a href="#">The development of first and second language writing skills in elementary school students enrolled in intensive English as a second language (L2) programs in Québec</a>	Tanja Kupisch, Natalia Mitrofanova, Yulia Rodina & Marit Westergaard <a href="#">The acquisition of grammatical gender cues by German-Russian bilingual children</a>

Thursday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
11:50-12:15	Pascale Prax-Dubois & Tímea Kádas-Pickel <a href="#">Education plurilingue en France Métropolitaine et en Outre-mer : entre discours progressistes et pratiques conservatrices</a> <a href="#">Quels changements envisageables pour les générations futures?</a>	Tanja Rinker & Erkam Ekinci <a href="#">Multilingual classrooms and monolingual mindsets in Germany?</a>	David Harper, Anita Bowles & Lauren Amer <a href="#">Education Technology supports Individualized Practice for English Language Learners</a>	Rui Qi Choo, Marilyn Vihman & Tamar Keren-Portnoy <a href="#">The acquisition of lexical tones by Mandarin-English bilinguals: A longitudinal study</a>	Megan Gross & Margarita Kaushanskaya <a href="#">Predictors of Bilingual Children's Code-Switching in a Scripted Confederate Paradigm</a>	Stanley Chen <a href="#">Processing Filler-Gap Dependencies in Mandarin Chinese: An Effect of Language Exposure?</a>	Sandra Durán <a href="#">Clashing views on accepted second language teaching and learning approaches: the experience of teaching Nahuat in El Salvador</a>	Featured Speaker: Joseph W. Windsor <a href="#">Learning Klingon: What a Barely-Human Grammar Can Teach Us about Language Acquisition</a>	Valerie Keppenne, Elise Hopman & Carrie Jackson <a href="#">Production Training Benefits Comprehension of Grammatical Gender in L2 German</a>
12:15-12:40	Reseda Streb & Valérie Fialais <a href="#">Flexible Bilingual Education: A case study of a two-way immersion program in Frankfurt</a>	Discussion	Ruolin Hu & Danijela Trenkic <a href="#">The relationship between English proficiency and academic success of international students: Why is a standardised language proficiency test an inconsistent predictor?</a>		Asma Assanee, Linda Wheeldon & Andrea Krott <a href="#">High lexical selection demands when switching into L1, but not L2</a>	Ying Liu, Ruying Qi & Bruno Di Biase <a href="#">L2 influence on L1 subject realization in advanced late Chinese-English bilinguals</a>			Rachel Klassen, Lieve Vangehuchten & Almudena Basanta y Romero-Valdespino <a href="#">L1 grammatical gender variation in bilingual lexical access: Novel findings from L1 Flemish-L2 Spanish speakers</a>



## Lunch

12:40 - 1:40 PM  
CCIS Lounge



## Line dancing

1:00 - 1:40 PM  
CCIS Lounge



## Business Meeting Location: CCIS 1 440

1:40 - 2:30PM



## Coffee Break

2:30 - 2:50 PM

# Talk Schedule

Thursday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Joke Dewilde	Tanja Rinker	David Palfreyman	Mariela Lopez Velarde	Juliet Langman & Tarja Nikula	Graziela Dekeyser	Telma Steinhagen	Kimberly Noel	Stephanie Le Pelleter
2:50-3:15	Maureen Scheidnes <a href="#">Sentence Repetition Performance in a Minority French-speaking Context</a>	Stephanie Kazanas, Rachel Fernandes & Jeanette Altarriba <a href="#">Adaptive Memory: Examining Depth of Processing across a Bilingual's Languages</a>	Annina Hessel, Victoria Murphy & Kate Nation <a href="#">English as an additional language learners' comprehension monitoring during reading: an eye-tracking study</a>	Irina Sekerina, Antje Sauermaun, Natalia Mitrofanova, Natalia Gagarina & Marit Westergaard <a href="#">Crosslinguistic Transfer of Case Cues in Anticipating Non-Canonical Word Orders</a>	Kristin Lindahl <a href="#">Conceptualizing Identity via Teacher language awareness in Content-Based Contexts</a>	Zahraa Attar, Elma Blom & Emmanuelle Le Pichon Vortsman <a href="#">Effects of Testing Language and Validity of Parental Assessment</a>	Tim Roberts <a href="#">A Questionnaire Based Study of Family Language Policy in Swedish-English Bilingual Families</a>	Bonny Norton <a href="#">Identity, Investment, and Digital Storybooks for a Multilingual Future</a>	Sunny Park-Johnson & Carolina Bararera-Tobón <a href="#">Early Heritage and Second Language Learning in an Immersion Preschool Context</a>
3:15-3:40	Sheila Scott <a href="#">Language immersion at the tertiary level An option of Irish Gaelic?</a>	Vivienne Rogers, Amelia Cobner & Tesni Galvin <a href="#">Are aptitude and working memory the same thing?</a>	Christina Schelletter <a href="#">Bilingual Lexical Access in spoken word recognition: Differences between adults and children</a>	Junying Liang <a href="#">Quantifying Interpreting Types: Language Sequence Mirrors Cognitive Load Minimization in Interpreting Tasks</a>	Tarja Nikula <a href="#">Academic and everyday languaging in CLIL</a>	Elise van Wonderen & Sharon Unsworth <a href="#">Assessing the validity of the Dutch Cross-linguistic Lexical Task (CLT)</a>	Eric Andong Ambendu <a href="#">Childhood bilingualism</a>	Kimi Kondo-Brown <a href="#">Heritage language and identity development of bilingual children crossing Japan's national borders</a>	Wendy Bokhorst-Heng & Kelle Keating-Marshall <a href="#">Exploring student identity through metaphor: Extending the model of investment</a>
3:40-4:05	Vicky Chondrogianni, Morna Butcher, Maria Garraffa <a href="#">Mind the gap: Developing lexical abilities in a minority L2 by English-speaking children in Gaelic-medium immersion education</a>	Ting Huang, Hanneke Loerts, & Rasmus Steinkrauss <a href="#">The Impact of Learning Two Foreign Languages on the Development of Language Aptitude and Working Memory</a>	Rima Haddad, Linnea Oberg & Ele Bohnacker <b>CANCELLED</b> <a href="#">Exploring the lexical abilities and language exposure patterns of Arabic-Swedish TD &amp; LI bilingual children (4-7) in Sweden</a>	Chantal van Dijk, Sharon Unsworth & Ton Dijkstra <a href="#">Crosslinguistic influence in simultaneous bilingual children: new insights from online and offline techniques</a>	Juliet Langman & Holly Hansen Thomas <a href="#">Drawing ELs into Secondary Science: Examining content-based talk through functional language awareness</a>	Cecile de Cat <a href="#">What does the CELF-IV Sentence Structure test really index in bilinguals?</a>	Jutta Rymarczyk <a href="#">Young learners' paths to biliteracy and their teachers' feedback</a>	Odilia Yim, Peter MacIntyre & Richard Clément <a href="#">The Next Frontier: Combining physiology and self-reports in studying intergroup identity and L2 anxiety</a>	Noel Ó Murchada & Colin Flynn <b>CANCELLED</b> <a href="#">Educators' language ideologies and target language varieties for the next generation</a>

Thursday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
4:05-4:30	Sanita Lazdiņa & Heiko Marten <a href="#">Translanguaging as a Reflection of Translocality in a Transformative Society: A Case Study from a Latvian-Estonian Twin-Town</a>	Hugues Lacroix <a href="#">Gender assignment in Spanish L3: how do language acquisition and use shape the multilingual lexicon?</a>		Karolina Mieszkowska, Joanna Kolak, Ewa Haman, Agnieszka Otwinowska-Kasztelanic & Marta Bialecka-Pikul <a href="#">Learning words in two languages: cross-language transfer of abstract mental verbs and easily imaginable verbs</a>	Discussant: Bedrettin Yazan	Stephanie Limacher & Karen Pollack <a href="#">Speech Assessment in Bilingual Children: Relationship between Perceptual Judgments of Accent/Comprehensibility and Formal Test Measures</a>	Kimberly Crespo & Margarita Kaushanskaya <b>CANCELLED</b> <a href="#">Is 10 better than 1: How do bilingual and monolingual children accommodate to speaker variability during word-learning?</a>	Kimberly Noels, Marina Doucerain, Kate Dawson & Clarisse Sheane <a href="#">Language and identity variations across situations: implications for acculturation</a>	Stephanie Le Pelleter <a href="#">Les crèches immersives en breton : une influence sur le choix de scolarisation des familles?</a>

# Keynote

4:40 - 5:40 PM  
CCIS 1 - 430



**Marco Jacquemet**  
*University of San Francisco*

## *Transidiomia: Language and Power in the Digital Age*

The experience of linguistic globalization, and the communicative disorder it entails, requires a serious retooling of most basic units of linguistic analysis. The chaos and indeterminacy of contemporary flows of people, knowledge, texts, and commodities across social and geographical space affects most sociolinguistic assumptions behind social interactions. In particular, we can no longer assume that shared knowledge, especially indexical knowledge, still serves to bind people together, facilitate interactions, and negotiate conflicts. By introducing the concept of transidioma—i.e. the ensemble of communicative practices of people embedded in multilingual environments and engaged in interactions that blend face-to-face and digitally-mediated communication—this lecture explores the problematic nature of late-modern communication,

characterized as it is by asymmetrical power, multiple communicative agents with competing agendas, multilingual and hybridized talk, and multimodal (especially digital) forms of interaction. Using data from various ethnographic sites (but in particular from asylum hearings), this lecture documents the renewed reliance on denotational references as a primary strategy to handle interactions in multilingual, power-saturated settings. The claim is that it is time to go even beyond a “linguistics of contact” to examine the transidiomatic strategies (such as denotational-heavy interactional moves) which are the building blocks of a sociolinguistics of multilingual mixing, communicative recombinations, and xenoglossic becoming.

# Banquet



Join us for a lovely evening at the Fairmont Hotel Macdonald downtown at 6:00 PM.



# Friday, June 28

## Keynote

8:30 - 9:30 AM  
CCIS 1 - 430



**Enric Llorca,**  
*Universitat de Lleida (Catalonia)*

### *Reflections on the personal and political dimensions of bilingualism*

The political dimensions of language, particularly in contexts and situations where more than one language share the same social space, have a direct impact on individuals' lives. Political battles around which languages should be promoted and how different languages should be accommodated in educational systems have been recurrent in territories where languages co-exist and compete for usage in different domains.

A case in point is Catalonia, now an officially bilingual region within the officially monolingual Kingdom of Spain. The languages competing for public space are Catalan and Spanish, but English is nonetheless getting increased attention and is becoming a third party in that environment as the global lingua franca. Language policy is decided at the level of education but also at the level of public use by agents who are often unaware of applied linguistic research. Moreover, language policy from the bottom-up is enacted by individuals who take decisions on their use of languages based on attitudes towards language, language use, and the roles of each language in any given context. Such attitudes are mediated and greatly affected by a socially predominant monolingual bias and standard language ideology.

Another linguistically political issue is the massive acquisition of English as an additional language and its role as the global lingua franca. The last twenty years have seen tremendous interest in the impact and consequences of English as a lingua franca in communication and in English language teaching, and the consequential challenge to native speaker models. A further question from this body of research appeals to the use and teaching of other languages. A majority of voices in applied linguistics accept the legitimacy of non-native English because of its lingua franca status. Yet, does this status apply to other languages even when no lingua franca status is accorded to them? Take the case of Catalan, for instance, a language that is threatened by Spanish, a powerful international language that is constantly pushing Catalan towards an increasing convergence with Spanish at all levels: phonological, lexical, morphological and syntactical. Is an attitude of resistance necessary in the Catalan community of speakers? Or should a pragmatic

approach to language as an evolving entity flowing with the flux of new speakers be incorporated? This has been a persistent debate in Catalan linguistic fora: resistance vs. evolution. And this debate has different possible answers depending on whether we put on a political or a purely linguistic hat. Can we, linguists, look down on political ideology when our political selves are at stake? To what extent can we claim neutral analytical skills when we are all totally immersed in our own political environments?

I will reflect on these issues and will discuss my research on nativeness in second language learning and teaching, the challenge of English as a lingua franca to pre-existing models of language teaching, and the attitudes towards Catalan, Spanish and English in the context of Catalonia.

# Friday Coffee Break and Posters

9:30 - 11:00 AM

(F-1) Irrealis (mood) in French: Obligation, hypotheticality, and the (uncertain) future among heritage speakers in the Saint John Valley, Maine

*Carly Bahler*

(F-2) The emergence and development of metalinguistic awareness in Bilingual Primary Education in the Netherlands.

*Jan Willem Chevalking, Roeland van Hout & Sharon Unsworth*

(F-3) Word Learning in Bilingual 6th Graders Receiving English-Only Instruction; Learning rate differences from monolingual peers.

*Samuel McGee, Maria Adelaida Restrepo, Shelley Gray, Mary Alt, Tiffany Hogan, Trudy Kuo, Shara Brinkley & Nelson Cowan*

(F-4) Effect of language immersion on bilingual language production in the two languages

*Manuel Pulido-Azpiróz, Andrea Takahesu Tabori, Laura Rodrigo, Rhonda McClain, Alba García Alonso, Paola Dussias & Judith Kroll*

(F-5) Differences in the Emotional Depths of First and Second Languages in Bilinguals

*Kai Huang & Elena Nicoladis*

(F-6) Input matters more than starting age in long-term language outcomes in a foreign language learning context

*Beck Huang, Alison Bailey Yung-Hsiang Shawn Chang & Yangting Wang*

(F-7) Non-word repetition tasks as a screening tool for Language Impairment in Arabic-Swedish speaking bilinguals (4-7)

*Linnéa Öberg, Rima Haddad & Ute Bohnacker*

(F-8) The same but different: The intonational contours of Spanish-K'ichee' bilinguals

*Brandon Baird*

(F-9) Word-learning in monolingual and bilingual children: The influence of eye-gaze.

*Ishanti Gangopadhyay & Margarita Kaushanskaya*

[\(F-10\) Child Bi- and Multilingualism in the Home in Canada: Rates and language pairs](#)

*Esther Schott, Lena Kremin & Krista Byers-Heinlein*

[\(F-11\) Immersion in Dual-Language Programs Does Not Impede Children's Native Language Acquisition](#)

*Anne Neveu, Ishanti Gangopadhyay, Susan Ellis Weismer & Margarita Kaushanskaya*

[\(F-12\) Learning to code-switch: Is priming of code-switching site affected by word order?](#)

*Laura Rodrigo, Jessica Velez Aviles, Rosa Guzzardo Tamargo & Paola Dussias*

[\(F-14\) Linguistic parameters of the Mandarin Chinese speech of monolingual and bi/multilingual children](#)

*Veronika Makarova & Qin Xiang*

[\(F-15\) New generation of Irish and Swedish speakers through one-way immersion programmes: Immersion students' views on their present and future bi- and multilingualism](#)

*Sanna Pakarinen*

[\(F-16\) Exploring cross-lexical interference in speakers of Spanish and Mapuzungun: A pilot study](#)

*María José Vicencio, Orieta Aguilar & Alexia Guerra*

[\(F-17\) Bilingual speakers' awareness of language varieties they teach and speak](#)

*Angela George*

[\(F-18\) Knowledge of lexical categories of heritage speakers of Russian and Polish in Germany: A longitudinal perspective](#)

*Vladimir Arifulin & Dominika Steinbach*

[\(F-19\) Foreign language training in seniors to prevent old-age disorders](#)

*Saskia Nijmeijer, Merel Keijzer & Marie-Jose van Tol*

[\(F-20\) Examining Task Related Effects on the Manifestation of Morphological and Lexical Errors in French Speaking Children with Developmental Language Disorders](#)

*Selçuk Güven, Elin Thordardottir, Eve-Julie Rioux*

[\(F-21\) Effects of lexical frequency on the processing of relative sentences in L2 Italian.](#)

*Gabriele Luoni*

(F-22) The interrelationship between the notions of compound, coordinate and subordinate bilingualism in the process of bilingual writing in Chinese and English of 6 students in Hong Kong Polytechnic University

*Wing Sat Chan*

(F-23) Identifying language impairment in monolingual and bilingual Turkish-speaking children with/ without developmental language disorders and hearing impairment

*Nebiye Hilal San, Solveig Chilla, Pelin Pistav-Akmese & Cornelia Hamann*

(F-24) What's language got to do with identity? Investigating the relationship between language and identity of adult heritage language learners

*Sumanthra Govender*

## Friday Theme Sessions

### Bilingual infant brains

*Thierry Nazzi, Laboratoire Psychologie de la Perception (UMR8242), CNRS- Université Paris Descartes, Paris, France, Chairs*

*Location: CCIS 1 140*

*Time: 11:00 - 12:40 PM*

### Multilingualism in the Expanding Circle: English as an Additional Language

*Suzanne K. Hilgendorf, Simon Fraser University, Chairs*

*Discussant: Joel Heng-Hartse, Simon Fraser University*

*Location: CCIS 1 430*

*Time: 11:00 - 12:40 PM*

### Heritage Language Learning in Children

*Silvina Montrul, Chair*

*Location: CCIS 1 440*

*Time: 11:00 - 12:40 PM*

### Developmental trajectories of language and literacy skills in primary school bilinguals in England

*Ludovica Serratrice, Chair*

*Location: BS M 145*

*Time: 1:40 - 3:20 PM*

# Talk Schedule

Friday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Miao Sun	Karen Pollock	Kara Fleming	Thierry Nazzi	Ludovica Serratrice	Suzanne K. Hilgendorf	Silvina Montrul	Marie Christin Reichert	Christian Navarro Torres
11:00-11:25	Adrian Lundberg <a href="#">Multilingualism Matters: Findings from Swiss Primary Schools</a>	Vincent DeLuca, Sergio Migeuel Pereira Soares, Christok Pliastikas, Jaosn Rothman & Ellen Bialystok <a href="#">Beyond Structure: Investigating neurochemical bases for bilingualism-induced neural plasticity</a>	Vanessa Chua & Bee Chin Ng <a href="#">Bicultural but monolingual: cultural heritage as sustaining embers of language loss</a>	Monika Molnar, Borja Blanco & César Caballero-Gaudes <a href="#">What does near-infrared spectroscopy tell us about the resting-state functional connectivity of 4-month-old monolingual and bilingual infants?</a>	Alessandra Valentini & Ludovica Serratrice <a href="#">Listening comprehension in children learning English as an additional language (EAL): The role of vocabulary and grammar on local and global inferences</a>	Suzanne K Hilgendorf <a href="#">Transnational Media and English Use in the Expanding Circle</a>	Adriana Soto-Corominas <a href="#">Dominance Effects on Object Pronominalization in 2L1 and cL2 Acquisition</a>	Claudia Maria Riehl <a href="#">Language contact and language shift: Aspects of grammatical change in heritage languages</a>	
11:25-11:50	Tim Roberts & Andrea Schalley <a href="#">A Systematic Literature Review of Studies on Family Language Policy: Populations in Focus</a>	Serena McDiarmid & Heather Henderson <a href="#">Second Language Proficiency and Executive Functions in Children Enrolled in English as a Second Language Programs</a>	Meiluté Ramonienė <a href="#">The role of mother in heritage language maintenance: the case of Lithuanian diaspora</a>	Maria Arredondo, Richard Aslin & Janet Werker <a href="#">Bilingualism alters attentional processes in the brain as early as 6-months</a>	Claudine Bowyer-Crane, Silke Fricke, Blanca Schaefer & Charles Hulme <a href="#">The growth of early word reading and spelling in monolingual children and children learning English as an additional language</a>	Bouchra Kachoub <a href="#">Linguistic Landscapes in a Multilingual Maghreb: An Analysis of Casablanca's English Shop Signs</a>	Maria Jose Ezeizabarrena & Itziar Idiazabal <a href="#">Early-L2 bilinguals may catch up with age-matched L1 children in language development, thanks to the school system</a>	Vicky Chondrogianni & Richard Schwartz <a href="#">Case and word order in heritage Greek children</a>	Ingrid Rodrick Beiler & Joke Dewilde <a href="#">Translation as Translingual Writing Practice in English as an Additional Language</a>
11:50-12:15	Michal Tannenbaum, Amir Michalovich & Elana Shohamy <a href="#">Attitudes and Perceptions of Teachers and Students towards Multilingualism</a>	Yulia Rodina, Natalia Mitrofanova, Tanja Kupisch, Olga Urek & Marit Westergaard <a href="#">Sensitivity to morphophonological gender cues in heritage Russian</a>	Jogilė Teresa Ramonaitė <a href="#">Adoptive parents' attitudes towards bilingualism and their effects</a>	Adrián García-Sierra & Nairán Ramírez-Esparza <a href="#">Relation between Quality and Quantity of Language Input and Brain Responses in Spanish-English Bilingual Infants</a>	Dea Nilsen, Silke Fricke & Meesha Warmington <a href="#">Early cognitive, linguistic, and literacy skills in children learning English as an Additional Language: patterns of development and prediction</a>	Elizabeth Martin <a href="#">Marketing Discourses and World Englishes: A Comparison of France and Quebec</a>	Evangelia Daskalaki, Vicky Chondrogianni, Elma Blom, Froso Argyri & Johanne Paradis <a href="#">Parental Input Effects in heritage contexts</a>	Brehmer Bernhard <a href="#">Grammatical proficiency in adolescent heritage speakers: Does age of onset of bilingualism matter?</a>	Kathleen Heugh <a href="#">Southern multilingualisms, translanguaging and transknowledging</a>

Friday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
12:15-12:40			Sirada Rochanavibhata, Julia Borland & Viorica Marian <a href="#">Culture and Conversation: A comparison of mother-child discourse in the US and Thailand</a>	Pia Rämä & Oytun Aygun <a href="#">Early language experience and lexical form acquisition: an event-related potential (ERP) study in bilingual toddlers</a>	Discussant: Cécile De Cat	Suzanne K. Hilgendorf, Simon Fraser University. <a href="#">Multilingualism in the Expanding Circle: English as an Additional Language</a>	Amy Castilla-Earls <a href="#">Temporary Stage of Low Grammaticality in Dual Language Learners: Language proficiency Shift vs Language Impairment</a>	Galina Dobrova & Natalia Ringblom <a href="#">Simplification of Grammatical Constructions in Heritage Russian and Russian as a Second Language: Divergence or Delay?</a>	

## Lunch

12:30 - 1:40 PM  
CCIS Lounge

**Conversation on why outcomes differ for bilingual children  
in different communities and with different language pairs**  
(Erika Hoff, Johanne Paradis, Sharon Unsworth and Virginia Yip; Friday at lunch)  
Moderator, Brian Rusk

12:55 - 1:40 PM  
CCIS 1 140

# Talk Schedule

Friday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
Session Chairs	Vicky Chondrogianni	Sarah Muller	Sarah Surrain	Scott Perry	Michael A. Johns	Suzanne Hilgendorf	Silvina Montrul	Natasha Tokowicz	
1:40-2:05	Claire Sullivan & Gloria Ramirez <a href="#">Bilingual Early Literacy Intervention in French Immersion</a>	Maša Plešković, Branka Drljača Margić & Tihana Kraš <a href="#">The Fiuman dialect between language maintenance and shift</a>	Kara Fleming <a href="#">Weakness, strength, and purity: National identities and language ideologies in Kazakhstan and Mongolia</a>	Nicole Marx & Torsten Steinhoff <a href="#">Majority Language Classes Aid Development of the Heritage Language: Examining Causal Relationships Between Bilingual Writing</a>	Zoe Schlueter, Chris Cummins & Antonella Sorace <a href="#">(Ir)rational decision-making and loss aversion in L2 reasoning</a>	Renata Emilsson Peskova & Kriselle Lou Suson Jónsdóttir <a href="#">Immigrant parents' rich ways to nurture their children's language repertoires: two longitudinal ethnographic case studies in Iceland</a>	Silvia Pérez Cortés <a href="#">Mapping out the development of subjunctive mood in child heritage bilinguals</a>	Ricky KW Chan <a href="#">Difficulty of L2 tone acquisition as revealed by the incidental learning of tone-segment mappings</a>	Nadia Nacif C Neves <a href="#">La perception des voyelles nasales du français québécois par des locuteurs du portugais brésilien</a>
2:05-2:30	Miao Sun <a href="#">"I don't want to speak half-half Chinese" - The language and literacy practices of an English-Chinese bilingual Child in Western Canada</a>	Sarah Muller <a href="#">Linguistic Repertoire and Language Education Policy: Narratives of Lived Experience by Primary School Students in Luxembourg</a>	Rahim Surkhi <a href="#">Ethnolinguistic diversity: Unfinished business at the heart of the Iranian nation state</a>	June Cheung & Karen Pollock <a href="#">The Impact of a Bilingual School Program on Generational Heritage Language Loss</a>	Dalia Garcia, Christian Navarro-Torres & Judith Kroll <a href="#">Cognitive Control Facilitates Attentional Disengagement during L2 Comprehension</a>	Matthias Wolny <a href="#">"Buongiorno ragazzi avrei bisogno di aiuto..." Language use among recent Italian migrants in Germany</a>	Andrew Armstrong & Silvina Montrul <a href="#">The Impact of Literacy on the Comprehension of Verbal Passives in School-age Spanish Heritage Speakers</a>	Iris Strangmann, Pernille Hansen & Katarina Antolovic <a href="#">Empirically Establishing Cognateness: Translation Elicitation of Norwegian Words by English Monolinguals</a>	Adriel John Orena, Krista Byers-Heinlein & Linda Polka <a href="#">Examining the dual language input to bilingual infants in a naturalistic context</a>

Friday	BS M 141	BS M 145	BS M 149	CCIS 1 140	CCIS L2 190	CCIS 1 430	CCIS 1 440	CCIS L1 140	CCIS L1 160
2:30-2:55	Gavin Brooks & Jon Clenton <a href="#">Exploring the Importance of the Vocabulary for English as an Additional Language Learners' Reading Comprehension</a>	Mandira Halder <a href="#">Role of pedagogical translanguaging in language maintenance: A comparative study of primary schools in French-speaking Switzerland</a>	Kara Fleming, Juldyz Smagulova <a href="#">Neoliberal smokescreens: Ideologies of state and script change in Kazakhstan</a>	Christina Hedman & Ulrika Magnusson <a href="#">Language pedagogical resources for newly arrived students in Swedish primary and upper secondary classes</a>	Elizabeth Stadtmiller, Katrin Lindner & Hesch Maria <a href="#">Sentence Repetition and Processing Costs: Evidence from Russian-German bilingual Kindergarteners</a>	Ozge Ozturk, Julija Vaitonyte & Lisa-Maria Müller <del>CANCELLED</del> <a href="#">Multilingualism, multiculturalism and implications for health and wellbeing</a>		Marie Christin Reichert <a href="#">Bilingual Writing: Comparing Revision Processes in the L2 and the Language of Study</a>	Lourdes de León <a href="#">Crossing language domains in new bilingual genres: A look at Mayan Tzotzil children play</a>
2:55-3:20	Yuqi Wu, Stephen Matthews & Virginia Yip <a href="#">Focus marking of English additive particles in Cantonese-English simultaneous bilingual children: the case of also</a>		Sarah Surrain & Gigi Luk <a href="#">Introducing a novel tool capturing parents' perceived social value of bilingualism</a>	Irmelin Kjelaas <a href="#">"To feel intellectually attacked" A critical sociolinguistic study of language assessment in upper secondary school in Norway</a>	Michael Johns, Laura Rodrigo & Aliza Winneg <a href="#">Priming and Persistence in Bilinguals: What codeswitching tells us about the time course of lexical priming in sentential contexts</a>	Agnes Bolonyai <a href="#">Through the lens of the chronotope: Mobility, identity, and meaning-making in narratives of transmigration</a>		Natasha Tokowicz, Tamar Degani, Alba Tuninetti & Leida Tolentino <a href="#">The effects of translation ambiguity in bilingual language production and recognition: The role of context</a>	Eder Santiago García <del>CANCELLED</del> <a href="#">The "grandmother effect" on the acquisition of Zapotec in bilingual Spanish/Zapotec families in Mitla, Oaxaca, Mexico</a>

# Closing Ceremony

3:20 PM  
CCIS Lounge

With the week coming to a close, please join us in ISB 12's Closing Ceremony, consisting of catering consisting locally made bannock, a brief thanks to the local organizing committee followed by a performance by

Warrior Woman Matricia Brown - Asani Iskewew,  
Drum Keeper





# Abstracts

# Monday Talk Abstracts

## **Multilingualism, Gender and Migration: Negotiating Identity, Power and Repertoire in Globalising Contexts**

*Kristine Horner*

*Location: BS M 145*

In a highly interconnected yet diversified world, sociolinguistic approaches to language, gender and migration have been challenged and interdisciplinary insights have been deemed crucial to move the field forward. This themed session is framed by two key paradigm shifts that inform research on the sociolinguistics of globalisation. Firstly, we consider the complexity of language as repertoire which - in a similar way to mobility - can function as an enabler or prohibitor in the neoliberalised global economy (Heller 2011). Secondly, we focus on speakers' experiences, emotions and aspirations as they relate to linguistic repertoire (Busch 2015), because linguistic practices and language ideologies are bound up with the positionality of speakers and contexts in which they are situated. This emphasis on social relations and discursive practices resonates with debates on the notion of intersectionality in gender studies and, in particular, how gender is bound up with the cultural and political aspects of social life in which it is constructed (see Valentine 2007).

While Pavlenko's (2001: 142) point that studies on language and gender need to be 'grounded in local relations rather than in universalizing assumptions about gender', we also stress the importance of considering complex interface between local relations and global processes. Moreover, while ideologies of language and gender are entrenched in social order and the (re)production of inequalities in the globalising context, it is also important to examine agency and forms of contestation (Takahashi 2013). For example, research on language maintenance and shift as well as that on family language policy has often concentrated on the role of women as transmitters of the heritage or dominant societal language to children. However, women's social networks often extend (far) beyond family circles and many have career goals to which they aspire. The papers in this session deal with the ways that women navigate issues of tradition, norms and the social order with specific reference to linguistic repertoire. Drawing on emergent findings from project fieldwork in small states/borderlands in Asia and Europe, the papers provide qualitative, narrative-based analyses as a means of exploring the negotiation of multilingual repertoires in globalising contexts.

Keywords: Linguistic repertoire; gender roles; transnational migration

## **The Dynamics of Heritage Speakers: a Comparative View**

*Shanley Allen & Hieke Wiese*

*Location: CCIS L1 140*

For research on bilingualism, an especially interesting population is that of "heritage speakers", understood here as speakers who grew up with a language at home other than the majority language (or languages) and who are, as a result, proficient in at least two languages (for a discussion cf. Montrul 2016). In this population, language contact is ubiquitous in individual linguistic repertoires as well as in the speech community, with the heritage language starting as native language, while the majority language usually becomes dominant later. This establishes a contact-linguistic setting that is

particularly open to linguistic variation and change.

In the past, the focus of research on heritage speakers has often been on phenomena of attrition and incomplete acquisition, with monolingual norms as a yardstick. While this might seem a natural way to look at their linguistic behaviour, in recent years there have been more and more calls to overcome such a deficit-oriented view (e.g., Rothman/Treffers-Daller 2014; Guijarro-Fuentes/Schmitz 2015; Scontras et al. 2015). This session picks up on this, with papers driven by a positive, multilingual perspective on heritage speakers' linguistic behaviour.

By doing so, we contribute to the conference theme in several senses. We investigate the next generation of speakers, that is, speakers whose bilingualism is ultimately rooted in migration, but who are already born in the receiving country, speaking a minority language as part of the family's linguistic heritage. And we investigate these speakers from a newly developing research perspective we hope will establish itself as a next-generation approach to heritage speakers. Finally, in terms of researchers, we present work-in-progress from a collaborative research unit based on a cluster of projects that systematically involve junior/early-career researchers.

We discuss noncanonical phenomena in heritage speakers' language use as patterns in their own right, and present a comparative investigation into the (contact-)linguistic dynamics across speaker groups in different language constellations, for heritage and majority languages, and across informal and formal, spoken and written registers.

All papers in this session draw on a shared empirical basis of naturalistic data from heritage speakers of Turkish, Russian and Greek in Germany and in the US, of German heritage speakers in the US, and of monolingual speakers of all five languages. Data has been elicited using a unified "Language Situations" methodology (Wiese 2017) that yields maximally comparable, register-differentiated productions for bi- and monolingual speakers alike.

We show that such a comparative perspective can contribute to our understanding of bilingualism and contact-linguistic dynamics in novel ways: we identify different patterns of register distinctions and extensions, cross-linguistic influences within heritage speakers' two languages, noncanonical patterns within and across different bilingual populations, and some interesting parallels to monolingual productions, in particular in informal registers.

The session includes a paper spelling out our overarching approach, two comparative papers focusing on different linguistic domains, and one on corpus-linguistic challenges and opportunities for the kind of data we provide.

Keywords: heritage speaker; sentence peripheries; referent introduction

## Gaining Insight in Family Language Policies of Language Minority Families in Flanders

*Ily Hollebeke & Esli Struys*

*Location: BS M 141*

The increasing linguistic diversity in Flanders, Belgium, is regularly addressed as a societal problem. Parents raising their children in a multilingual context often struggle with questions and concerns regarding the linguistic upbringing and development of their child. The societal expectations towards language minority (LM) families add to the pressure. With the right approach, however, multilingualism can bring numerous benefits.

As part of Pro-M, a project on promoting early multilingualism in childhood and childcare, this study seeks to visualise the linguistic reality of LM families in Flanders. By mapping out their family language policies (FLP), we aim to contribute to the understanding of LM families with young children, their FLP and their concerns, thus providing critical insights for early child care to further build upon. The study puts focus on families with at least one child under the age of 3, in which at least one parent speaks another language than the societal majority language in Flanders, i.e. Dutch. 1000 families were invited to participate through the infant welfare clinic of Kind en Gezin (Agency for Child and Family) or their (family) day-care centre.

The families were asked to complete an online questionnaire on their general and sociolinguistic background, their FLP (beliefs, practices and management), their belief in linguistic rights and external advice they received (or a lack thereof).

As a first objective this study aims to provide an overview of the FLPs prevalent in Flanders and the uncertainties of LM families concerning their FLP and their child's linguistic upbringing. The second objective is to determine if and how the FLP of LM families is influenced by either the family's general or sociolinguistic background, sociolinguistic beliefs or by external advice. We are now at the stage of data collection and will present the first data of our research at the conference.

Key words

Early multilingualism; family language policy; language minority families

### Theme Session Talk

## Constructing Classed Linguistic Practices across Borders: Family Language Policy in South(east) Asian Families in Hong Kong

*Mingyue Michelle Gu*

*Location: BS M 145*

Taking ethnic minority mothers and children as a transnational social class, this study explores how migrant mothers strategized to construct new class identities and mobilize between different classed communities through their linguistic and cultural repertoire, and how the children aligned their linguistic practices with language policy, both at home and at the societal level. It is found that, while the mothers actively drew on resources (e.g., social-networking, knowledge of governmental policy and languages) from their emigrational experiences to achieve class mobilization, a bounded view towards cultures may have influenced the family language policy, in turn constraining children's acculturation and socialization into mainstream society and leading to class stabilization. The mothers were found

to draw heavily upon their own migrant and social experiences to set up a restrictive family language policy that functionalized the contexts of household, school, community, and society. It is therefore argued that that ideological spaces (Hornberger, 2006) should be opened up to value migrant mothers' linguistic and cultural resources and to help them develop a more fluid family language policy that better prepares their children for educational success and acculturation. Future research could explore the underlying factors that restrict the development of a more fluid and dynamic language policy and how children's experiences in schools could be utilized as resources for family language policy implementation. This points to more school-parent collaboration and information exchange, and the necessity of providing more space for children to enact their own agency and contribute their own ideologies.

## **Evidence for the role of prime frequency on L2-L1 masked translation priming effects**

*Adel Chaouch Orozco, Jorge González Alonso & Jason Rothman*

*Location: BS M 149*

Research in the processing of non-cognate translation equivalents by (unbalanced) bilinguals under masked priming conditions shows an asymmetry in lexical decision tasks (LDT) (e.g., Wen and Van Heuven, 2016). Responses to L2 targets are faster with L1 translation equivalent primes than with unrelated ones. In the opposite direction (i.e. L2 primes – L1 targets), the effects are significantly smaller.

We test the predictions of three models. The Bilingual Interactive Activation + (BIA+) model (Dijkstra and Van Heuven, 2002) claims slower L2-word processing causes the priming asymmetry: factors like word frequency or L2 proficiency can speed processing up. The Sense Model (SM, Finkbeiner, Forster, Nicol, and Nakamura, 2004) adduces a representational asymmetry in the L1/L2 senses (various word meanings for a single lexical item). Priming is proportional to the amount of target senses activated. The few meanings known of an L2 prime are unable to activate the many meanings known of an L1 target. Finally, the Revised Hierarchical Model (RHM; Kroll, Van Hell, Tokowicz & Green, 2010) claims that L2 proficiency crucially modulates L2-L1 priming.

We tested 29 Spanish-English unbalanced bilinguals in a masked (60 ms prime presentation) translation priming LDT. The participants' L2 proficiency (upper-intermediate to upper-advanced) was treated as a continuous variable in linear mixed-effects models (Baayen, Davidson, and Bates, 2008). Results showed a priming asymmetry (38 ms vs 17 ms,  $p < .05$ ). Crucially, prime frequency modulated the L2-L1 priming effect (i.e., only the most frequent L2 primes elicited priming effects). Against the RHM's predictions, L2 proficiency did not affect priming. The results challenge the SM, which cannot account for the role of prime frequency, a finding that the BIA+ can accommodate since more frequent L2 words would be processed faster, allowing them to activate the L1 targets under masked priming conditions.

Keywords: Bilingual Lexical Activation; Masked Translation Priming Asymmetry; Second Language Acquisition

## **Attrition of Genre in L1: Systemic Functional Perspective**

*Elena Schmitt*

*Location: CCIS 1 140*

This study examines consequences of first language attrition (L1) from the perspective of systemic

functional linguistics (SFL). SFL views language as a “dynamic, complex system of resources for making meaning and reflects the culture in which it has evolved” (Derewianka, 2015). It further claims that languages vary in the ways they express and structure ideas in different genres and that writers have difficulty acquiring genre-specific features of the target language (TL) (Brisk, 2014). This study investigates whether immigrant writers demonstrate any features of language loss when they use their L1 for writing in a particular genre.

Native speakers of Russian, who were college educated in Russia prior to their immigration and completed a minimum of a Master’s level of education in the U.S., were asked to write two expository essays and given one hour to complete each essay on two different days. They wrote in Russian about the issues of immigration, while in English they wrote about their adjustment to American culture in the early years of immigration. College educated non-immigrant monolingual speakers of Russian and English were asked to write similar essays that were served as controls.

The essays were analyzed for target-like use of the American English and Russian structures of expository writing, as well as the appropriateness of grammar, vocabulary, and punctuation in each language. After 15 years of immigrant life, these participants demonstrated strong maintenance of Russian morphology and syntax, less stable vocabulary usage, some changes in punctuation, and a clear shift of structure of writing toward the American English expository genre. The paper will provide evidence of stylistic attrition through the analysis of the introductory and concluding paragraphs of the essays where thesis was stated at the beginning and repeated at the end, which contradicts the Russian essay style.

Keywords: L1 attrition, genre, SFL

## **Exploring the relationship between L2 English speakers’ fluency and accentedness ratings and linguistic measures of phonological accuracy and fluency**

*Aki Tsunemoto, Pakize Uludag, Kim McDonough & Talia Isaacs*

*Location: CCIS L2 190*

Although comprehensibility remains a primary goal of pronunciation instruction (Levis, 2005), some second language (L2) speakers view native-like accent and fluency as proxies for advanced L2 proficiency (Derwing et al., 2004; Tokumoto & Shibata, 2011). In terms of accentedness and fluency ratings, previous studies have shown that first language (L1) English listeners are influenced by segmental and suprasegmental features (Trofimovich & Isaacs, 2012), speech rate, and pausing (Pinget, et al. 2014) when rating. Although L2 English speakers perceive L2 pronunciation differently than L1 speakers (Foote & Trofimovich, 2016), there is relatively little research on the linguistic factors that underlie their L2 accentedness and fluency judgments. Therefore, the current study examined the relationship between these holistic constructs and more discrete linguistic measures of phonological accuracy and temporal fluency.

Sixty-three L2 English speech samples from Japanese secondary school students were audio-recorded while carrying out a 69-word read-aloud task. Twenty English L2 listeners then rated the speech samples for accentedness and perceived fluency using 9-point Likert-type scales. The speech samples were analysed instrumentally using speech analysis software for phonological measures (segmental and suprasegmental errors) and utterance fluency measures (breakdown, speed and repair fluency). Correlation analyses will explore the relationship between the ratings and these objective measures, after which multiple regressions models will identify the extent to which phonological and fluency

measures predict accentedness and fluency ratings. Implications for teaching L2 pronunciation will be discussed in terms of how L1 and L2 English speakers may differ in their perceptions of accentedness or fluency and their sensitivity to phonological errors and dysfluencies.

Keywords: accentedness; fluency; ratings

## Language exposure effects on receptive vocabulary and narrative productivity in French/English bilingual elementary school children

*Cathy Cohen, Audrey Mazur-Palandre & Efstathia Soroli*

*Location: CCIS 1 440*

Amount of exposure has been shown to impact on bilingual children's linguistic development (e.g., Cohen, 2016; Thordardottir, 2011; Unsworth, 2013). This study seeks to examine oral language in both languages of two groups of typically developing French/English bilingual (or emergent bilingual) children (group 1: N = 21, mean age = 6;4; group 2: N = 33, mean age = 10;3). Participants, who differ in the amount of exposure they have had to each language, attend a French/English dual language programme at a state school in France. We explore the effects of language exposure on several oral language performance variables. Three exposure indicators are provided through parent questionnaires: current exposure, cumulative exposure from birth and reading frequency (shared reading for group 1; autonomous reading for group 2). French and English data are collected using standardised receptive vocabulary tests (EVIP and BPVS) and a story generation task (Frog, where are you?). Narratives are coded in the CHAT format of CHILDES to assess a range of productivity measures relating to lexicon, morphosyntax and discourse: lexical diversity, measured by D Malvern (Malvern, Richards, Chipere, & Durán, 2004) and the number of different verbs; morphosyntactic errors; complex sentences; and fluency, measured by repetitions, reformulations and discourse speed. Correlations are computed between the language exposure and oral language performance measures. Overall, initial results provide further evidence that receptive vocabulary and certain narrative productivity measures, notably those relating to lexical diversity and morphosyntactic accuracy, are highly sensitive to exposure in each language. Most strikingly, reading frequency predicts oral language performance, particularly in the younger children. The study highlights the importance of working with children who are struggling in one of their languages of instruction, to enrich their lexical and morphosyntactic skills, essential for language and literacy development and overall academic success.

Keywords: language exposure; bilingual development; narrative productivity

## Theme Session Talk

### Emerging Grammars in Heritage Speakers' Language Use

*Heike Wiese, Artemis Alexiadou & Esther Jahns*

*Location: CCIS L1 140*

In our paper, we develop a research programme of "emerging grammars" for heritage speakers' language use, and illustrate its potential with data from a large-scale comparative investigation. Drawing on findings from different contact-linguistic settings and over 1,000 bi- and monolingual speakers in five countries (Germany, the US, Turkey, Russia, and Greece), we argue for a positive, multilingual perspective that approaches noncanonical patterns in heritage speakers' language use as indications for emerging grammatical options and structures and possibly new dialects. Under this perspective, we think of the dynamics rather than vulnerability of linguistic domains, and we

target innovation and change in heritage speakers compared to monolinguals, rather than incomplete acquisition, attrition, and loss.

Our approach is characterised by five key features:

1. A perspective of new developments rather than errors: we acknowledge new form-function mappings and expressive options and register-bound differences as patterns in their own right.
2. Systematic analyses at interfaces: we investigate internal and external interfaces as loci of new developments in order to capture their contact-linguistic dynamics.
3. A comprehensive approach to heritage speakers' linguistic range: we capture the breadth and dynamics of repertoires, to do justice to multilingual speakers.
4. Matching comparisons with monolingual speakers: we include not just formal, but also informal registers in bi- and monolingual speakers alike, in order to see what is special in multilingual speakers (not just in spoken and/or informal language).
5. Comparisons across heritage/majority pairs: we integrate analogous data from different settings, in order to tease apart language-specific transfer and general contact-linguistic dynamics. We illustrate this approach with findings, e.g., on noncanonical determiner use, which had initially been attributed to language-specific transfer but turned out to be available in informal registers across bi- and monolingual populations, and discuss the implications for further research.

## **Predictors of Dual Language Learning : L2 exposure predicts vocabulary and morphology but not phonological awareness**

*Enni Vaahtoranta, Sebastian Suggate, Jan Lenhart & Wolfgang Lenhard*

*Location: CCIS L1 160*

Considering the large number of children growing up with two languages, it is pivotal to know which factors contribute to children's success in Dual Language Learning (DLL). Although an early exposure seems to be beneficial for the attainment of an additional language, it does not guarantee successful development and maintenance (Hyltenstam & Abraham, 2000; Montrul, 2008). Research needs to investigate other possible factors—investigations of both child-internal and child-external factors as predictors of DLL are thus warranted.

To investigate how language experience and phonological working memory (PWM) relate to DLL, 72 preschool Dual Language Learners in Germany, aged four to six, were tested on different language measures in German. Measures included different language outcomes (receptive and expressive vocabulary, morphology, phonemic awareness) as well as PWM using the Quasi-Universal Nonword Repetition Task (QUNWR; Chiat, 2015), a nonword repetition task designed to be language-independent. Data on language experience was collected with a diary-style parental questionnaire assessing the minutes of exposure to both languages. Preliminary analyses show that exposure to the other language in the home predicts German vocabulary and morphology negatively but not phonological awareness. Age of first exposure to German was positively related to all language outcomes, amount of exposure to German to none. After including German-like nonword repetition in the model, QUNWR did not explain any additional variance in vocabulary and morphology outcomes, but did in phonological awareness.

In summary, these results expand previous findings on language experience and PWM to a German DLL population and shed new light into the search for predictors of Dual Language Learning. Further analyses will examine phonology and narrative ability as outcome variables.

Keywords: Dual Language Learning; Language Experience; Phonological Working Memory

## Assessment and leveling of communicative competence in ESOL

*Luz Mary Mora D*

*Location: CCIS 1 430*

The ministry of education of Colombia has implemented national standardized test, which must be carried out during the primary, secondary and undergraduate education. Some of these tests are a requirement to get the high school and the undergraduate diplomas. The main purpose of the testing is to measure what learners have learned during the schooling years. Indeed, in order to be accepted in public universities the students should achieve excellent grades in general subjects such as mathematics, reading comprehension and production in Spanish, and English as the foreign language of the general curricula. The SABER 11, a test equivalent to the ACT Plus Writing of the American College board, is the official test for students who aimed to enroll in any program in any public or private university. At Fundación Universitaria Unipanamericana, following our mission of providing inclusive education (socioeconomic strata 1, 2, and 3), the general curricula offers the students with low scores in the test SABER 11 the opportunity to attend free courses to help them to develop the skills reported low in the test.

At the time the study was conducted, the courses were given on campus and online by qualified teachers in both Spanish and English. The intervention involved the transversal key competences such as Mathematics, reading and writing in Spanish and English EGP. The methodology focused on implementing innovative teaching practices for making the students familiar with structures of the English language taught at school levels as a part of general micro curricula. (Hutchinson & Waters, 1987). It also covered topics such as parts of the speech, grammar and sentence structures, tenses and conjugation, vocabulary and word formation, essentials of punctuation and phonetics. The ELT teachers adopted an informal style of instruction allowing the students to use both Spanish and English during the sessions, following the flexibility in the classroom as suggested by Jordan, 1997. In addition, the material included workshops and online work to encourage the student's participation for the attainment of the learning/teaching objectives, according to the four skills of the competence: reading, writing, listening and speaking.

After implementing the courses on a prospective cohort of over a thousand students during two and a half years, the findings have proven the courses to be an effective and meaningful teaching practice for the EFL learner while assuring the access to education and official continuity of the studies in the University.

Key words: inclusive education, teaching practices, EFL, Assessment by competences, communicative competence framework.

## Back and Forth: Young children's sojourning as an organised family language management strategy

*Susana Eisenchlas, Andrea Schalley & Grace Qi*

*Location: BS M 141*

This study investigates the experiences of young Australian Taiwanese-background children, who sojourn to their parents' homeland during school holidays to improve their linguistic and cultural skills. Initiated at the family level, this strategy engages the target community overseas to offset, at least temporarily, local environmental impediments to promoting home language maintenance in a country which not only withholds institutional support for home languages but also actively attempts to discourage their use in the private domain. Although this appears to be an organised management practice (Spolsky 2009) frequently implemented in the Asia-Pacific region, there is still little research on its impact on the children and their families.

In our study, we explore linguistic, social, and affective factors related to the sojourn experience of school-aged children. Data for this study were obtained through online questionnaires and semi-structured interviews with mothers who engage in this practice, to gather demographic information on participants' backgrounds, family language policies and practices, linguistic attitudes and expectations, and their perceptions of children's experiences and challenges. Thematic Analysis (Braun and Clarke, 2006) was used to identify emergent recurrent themes and categories across the interviews.

The data show that the aim of enhancing linguistic competence in the home language seems to be related to the mothers' affective and emotional needs and nostalgic desires, providing a crucial link to their identities as "good Taiwanese–Australian mothers" who see themselves as returning ( ), no matter which direction they travel between Taiwan and Australia. The sojourning experience may well help to create a joint sense of dual identity between mothers and children, or at least ensure that the Taiwanese element of their identity is not lost. Children, however, take an agentive role with regard to identity choices, and thus parents' aims are not always fulfilled as they expected.

Keywords: language management, young sojourners, identity

## Gender, language learning, and capital conversion in neoliberal Taiwan

*Mark Fifer Seilhamer*

*Location: BS M 145*

In Taiwan, neoliberal discourses of competitiveness and internationalization valorize foreign language skills that the general public lacks, providing the ideal playing field for those in possession of these skills to achieve societal distinction by converting their valued linguistic capital into symbolic capital. Drawing on narrative interview data from a multi-case study of four young Taiwanese women who distinguished themselves from others in Taiwanese society by achieving high levels of proficiency in English and other foreign languages, I will, in this talk, examine the contextual circumstances that structured their success and constrained it, focusing especially on the role that gender played in the process. These women were remarkably successful in befriending foreigners, and the profits that resulted from their interactions with foreign men in both platonic and romantic relationships ranged from increased speaking practice with Skype buddies to trips abroad that were paid for by boyfriends. The findings of this study highlight the fact that copious amounts of linguistic capital, facilitated by classed resources and gender capital – 'femininity as cultural capital' (Lovell, 2000: 25), can result in a

considerable amount of societal distinction through conversion to symbolic capital. The findings also suggest, however, that the potential to convert the linguistic, gender, and symbolic capital to economic capital (as well as the further symbolic capital that comes with occupational status) might ultimately be quite limited in Taiwanese workplaces, where deployment of Taiwanese women's linguistic skills is generally restricted to specific low-level gendered positions with little chance of advancement.

Keywords: gender; linguistic capital; Taiwan

## Online Comprehension of Evidentiality in Turkish as an Immigrant Language

*Figen Karaca, Evangelia Daskalaki & Juhani Järvikivi*

*Location: BS M 149*

Although a great number of studies have shown that the L1 of heritage speakers typically differs from monolingual norms across various domains (Montrul, 2015), studies attempting to explain how these differences develop across generations are scarce (see Polinsky, 2016, for discussion). Accordingly, we investigated how Turkish first and second generation immigrants in Canada process evidentiality, as expressed by the suffixes –DI 'direct experience' and –miş 'indirect experience', using self-paced listening. We asked:

- (i) Are first and second generation immigrants less sensitive to the violations of evidentiality?
- (ii) Is the observed (in)sensitivity the same for both generations and suffixes?

Ten adult first generation (Mage=43.9) and fifteen second generation (Mage=26.1) immigrants living in Western Canada, and forty monolinguals (Mage=35.7) listened to sentences with in/congruent uses of these suffixes:

Context: Gözümün önünde/Ben yokken 'In front of my eyes'/'While I was away'

Target: oğlum koltuktan düş-tü/düş-müş 'my son fell off the couch'

Post-target: dün akşam 'yesterday evening'

Linear-mixed models revealed that for monolinguals, the incongruity of –miş induced longer RTs during target and post-target segments; however, for –DI, this effect was smaller and present only post-target. First generation immigrants showed longer RTs with incongruous –miş post-target, but not during target segment; however, no effect was observed for –DI. The RTs of second generation immigrants were not affected by the in/congruity of either suffix.

These findings suggest that second generation immigrants display more reduced sensitivity to the violations of evidentiality, contradicting previous research where first and second generation immigrants perform similarly (Arslan et al., 2015). More precisely, in our study, first generation immigrants were more sensitive to the violations of the suffix –miş which has a less variable distribution in the monolingual variety, whereas second generation immigrants were equally insensitive to both.

Keywords: online processing, first and second generation immigrants, evidentiality

## Individual differences in second language attrition in bilingual returnee children

*Maki Kubota*

*Location: CCIS 1 140*

The effect of individual factors on language change has been extensively debated in first language (L1) attrition, but their influence on second language (L2) attrition—especially among sequential bilinguals whose L2 contact start at various ages—is still unexplored. This study investigates the influence of individual variables such as age of L2 onset, length of residence, and proficiency on L2 lexical attrition in Japanese-English ‘returnee’ children. Returnees are bilingual children who returned to their first language (L1) Japanese environment after spending some years in an L2 English dominant-environment (ages: 7;6-13;0, age of L2 onset: 1;0-9;6, length of residence in L2 environment: 2;0-9;9). First, the returnee children’s English proficiency (listening and speaking, reading, writing) was measured right after they had returned to Japan. A month later, the first data collection took place by administering a verbal fluency task, and the second data collection (following the same procedure) was conducted a year after. During this L1 re-immersion period, they only had 4.5% of English exposure at home and school, as opposed to 46.8% when they lived abroad (measured using BiLEC; Unsworth, 2016). Results from the linear mixed effect model shows that age of L2 onset and/or length of L2 residence—but not L2 proficiency—contributed to the maintenance of their L2 performance on the verbal fluency task. The findings lend support to the idea proposed by Flores (2012), that it takes some time for the children’s language knowledge to consolidate in the human brain to become inflexible to changes in the input. The earlier the bilingual returnee children were in contact with the L2 and the longer time they have to go through the ‘stabilization phase’ in this language (i.e., longer length of residence), the more resistant they become to attrition effects despite interrupted contact to the L2.

Keywords: L2 lexical attrition; individual variables; returnee children

## Translanguaging moments from a Ukrainian minority school in Poland

*Piotr Romanowski*

*Location: CCIS L2 190*

The focus of the presentation is the reality and complexity of emergent translanguaging in a Ukrainian minority school located in the south-east of Poland. This study draws on the translanguaging pedagogy as used in a secondary school where students’ repertoires involve Ukrainian, English and Polish. Ukrainian was the students’ mother tongue and English was the language of instruction for all the participants. Two groups of students (47 altogether) were observed for a period of six weeks. Their oral discourse was recorded and further analysed. The observations were unstructured (naturalistic) and aimed at studying spontaneous linguistic behaviour in the school environment. What was under scrutiny was the systematic use of the students’ talk in classroom interactions to envisage the functions translanguaging practices performed and its facilitating role in language learning.

The intention was to illustrate translanguaging as bi-/multilingual behaviour by analysing the use of multilingual resources in a selection of extracts deriving from a pool of classroom recordings from different observed classes, such as: Biology, Information Technology and History. As a result of the conducted analysis, it occurred that overall English clearly dominated in most of the recordings, but translanguaging episodes also existed to a greater or lesser extent. Most of the translanguaging was clearly orienting to learning, but it was also exploiting the students’ language repertoire for the communicative effect. Last but not least, as seen from the analysed examples, translanguaging was used to underpin content learning and to structure discourse.

The students applied multiple strategies to benefit from their whole linguistic repertoires, perceived as resources for learning. In addition, their overall performance was positively affected and allowed for a more rapid acquisition of the imparted content as well as further development of linguistic proficiency.

Keywords: translanguaging; Ukrainian; discourse

## **A developmental study of presenting simultaneous events in monolingual and bilingual narratives**

*Judy Kupersmitt & Elena Nicoladis*

*Location: CCIS 1 440*

Presenting simultaneous events in narratives requires both the cognitive ability to present multiple perspectives and conceptualize events as simultaneous as well as the linguistic ability to shift tense-aspect and use explicit time words and connectors. Studies about the expression of simultaneity in monolinguals' narratives show a gradual development from preschool through school-age to adulthood in form and function, going from a mono- to a bi-referential system of temporal reference (Aksu-Koç & von Stutterheim, 1994; Winskel, 2007). In experimental tasks, bilinguals show delays relative to monolinguals with some relevant grammatical markers (Nicoladis & Paradis, 2012). In the present study, we test whether bilingual children differ from monolingual children in presenting simultaneous events in narratives.

The study compares the presentation of simultaneity in narratives produced by 75 English monolinguals, 75 French-English bilinguals and 50 Mandarin-English bilinguals in three age-groups: 4-6, 8-10, and adults.

The analyses targeted various simultaneous events in the story, like when one character returned home, leaving the other character to drown. These events were coded quantitatively (i.e. number of simultaneous events), and quantitatively for type of simultaneity (e.g., event/event or event/state) and for use of linguistic devices (e.g., tense/aspect shifts), and gestures.

Preliminary results show that 4-6 year olds rarely present events simultaneously. More than half of the 8-10 year olds present simultaneous perspectives, and use some corresponding tense-aspect shifts and gestures. Adults present two simultaneous perspectives and add in explicit time words in addition to other linguistic devices. No difference between bilinguals and monolinguals has emerged.

If these preliminary results generalize to the larger sample, they suggest that cognitive developmental factors, such as the ability to present events from various perspectives, are more important than linguistic factors in affecting the way narrators express simultaneity. Comparing monolinguals with bilinguals will shed further light on the interaction between these factors.

Keywords: simultaneity; narratives; development

## **Theme Session Talk**

### **Left and Right Sentence Peripheries in Heritage Speakers' Language Use**

*Oliver Bunk, Natalia Gagarina, Kateryna Lefremenko, Maria Martynova, Christoph Schroeder, Luka Szucsich, Rosemarie Tracy, Wintai Tsehaye & Heike Wiese*

*Location: CCIS L1 140*

Sentence peripheries are promising domains for investigating emerging grammars in bilinguals because they often involve interfaces between (morpho-)syntactic and pragmatic levels of organization (information-structure/discourse). Our contribution focuses on both left and right clausal edges in the attempt to tease apart internal dynamics and cross-linguistic interactions.

We investigate this domain for Turkish and Russian as heritage languages in Germany and the U.S., for German as a heritage in the U.S. and as a majority language across bilingual speakers in Germany, in addition to monolingual controls. Participants described a fictive incident in different communicative situations.

The languages in our study differ with respect to word order and the effects of information structure. Turkish is an SOV language; German is an SOV language with V2; Russian has unmarked SVO, while information-structure allows largely free reordering, and English, apart from residual V2, is a strict SVO language.

Our findings point to two dynamics:

First, heritage speakers exploit and elaborate non-canonical patterns that can also be found in monolingual informal registers, hence are independent of specific contact settings. Examples are V2 violations and noncanonical extrapositions in German, which appear not only in different bilingual, but also in monolingual productions; a more elaborate usage of new left-peripheral pragmatic markers expressing a subjective stance in the German of bilingual speakers; and a stronger tendency in heritage Turkish as compared to Turkey's Turkish to have finite sentential complements in the right periphery.

Second, specific non-canonical patterns seem to be particularly susceptible to cross-linguistic influences. Examples include OV vs. VO tendencies in heritage Russian in Germany vs. the US, and new strategies of linking finite complements in Turkish.

We relate our findings to those for referent introduction, which show similar effects, and discuss theoretical consequences for heritage language research.

## **Domain-general cognitive ability predicts bilingual children's receptive vocabulary in the majority language**

*Elma Blom*

*Location: CCIS L1 160*

It is a common assumption that children soak up language like sponges and learn language almost automatically. However, whether or not language learning is actually cognitively effortful for children, is unknown. The current study investigated the role of attention and working memory in bilingual immigrant children's vocabulary development. Attention and working memory are domain-general cognitive resources that are employed in tasks that require cognitive effort. The aim of the study was to examine if domain-general cognition supports vocabulary development and whether it plays a similar role in learning vocabulary in the minority and majority language.

In the study 69 bilingual immigrant children participated. Data were collected at three annual waves. At wave 1, the children were five or six years old. Receptive vocabulary was tested in the minority

language (Turkish, Tarifit) and majority language (Dutch). Cognitive measures tested working memory, selective attention, and executive attention. Cross-lagged correlations were computed to establish the directionality of relationships. Significant partial correlations were followed by step-wise multiple regression analyses in which further control was exerted by including fluid intelligence, parental education and verbal short-term memory as control variables.

Results showed that cognitive ability predicts receptive vocabulary one year later. Sequential relations were found for the majority language only. Attention was more important than working memory. Majority language vocabulary grew steadily throughout the three years of data collection, in contrast to vocabulary in the minority language. The findings of this study demonstrate the relevance of children's cognitive resources for learning vocabulary. The differential patterns for the two languages show that the minority language and the majority language have different acquisition dynamics. As such, the study sets the stage for future research comparing the impact of context, timing and type of learning on the relationship between cognition and vocabulary development.

Keywords: executive functions; vocabulary; migrant children

## **Teachers' L2 English performance and elementary children's development of English**

*Cirsten Carlson*

*Location: CCIS 1 430*

This study takes teachers into account as foreign language speakers and investigates the relationship of their linguistic performance and their students' acquisition of English as a foreign language.

The first strand of the study analyzes how non-native English teachers perform linguistically, and the second strand focuses on the students' language development and its relationship to the teachers' performance.

Strand one entails eleven qualitative and semi-structured interviews with non-native elementary school English teachers in a non-English speaking country. The interview transcripts were analyzed according to complexity, accuracy, and fluency (CAF) measures. The research questions are as follows: (1) How do the teachers perform considering complexity, accuracy, and fluency? (2) Are there any trade-off effects? Findings suggest that there are significant relations among all three dimensions.

In the second strand, 150 elementary school students, age 9 to 10, of a sub-set of the teachers were administered receptive vocabulary and grammar tests at two times, the British Picture Vocabulary Scale III and the ELIAS Grammar Test II. The research questions were: (3) How do the students perform on the vocabulary and the grammar tests? (4) How do the teachers performances relate to the language development of their students?

The results reflect the teachers' language performance and give insights into the interrelationships of the dimensions complexity, accuracy, and fluency in foreign language production on the one hand and address how linguistic input relates to the students' development on the other.

Keywords: SLA; input; L2 performance

## Theme Session Talk

### Navigating the Social and Linguistic Order in Multilingual Luxembourg: An Analysis of Migrant Women's Language Biographies

*Kristin Horner*

*Location: BS M 145*

Situated at the crossroads of the Germanic-speaking and Romance-speaking areas of Europe, Luxembourg has always been a multilingual space that is marked by a historically entrenched linguistic hierarchy. The valorised multilingual repertoire comprises Luxembourgish, which is frequently regarded as the presupposed 'mother tongue' of the established population, as well as standard French and German, which constitute the other two officially recognised languages of the state. However, the fluidity of European borders and accelerated processes of globalisation have led to more diversified forms of multilingualism. While standard English has become increasingly visible and a desirable commodity, other languages and varieties that comprise part of migrants' repertoires often are invisibilised or even stigmatised.

In this context, the paper takes a biographical approach to exploring how migrant women narrate the ways that they navigate the social and linguistic order (Chamberlayne et al 2002; Busch 2015). The analysis is based on in-depth qualitative interviews that are focused on participants' experiences with language learning and how these experiences shape their views of language as an enabler or obstacle in relation to their goals and aspirations. In this way, their narratives not only provide a window to individual agency with regard to repertoire but they also illuminate the broader societal structures that underpin the linguistic order. The narrative analysis reveals how the women negotiate norms and hierarchies with specific reference to the nexus between language, migration and gender.

### Code-switching could aid prediction of the unexpected

*Aleksandra Tomic & Jorge Valdos Kroff*

*Location: BS M 149*

Code-switching (CS) is ubiquitous in bilingual discourse (Beatty-Martinez & Dussias, 2017) despite processing costs (e.g. Meuter & Allport, 1999), an apparent contradiction without clear explanation in current psycholinguistic research. Nevertheless, offline psycholinguistic studies and sociolinguistic observations offer converging socio-pragmatic and information-organizational motivations for code-switching: CS to the more marked, less used language is used to signal a more information-rich/unexpected portion of speech (Myslín & Levy, 2015), or increased emotionality (Bentahila, 1983). Similarly, disfluencies (irregularities in fluent speech) aid the prediction of unexpected/new (Arnold et al., 2003, 2004, 2007) or low-frequency words (Bosker et al., 2014). Given these parallels, we tested whether code-switching also signals upcoming harder (i.e., low-frequency) words.

To test this hypothesis, we used the visual world paradigm. In Experiment 1, participants heard either Spanish or Spanish-English code-switched audio-instructions to select a target item while viewing 2-picture displays in which critical trials consisted of low- and high-frequency items.

Language conditions:

CS (L1-L2) Elige el |drawing of a |truck.

S (L1) Elige el dibujo de un camión.

We evaluated the effect of instruction language using mixed-effects linear models in the 1000 ms post-switch, pre-target time window. Preliminary results for the late region (N=17, 750-1000 ms) show a significant three-way interaction: looks to low-frequency images increased in the CS condition for Spanish-dominant participants ( $b = 8.105$ ,  $t(1647) = 1.988$ ,  $p = 0.047$ ). In contrast, looks towards the high- and low-frequency images converged for the Spanish condition in the same time window, indicating no prediction for upcoming lower-frequency items. We are currently testing Experiment 2, which includes L2 English and English-Spanish CS conditions, thus complementing Experiment 1 and providing further insight into the effects of language-dominance and code-switch direction. Together, the results point towards a socio-pragmatic function of code-switching: it can facilitate processing upcoming harder or less expected information.

Keywords: code-switching; visual world paradigm; prediction

## Cross-Linguistic Influence in Early Word Learning

*Lari-Valtteri Suhonen*

*Location: CCIS 1 140*

It has often been the presumption that reverse cross-linguistic influence requires an advanced fluency in the second language. This assumption has led to much of the research focusing on the impact of the speaker's existing languages towards their second or third language. Our mental lexicons are, however, in a constant state of change through learning, forgetting, and consolidation, and we should hence consider the study of language loss as an integral part of language acquisition (Sharwood Smith, 1989). If we want to fully understand the process of language loss, we should start from the early stages of language acquisition. One example of an early change is from Bice and Kroll (2015), who found an emerging cognate effect already at the early changes of L2 learning.

In the present experiment the participants were taught an artificial language in which a portion of the words do not conveniently map onto the participants' native language (English). The purpose of the study was to find whether limited, but observable, automatized effects could be observed in the learner's mother tongue at the very early stage of language acquisition.

A paired-associate learning task was used to teach the form-meaning mappings to the participants. All presented forms in the artificial language were phonotactically well-formed in Finnish. The meanings were all concrete nouns and were borrowed from the participants' native language.

The main dependent measure in the study was the magnitude of the priming effect from the newly acquired associates in the artificial language, measured in the participant's native language. These measures were compared to the pre-learning baseline. Post-learning data was collected both through an immediate post-test, as well as a delayed post-test after a single-night consolidation period.

Keywords: attrition, lexicon, conceptual knowledge

## Onward migration from Italy to the UK: sociolinguistic implications for the second generation

*Francesco Goglia*

*Location: CCIS L2 190*

This paper presents a discussion on the complex linguistic repertoires and language use of the second generation of onward-migrating families from Italy to the UK. The parents first migrated to Italy from Nigeria, Ghana, India, and Bangladesh, and after a long period of life in Italy and obtaining the Italian citizenship, onward migrated to the UK where are now settled. The research is based on sociolinguistic surveys and interviews with 24 second-generation participants (university students) of onward-migrating families from Italy, both males and females aged between 18 and 23. Participants reported on their language use, language maintenance, language attitudes and their perceived multiple identities, both in their early life in Italy and in the UK. The second generation maintain Italian with same-age peer friendships and older siblings. They view the language as linguistic capital to enhance their future career prospects in the UK or support a return to Italy. Italian and Italian dialects are also maintained in conversations with parents often in the form of code-switching. Parents struggle with English after a long period of residence in Italy and children are not fluent in the heritage languages. English is considered the most important language and, together with a British education to improve their children's life chances, is the main pull factor for families in the decision to onward migrate. Onward migration allows these families to restart language shift towards English (which was interrupted during the years of stay in Italy) in a parallel way to language shift towards English taking place in their countries of origin.

Keywords: Onward migration; multilingualism; linguistic repertoires

### **“Then we are wondering and-- y esperando-- hoping as well”: Sociopragmatic and psycholinguistic roles of codeswitching in US Spanish-English bilinguals’ autobiographical narratives**

*Jessica Cox, Ashley LaBoda, Linned “Lulu” Gomez & Mollie Patrick*

*Location: CCIS L1 440*

Bilinguals have the unique ability to use two languages when speaking (i.e., codeswitch) according to syntactic (Poplack, 1980), sociopragmatic (Zentella, 1997) and psycholinguistic factors (Grosjean, 2015). We analyzed psycholinguistic and sociopragmatic factors in US Spanish-English bilinguals’ narratives of autobiographical memories. In an autobiographical memory task, participants use cue words to recall and retell personal memories. Recall is facilitated when using the same language that the event originally occurred in (i.e., encoding language, Marian & Kaushanskaya, 2007), but bilinguals also recall ‘crossover’ memories in which the cue and encoding languages differ (Schrauf & Rubin, 1998). Narrating a crossover memory may increase activation of the encoding language, thus increasing codeswitching (Altman, 2015). Since participants narrate to the researcher, sociopragmatic factors are also involved.

Sixty-four Spanish-English bilingual adults saw 18 cue words in Spanish and used each one to retell a personal memory, with no restrictions on how they spoke, and stated the encoding language of each memory. Oral narratives were recorded and coded for codeswitching and repetition of semantic content in English (i.e., doubling; Deuchar et al., 2007). Analyses show a non-significant trend toward more codeswitching in crossover memories than non-crossover. Of 121 instances of doubling, the most common functions were: reflecting on the cue word (n=13), clarifying one’s intended meaning (n=26), and emphasis (n=16).

Although we cannot confirm that crossover memories prompt more codeswitches than non-crossovers, both sociopragmatic and psycholinguistic factors are present in doubling. Sociopragmatically, participants used doubling to specify meaning and confirm the interlocutor's comprehension. Psycholinguistically, participants accessed cue words in both languages, thus considering all possible senses of the word and potentially broadening their pool of memories to select from. This study adds to an emerging area of codeswitching research that combines socio- and psycholinguistic processes (e.g., Raichlan et al., 2018).

Keywords: bilingualism, codeswitching, autobiographical memory

## Theme Session Talk

### Emerging Grammars for Referent Introduction in Heritage Speakers' Two Languages

*Tatiana Pashkova, Yulia Zuban, Vicky Rizou, Artemis Alexiadou, Sabine Zerbian & Shanley Allen*

*Location: CCIS L1 140*

In this talk, we examine referent introduction in the heritage and majority language of bilingual speakers (speakers' home language and the majority language of the country of residence). Referent introduction can provide unique insight into understanding emerging grammars since it is a potential context for cross-linguistic influence (occurs at the interface between 'core' and 'external' language areas) and also for register shift (allows different patterns in informal vs. formal contexts).

We tested Greek and Russian as heritage languages in Germany and the U.S., and English across bilingual speakers in the U.S., in addition to monolingual controls. Participants watched a short video containing several new referents, and narrated it to both formal and informal interlocutors, orally and in writing.

English monolinguals typically introduced new referents with indefinite a, but also allowed this in informal registers. In comparison, bilingual speakers used definite articles more frequently, and extended this use to the formal written register. Greek shows a similar pattern: while monolinguals introduced new referents with indefinite articles and also occasionally used definite articles in colloquial speech, heritage speakers extended the use of definite articles to formal contexts. Russian has no articles; new subjects are introduced by placing them in non-initial position. Heritage Russian speakers, however, often introduced new subjects in initial position, the typical site for a definite NP. They also often used atypical intonation on these NPs: a high pitch accent rather than the rising pitch accent typical for sentence-initial topics.

In sum, bilingual speakers used, in both their languages, substantially more definite structures to introduce new referents than did the monolinguals. Both cross-linguistic influence and register shift seem to be at play in the emerging grammars of these speakers. We relate these findings to similar ones for sentence peripheries and discuss their contact-linguistic implications.

### The Influence of L1 onto L2 Regarding the Acquisition of Vocabulary and Morpho-Syntax

*Margreet van Koert, Nihayra Leona, Maurits van der Molen, Judith Rispens, Jurgen Tijms & Patrick Snellings*

*Location: CCIS L1 160*

The aim of the present study is to determine whether early differences between L1 skills predict

differences in L2 skills in the initial stages of formal L2 learning. This study is part of the ORWELL-project, which is a longitudinal study aiming to uncover the predictors of successful English language learning by Dutch primary school pupils. The current study presents parts of the outcomes from the first measurement, which took place in grade 4 when the pupils were aged between 9;0 and 10;0. It examines the effects of Dutch vocabulary and grammar and English vocabulary on pupils' English (morpho)syntactic skills. The selected participants for the current study are non-dyslexic, monolingual Dutch pupils (N = 150). The PPVT was used in Dutch (Schlichting, 2005) and in English (Dunn & Dunn, 2007) to measure the children's vocabulary. In addition, two grammatical tasks in English and one in Dutch of the CELF (Wiig, Semel & Secord, 2003) were used. The results show that even though English vocabulary seems to be a strong predictor of English grammar skills, the Dutch vocabulary and grammar skills are only weak predictors. These results will be discussed vis-à-vis the Linguistic Coding Hypothesis, which suggests that students with weaker L1 skills will also show weaker L2 skills than their peers with stronger L1 skills (Sparks & Ganschow, 1991).

References

Keywords: acquisition; L2; transfer

## French Listening Ability Development in the Context of Content Based Third Language Learning

*Xueyan Hu, Wei Sun & Jing He*

*Location: CCIS 1 430*

There is a plethora of studies of multilingual language education in speaking, reading and writing, but listening remains the least researched area (Vandergrift, 2006). This study aims to examine French listening ability development in the context of the content based third language learning. Eighty-three native Chinese-speaking undergraduates majoring in French with English as second language were randomly selected in two French business classes in a University in China. Only French was allowed to use and the teaching content remained the same in the two classes in 12 weeks. In the experimental group (N=42), teachers' talk took up only 20% of the class time (90 minutes) with 80% of time for students to communicate with each other in content related discussions and group tasks. In the control class (N=41), the instructor took the traditional teaching methods and the ratio of teacher and students' talk is 80% to 20%. Students' study time in French listening and English, their scores in language aptitude test (Pimsleur, 1966), their proficiency levels in Chinese, English and French listening before the intervention were collected. After intervention, students were given two listening comprehension tests in French with multiple choices items to test students' content-specific listening ability and general listening ability respectively. Two-sample t-test analyses about students' French listening scores indicated that interactive communication in a content-based language learning environment improved students' two types of listening abilities. A multiple regression analysis presented significant prediction of English language proficiency level on students' two types of French listening ability controlled for their French and English learning time. When interactive communication is considered, language aptitude is not a significant predictor for students' content-related listening ability. Implications for French business course instruction and student's French listening ability development as a third language were discussed and future research directions were provided.

Keywords: Listening, content-based language learning, third language acquisition

## The role of family language policy and perceived language emotionality in the maintenance of Arabic as a heritage language

*Fatma Said*

*Location: BS M 141*

This sociolinguistic longitudinal case study seeks to examine the language choice and use of three Arabic-English speaking multilingual transnational families in London. Specifically, it aims to understand the role family language policy (King & Fogle, 2013; Curdt-Christiansen, 2018; Hua & Li, 2016) and the perceived emotionality of language play in the maintenance of a minority and heritage language. The data were collected longitudinally through one video recorded activity (mealtime/ playtime/reading time) per month, (then transcribed in accordance to CHILDES (Macwhinney, 1995)), parental diary entries, interviews and linguistic background questionnaires. The video data were analysed from an interactional sociolinguistics perspective (Gumperz, 1982) and the interview data through thematic analysis.

The linguistically rich data revealed that family members use and mix their languages to discuss particular topics (e.g., prayer rituals or food), to present an identity or to express emotion (Said, 2016). The data suggests that a positive and open family language policy within the home and an ideology that views both Arabic and English as equal languages (albeit with different roles) promotes the use and maintenance of the heritage language (He, 2011; Seong & Sarkar, 2007). Such policy and ideologies create an environment in which the children are able to use both Arabic and English (without occasion or ceremony) thus giving rise to the use of the heritage language at an advanced and often very creative level. Importantly parents choose address terms or code-switch to better express specific emotions with their children (Pavlenko, 2004). The children accept, understand and often exploit these emotionally laden words/particles in a bid to exercise their agency and challenge the authority of their parents (Said & Hua, 2017a, 2017b).

Keywords: Multilingualism; Family language policy; Arabic

## The effect of syntactic complexity on pausing in L1 and L2 Spanish: Data from a sentence-creation experiment

*Lorenzo Garcia-Amaya*

*Location: BS M 149*

Disfluencies, including filled pauses (FPs), silent pauses (SPs), lengthenings, repairs, and reformulations, are an inherent aspect of human communication (Goldman-Eisler, 1968). They are found in L1 speech and may be especially notable in adult L2 learners. While there are likely many factors behind high disfluency rates in L2 learners, we designed an experiment focused on one potential cause, namely syntactic complexity. We operationalized syntactic complexity in two ways: (i) statements vs. "what"-questions vs. "to-whom"-questions (the latter require syntactic inversion in Spanish); and (ii) transitive vs. reflexive vs. dative verbs, which impacts the total number of arguments in the syntactic output. Our experimental goal was to hold all other factors constant (we controlled for vocabulary) and vary only the grammatical complexity of each utterance.

Twenty-seven English-speaking L2-learners of Spanish and 19 Spanish-monolingual native speakers (NSs) completed a sentence-creation task that included transitive, reflexive and dative verbs in statements and wh-questions. Each learner completed the study twice during a six-week study-abroad in Spain, once at the beginning and once at the end. We hypothesized that syntactic complexity would

influence learners' pausing behavior more at Time-1 than at Time-2, and more than the Spanish-NSs. The data were analyzed in Praat, where we extracted frequency counts and durations of FPs and SPs (periods of silence greater than 250ms).

We found the expected effect of Time on pause frequency, with learners nearly matching NS production by Time 2, suggesting L2 fluency gains during the abroad experience. We also found an effect of syntactic complexity — however, only the “to-whom”-questions (which require syntactic inversion) resulted in more pauses. Additionally, for learners at Time 1 and for NSs, the dative sentences (which require more arguments) led to more pauses. These findings are discussed in light of theories of L2-speech production and L2-complexity development.

Keywords: Syntactic complexity; pauses; Spanish

## **Second Language Immersion Suppresses the Native Language: Evidence from Learners Studying Abroad**

*Andrea Takahesu Tabori, Dennis Wu & Judith Kroll*

*Location: CCIS 1 140*

Being immersed in the second language (L2) is thought to be a beneficial circumstance for L2 learning. Immersion may boost L2 learning by increasing exposure and by inhibiting the L1. Although there is extensive research on proficient bilinguals suggesting that inhibition is a feature of bilingual language control (Abutalebi & Green, 2016), there are few studies on immersed learners (Jacobs, Fricke, & Kroll, 2016; Linck, Kroll, & Sunderman, 2009).

We compared immersed L2 learners and proficient bilinguals to determine whether both groups apply inhibitory mechanisms in the same way. At least two mechanisms have been proposed for bilingual language selection: global and local inhibition. Global inhibition is applied to suppress an entire language while local inhibition is applied to suppress a specific lexical candidate. Blocked picture naming is typically used to assess global inhibition (Guo, Liu, Misra, & Kroll, 2011) while mixed picture naming is used to assess local inhibition (Meuter & Allport, 1999).

In the current study, we compared the performance of a group of immersed learners studying their L2 (Spanish) abroad ( $n = 20$ ) and non-immersed proficient Spanish-English bilinguals ( $n = 22$ ) on a picture-naming task consisting six single language naming blocks followed by two blocks of mixed naming. All participants were dominant in English. Results indicated that both groups experienced inhibition of the L1, with slower reaction times for English following Spanish but with Spanish becoming faster after by having previously named the same pictures in English. A comparison of switch costs across naming contexts (blocked vs mixed) revealed larger mixing costs in the L1 compared to the L2. The pattern of results suggests that immersed learners actively inhibit their L1 while immersed in their L2. These results imply that not only proficient use of two languages but also the learning an L2 involves inhibition.

Keywords: inhibition; language production; immersion

## **Theme Session Talk**

### **A structured multi-layer register corpus of heritage languages and majority languages**

*Anke Lüdeling, Martin Klotz & Thomas Krause*

*Location: CCIS L1 140*

Research into bilingualism often uses a rich empirical basis, in particular, for investigation of both languages of bilingual speakers, and for comparing different speaker populations and language pairs with each other. Such a comparison poses several challenges for data processing. We discuss a flexible and powerful corpus architecture for analyzing different grammatical and text-structural properties in four registers of heritage languages and majority languages (Greek, Russian, Turkish, German, English) with maximal transparency and comparability. We show that this demands a close connection between data collection and data processing to enable comparisons

- between the registers in each language,
- between heritage data and majority data for each language and
- between different languages.

We provide rich metadata for each text. The corpora are deeply annotated for many linguistic properties. Combining manual steps wherever necessary and as many automatic or semi-automatic processing steps as possible, transcription and annotation are also standardized. Depending on their research question, researchers may add annotation layers. Each pre-processing step is documented, and the quality (inter-rater reliability / f-measure) is controlled and recorded. In addition to language-specific tagsets and tools, we use the Universal Tagset and Universal Dependencies (<http://universaldependencies.org/>) for all languages. This allows some comparisons (carefully interpreted) between the languages and enables, for example, to find tendencies (such as the proportions of nominal vs. verbal elements in the different registers) in all heritage varieties.

The corpus is stored in a flexible multi-layer model that allows as many annotation layers as necessary and to publish it in multiple formats. The ANNIS search tool, which allows qualitative investigations – aided by phenomenon-specific visualizations – as well as statistical analysis and the export of query results to other tools can be used to query the corpus.

## **Dual language input facilitates English-learning infants' word segmentation abilities**

*Megha Sundara & Victoria Mateu*

*Location: CCIS L1 160*

English-learning 8-month-olds segment trochees (e.g., 'kingdom') but not iambs (e.g., 'guitar'; Jusczyk et al., 1999). This is thought to be because 90% of content words in English begin with a stressed syllable (Cutler & Carter, 1987). Results from artificial language experiments demonstrate that increased exposure to iambic words facilitates English-learning infants' segmentation of iambs (Thiessen & Saffran, 2007).

We asked whether increased exposure to iambs by way of a second language facilitates English-learning infants' segmentation of iambs as well. English-learning infants who are also learning Spanish naturally have greater exposure to iambic words – about 40% of Spanish two-syllable words are iambic (Alvarez et al., 1992).

Using the Headturn Preference Procedure, we tested English and Spanish learning 8-month-olds' (n=37) ability to segment English iambs. Infants were familiarized with passages featuring 2 different

iambic target words (beret/surprise or device/guitar). After they accumulated 45s of listening time, they were presented all 4 isolated words lists, 2 familiar, 2 novel (3 blocks).

We compared listening time to familiar and novel iambs using linear mixed effects models. Fixed effects included percent Spanish exposure (5%-94% based on a language questionnaire), block (1, 2, 3), condition (beret/surprise vs device/guitar), trial type (familiar vs novel), and all interactions; we also included random intercepts for subjects and random slopes for trial type for each subject. Results show that bilingual infants listened significantly longer to familiar compared to novel iambs, and this did not interact with the amount of Spanish exposure.

In a second experiment (n=38), we ruled out the possibility that bilingual infants were simply segmenting the stressed syllable and not the complete iambic target. Thus, unlike monolingual English-learning infants, bilingual English and Spanish learning infants successfully segment English iambs. Based on these results we argue that word segmentation abilities can be transferred between languages in bilingual infants.

Keywords: segmentation, iambs, transfer

## **Teacher discourses on bilingual co-teaching: case studies in Swedish immersion in Finland**

*Karita Mård Miettinen & Siv Björklund*

*Location: CCIS 1 430*

This presentation addresses co-teaching – an approach that Friend et al. (2010) define as collaboration between educators with same status who jointly deliver instruction to a group of students. In the immersion context, studies on co-teaching practices are scarce, especially those concerning crosslinguistic co-teaching. An exception is Ballinger (2013) who presented crosslinguistic collaboration within literacy teaching in French immersion in Canada, and Gort and Pontier (2013) who reported on bilingual co-teaching in a dual language preschool in the US. However, these studies center on bilingual pedagogies rather than on co-teaching as such. In Finland, the newest curriculum guidelines emphasize co-teaching and cross-curricular teaching with multi-disciplinary learning modules. Therefore, immersion teachers in dual-track schools are facing a pressure to initiate co-teaching projects with non-immersion teachers in their school while they at the same time struggle in equipping their students with high level of command in the immersion language. Data for this presentation are collected in 2017-2018 in two Swedish immersion schools in Finland. The data consist of teacher reflections on two experiments of bilingual co-teaching administrated in slightly different ways and on video-recorded classroom observations. A discourse analytic approach is used to unpack the reflections and classroom observations to identify which discourses on bilingual co-teaching arises. The results that will be discussed in our presentation show that conflicting discourses of celebrating co-teaching and bilingualism and of concerns about content and language learning arise in different phases of the co-teaching experiment.

Keywords: language immersion; co-teaching; bilingual teaching

## Theme Session Chair

### Multilingualism and Translingual Creativity in the Age of Nativism

*Natasha Lvovich*

*Location: BS M 145*

Since the November 2016 U.S. presidential elections, which accentuated the global trend for populism and nationalism, dangerously normalized chauvinistic policies, and stirred racist conflicts, anxieties over 'walls,' borders, nation states, immigration, and identity in America and elsewhere (e.g. the continuing refugee crisis in Europe) are growing, feeding on the fear of 'the other.' Under the resurgent 'America First' slogan and similar calls for isolationism in the U.S. and elsewhere, the existing "postmonolingual condition," conceptualized by Yasemin Yildiz as the territorialized bilingual identity defined by the primacy of native language (*Beyond the Mother Tongue: The Postmonolingual Condition*, 2012), may dangerously swing to the ideology of monolingualism, away from its transitional form. In this climate, exchanging scholarship and promoting 'multilingual condition' in translingual texts, broadly defined as texts written in a non-native language or in a mix of languages (term coined by Steven Kellman in *Translingual Imagination*, 2000), as well as in artwork created by translingual artists/writers, is paramount.

Translingual writing has a long pedigree, but besides well-known classics of the last century (e.g. the 'translingual trinity': Beckett, Conrad, and Nabokov), the field has been bulging with new books and new authors on an impressive linguistic and geographic spectrum, triggered by post-colonial and post-cold war developments, mass migrations, exile, transnational lifestyle and, most recently, by economic and political globalization. Contemporary translingual authors, such as Jumpa Lahiri, Rabih Alameddine, Guo Xiaolu, Mohsin Hamid, Dinaw Mengestu, and many more, reflect the issues and echo the voices of immigrant communities and transnational realities across the continents. We are proposing a panel with four international scholars, who are working in disciplines related to literary translingualism, which would reveal and dissect the paradox inherent in our title. This will be accomplished by discussing translingual texts/authors/phenomena in a diverse linguacultural context and by reaffirming multilingualism as opposed to nativism, in its live creative literary and artistic forms, across languages, continents, and genres. We will launch our topic with the discussion of the history of xenophobia and 'linguaphobia' in the U.S. and how translingual literature has been a way to resist it. This resistance will be revealed by two cases of "intersemiotic translation" (the term coined by Roman Jakobson in *The Linguistic Aspects of Translation*, 1959), of the multilingual artist and poet Wassily Kandinsky, whose writing in Russian, French, and German 'corresponded' to his artwork, and of the multilingual Surrealist artist and writer Leonora Carrington, who expressed herself in writing and in painting using the rebellious liminal space of Surrealism. Finally, we will be interested in the perennial multilingual phenomenon of codeswitching in literary texts, whether it is a reflection of the existing social phenomena or a specific literary device, whose functions, structural aspects, and linguistic nature will be examined in several literary contexts and drawn from textual examples (e.g. in Lev Tolstoy).

Keywords: translingual literature and art; multilingual creativity; intersemiotic translation

## Invited Theme Session Organizer

### Language and thought in bilinguals and second language learners

*Bene Bassetti*

*Location: CCIS 1 140*

Research on the relationship between bilingualism and thought began very recently, with the first collections of research papers appearing at the beginning of this decade (Cook & Bassetti, 2011; Pavlenko, 2011). This area of research sets off from the consideration that languages represent the world differently, and that such linguistic differences lead to differences among speakers of different languages not only in linguistic but also in nonlinguistic domains of cognition. It follows that those who know more than one language – bilinguals and second language learners – should be affected by the linguistic representations of all their languages, as reflected in a variety of linguistic and non-linguistic tasks. This thematic session brings together researchers who have been pursuing this line of research, in order to showcase recent developments in theories, methods and findings in this thriving area of bilingual cognition research.

The first half of the session (Hendriks, Filipović, Mertins and colleagues) focusses on a specific area of research on bilingualism and thought that has attracted much attention, namely the effect of language on the cognition of motion events. The session opens with a study of verbal expression of motion in French learners of English and English learners of French (Hendriks), which aims at answering the question of why it is easier to adapt thinking-for-speaking for describing motion events when learning some languages than others, arguing for the role of languages' different levels of efficiency in packaging information. The second paper (Mertins, Marklová and Andresen) investigates how bilingual children acquire the conceptual perspectives of their two languages for thinking and speaking about motion. It first shows that the perspectives of both languages are present in parental input to young bilingual children, and in children's responses, even when the interaction is monolingual. It then reports how bilingual children's eye-movement patterns reveal different preferences in the processing of motion events from monolinguals, even though in their verbalisations they provide the same information as monolinguals. The final paper (Filipović) bridges the first and second halves of the theme session by investigating language effects in two studies of motion and causation, and it explains findings in light of a new bilingual processing model.

The second half of the theme session (Bassetti, Vaid, Altarriba) instead reflects the richness of topics addressed by researchers working on language and thought in bilinguals. The three papers investigate different levels of language (syntax, writing systems, lexicon) and different domains of cognition, such as reasoning and learning. Bassetti investigates the relationship between knowing English and counterfactual reasoning in a first language that has no overt marking of counterfactuality. Vaid reports various studies of the effects of biculturality in linguistic and nonlinguistic domains, including the well-documented effects on directionality, and proposes a new agenda for this relatively established field. Finally, Altarriba studies the effects of language and emotion on learning, presenting a series of studies of the effects of emotion on second language vocabulary learning, and argues that emotion has varied effects on thought and action in users of more than one language.

## **Theme Session Chairs**

### **English and multilingualism: Language policies in higher education**

*Jasone Cenoz & Durk Gorter*

*Location: CCIS L2 190*

English is increasingly used as an international language all over the world and universities and

other higher education institutions are not an exception. This theme session focuses on the spread of English and multilingualism in higher education. It aims at analyzing language policies about English-medium education and the reasons for their spread in countries where English is not the main language in everyday communication. It also looks at the challenges and the implementations these policies face regarding the use of other national and regional languages in higher education and the limitations in linguistic and academic proficiency.

The session will also look at translanguaging pedagogies in higher education and the use of multilingual resources from the whole linguistic repertoire in the context of English-medium education. Some specific cases from Europe and Asia will be discussed in more detail to show examples of specific policies and research studies carried out in these contexts. These cases will raise issues about the role of English and other languages that can also be applied to other parts of the world.

The theme session will look at language policies at the institutional and classroom levels. It will analyze English and multilingual policies at the institutional level as related to internationalization and student/staff mobility and it will look at policies at the classroom level where the institutional policies are applied.

The theme session includes three papers and a discussion. The first paper will focus on the spread of English in higher education in Europe highlighting some differences between countries. The second paper will focus on the use of English in higher education in Asia paying particular attention to Singapore. The third paper will address the challenges of combining the spread of English with the promotion of minority languages by looking at the Basque Country where a regional language, a national language and English are used as the medium of instruction in higher education. The discussion will include some comments by a discussant and time to discuss the issues raised in the presentations.

This theme session has three papers and a discussion (discussant's comments and open discussion)

Keywords: Multilingualism, higher education, language policy

## Theme Session Organizers

### Implication and Challenges of a National Framework for Bilingual Assessment in Canada

*Samira El Atia & Shahrzad Saif*

*Location: CCIS L1 140*

Language assessment in Canada is complex as it serves many purposes and is used in a variety of contexts. Language use in the bilingual context of Canada is unique in that French/English language proficiency is highly impacted by the linguistic setting where language(s) are learned/studied; that is, in a dominant vs. a minority context, early vs. late language immersion programs, French as a Second Language (FSL) programs, English as a Second Language programs (ESL), or English Language Literacy (ELL) programs. In addition, bilingual educational programs in French and English, offered across Canada, answer to a federal mandate for the two official languages, but are under provincial jurisdictions. As for language assessment, whereas the assessment of English as a second/foreign language for potential and new immigrants and for international students has been quite established, assessment in the two official languages (for government jobs, for example) within Canada has been

on the sideline. School boards and other organizations seeking to assess the French/English language proficiency of prospective teachers, students, or potential recruits routinely administer tests that have not been developed and/or validated for the particular Canadian context in which they are used.

To support language education and assessment in this complex and heterogeneous context, and, at the same time, to set fair and valid language requirements for a range of educational and professional areas, the Canadian English and French national frameworks, Canadian Language Benchmarks (CLB) and Niveaux de compétence linguistique canadienne (NCLC), were developed in early 2000s. To date, little research has been conducted into the implications of CLB/NCLC for language assessment across Canada. We, therefore, propose a themed session as part of the International Symposium on Bilingualism on the implications of the CLB/NCLC for the state of assessment of the two official languages in Canada. We aim to bring together papers that address critical issues and challenges involving the use of the Canadian national frameworks for the development, validation, and use of French/English language tests in bilingual Canada.

## Theme Session Chair

### **Innovative approaches using resting-state functional connectivity to understand bilingualism and cognition**

*Gigi Luk*

*Location: CCIS 1 430*

Recent research on resting-state networks has examined individual differences in functional connectivity in relation to cognition. Resting-state networks have received significant research attention given their robustness across developmental samples (e.g., Guerra-Carrillo, Mackey & Bunge, 2014) and strong link to cognitive processes (e.g., Stevens & Spreng, 2014). Resting-state networks represent different sets of brain regions showing functional connectivity across time. Unlike task-based fMRI paradigms, participants are not asked to engage in a task during a resting-state scan.

Ample research has demonstrated that different resting-state networks can be altered through life experiences, such as bilingualism (e.g., Berken, Chai, Chen, Gracco & Klein, 2016; Grady, Luk, Bialystok & Craik, 2015). An advantage of utilizing resting-state functional connectivity to examine cognitive processes in individuals with heterogeneous language proficiencies is that no response demand is imposed on participants, minimizing the bias for language proficiency and the response demand. Resting-state analysis is especially powerful for the examination of spontaneous functional connectivity without external stimulation. Relevant to learning, the default-mode network, executive control network and language network are of particular interests (Gao, Alcauter, Elton, Hernandez-Castillo, Smith, et al., 2015; Koyama, Di Martino, Zuo, Kelly, Mennes, et al., 2011; Koyama, Kelly, Shehzad, Penesetti, Castellanos et al., 2010; Schurz, Wimmer, Richlan, Ludersdorfer, Klackl et al., 2015; Vogel, Church, Power, Miezin, Petersen et al., 2013).

The current symposium presents three papers that adopt resting state functional connectivity analysis to probe the neural networks in bilingual adults and adolescents. Paper 1 reports a study examining the differential correlations between onset ages of second (most proficient) language acquisition and activation in frontoparietal networks in English dominant adults at rest and while watching a video in English. Paper 2 examines resting-state functional connectivity at rest in adolescents who had different language experiences. Adolescents with intensive immersive second language learning showed differential functional connectivity in frontoparietal and semantic networks. To demonstrate the versatility of resting-state approaches, paper 3 adopts functional connectivity

analysis to capture resting-state EEG changes in adults undergoing a short-term intensive foreign language novel language training. The important finding is that naturalistic bilingual experience interacts with short-term foreign language experience reflecting different rate of change in the resting state network. Across modalities (EEG and fMRI) and analytic approaches, findings from the three papers illustrate the significant potential in using resting-state paradigms to examine the experience-dependent mechanism in the brain in response to long-term and short-term bilingual experience in adults and adolescents. The findings in these three papers extend current knowledge on plasticity of neural networks underlying different kinds of bilingual experiences, from adolescents to adults, and in EEG and fMRI. Collectively, the three papers present paradigms in using resting-state functional connectivity to probe into cognitive mechanisms that are associated with bilingual experience, pointing to the next generation of the cognitive neuroscience of bilingualism.

Keywords: functional connectivity; fMRI; EEG

## Production and perception of anaphora in stories with and without a topic-shift: Linguistic processing in late bilinguals

*Michael Korenar*

*Location: BS M 141*

According to van Rij and colleagues (2013), working memory load may influence language users' sensitivity to discursive cues signalling a topic continuation or a topic shift. Even though it is widely assumed that adult monolinguals do not experience difficulties in referencing, L2 users can be expected to have difficulties with the production and perception of referential expressions. The L1 transfer to strategies adopted to resolve anaphora in L2 can influence the late bilinguals' performance in perception and production of referring expressions. Arguably, this can be particularly challenging if L1 and L2 use different linguistic cues to grasp discourse relations, like Czech and Dutch. The language pair investigated here has escaped a systematic attention of researchers to date. Czech, unlike Dutch or English, uses personal pronouns to signal a topic shift. In Dutch, nouns are used to signal such a discourse context, whereas pronouns express mostly the continuation of topic. I investigate production and perception of subject anaphora by comparing 27 late Czech-Dutch bilinguals to 27 Dutch native speakers in stories with and without a topic-shift, controlling for handedness, education, age and language knowledge. The production task consisted of sets of 6 pictures with or without a topic shift which participants were asked to describe. The perception task was to resolve a seemingly ambiguous anaphora at the end of stories with or without a topic-shift. Results suggest that Czech-Dutch bilinguals rely on resolution mechanisms from their L1, which surprisingly compromises comprehension of the stories without a topic shift. The production and perception data are subsequently compared to identify potential asymmetries in production and perception tasks. Finally, I will discuss implications of the findings for models of L2 processing, and make suggestions on how anaphora can be taught to L2 learners of Germanic languages or Slavic languages.

Keywords: late bilingualism; topic shift; linguistic processing

### Theme Session Chair

## Linguaphobia and Its Resistance in America

*Steven Kellman*

*Location: BS M 145*

It is estimated that only 40 percent of the population of the original thirteen colonies was Anglophone at the time of the American Revolution. The United States has, from its very inception, been a multilingual society, one that expressed its founding principle in a Latin phrase: E pluribus unum. However, this country has also been the site of pervasive and persistent linguaphobia, an animus against the use of any language but English. "If English was good enough for Jesus Christ," a governor of Texas who opposed funding foreign language instruction is said to have said, "it's good enough for

me." Noah Webster prophesied that American English would absorb and replace all other tongues, and Theodore Roosevelt proclaimed that: "We have room for but one language here, and that is the English language." During World War I, the teaching of German became illegal. In later years, hostility toward bilingual education, the English-only movement, the reluctance of politicians to admit fluency in a foreign language, and the elimination of the White House Spanish website by the Trump administration all testify to the continuing strength of what Yasemin Yildiz calls "the monolingual paradigm in the United States. Code-switching by Latino/a poets, Louis Wolfson's aversion to English in *Le schizo et les langues*, the amalgam of Korean, English, and French in Theresa Hak Kyung Cha's novel *Dictée*, the Esperanto film *Incubus*, and Hideo Levy's decision to write his fiction in Japanese constitute resistance to that paradigm.

## Did You Say 'dark' or 'duck'? L2 Representations of Phonemic Vowel Length

*Nan Xu Rattanasone, Hui Chen, Ivan Yuen & Katherine Demuth*

*Location: BS M 149*

Australian English (AusE) is a non-rhotic dialect which has a phonemic vowel length contrast with minimal quality differences, e.g., / :/ vs. / / as in dark vs. duck. While Mandarin has no vowel length contrast, a previous study has shown that Mandarin-speakers are sensitive to vowel duration cues (e.g., between English tense vs. lax vowels) (Flege et al., 1997). However, it remains unclear whether duration alone is used phonemically to contrast vowel length categories, e.g., dark vs. duck. Using a word mispronunciation task, we probed L2 learners' lexical representations of L2 vowel length versus vowel quality (backness and height).

23 monolingual AusE speakers and 29 L1 Mandarin-speakers (mean length in Australian = 5yrs) saw two pictures presented side by side (a known object & a novel object, see Figure 1). After 4s, the pictures were replaced by a looming ball (attention getter) with the auditory prompt (e.g. "look at the duck"). At vowel onset in the target word, the pictures reappeared for 4s. The stimuli were 20 monosyllabic CVC items: 4 Correct pronunciations (e.g., duck); 12 mispronunciations with a single vowel feature change (4 each in backness (e.g, duck->dack), height (e.g, cat -> ket), and length (e.g., pup -> parp)); and 4 Novel pronunciations (e.g., horse -> dirk).

Both AusE- and Mandarin-speakers looked to the familiar object after Correct pronunciations and the Novel object after novel pronunciations. However, compared to AusE-speakers, Mandarin-speakers continued to look more at the familiar objects following all vowel mispronunciations but especially for vowel length. This suggests that while all L2 vowel categories are less robustly represented, categories with acoustic cues that are not phonemically contrastive in the L1 are especially fragile. These results contrast with the predictions of existing L2 models and poses question about the distinction between L2 acoustic categories versus L2 lexical representations.

Keywords: vowel length; L2 English; L1 Mandarin

## Theme Session Talk

### Spatial information in narratives: How second language learners adapt (or not) to target language expression and organisation

*Henriëtte Hendrik & Annie Claude-Demagny*

*Location: CCIS 1 140*

Research on the relationship between bilingualism and thought began very recently, with the first collections of research papers appearing at the beginning of this decade (Cook & Bassetti, 2011; Pavlenko, 2011). This area of research sets off from the consideration that languages represent the world differently, and that such linguistic differences lead to differences among speakers of different languages not only in linguistic but also in nonlinguistic domains of cognition. It follows that those who know more than one language – bilinguals and second language learners – should be affected by the linguistic representations of all their languages, as reflected in a variety of linguistic and non-linguistic tasks. This thematic session brings together researchers who have been pursuing this line of research, in order to showcase recent developments in theories, methods and findings in this thriving area of bilingual cognition research.

The first half of the session (Hendriks, Filipović, Mertins and colleagues) focusses on a specific area of research on bilingualism and thought that has attracted much attention, namely the effect of language on the cognition of motion events. The session opens with a study of verbal expression of motion in French learners of English and English learners of French (Hendriks and Demagny), which aims at testing L1 effects on narrative spatial organisation in the L2 by comparing different L1-L2 combinations. The second paper (Mertins, Marklová, Panfilova and Andresen) investigates how bilingual children acquire the conceptual perspectives of their two languages for thinking and speaking about motion. It first shows that the perspectives of both languages are present in parental input to young bilingual children, and in children's responses, even when the interaction is monolingual. It then reports how bilingual children's eye-movement patterns reveal different preferences in the processing of motion events from monolinguals, even though in their verbalisations they provide the same information as monolinguals. The final paper (Filipović) bridges the first and second halves of the theme session by investigating language effects in two studies of motion and causation, and it explains findings in light of a new bilingual processing model.

The second half of the theme session (Bassetti, Vaid, Altarriba) instead reflects the richness of topics addressed by researchers working on language and thought in bilinguals. The three papers investigate different levels of language (syntax, writing systems, lexicon) and different domains of cognition, such as reasoning and learning. Bassetti investigates the relationship between knowing English and counterfactual reasoning in a first language that has no overt marking of counterfactuality. Vaid reports various studies of the effects of biscriptality in linguistic and nonlinguistic domains, including the well-documented effects on directionality, and proposes a new agenda for this relatively established field. Finally, Altarriba studies the effects of language and emotion on learning, presenting a series of studies of the effects of emotion on second language vocabulary learning, and argues that emotion has varied effects on thought and action in users of more than one language.

## Theme Session Talk

### English medium instruction in higher education in Europe and multilingual policies

*Durk Gorter*

*Location: CCIS 1 140*

Over the past decades, there is strong growth of English medium instruction in universities and other institutions of higher education across all non-English speaking countries in Europe. Today most universities have a substantial offer of English medium master level courses, although there is still a clear difference between Northern and Southern European countries. The Nordic countries, the Baltic States and the Netherlands offer a much higher proportion of their university teaching through English

in comparison to countries such as Italy or Spain where the availability of English medium instruction is more modest (Wächter & Maiworm, 2014). These developments lead to intensified debates about the position and use of the national language for higher education and creation of related language policies.

Concurrently, the student population in European higher education is becoming more linguistically diverse due to increased mobility. English plays an important role as a shared language among mobile students, although it is not the only language. University classrooms across Europe often have a multilingual student population and teachers in English medium education have to be prepared to face this new reality (O'Dowd, 2018).

In this context, it is important to consider what values are attached to multilingual skills for obtaining a position in the labor market. Those skills include, but extend beyond knowing only English.

In this paper, some apparently contradicting trends will be discussed, as well as the tensions that they bring about, and the implications for language education policies towards English and multilingualism in higher education.

## Different gender options for mixed DPs do not imply different grammars

*Maria-José Ezeizabarrena & Amala Munarriz Ibarrola*

*Location: CCIS 1 440*

Research on code-switching between Sp(anish) and a non-gender language such as E(nglish) or B(asque) has provided contradictory findings regarding gender assignment in mixed DPs. Some studies report on masculine preferences in acceptance and production tasks, whilst others report on a widely consistent analogical criterion as a driving strategy to assign gender to the nominal elements inserted in the mixed DPs.

Diverging preferences are found in the literature regarding the strategies in gender assignment (Licerias et al. 2008; Dussias et al. 2009; Parafita et al. 2015; Valdes Kroff 2016; Iriondo 2017; Fernandez & Licerias 2018; Badiola & Sande 2018; Munarriz et al. 2018).

The different outputs predicted for mixed DPs depending on the predominant strategy used are illustrated in (1-4), where the Spanish determiner (el/la) is combined with the English (skirt, eye) or Basque nouns (gona, begi) translation of the Spanish nouns falda (fem) and ojo (masc), respectively.

	DetSP NE	DetSP NB	DetSP NE	DetSP NB
(1)	Analogical criterion	la skirt	la gona	el eye el begi(a)
(2)	Masculine default	el skirt	el gona	el eye el begi(a)
(3)	Feminine default	la skirt	la gona	la eye la begi(a)
(4)	Phonological criterion		el skirt	la gona el eye el begi/ la begia

Elicited production data of 19 B-Sp early bilinguals revealed different individual patterns (mainly analogical vs. phonological criterion), related to the bilingual profile (L1). In contrast, acceptance data

from the same participants revealed a generalized acceptance of any kind of mixed DPs (means over 3 in a 1-5 Likert scale).

We propose a unified explanation to account for the variability found in Sp-B and Sp-E mixed DPs, based on the possibility of bilinguals having three lexical entry lists available: one for each of their languages in monoglot use, plus a third one for their insertion in mixed DPs.

Keywords: mixed DP, gender, production and acceptance tasks

## Theme Session Talk

### From Defining Language Descriptors to Development of Language Tests

*Ann Senior*

*Location: CCIS L1 140*

In this presentation, Anne Senior will examine using CLB/NCLC assessments in a bilingual context. Heritage Canada's positioning of CLB and NCLC as central to its online language learning program with its determination of bilingualism at CLB/NCLC 5 will significantly increase the profiles of CLB/NCLC while raising questions about the validity of using assessment tools developed for a specific target group with a much wider target group.

Canadian Language Benchmarks (CLB) and Niveaux de compétence linguistique canadienne (NCLC) were founded on models of communicative competence elaborated in the Common Theoretical Framework (CCLB, 2013). They are descriptive scale of language ability in English as a Second Language (ESL) or French as a second language (FSL) written as 12 benchmarks or reference points along a continuum from basic to advanced. The frameworks reflect the progression of the knowledge and skills that underlie basic, intermediate and advanced ability among adult ESL or FSL learners.

Existing high-stakes CLB/NCLC assessments (Milestones, Batterie de testes de rendement and CELBAN) were developed for use with an adult immigrant population as credentials from language training programs or, in the case of CELBAN, to meet regulatory language demands of nursing. Will they transition successfully for use for bilingual purposes?

### Doukhoborese (Doukhor Russian) in Canada

*Veronika Makarova*

*Location: CCIS L2 190*

This paper surveys the state of Doukhoborese (Doukhor Russian) language maintenance in Canada and the attitudes of Doukhobors to the issues of the language retention. Doukhoborese is the ancestral (heritage) language of the Doukhobors, a religious, ethnic and cultural minority group who immigrated to Canada in 1899 (Tarasoff, 1984). Doukhor Russian is a unique mixed language taking root in the 19th century Southern and Central Russian dialects with the influences from English affecting its lexical and phonological system (Makarova, 2013; Makarova 2012; Makarova et al., 2012). The variety is not spoken anywhere else in the world. By now only about 200-400 fluent speakers of Doukhor Russian remain in Canada. The paper reports some results of Doukhoborese Language Maintenance project supported by SSHRC. Over 50 speakers of Doukhor Russian were interviewed and recorded in BC and Saskatchewan between 2012 and 2018. The paper focuses on the attitudes of the speakers to the variety and its maintenance. The speakers describe the variety as being "beautiful, melodious,

heart-felt;" they point out the importance of the variety for the Doukhobor molenje (prayer services). At the same time they often talk about the variety as being inferior to Standard Russian, because of anti-dialectal attitudes of Russians that they came in contact with. The speakers describe problems in the maintenance of the variety that relate to the dominance of English in Western Canada, discrimination, school system restraints, institutional limitations, mixed marriages, the decrease in the group demographics, the forced dissolution of the communes by the government, lack of other speakers, and lack of teaching materials or publications. Most participants lament the loss of Doukhoborese, would like to see it carried over to the younger generation, but do not see ways to make it happen.

Keywords: heritage language of Canada, Doukhoborese (Doukhobor Russian), attitudes to language retention

## Theme Session Talk

### **Differential correlations between onset ages of second language acquisition and neural networks in bilinguals: A resting-state approach using fMRI**

*Gigi Luk, Sibylla Leon Guerrero, Laura Mesite & Veronica Whitford*

*Location: CCIS 1 430*

Bilingual processing calls for controlling attention flexibly on environmental stimulation and language control. Previous research has demonstrated functional connectivity differences in frontoparietal (FP) networks in monolingual and bilingual adults (Grady et al., 2015) and simultaneous and sequential bilinguals (Kousaie et al., 2017). Building on these findings, the current study examines whether differential ages of second language (L2) acquisition correlates with activation in FP networks at rest and while engaging in video viewing. Twenty-four adults who speak English as their first and dominant language with varying second language acquisition experiences underwent fMRI at rest and while watching a science video. Data were analyzed using partial least squares and brain scores reflecting the functional connectivity strength were extracted. Participants' onset age of L2 acquisition (when first learning L2) and onset age of acquiring their second most proficient language were recorded.

Results showed that onset age of L2 acquisition was significantly associated with brain scores in the FP network at rest,  $\beta = 0.98$ , s.e. = 0.45,  $t = 2.17$ ,  $p = .04$ , suggesting that the earlier the participant acquired their second language, the stronger the functional connectivity was in the FP network at rest. When watching a video, the FP network extends to occipital cortex. Results showed that onset age of acquiring their second most proficient language was significantly related to the FP network while watching a video in the dominant language,  $\beta = 0.81$ , s.e. = 0.33,  $t = 2.43$ ,  $p = .02$ . The relationship indicates that the earlier the participants acquired their second most proficient language, the less reliant they were on the FP network and the occipital cortex. These findings were the first evidence demonstrating the differential correlations between ages of second (most proficient) language acquisition and FP networks at rest and while engaging in external stimulation.

## Bilingual Spanish anaphora resolution: evidence from judgement and processing experiments

*Núria de Rocafiguera, Rut Benito, Aurora Bel*

*Location: BS M 141*

Recent studies suggest that extensive language contact leads to contact varieties in bilingual communities (Silva-Corvalán 2008, Perpiñán 2016) and that competing resources among bilinguals affect the information integration in anaphora resolution (AR) (Sorace 2016). In order to test bilingual AR, the goal of the current study is to compare ambiguous subject pronoun interpretation and processing in bilingual Spanish in contact with Catalan and with Basque. In fact, Spanish (Filiaci et al 2014) slightly differs from Catalan (Bel and García-Alcaraz 2018) and Basque (Iraola 2014): whereas in Spanish null pronouns retrieve subject antecedents and overt pronouns are not specialised, Catalan and Basque display Italian-type interpretative biases consistent with Carminati's (2002) Position of the Antecedent Hypothesis (PAH). Moreover, Basque has no true overt subject pronouns; the alleged analogous forms (*hura/bera*) are not morphosyntactically equivalent to Spanish and Catalan ones (*él/ella* and *ell/ella*).

Three groups of adult participants (Spanish-Catalan bilinguals, Spanish-Basque bilinguals and Spanish monolinguals; approximately 35 per group) completed two experiments that assessed the PAH in Spanish: an acceptability judgement task (offline) and a self-paced reading task (online). Offline results show that in all groups null pronouns significantly acquire subject antecedents and overt pronouns remain unspecialised in monolingual Spanish and the Basque bilingual variety. Interestingly, in Spanish-Catalan bilinguals a significant division of labour between null and overt pronouns consistent with PAH's predictions is observed. This pattern is further confirmed by online processing data. These findings point to an effect of crosslanguage activation, at least in the Catalan bilingual variety, and are compatible with the view that contact situations involve a gradual change of discourse-pragmatic features (Silva-Corvalán 2008). Differences among bilingual groups suggest that the overextension of overt pronouns (Sorace 2011, 2016) attested in the Basque group cannot be generalised to all bilingual combinations and that internal linguistic properties may also intervene.

Keywords: anaphora resolution; bilingualism; language contact

### Theme Session Talk

#### The Bilingual Art of Wassily Kandinsky

*Adrian Wanner*

*Location: BS M 145*

Wassily Kandinsky was an artist who worked in multiple genres and media, including the written word. His literary works include thirty-eight prose poems published in the 1912 album *Klänge* (Sounds), four stage compositions written between 1908 to 1914, and occasional poetry composed in the 1920s and 30s. Kandinsky felt compelled to engage from time to time in what he called a "change of instruments" by putting the palette aside and using in its place the typewriter. However, "changing instruments" did not only refer to the crossing over from visual into verbal art. It also could mean switching languages. Not many people have paid attention to the fact that Kandinsky was a multilingual poet and self-translator working in three languages: his native Russian, German, and French. Many of Kandinsky's poetic texts exist in two parallel versions as a result of self-translation. It is not always easy to determine which version came first. By writing a text in two languages simultaneously Kandinsky

engaged in what has become known as “synchronous self-translation.” As a visual artist, he added an additional component of intersemiotic “bridge-building” by correlating his Russian and German prose poems with a sequence of corresponding woodcuts.

This paper will explore Kandinsky's bilingual oeuvre in the context of his visual art. Kandinsky's notion of the “Zweiklang” (dual sound) in which two distinct elements coexist simultaneously in a state of undecidability furnishes a conceptual illustration for the bilingual constellation of his parallel poems. I will argue that Kandinsky's multilingualism played a crucial role in the evolution of his art. The fact that he was a foreigner working in languages “not his own” gave him a creative license that he would have lacked if he had remained wedded to his native tongue.

## Relative Difficulty in the L2 Acquisition of the Phonetics of French Coda Obstruent Voicing

*Jeffrey Steele & Matthew Patience*

*Location: BS M 149*

The realization of coda obstruent voicing involves multiple phonetic parameters including the voicing of the obstruent and preceding vowel duration – vowels are shorter preceding voiceless obstruents. L1 Mandarin-L2 English speakers have been shown to be more accurate with vowel duration. The source of this accuracy asymmetry is unclear: duration may be universally easier or learners may target more salient contrasts. In English, obstruent voicing is potentially less salient following syllable-final devoicing.

The study of target language French allows for teasing apart the influence of these two factors on the acquisition of obstruent coda voicing. Unlike English, with the exception of pre-pausal contexts, French syllable-final voiced obstruents are primarily phonetically voiced; thus, the voicing opposition is relatively more salient. In contrast, the vowel duration difference preceding voiceless versus voiced obstruents is relatively smaller in French, up to half that observed in English, and more variable. Accordingly, if a universal facility with duration underlies L2 learners' greater accuracy with vowel length, like their peer English learners, Mandarin-speaking learners of French should be more accurate with this parameter. In contrast, if the salience of the contrast plays a greater role, learners should be relatively more accurate with obstruent voicing.

To test these predictions, 22 Mandarin-speaking French learners and 8 native French speakers were tested on their production of coda /p,t,k,b,d,k,f,s, ,v,z, / in nonce words via a carrier phrase reading task. Vowel and consonant duration as well as f0 presence during the consonants' articulation were measured acoustically, then vowel-to-consonant duration ratios and % voicing were calculated. Overall, learners were relatively more accurate with vowel duration. The duration ratios were rather target-like, deviating by only 23% and 16% from native speaker means in voiceless and voiced contexts, respectively. In comparison, coda voicing was less target-like, deviating by 52% and 53% from the native speaker means.

Keywords: L2 speech; relative difficulty; obstruent voicing

### Theme Session Talk

## The Effect of Grammar on Perception and Verbalization of Locomotion Event in Monolingual and Bilingual Children and Adults

*Barbara Mertins, Anna Marklová, Elena Panfilova & Hanna Solberg Andresen*

*Location: CCIS 1 140*

Speakers of different languages systematically employ different perspectives when conceptualizing and verbalizing locomotion events. A main distinction lies between the holistic perspective, which includes an endpoint of a motion event, and the phasal perspective, which typically does not. Speakers who use the holistic perspective verbalize endpoints more often than speakers preferring the phasal perspective, and there are differences in visual perception and memory of locomotion events.

Previous studies revealed that even near-native speakers of a second language (L2) follow the conceptual perspective typical for their first language (L1) while thinking and/or speaking in the L2. So far, few studies have addressed this topic from the perspective of bilingual first language acquisition. In this paper, we look at the acquisition of conceptual preferences from two angles: (1) Preschool children's interaction with their parents. (2) Early perception and verbalization of endpoints.

The first question is addressed using 48 spontaneous conversations over picture stimuli from monolingual parent-child interactions in Czech (a language with holistic perspective) and in Russian (a language with phasal perspective), and German-Russian bilingual children in Russian. Results show that Czech parents lead the children's attention to a possible endpoint, while Russian parents do not mention endpoints and focus on the locomotion process. First analyses of the bilingual data indicate that parents, even when speaking in one language, employ a pattern combining both conceptual perspectives, and this is reflected in children's responses.

The second question is addressed using five eye-tracking datasets from adult and child German monolinguals; adult bilingual speakers of German and another language; child Czech monolinguals; Norwegian monolingual schoolchildren; and English-Norwegian bilingual schoolchildren (this set also includes linguistic verbalization data).

First results show that the conceptual preference of adult bilinguals and monolinguals differ. Bilingual children's eye-movements reveal a preference towards the endpoints in Norwegian, and in their verbal descriptions they encode the endpoint to a larger degree than their monolingual peers.

We argue that conceptual preferences are shaped by grammatical features, and we provide new insights into bilingualism's influences on perspective-taking and perception of locomotion events.

## **Theme Session Talk**

### **The use of English in Singapore higher education in the globalised era**

*Catherine Siew Kheng Chua & Johannah Li Mei Soo*

*Location: CCIS L2 190*

In Singapore, language policy and planning play an important role in the development of the country's human capital and its socio-linguistic profile. Since the election of the People's Action Party (PAP) as the country's ruling party in 1959, English has been used as the main medium of instruction at all levels in all government-run schools and tertiary education. The Singapore bilingual policy was officially implemented by the government in 1966 and has defined English as the first language; and Mandarin, Malay or Tamil as the second language. The rationale for implementing this policy is based on the premise that competency in English is an essential skill for Singaporeans to be competitive in the global market and at the same time, learning the mother tongue is necessary for them to stay rooted to their Asian culture and values (Chua, 2011). In Singapore, there are six autonomous universities that provide undergraduate and postgraduate degrees. There are about 17% of foreign students in these

universities, with each of these universities having a sizable international faculty. However, despite the diversity of ethnic groups and languages, English is the dominant language used in almost all courses (Bolton, Botha & Bacon-Shone, 2017). International students must fulfil the English proficiency requirement if their academic qualifications indicate that English is not the medium of instruction in their respective countries. This paper discusses how Singapore universities promote the spread of English in Asia. It discusses the challenges international students face, especially those from other Asian countries, in meeting the English language standard in Singapore universities.

## **Building a Network: How Young Spanish-English Learners Organize their Lexicon**

*Stephanie De Anda, Lauren Thayer & Margaret Friend*

*Location: CCIS 1 440*

Under a Dynamic Systems account (De Bot, et al., 2007), language subsystems show rich dynamic interconnectedness: changes in one domain have rippling effects across systems. Yet, there remains a need for research examining these patterns in early life. Of interest is the lexical-semantic development of Spanish-English bilinguals during rapid vocabulary change. We expect lexical-semantic subsystems to interact dynamically (e.g., Mayor & Plunkett, 2014). Lexical-semantic structure and organization is positively associated with vocabulary size (Stella, et al., 2017) and self-organizing lexical networks improve as vocabulary increases (Li, et al., 2004). The present study examines the role of semantic composition on lexical-semantic development within and across languages.

Participants were 32 Spanish-English bilinguals at 18 and 24 months. We calculated the proportion of vocabulary in each semantic category from parent reports in both languages (MCDI/IDHC, Fenson et al., 2006) to compute Semantic Overlap across English and Spanish (Figure 1). Children completed the Computerized Comprehension Task (Friend et al., 2012) assessing speed of lexical retrieval and a priming task assessing sensitivity to semantic relations within and across languages.

Semantic Overlap supported English vocabulary in English-dominant children ( $F(1, 25) = 7.89, p = .01$ ) and Spanish vocabulary in Spanish-dominant children ( $F(1,25) = 8.12, p = .009$ ). Semantic overlap was marginally associated with relative balance in lexical retrieval ( $F(1, 37) = 3.77, p = .059$ ) and lexical retrieval predicted lexical-semantic priming ( $F(1, 24) = 4.74, p = .039$ ).

Greater overlap in semantic knowledge across languages was associated with larger dominant language vocabulary and the balance of lexical knowledge across languages was associated with speed of lexical retrieval. In turn, speed of lexical retrieval supports semantic associations within and across languages (Figure 2). These findings support a developmental model of a dynamic interaction of subprocesses in early lexical-semantic acquisition in bilinguals consistent with DST.

Keywords: bilingual; lexical-semantics; vocabulary

## **Theme Session Talk**

### **CLB/NCLC or CEFR for Canadian schools?**

*Monique Bournot-Trites*

*Location: CCIS L1 140*

In 2010, the Council of Ministers of Education, Canada (CMEC), recommended the use of the Common European Framework of Reference (CEFR) for learning, teaching and assessment in the Canadian context (CMEC, 2010). Of course, the document discussed aspects to consider and adapt for the

use of the CEFR in Canadian school contexts. Such aspects included are determining the theoretical framework, creating descriptors relating to Canadian context, creating sublevels corresponding to the progress between Kindergarten and Grade 12, validating these new levels and descriptors among others. Although there is a trend to use the CEFR in schools in several provinces that use the DELF Junior exam, based on the CEFR, for their French immersion students, little of the adaptation work has been done. A recent article (Arnott et al., 2017) shows that little of the research called for by CMEC has been accomplished and calls “to action for increased research into the role of the CEFR for additional language education in Canada” (p. 35).

However, the proponents for the use of the CEFR in Canadian schools seem to forget that Canada has its own language framework that could be used in Canadian schools. Many argue that the CLB/NCLC have been created for adult immigrants, yet, they are scales of language development from beginners to advanced, just like the CEFR and could be easily used for students from K to 12. Indeed, the concurrent validity of the CLB/NCLC and the CEFR has been demonstrated (Bournot-Trites & Barbour, 2012).

The presentation will discuss this issue, as well as the advantages and challenges of using the CLB/NCLC in Canadian schools rather than the CEFR. It will also present a series of actions needed if the various stakeholders at the national and provincial levels were to embrace a Canadian framework for a Canadian context of language learning and acquisition.

## **Agency, identity and multilingualism in the discourse of Italo-Australian youth**

*Antonia Rubino*

*Location: CCIS L1 160*

This paper presents the findings of a project dealing with the multilingualism of bi- (English, Italian) and trilingual (English, Italian and Dialect) second and third generation Italo-Australians, aged 18 to 30. The Italo-Australians are the second largest non-English speaking ethnic group present today in Australia, with over one million people reporting Italian ancestry in the latest (2016) Census. The Italo-Australian context is characterized by a relatively high intergenerational language transmission, as a large proportion (44%) of those reporting home usage of Italian (over 271,000 speakers) was born in Australia.

The data was gathered through (i) an online survey (259 participants), and (ii) conversational interviews (15 to-date) exploring language experiences and linguistic practices in various contexts. Taking a discourse analytical approach, the paper explores the interviewees' language trajectories, also in light of the general trends emerging from the survey. Specifically, the analysis focuses on the way the interviewees position themselves – and are positioned by others – as speakers (and/or learners) of their Heritage languages, and how they make sense of their linguistic resources.

Overall findings point to the participants' preference for Italian compared to Dialect, although both languages (more so Dialect) appear to hold little instrumental value but strong emotional connotations; and to the construction of multilingualism as a dynamic condition that can change throughout life and contexts. As the participants view their linguistic repertoire as shifting and flexible, they present themselves as overall confident – or at least 'adequate' – communicators in their Heritage languages. Yet, the very different linguistic trajectories constructed by the participants can be explained partly with different circumstances (e.g. family situations and related opportunities for language learning), partly with specific choices that they make/have made, and more generally with the high degree of

agency that they were able to exercise particularly vis-à-vis their parents' generation.

Keywords: heritage speakers; discursive identity; Italian

## Theme Session Talk

### Control Networks in Intensive Bilingual Second Language Acquisition

*Sibylla Leon Guerrero, Gigi Luk, Laura Mesite & Veronica Whitford*

*Location: CCIS 1 430*

Lifelong bilingual experience has been associated with stronger resting state functional connectivity (rs-fMRI) in neural networks associated with cognitive control (Berken et al., 2016). In addition, fMRI research findings suggest that cognitive control and flexibility are marked by differential patterns of positive and negative spatial network correlations and anti-correlations in both task and rest for monolinguals (Douw et al., 2016, Kelly et al., 2008; Mennes et al., 2010) and bilinguals (Kousaie et al., 2017). However, rs-fMRI studies of bilingualism to date have focused on adults; to our knowledge, there are no prior studies of resting state networks in children with differential second language experiences. We report initial results from a new study examining resting state differences in children who are intensively acquiring a second language. Eighteen children (8 English speakers without immersion experience, and 10 Spanish speakers acquiring English in an intensive, immersive English environment in the U.S.) completed an rs-fMRI session. Parents completed a language background history questionnaire about their children. Rs-fMRI data were analyzed with partial least squares.

Results demonstrated that bilingual intensive language acquirers as a group displayed stronger connectivity in the fronto-parietal control network at rest than children without extensive second language experience ( $p=.003$ ). Further, intensive L2 acquirers demonstrated a stronger anti-correlation of regions associated with the cingulo-opercular task control network (right anterior insula and thalamus) with primary sensory areas (bilateral primary visual cortex,  $p=.003$ ). Finally intensive language acquirers showed a stronger anti-correlation between both anterior and dorsal posterior cingulate and left BA44 (Broca's area), a region associated with semantic control ( $p=.008$ ). These results are consistent with prior findings of differential expression of cognitive control networks in bilingual adults as well as with emerging understandings that distinct cognitive control networks may subserve different functions and thus may potentially be differentially shaped by life experiences.

## Anaphora resolution in English L2 learners: an analysis of different discourse contexts

*Carla Contemori, Ohood Asiri*

*Location: BS M 141*

While in null subject languages, overt pronouns refer to non-salient antecedents and mark a topic-shift (e.g., Carminati, 2002), in nonnull subject languages, overt pronouns indicate reference maintenance to the current discourse topic (Arnold et al., 2000).

Learners of a null subject language whose L1 is a nonnull subject language show some optionality in the interpretation of null and overt subjects in the L2 (e.g., Belletti et al. 2007). To account for these results, the Interface Hypothesis (IH, Sorace, 2011) proposed that interface structures between syntax and pragmatics (as in the case of anaphoric expressions) require an increase use of cognitive resources and are therefore less likely to be successfully acquired by L2 learners in comparison to structures without this interface. Here, we test the interpretation of pronominal forms in learners of English (nonnull subject) whose L1 is Spanish (null subject language). Previous research on learners of non-null subject languages has shown conflicting results. The aim of the present study is to reconcile previous evidence and shed light on the factors that determine learners' difficulty to interpret pronominal forms in the L2. In six comprehension experiments, we found that intermediate L2 speakers did not show increased difficulty compared to native speakers in integrating multiple sources of information (syntactic, discourse, pragmatic) to resolve ambiguous pronouns in intra-sentential anaphora and cataphora conditions, contra the IH. We also found that when two referents with equal prominence are introduced via a conjoined NP in the preceding context, the learner's performance is significantly different than for the native speakers, both in intra-sentential and inter-sentential anaphora. We propose that L2 speakers may present a difficulty in evaluating discourse complexity. We also suggest that L2 speakers' performance is suggestive of L1 interference.

### Theme Session Talk

## Multilingual and Artistic Alchemy of Leonora Carrington

*Natasha Lvovich*

*Location: BS M 145*

Leonora Carrington (1917-2011), a multilingual writer and surrealist painter, was born and raised in England before she moved to France at twenty to study art and soon became a heroine of Surrealism and a companion of Max Ernst, with whom she spoke French and who inspired her art and writing. *Down Below*, her 'memoir of madness,' was written during that period in English and was lost, then much later retold to a friend in French and published in French, and then translated into English. Her fiction, some written in English and some in French, often has a similar labyrinth-like linguistic and publication history, reflecting the dramatic maze of her life. Her fairytales and stories, all autobiographical in her own definition, resemble spoofs or black comedies and can be seen as verbal reflections of her surrealist visual art, which oscillates on blurred liminal borders fusing art forms, languages, and genres in what Roman Jakobson called "intersemiotic hybridity." I will discuss Carrington's multilingualism examining a few selected writings and paintings, e.g. her French short story *La Maison de La Peur* and *La Debutante* and her Self-portrait: *The Inn of the Dawn Horse*. During the chaos and trauma of World War Two and as a result of a dramatic escape from a mental asylum and from her omnipotent father (all described in *Down Below*), Carrington fled to Mexico, where she lived and worked for the next 60 years, adding Spanish to her linguistic repertoire, painting, writing, making sculptures and tapestry, investigating the occult, and participating in women's liberation in

cultural and social liminal space, switching languages and fusing art forms in a magical alchemic solution.

## **Bilingual speech sound development during the preschool years: The role of language proficiency and cross-linguistic relatedness**

*Simona Montanari, Robert Mayr & Kaveri Subrahmanyam*

*Location: BS M 149*

The purpose of this study was to provide longitudinal data on Spanish-English phonological skills during the preschool years and examine the links between speech sound and morpho-syntactic performance as well as between phonological skills in the two languages. Thirty-five bilingual preschool children produced single-word speech samples in Spanish and English both at the beginning of their first and second year in a Head Start program. Conversational samples in both languages were also collected at these data points to calculate Mean Length of Utterance in words (MLUw) and thus assess the children's linguistic proficiency. The phonetically transcribed speech samples were compared over time in terms of segmental accuracy measures and error pattern frequencies. Correlation analyses were run to examine the relation between segmental accuracy measures across languages and between speech sound production and MLUw. This study is the first to document developmental changes in the speech patterns of Spanish-English bilingual preschool children over one year. One-way within-subjects ANOVAs revealed significant improvements in accuracy over time in both languages, suggesting that enhanced exposure to the majority language at school may not impede phonological development in the home language. The results also revealed significant cross-linguistic correlations in segmental accuracy between Spanish and English, indicating that the same underlying speech motor production abilities may be utilized in both languages. Finally, the findings show that MLUw was significantly correlated with segmental accuracy measures, suggesting that children's phonological skills develop together with skills in other language domains. Interestingly, phonological and morpho-syntactic skills remained related over time in English, but not in Spanish, suggesting that the relationship between phonological and multi-word production may possibly be mediated by language-specific phonological properties at later stages. The results of this study have theoretical as well as practical implications for professionals working with developing bilingual children.

## **Theme Session Talk**

### **How bilinguals remember events: Advantages and disadvantages of bilingualism for eyewitness memory**

*Luna Filipović*

*Location: CCIS 1 140*

I present two studies of bilingual memory for witnessed events (Filipović, 2011, accepted). The main question addressed is whether both languages are accessed as aids to memory regardless of which language is used for speaking, or whether each language affects verbalization and memory in a language-specific way. The languages in focus are English and Spanish because of the typological contrasts between them in the expression of motion events and causation. The English pattern in motion expressions involves an explicit encoding of both the manner and the path of motion (run out), while in Spanish the path is expressed in the verb, and manner is expressed in a non-obligatory constituent (corresponding to 'enter (running)'; Talmy, 1985, 2000) and is often not given (Slobin, 1996, 2003). In the domain of causation, the English pattern is ambiguous with respect to intentionality (e.g.

'The man dropped the bag' - on purpose or not?) while the Spanish pattern requires the use of two distinct constructions, one for intentional and one for non-intentional meaning. Balanced bilingual speakers of English and Spanish were tested for recognition and recall memory in a bilingual mode (i.e. both languages were highly active during experimentation; Grosjean, 2001). The results show that in the case of motion, bilinguals used the Spanish pattern in both languages and, together with Spanish monolinguals, remembered manner less well than English monolinguals. In the domain of causation bilinguals used the Spanish pattern in both languages and remembered intentionality information on a par with Spanish monolinguals and better than the English monolinguals. I give an explanation for these different eyewitness memories using the recent model for bilingual processing proposed in Filipović and Hawkins (2018), CASP for Bilingualism, which predicts the different ways in which bilinguals "maximise common ground", i.e. rely on patterns that work in both their languages.

## Theme Session Talk

### Towards sustainable multilingualism in Higher Education: Basque, Spanish and English at the University of the Basque Country

*Jasone Cenoz*

*Location: CCIS L2 190*

Language policy is complex in contexts where language planning aims at promoting the learning and use of a minority language and at the same time there is an important trend towards internationalization (Cenoz, 2012). This paper aims at discussing the tension between minority language revitalization, the use of the majority language, and the spread of English as a language of international communication. By focusing on the University of the Basque Country (Spain), the paper will also discuss how multilingual policies can be sustainable when several languages are used as languages of instruction. Basque is a minority language spoken by 33.9% in the Basque Autonomous Community and nowadays it is widely used as the language of instruction in primary and secondary education and also in higher education (Gorter et al., 2014). Using a minority language as the language of instruction for undergraduate, graduate studies and research implies some challenges such as the publication of academic materials or proficiency in Basque for academic and supporting staff. In this context, Spanish is the majority language and widely used in higher education but nowadays there is an increasing use of English as an additional language of instruction because of the need for internationalization. In this paper different multilingual strategies used in the classroom and in academic events will be analyzed. These strategies can be considered sustainable because they involve the use of different languages including the minority language and multilingual speakers' repertoires avoiding repetitions and duplications.

### Every Is Not All: Difficulty in Scope Interpretation

*Takayuki Kimura & Shigenori Wakabayashi*

*Location: CCIS 1 440*

L2ers often have difficulty in interpreting sentences with multiple meanings (Wakabayashi & Kimura, 2018). Scope interpretation is one such example (Kimura, 2017). When two quantifiers are present, two interpretations are possible in English (1), whereas Japanese lacks the > reading.

1. A boy loves every girl.

a. There is a boy who loves every girl. (> reading)

b. For each girl  $x$ , there is a boy who loves  $x$ . (> reading)

This paper isolates the source of difficulty with scope interpretation by examining learners' knowledge of relevant English quantifiers.

An Every NP only permits a distributive reading but an All NP allows both distributive and collective readings. One possibility is that Japanese learners of English (JLEs) wrongly treat every as a collective quantifier. Importantly, distributive quantifiers, but not collective quantifiers, can take > scope (Szabolsci, 2010). Another possibility is that JLEs do not take English  $a$  to be a quantifier (Ito, 2008), and hence no scope inversion takes place. A final possibility is that an object quantifier fails to raise at LF, as seen in Japanese.

We tested these three possibilities with a Truth-Value Judgment Task with 17 intermediate JLEs. Materials contained sentences like (1) and others whose subjects were two NP (e.g., two boys), given with the two scope readings, and sentences whose subjects were all NP or every NP, given with distributive and collective contexts.

Results showed that JLEs always judged the > reading as false; that replacing a NP with two NP made no difference; and that most participants treated every as all. Based on these facts, we conclude that the problem lies, at least partially, in the interpretation of the quantifier every. We will also discuss L1 influence and the plausibility of the Interface Hypothesis (Sorace & Filiaci, 2006) with these results.

Keywords: second language acquisition, scope, meaning

## Theme Session Talk

### The CLB as resources for test development and validation

*Michelle Chen, Jennifer Flasko & You-Min Lin*

*Location: CCIS L1 140*

The Canadian Language Benchmarks (CLB) and Niveaux de compétence linguistique canadienne (NCLC) establish unified national language frameworks of reference across Canada. Though the frameworks are thorough, they nonetheless require supporting materials to be applied effectively to real-life contexts of use. For instance, to develop an effective educational course centered around the CLB framework, several additional resources need to be prepared - curricula, lesson plans, exemplar texts and responses, grading rubrics, teacher training materials, and student portfolios. Similar supporting documents are required to use the CLB for other purposes – for governments to make decisions, for professional and educational organizations to set fair standards, as well as for schools and other organizations to design CLB-related language tests.

In our discussion, we will highlight the steps that are required to design and administer a large-scale standardized testing system around a general language framework—the CLB. We will focus particularly on the iterative process of linking test taker performances on the test with CLB levels to support well-grounded inferences about what test takers can do. We will also identify what is required for successful test development as well as effective validation work for tests linked to the CLB.

### Sociolinguistic Functions of the social variety of Fedwet used by the Gurage Women

*Etaferahu Hailu Tessema*

*Location: CCIS L1 160*

The main concern of this research is to investigate the use of the Gurage secret society of Fedwet, an argot among Chaha Gurage speakers found in southern Ethiopia. Gurage is a multidialectal language which appears in diverse varieties of which Fedwet is one of the minority forms. Although the Fedwet are part of the Gurage society and speak one of the “regular” Gurage languages and they are bilingual. The Fedwet is exclusively used by females and it is on the verge of extinction. The main objective of this study is to find out why females use Fedwet instead of their basic language Chaha. Their variety is also one of the least studied ones. There is no literature on this social variety except Leslau (1964) since he has identified some word lists of the social variety without analyzing its linguistic structure and the sociolinguistic function. The qualitative approach of data gathering and analysis is used, the study is focused on primary data collection by using elicitation of texts and interview.

The following findings are observed: it is used for hidden communication of young girls, to exclude unintended audience, to oppose the culture of unwanted and early marriage, to express fillings/emotions of sorrow, identity formation, and religious purposes. The motive of using a different 'language' is related to more of the social position of women and the traditional belief system of Gurage.

The main areas of divergence are the deformation of the morphophonological patterns of their first language Chaha, like substitution, reduplication, insertion, affixation, and syllable manipulation. The other divergence is lexical manipulation, like borrowing, coinage, onomatopieic expression and lexical change also observed some of the terms are changed by other new terms. The other divergences that were used by this group are the semantic shift and semantic extension.

Keywords: bilingual, manipulation, sociolinguistic function

## Theme Session Talk

### Dynamic changes in resting state EEG after short-term new language learning

*Eleonora Rossi, Esra Kurum & Kiney Bice*

*Location: CCIS 1 430*

Resting state EEG (RS-EEG) is an off-task brain signal that reflects cumulative lifetime experiences, including cognitive skills (Doppelmayr et al., 2002) and as such, changes slowly across the lifespan (Anderson & Perone, 2018). Language is a foundational skill of human cognition. RS-EEG has been demonstrated to predict the rate and successful outcomes of new language learning (Prat et al., 2016; in press). While RS-EEG changes slowly across the lifespan, no research to date has examined whether RS-EEG is sensitive to intensive new learning at a shorter timescale. Language might therefore be optimal for capturing interactions between past cumulative experience and novel learning in the RS-EEG.

Here, we examined RS-EEG changes after short, intensive new language training and how any changes are modulated by previous language learning experiences. RS-EEG was collected before and after 33 participants (23 bilinguals) learned Finnish vocabulary across two 1-hour sessions. As predicted, RS-EEG significantly changed from baseline to post-training. Critically, the change differed between monolinguals and bilinguals. Monolinguals revealed decreases in alpha/delta power, while for bilinguals alpha increased broadly, suggesting differential synchronization-desynchronization mechanisms possibly related to changes in memory performance (Klimesch, 1999).

These are among the first results to demonstrate rapid changes in RS-EEG as a consequence of a short, novel learning experience and how they might interact with lifelong cumulative changes in RS-EEG due to relevant past experiences, such as bilingualism. We therefore propose that RS-EEG is sensitive to the earliest stages of novel learning, potentially serving as a new index of relative neuroplasticity.

## **(In)stability at the discourse-syntax interface: Evidence from Croatian-Italian simultaneous bilinguals**

*Tihana Kraš & Maja Miličević Petrović*

*Location: BS M 141*

Properties at the discourse-syntax interface have proved problematic in bilingual L1 and L2 acquisition and L1 attrition. For example, highly proficient bilinguals tend to over-accept and overuse infelicitous overt subject pronouns referring to topical antecedents in null-subject languages, while being (mostly) target-like on null subject pronouns. Two broad explanations have been proposed. The representational account (Tsimpili, Heycock, & Filiaci, 2004) attributes the bilinguals' problems to cross-linguistic influence, while the processing account ascribes the difficulties primarily to bilinguals' hypothesised less-than-optimal processing abilities (Sorace & Filiaci 2006). According to the former, difficulties should not arise when two grammatical systems pattern together with respect to an interface property; according to the latter, difficulties should occur even then.

To test the predictions of the two accounts, we conducted a study into the interpretation of Italian subject pronouns in intra-sentential contexts by Croatian-Italian simultaneous bilinguals (N=40) and a control group of Italian monolinguals (N=48), aged 11-15. The two languages involved pattern together regarding the antecedent biases of null and overt subject pronouns. Participants read sentences containing null and overt pronouns, which either followed or preceded the candidate antecedents (anaphora vs. cataphora), and matched each sentence to one of three pictures, showing the antecedent as the matrix subject, the matrix object or an extra-linguistic referent.

The bilinguals expressed the same antecedent preferences as the monolinguals in all conditions. We compare the results with the results of previous studies and interpret them as pointing to cross-linguistic influence, and thus lending support to the representational account.

Keywords: discourse-syntax interface; subject pronouns; simultaneous bilinguals

### **Theme Session Talk**

#### **Linguistic Mechanisms of Literary Codeswitching**

*Elena Schmitt*

*Location: BS M 145*

Multilingual writers rely on languages available to them to expand the boundaries of their creativity, make political and social statements, break rules and develop new ones. Codeswitching, broadly defined as the use of two or more languages within a conversation, is a linguistic means that assists language users to be more versatile in their ability to express the intended meaning. Multilingual writers have often used codeswitching as a literary device across literary traditions, genres, and languages to reveal nuances of social and political identities of characters, their familial and societal ties, and level of intimacy of their relations. However, literary critics have only recently started attending to codeswitching in literature and have largely discussed it from the perspective of its role as the enhancement of the writer's message. What remains less understood is the structural aspect of literary codeswitching and its underlying linguistic nature. Why do writers insert single lexical items from a language that is different from that of the main text? Why are these items sometimes morphologically and/or syntactically incorporated into the matrix language of the clause and stand unincorporated in other instances? Why do writers switch within a sentence and across sentences

and how do their choices of switches and their positioning affect the intended meaning? Does implicit use of another language by the character constitute codeswitching and, if so, what role does it play in a literary work? To find answers to these questions, I will closely explore the linguistic mechanism of literary codeswitching. Drawing on examples from such diverse authors as Lev Tolstoy and Mario Puzo, I will demonstrate that the underlying mechanisms of bilingual language use through codeswitching remain constant across languages and traditions, but may be utilized for unique purposes pursued by individual authors.

## **Looking forward: frequency and proficiency effects in suprasegmental cues to L1 and L2 lexical prediction**

*Nuria Sagarra & Joseph Vincent Casillas*

*Location: BS M 149*

Most L2 studies focus on morphological cues (explicitly taught) to anticipate suffixes (Grüter et al., 2012), and ignore acoustic cues (implicitly learned) such as prosody (essential to process words, McQueen, 2005, and sentences, Cutler et al., 1997). Monolinguals use prosody to anticipate suffixes (Söderstrom et al., 2012), but L2 studies are scant and inconclusive (anticipation: Schremm et al., 2016; no anticipation: Goselke-Berthelsen et al., 2018; Rehrig, 2017). We investigate whether constraints of lexical stress on morphological prediction are language-specific or universal, and whether they depend on language experience (proficiency, frequency).

Lexical stress functions differently in English (stressed-timed, Hualde, 2012; weak functional load, Cooper et al., 2002) and Spanish (syllable-timed, Hualde, 2012; strong functional load, Soto-Faraco et al. 2001). Twenty-five Spanish monolinguals and 38 English beginning and advanced learners of Spanish listened to sentences containing oxytonic (canTÓ “s/he sang”) and paroxytonic (CANta “s/he sings”) verbs with variable first-syllable structure (CV, CVC; CVC easier than CV, Authors, 2018). Both stress variants appeared on a screen while eye movements were recorded, and participants chose the verb they heard. The frequency measures were: lexical (Sebastián-Gallés et al., 2000); phonotactic (Vitevitch and Luce, 2004).

Proportion of fixations to target words revealed that monolinguals anticipated with CVC syllables, but with CV syllables only in [low lexical, high phonotactic] frequency verbs. Advanced learners only anticipated with CVC syllables, and beginners never anticipated. Also, monolinguals anticipated earlier than all learners, and advanced learners earlier than beginners; and monolinguals and advanced learners predicted earlier with CVC than CV syllables. Conclusion: (1) suprasegmental integration is part of L1/L2 spoken word recognition (Roll, 2015); (2) lexical stress is language-specific but can be acquired post-puberty (Schremm et al, 2016); (3) natives resort to sublexical information with insufficient lexical (Álvarez et al., 1998) or phonetic (V in CV) (Söderstrom et al., 2016) information.

Keywords: anticipation, morphology, prosody

## **Theme Session Talk**

### **Counterfactual story comprehension in Chinese speakers of English as a Second Language**

*Bene Bassetti*

*Location: CCIS 1 140*

Counterfactual reasoning, that is to say reasoning about what could have happened, is a universal and crucial aspect of cognition. However, different languages carve up the continuum of hypotheticality in different categories (Comrie, 1986). The English language distinguishes indicative and subjunctive conditionals, and the latter is generally used to signal that the antecedent is false (Lewis, 1973), whereas the Chinese language has no syntactic construction or lexical item to indicate counterfactuality overtly. An early study (Bloom, 1981) found that Chinese and English speakers drew different inferences from a counterfactual story, and argued that this was due to the lack of distinction between indicative and subjunctive conditionals in Chinese, but these findings were repeatedly dismissed (Au, 1982, 1984; Liu, 1985). The present study then compared counterfactual reasoning in a group of Chinese adults who had been educated before English was introduced in the school curriculum, and a group with over ten years of English language learning. Participants read a story in Chinese about a fictional historical character, performed a consequent evaluation task, and answered open-ended questions. First results of both quantitative and qualitative data revealed different interpretations of the same story, as Chinese adults who had or had not learnt English at school drew different inferences. It is argued that exposure to English language in a school setting may have some effects on performance in a reasoning task in one's native language.

## **Bilingualism Changes Semantic Distance Between Concepts**

*Siqi Ning, James Bartolotti & Viorica Marian*

*Location: CCIS 1 440*

The language one speaks can influence cognition, in domains as varied as temporal processing, lexical categorization, and color perception. The present study examines whether bilingual experience can change the strength of concept associations. Three behavioral and one ERP experiments were conducted.

In Experiment 1, Spanish-English bilinguals rated low-association picture pairs (e.g., cast-hanger) as significantly more related in meaning than English monolinguals did. Experiment 2 demonstrated that this bilingualism effect depended on the inherent associations of the items. Korean-English bilinguals rated low- (e.g., pencil-lake), but not high-association word pairs (e.g., nurse-doctor) as more related than English monolinguals. In Experiment 3, an effect of language proficiency was observed, with high-proficiency Spanish-English bilinguals rating concepts as significantly more related than both monolinguals and low-proficiency bilinguals, who did not differ from each other. In Experiment 4, ERPs were measured to assess whether bilinguals neurologically differentiate high- and low-association pairs differently from monolinguals, finding bilinguals to have a greater difference in N400 amplitudes between high- and low-association conditions than monolinguals.

Together, these experiments show that extensive bilingual experience can change the strength of perceived semantic relations. We propose that bilinguals' denser and more interconnected lexical networks may decrease semantic distances between concepts by providing shorter paths to link them. Follow-up experiments are being conducted to examine the extent to which concept associations can be affected by phonological connections.

Keywords: language and thought; semantic networks

## **Theme Session Talk**

### **L'évaluation de la seconde langue officielle des militaires canadiens**

*Sara Trottier*

*Location: CCIS L1 140*

À l'instar des fonctionnaires fédéraux, on s'attend à ce que les militaires canadiens soient capable de s'exprimer dans leur seconde langue officielle lorsque leurs fonctions le requièrent. Certaines professions militaires (avocat, officier des affaires publique, aumôniers, etc.) et certains grades (colonels, général, adjudant-chef) sont assortis d'une cote de bilinguisme. De plus, les élèves-officiers des deux collèges militaires du Canada sont tenus de répondre à une norme de bilinguisme pour recevoir leur commission. Or, comme pour les fonctionnaires fédéraux, leur cote de bilinguisme est décernée par la Commission de la fonction publique du Canada, chargée de développer et d'administrer les tests faisant partie de l'Évaluation de la langue seconde, qui évaluent différents niveaux de compétence en français et en anglais.

À défaut de répondre aux exigences de bilinguisme auxquelles leur poste est assujetti, ces militaires peuvent se voir refuser choix de carrière, promotion, affectation et dans le cas des élèves-officiers, diplôme. Un vaste programme de formation linguistique vise à rendre compétent les militaires qui doivent répondre à ces exigences, qui leur paraissent parfois arbitraires et peu arrimées à leurs besoins.

Les 23 000 militaires de la force régulière font partie intégrante de la société canadienne et la question de l'évaluation linguistique les touche de près. Une réflexion sur les implications et les défis d'un cadre national d'évaluation du français et de l'anglais devrait prendre en considération cette population particulière.

## **Uncovering the geographic origins of bilingual immigrant communities: Spanish-Afrikaans bilingualism in Patagonia**

*Nicholas Henriksen, Lorenzo Garcia-Amaya & Jiseung Kim*

*Location: CCIS L1 160*

Within bilingual immigrant communities, it is often difficult to determine the exact geographic origins of the initial settlers. This is because use of minority languages often does not typically survive past the third generation. Our study focuses on an Afrikaans-Spanish bilingual community residing in Patagonia, Argentina. Approximately 600 Afrikaans speakers settled in Patagonia in 1902; the historical record regarding the regional South-African origin of these settlers is incomplete. However, the Patagonian region remained nearly Afrikaans-dominant until the 1950's. Due to this rare circumstance, there is an opportunity to use the linguistic features of current third-generation Afrikaans-Spanish bilinguals to make inferences about the South-African regional origins of the first settlers. We focus on one phonetic feature with known geographical distribution in South-African Afrikaans. Transitional gliding, between /k/ and non-back high/mid vowels, occurs in the minority White-Afrikaans spoken in the Northern-Cape region of South Africa, but not in the Eastern/Northern regions where "standard" Afrikaans is spoken, yielding respective differences like [kjənt] vs. [kənt] (/kænd/ 'child').

We conducted sociolinguistic interviews with 14 Patagonian-Afrikaans (PA) bilinguals, and 10 age-equivalent speakers of "standard" South-African Afrikaans (SAA). From each interview, we labeled all instances of the vocalic portion (i.e., non-back high/mid vowels /i ə/) following /k/. We extracted F1 and F2 (Hz) at five equidistant intervals. PA (but not SAA) speakers show a slight rise in F1 and a steep fall in F2 across the vowel, indicative of a formant transition from a high front [j] to a lower, centralized vowel. This pattern demonstrates the presence of a transitional glide in PA, suggesting that

the original Patagonian settlers likely came from the Northern-Cape region of South Africa. Altogether, our research underscores the benefit of eliciting data from isolated bilingual communities, which can augment incomplete historical records about the geographical origin of original settlers.

Keywords: Phonetics; Spanish; Afrikaans

## **Bimodal-Bilingual Language Acquisition: Evidence from deaf children acquiring Israeli Sign Language and Hebrew**

*Rama Novogrodsky, Natalia Meir*

*Location: BS M 141*

The current study looked at the vocabulary acquisition in the sign and spoken modalities of bimodal-bilingual deaf toddlers who are native signers acquiring Israeli Sign Language (ISL) and Hebrew. ISL is the major Sign Language of the Israeli Deaf community. The ISL lexicon is independent of that of Hebrew, and in many instances reflects semantic distinctions that are central to its community of signers (Meir & Sandler, 2008). Though it is an independent language with its own lexicon and grammatical structures, most ISL learners are bilingual (ISL-Hebrew), and contact phenomena are attested. The study reported here addresses the acquisition of ISL and the relationship between the two languages at young age.

The MacArthur Communicative Development Inventory was developed for the ISL (ISL-CDI) based on the Hebrew-CDI (Gendler-Shalev & Dromi, 2017): changes for modality and language specific properties were made. The ISL-CDI presents 563 videos of lexical signs.

Twenty-nine bimodal-bilingual children, who acquire ISL as their native language, participated: 18 children between the ages 8-36 months, and 11 older children between the ages 46-85 who present ceiling scores on the test. The children's deaf parents filled the ISL-CDI. The Hebrew-CDI was completed by pre-school teachers or speech and language pathologists. Background data were collected via parental questionnaires, including information regarding exposure to each of the two languages.

The results indicated a developmental trend: children's vocabulary in ISL steadily increase with age. Younger children were dominant in the ISL which was reflected in the CDI scores (Hebrew-CDI:  $M=15$ ,  $SD=31$ ; ISL-CDI:  $M=228$ ,  $SD=169$ ). Parental data confirmed that the ISL was frequently used at home ( $M=6$ ,  $SD=1$  on the scale of 1(never)-7(always)). The gap between vocabulary scores in the sign and spoken modalities in bimodal-bilingual deaf children support the importance of Sign Language at early stages of language acquisition.

Keywords: Bimodal-bilingual acquisition; Sign Language; vocabulary

## **Predictive mechanisms of idiomatic expressions in native and non-native speakers**

*Laura Fernandez Arroyo, Nuria Sagarra & Cristina Lozano*

*Location: BS M 145*

Prediction is an integral part of human information processing. Most studies on prediction of linguistic information have focused on anticipation of semantic information with a literal meaning (natives: Huettig, 2015; L2 learners: Kaan, 2014). In contrast, L1 studies on anticipation of semantic information with a figurative meaning are scant (e.g., Molinaro & Carreiras, 2010), and L2 studies are non-existent. We examine how native and non-native speakers predict the final word of collocations with a figurative meaning. The highly predictable ending of these idioms offers a natural test-bed for exploring whether L2 learners store collocations absent in their L1 as chunks, like monolinguals (Cacciari & Tabossi, 1988; also, Knopcka & Bock, 2009; Sprenger et al., 2006).

The experiment had two phases: norming and experimental. In the norming phase, 37 Spanish

monolinguals completed a survey adapted from Cacciari and Corradini (2015), to ensure collocation familiarity, compositionality, and recognition point of the collocations to be included in the study. In the experimental phase, 30 new Spanish monolinguals and 30 English advanced learners of Spanish completed a visual world paradigm eye-tracking task. They listened to sentences in Spanish with collocations while looking at two words on the screen. They chose the word that ended the collocation they had heard. Half of the experimental sentences had collocations with figurative meaning (tooth and nail) (half existent, half inexistent in English), and the other half were similar expressions with literal meaning (tooth and fists) (half existent, half inexistent in English). Eye fixations at the onset of the final word revealed that the Spanish monolinguals pre-activated the lexical item that concluded all expressions, but that the L2 learners only pre-activated such item in figurative and literal expressions present in their L1. The findings suggest that adult L2 learners cannot store multi-word units absent in their L1 as chunks.

Keywords: Anticipation, figurative language, L2

## **Individual Differences in the Use of Visual Speech Cues and Sentence Context to Aid Speech Perception under Noisy Conditions in Young and Older Bilinguals**

*Alexandre Chauvin & Natalie Phillips*

*Location: BS M 149*

Background noise is omnipresent; nevertheless, most people perceive speech successfully, suggesting the existence of supporting mechanisms. For example, visual speech cues (e.g., lip movements) and context (e.g., semantic and lexical information) improve speech perception in noise. These effects are well documented in native listeners, but little is known for non-native listeners who may have less developed linguistic knowledge (e.g., smaller lexicon, weaker phonological knowledge) in their second language. Older bilinguals may be at a particular disadvantage, as they also have to contend with sensory changes such as presbycusis and/or a decline in visual acuity.

We are investigating the extent to which young (18-35 years) and older (65+) French-English/English-French bilinguals benefit from visual speech cues and context in their first (L1) and second language (L2). Participants were presented with audio-video recorded sentences in noise (twelve-talker babble) and asked to repeat the terminal word of each sentence. Half of the sentences offered a moderate level of contextual information (e.g., "In the woods, the hiker saw a bear."; MC) while 50% offered little context (e.g., "She had not considered the bear."; LC). The sentences were presented in three modalities: visual, auditory, and audio-visual.

Preliminary results with younger adults show greater accuracy in L1 compared to L2. Within each language and modality, participants were more accurate for MC compared to LC sentences. Additionally, participants were most accurate in the audio-visual modality, but this interacted with context such that the perceptual enhancement afforded by lip movements was greater for MC compared to LC sentences. Furthermore, the magnitude of said perceptual enhancement in L2 was positively correlated with self-reported L2 proficiency. Data from older adults are currently being collected; we predict they may benefit from context and visual speech cues to a relatively greater extent than young adults, as this may help compensate for sensory changes.

Keywords: audiovisual speech perception; individual differences; speech in noise

## **Theme Session Talk**

## The cognitive impact of biscriptality: Preliminary studies and an agenda for research

Jyotsna Vaid

Location: CCIS 1 140

Writing systems in use across the world differ in a variety of ways: in the directness with which the written symbols map onto the spoken units of the language, in the degree of visuospatial complexity, in the manner of packaging units of sound and meaning, and in the directionality of writing and reading. The design of a writing system can affect not only how language users may read but also how they may perceive spoken language and how they may function in nonlinguistic domains. What might be the cognitive impact of being literate in two markedly distinct scripts? There has been little focused investigation of this research question to date largely because existing studies have mainly studied monoscriptal bilinguals. In my talk I will make a case for the importance of studying this question. I will draw on some work I and others have done on biscriptal bilinguals and outline an agenda for research.

## Individual differences in Code-mixing: the use of partially schematic patterns in three German-English bilingual children

Antje Endesfelder Quick & Backus Ad

Location: CCIS L2 190

Bilingual child utterances often show evidence for the productivity of lexico-grammatical constructions, in which open slots in a template are filled with lexemes from the other language. In many cases, these constructions come mostly from one of the languages, creating the asymmetry often found in adult code-mixing known as the 'matrix language effect'. We suggest a usage-based approach to this phenomenon.

Usage-based approaches (e.g. Tomasello 2003, Bybee 2010) assume that units of form can vary in their level of schematicity, ranging from completely lexically fixed lexical items to wholly schematic constructions. In between are partially schematic constructions (e.g. I want X), and these will be shown to play an important role in the code-mixing of three German-English bilingual children aged 2;3 – 3;11.

We analyzed the children's individual bilingual language use. First, all data (n=109 000) were coded for utterance length (MLU) and language proportions. Second, all code-mixed utterances from the age 2;3, 3;0 and 3;10 were analyzed for schematicity on the basis of the individual output of the children (n=1675). Identification of units was supported by previous occurrences of that specific unit in the output of the child: e.g. the partially schematic pattern I want X was supported by I want zwei 'I want two', I want this, or I want pullern 'I want to pee'.

Results show that the more children spoke in one language the higher the MLU in that language. However, mixed utterances that had the highest MLU in all children ( $F=122.3$ ,  $df_1=17$ ,  $df_2=156$ ,  $p<0.001$ ). Preliminary analyses of schema types revealed that partially schematic utterances play an important role in all children's code-mixing and the children's stronger language (according to MLU) tended to provide the schematic parts of partially schematic constructions with the open slots filled by elements from the weaker language, mainly content lexemes.

Keywords: code-mixing, slot-and-frame patterns, individual differences

**Multilingualism, collaboration and experiential learning with multiple modalities: The**

## case of Mondovision

*Dejan Ivković*

*Location: CCIS 1 440*

This paper reports on a collaborative project involving first-year undergraduate students at The University of Toronto, for which they produced a pseudo-documentary on a theme of an international, multilingual song contest. Against a backdrop of a fictitious international festival of popular music—named The Mondovision Song Contest (MCS)—the final project for the small-class seminar involved making of a pseudo-documentary about the issues surrounding multilingualism: language choice and language mixing; attitudes towards language and accent; language and politics; language and identity; and language policy and planning (<https://play.library.utoronto.ca/uURZQuVOpBaz>). The MSC-focused theme is inspired by the existing festival of European popular music, The Eurovision Song Contest, which originated in 1956. The project has a pronounced pedagogical character. It draws on the parameters—theories, frameworks and principles—used in teaching and learning here described as open learning. Open learning, broadly speaking, encompasses a range of approaches and strategies premised on the idea of an independent, interest-guided enquiry that often transcends the boundaries of the traditional classroom engagement. It is in this sense, of unbridled by a priori and prescriptive parameters, that we use the term, as a common denominator, when we draw from a range of principles espoused by collaborative/cooperative learning (Smith, 1992), experiential learning (e.g., Kolb, 2005; Kolb & Kolb, 2014), and learning with multiple modalities (e.g., Kress, 2017), to lay the groundwork for the project and to support its aims. After the description of the project, we discuss pedagogical implications, both from student and instructor perspectives.

Keywords: multilingualism and multimodality; collaborative learning; experiential learning

## Pertinence du DELF dans le contexte canadien : le cas du Campus Saint-Jean

*Thao Tran-Minh*

*Location: CCIS L1 140*

Dans une discussion concernant les référentiels de langue, il semble difficile d'ignorer le Cadre Européen Commun de Références pour les Langues (CECRL), publié par le Conseil de l'Europe en 2001 et devenu depuis, une référence incontournable de la didactique des langues. Ce référentiel de langue qui a pour but de proposer une échelle d'évaluation de la maîtrise d'une langue, se veut être « une base commune » (Conseil de l'Europe, 2001, p9), quels que soient la langue et le contexte. Parmi les outils d'évaluation fondés d'après les descripteurs du CECRL, on trouve le diplôme d'Études en Langue Française (DELF), un outil d'évaluation standardisé mondial au succès numérique indéniable.

En 2015, après trois années de réflexion, le Campus Saint-Jean (CSJ), campus francophone de l'Université de l'Alberta, a officiellement adopté le DELF afin d'évaluer le niveau de français des étudiants du programme d'éducation. Après quatre ans, nous pouvons faire un premier bilan et nous interroger sur les défis et critiques que soulève cet outil d'évaluation standardisé dans notre contexte. Sont-ils justifiés? Le DELF est-il vraiment transposable dans notre contexte et cohérent avec nos objectifs d'évaluation? Nous appuierons notre réflexion du témoignage d'administrateurs du DELF ainsi que d'étudiants du CSJ ayant passé le DELF entre 2014 et 2017.

## The Neurobiology of Simultaneous Interpreting - Where extreme language control and cognitive control intersect

*Alexis Hervais-Adelman & Laura Babcock*

*Location: CCIS L1 160*

Simultaneous interpreting is a complex cognitive task that requires the concurrent execution of multiple processes: listening, comprehension, conversion of a message from one language to another, speech production, and self-monitoring. This requires the deployment of an array of linguistic and cognitive control mechanisms that must co-ordinate the various brain systems implicated in handling these tasks. How the brain handles this challenge remains an open question, and recent brain imaging investigations have begun to complement the theories based on behavioural data. fMRI studies have shown that simultaneous interpreting engages a network of brain regions encompassing those implicated in speech perception and production, language switching, self-monitoring, and selection. Structural imaging studies have also been carried out that also indicate modifications to a similar set of structures. In the present paper, we aim to synthesise the rather scant evidence derived from heterogeneous neuroimaging approaches to simultaneous interpreting. We find that left inferior frontal, and bilateral temporal lobe areas typically associated with speech perception and production, alongside midline supplementary motor regions and a set of thalamo-cerebellar-striatal structures associated with motor and cognitive control are reliably found to be implicated in simultaneous interpreting. Intriguingly, the networks implicated are not language-specific, but rather, general to the control of behaviour. This underscores the notion that while language may well be couched in several highly-specialised brain areas, when task demands mandate, it calls upon domain general mechanisms. We propose an integrative model of simultaneous interpreting that extends existing theories of multilingual language control to the extreme cognitive demands of this unusual task.

Keywords: Simultaneous Interpreting, Cognitive Control, Neuroimaging

## **Role of pedagogical translanguaging in language maintenance: A comparative study of primary schools in French-speaking Switzerland**

*Mandira Halder*

*Location: CCIS 1 430*

The aim of this paper is to explore the link between pre-service primary generalist teachers' beliefs about language maintenance and their classroom translanguaging practices. More specifically, the focus of this paper is on the nature of classroom translanguaging practices and the kind of language maintenance they generate, namely that of the first language (L1 French), target language (L2 French) or other languages. The official guidelines of the federal language policy in Switzerland encourages maintenance of L1 French, L2 German and other languages in a common space to develop functional multicompetence (Canagarajah, 2011). However, prescriptive teacher training norms are still influenced by monolingual ideologies (Ganuza & Hedman, 2017). Such ideologies are rooted in research findings of early foreign language acquisition and immersion pedagogy whereby target language maintenance (L2) is encouraged to maximize learning opportunities (Cameron, 2001). Consequently, primary teachers are faced with a dilemma about their choice of maintenance of target language, first language or other languages. Studies in translanguaging suggest a fluid approach to language maintenance and partially resolve this dilemma by dispelling myths about the strict separation of L1, L2 and other languages (Creese & Blackledge, 2010; García & Wei, 2014). Eight pre-service generalist primary teachers working in different instructional settings, participated in this study, part of an ongoing doctoral research project. A mixed-methods approach was used to explore teachers' beliefs and classroom translanguaging practices. Data from different sources such as questionnaires, interviews and direct observations were triangulated. The results show that target

language maintenance was promoted (L2 German) to foster quality interaction (Edelenbos & Kubanek, 2009). Conversely, teachers who encouraged first language maintenance took into account specific classroom constraints or learners' needs (Levine, 2011). The results also show that maintenance of other languages were related to their language awareness (Andrews, 2001) as well as cross-curricular collaboration (Cambra-Giné, 2003).

Keywords: language maintenance, pedagogical translanguaging, mixed-methods

## Testing two models of Sign Language phonology in ASL: deaf L2 learners vs. native signers

*Elena Koulidobrova, Tatiana Luchkina & Jeffrey Palmer*

*Location: BS M 141*

Research shows that phonological and visual learning problems are solved in similar ways (Moreton, Pater & Pertsova 2015) and with the use of the same cognitive processes. This predicts that both native and hearing L2 signers, as well as non-signers are responsive to articulatory features of sign languages (SLs) (Hildebrandt & Corina 2002). Two models of SL have been proposed: according to the Sonority Hierarchy (Brentari 1993), larger scale articulators (shoulder>>elbow>>wrist joints) deliver more perceptually salient phonemic contrasts than smaller scale articulators (finger joints). This means that contrasts in handshape and orientation of the sign will disambiguate between the expert and non-expert/naïve signers better than location or movement. In contrast, the Prosodic Model (Brentari 2006) predicts movement to be the more salient because movement is suprasegmental.

25 deaf L2 learners of ASL (SL2) (age( $\mu$ ):19;03; SL1 exposure( $\mu$ ):193.8m., SL2 exposure( $\mu$ ):15.2m) and 28 hearing English speakers with no signing experience (21 females, age( $\mu$ ):27;09) were administered a closed-set Sentence Discrimination Task (Bochner et al. 2011) where relative perceptual salience of articulatory features was proxied by the rate of successful discrimination of sentence pairs differing in HANDSHAPE, ORIENTATION, MOVEMENT, and LOCATION. Video recordings of sentence pairs were presented as 'same' or 'different,' making 2 judgments per trial. Responses were modeled using a mixed-effects binary logistic regression.

The difference in accuracy between deaf L2 learners and naïve signers, except when localized to HANDSHAPE, fell within a narrow range 9-17%. For both groups, ORIENTATION>>LOCATION, were the most salient contrastive features and substantiated robust categorical discriminators. Results revealed a dissociation in the perceptual saliency of HANDSHAPE, which facilitated discrimination for deaf L2 learners but not for naïve signers.

We provide empirical validation of the Sonority Hierarchy in SLs and conclude that regardless of modality, phonological processing is anchored in the relative perceptual saliency of the features marking phonemic contrasts.

Keywords: sign language; phonology; perception

## Gaze allocation during gestural enhancement of degraded speech in native and non-native listeners

*Julija Vaitonyte, Linda Drijvers & Asli Özyürek*

*Location: BS M 149*

Visual information conveyed by iconic hand gestures and visible speech can enhance speech comprehension under adverse listening conditions for both native and non-native listeners. However, listeners often mostly gaze at a speaker's face, but not their gestures. We used eye-tracking to investigate whether and how native- and non-native listeners of Dutch allocated overt visual attention to these visual articulators during clear and degraded speech comprehension. Participants watched video clips of an actress uttering a clear or degraded (6-band noise-vocoded) action verbs while performing a gesture or not, and were asked to indicate the word they heard in a cued-recall task.

Gestural enhancement was largest when speech was degraded for all listeners, but more strongly for native listeners. Both native and non-native listeners mostly gaze at the face during comprehension, but non-native listeners gazed more often at gestures than native listeners, possibly to extract semantic information to aid speech comprehension. However, only a native listener's gestural benefit during degraded speech comprehension could be predicted by an individual's gaze allocation to gestures. We conclude that it might be more challenging for non-native listeners to resolve the degraded auditory cues and couple those cues to phonological information that is conveyed by visible speech. This diminished phonological knowledge might hinder and delay the use of semantic information that is conveyed by gestures for non-native listeners. As native listeners are better able to utilize and resolve degraded auditory cues than natives, they can map more visual information to the speech signal, resulting in better speech comprehension, especially when speech is degraded.

Keywords: visual attention; non-nativeness; multimodality

## Theme Session Talk

### How Emotion and Language Influence Thought and Action in Monolingual and Bilingual Speakers

*Jeanette Altarriba*

*Location: CCIS 1 140*

In recent years, research on emotion has uncovered the ways in which emotional words, phrases, and pictures influence our perceptions of the world and the ways in which we respond to various stimuli. The current paper will summarize our laboratory work that focuses on cognitive and psycholinguistic research that suggests that emotional concepts within and between languages can moderate the ways in which we think, perceive, and feel about our environment and the value we give to stimuli we encounter while we are in emotional states. The role of emotion in using a first vs. a second language will also be discussed from a quantitative and qualitative perspective. Research on the ways in which we learn emotional vs. neutral information in a foreign language will also be discussed with an eye towards a developmental model that describes the ways in which we learn different word classes in a native and in a foreign language. In one experiment, English monolingual participants were taught emotion and non-emotion words in Spanish. Results indicated that words are learned on a continuum and at a different rate depending on their emotionality. In a second experiment, a new approach to learning language stemming from an emotionally driven "survival mode" will provide a promising new framework for encoding new information and forming durable, long-lasting memories for new language inputs. Participants were better able to learn new words in a survival processing mode as compared to typical control conditions. Emotion and Language do indeed influence thought and language acquisition.

### What children who are literate in Chinese bring to the reading of English

*Heather Blair, Miao Sun, Jackie Filipek & Hongliang Fu*

*Location: CCIS L2 190*

There continues to be a significant increase in the number of Chinese speaking children in Alberta schools (Statistics Canada, 2014). Many teachers are unsure how to assist these youth as they take on the learning of a new language. It is helpful for researchers and teachers to know more about the literacies of Chinese speaking children to appropriately support their reading in school. Social constructivist ideas (Vygotsky 1978, 2004; Smagorinsky, 2007) and psycholinguistic understandings

of reading (Goodman, 1994, 1996; Halliday 1974, 1985; Lee, 2012, Owocki and Goodman, 2002) as well as the second language learning theory of James Cummins (2017) frame this study. The purpose of this qualitative case study is to explore the reading processes of three to five Chinese speaking children using miscue analysis (Goodman, Watson & Burke, 2005) of reading in both Chinese and English. Participants are audio recorded as they are interviewed about their reading and other literacies and as they read and retell appropriate Chinese and English texts. Later the recordings are used to record and analyze the processes and strategies they use when they read. The data (interview transcripts, miscues, retellings) are used to compare reading behaviours and processes between the two languages. Results of this study will provide concrete example for teachers how best to draw on students' reading strengths.

Keywords: English-Chinese bilingual program, language and literacy practices, miscue analysis

## **Multilingual Modality: A Mapping of Boundaries in Public Service Announcements**

*Gulab Chand & Urjani Chakravarty*

*Location: CCIS 1 440*

This paper aims to understand the ways in which the audience's sensibilities are awakened with the help of multimodal as well as multilingual Public Service Announcements (PSAs).

PSAs, are an amalgamation of colors, images and captions ranging from the genuine to bizarre; they contain symbolic and literal meanings that the recipient must decipher in order to understand the meaning. Interestingly, they bring together two dominant mediums the oral and the visual for unique affect.

On the basis of comparison of selected present day PSAs from India and abroad, this paper analyzes the phenomenon within the framework of Bhartrihari's Sphota Theory (Nair, 2014), a 5th century Indian grammarian and philosopher of language, and attempts to explicate the interpretation process from visual medium to its meaning.

For instance,

Fig. 1 <https://safetyrisk.net/national-safety-day-in-india/>

Through observational analysis it also aims to look at the manner in which this is translated from a vision to its meaning. This modern day "orality" is a multi-modal genre wherein the images are created through aids resplendent with visual elements.

From the days of the town crier with a drum drawing attention through his oral rendition of the message has transformed with the popular media and a different reality vis-à-vis has been envisaged. Further the paper contends that the present day 'message' has altered itself to the technologically informed complex cultural and social environment from which explicitly the new meanings ensue and with which they interact.

Keywords: PSAs, Multilingual Text, Multimodal, Effect

## **The linguistic and neural effects of short novel language learning**

*Eleonora Rossi, Isabel Eyer & Judith Kroll*

*Location: CCIS L1 160*

Although there has been an upsurge of bilingualism research in the past decades, little is known about the very early markers of novel language learning. The goal of this study was to investigate the behavioral and neurophysiological (EEG) signatures of the earliest stages of novel language learning, and to assess the role of immersion.

20 US-based native English speakers learned Dutch for up to 1 hour/day for ten days through a commercial language learning software. Importantly, 36 participants completed the same study while immersed in the Netherlands. All completed a Dutch picture naming task (composed of cognates and non-cognates), and a verbal fluency task in Dutch immediately after the completion of the language training. In addition, a subset of immersed participants (n=11) also completed an EEG semantic categorization task in Dutch both before training started and immediately after it was completed.

The behavioral results show that all learners acquired a significant amount of new Dutch vocabulary in only a short time of language training (M=5.55 h) as measured by the picture naming, and the verbal fluency task. Importantly, all learners achieved higher accuracy for cognates (M=76.8%) than non-cognates (M=61.6%) in the picture naming task, although only immersed learners exhibited faster naming latencies for cognates. The ERP data showed a significant reduced negativity starting at around 400ms when comparing studied words after training to those same words before training, and demonstrated that the effect was even stronger for cognates words.

The behavioral and ERP results demonstrate an overall effect of novel language learning even after a few hours of exposure. Importantly, the data reveal that immersion plays a role in boosting the learning effect. In addition, performance was better overall for cognates than for non-cognates, indicating that cognate status is relevant in the early stages of language learning.

Keywords: short-term new language learning; EEG; immersion

## **Predicting translanguaging moments for Kongish speakers: A quantitative analysis on Facebook Page Likes distribution**

*Nick Wong, Pedro Lok & Alfred Jones Tsang*

*Location: CCIS 1 430*

Cantonese and English are two languages distinctively different in many ways, from language families (Sino-Tibetan v. Indo-European) to types of orthographies (Logographic v. Phonemic). However, these differences do not prevent Cantonese-English bilinguals in Hong Kong from showing seamless connections of these two systems through the exhibit of Kongish without a particular named language in dominance. As translanguaging is not a simply a linguistic description, such as code-mixing between languages but a theoretical approach that reviews how different linguistic structures and systems can interact within and beyond systems and structures inside a bilingual's head, it involves combining, altering and transcending linguistic (e.g. morphological and phonetical) and non-linguistic (e.g. social, and moral) rules. These Kongish bilinguals are capable to creatively and flexibly express themselves according to different contexts and motivations through the act of translanguaging. The current study aims at providing possible instruments to predict translanguaging moments through the study of contexts and motivations for Kongish speakers.

Kongish Daily, aiming at eliciting more of the abovementioned data, is a Facebook fan page established

on 3 August 2015 with slightly over 46000 subscribers currently. Exported from Facepager Version 3.8.2, there were about 2500 posts which generate approximately 52000 replies. Together with the subscriber's information provided by Facebook Analytics, including profile information such as their age, gender, location, language preference, etc., the correlation between the number of comments per post and the number of Likes (which can be further divided into six emotions, namely Like, Love, Haha, WOW, Sad and Angry) were studied. It was found that there is a positive correlation between some of the emotions and the choices of orthographies in the comment section. This correlation study may help predict the occurrence of translanguaging moments.

Keywords: Translanguaging; orthography; Kongish

## Monday Poster Abstracts

### **(M-1) Interaction between signed and spoken languages in deaf mother and child's book-sharing activities**

*Takashi Torigoe & Wataru Takei*

This paper described the characteristics of book sharing activities by a Japanese deaf mother and her child acquiring a signed language as a first language. A deaf child was observed longitudinally with her deaf mother at home once a month from 8 months to 4 years of age. Through qualitative analysis of their interaction during book sharing activities, four developmental stages were identified; signing expression, finger-spelling (F-S, the hand-shape system which corresponds to the Japanese kana letters), relating F-S to written words, and reading. At first, the child expressed just signs, then she got interested in kana letters on the books and expressed the letter-related (pre-literacy) behaviors, such as drawing or tracing kana letters with the forefinger, sometimes aided by mother. In the next stage, the child began to express F-S in the context of signing. At this stage, there seemed no correspondence between Japanese and F-S. After 2 years of age, the child acquired the correspondence between F-S and Japanese letter system, and through F-S, she began to learn Japanese words. At the earlier stage of reading, the child corresponded the letters and F-S, as she pointed the letter on the one hand and finger-spelled on the other hand. She seemed to acquire the Japanese phonological system through F-S. Several strategies by deaf mother were also identified, as, while interacted with the print, the mother expressed signed discourse, which was composed of signed words, F-S, pointing at pictures or print, spelling, and sometimes, mouthing. These seemed to produce the relationship between signed and spoken languages. Finally, we discussed about how to support signing deaf children to develop their literacy under the bilingual situation.

Keywords: deaf child, signed language, literacy

### **(M-2) Gliding in Spanish-English bilingual children. Two case studies.**

*Miriam Rodríguez Guerra & Leah Fabiano-Smith*

Glides pose a problem for phonology because of their apparent dual behavior (Levi 2008). Spanish glides [j] and [w] are allophones of the high vowels [i] and [u] (Hualde 1997), whereas English includes both sounds in the consonant inventory (Ladefoged and Johnson 2014). The error pattern of gliding (the word "rabbit" pronounced as [ˈwæb t]) is not a recurrent pattern in monolingual Spanish, where the rhotics [r ] are replaced by [l] ("rojo" pronounced as [ˈlo.xo]) or by the voiced stop [d] ([ˈdo.xo]), (Bosch, 2004). Taking the phonological distributions of glides in English and Spanish, bilingual children may show a different pattern of rhotic substitutions.

Many children who grow up in bilingual families in Arizona, US, begin as Spanish-dominant speakers but become English-dominant as they start school (Genesee et al., 2004). This language shift is rooted in education campaigns promoting English monolingualism (Fishman, 2013) and speech and therapy misdiagnosis by professionals' because of lack of understanding of bilingual speech acquisition (Yavas and Goldstein, 1998).

Within this bilingual setting, this investigation explores the pattern of gliding in Spanish-English

bilingual children born and raised in Tucson, Arizona, and students in the public school system. For this presentation I analyzed speech productions of two typically developing bilingual children from a large NIH-funded database (Fabiano-Smith, PI). The Processing Rich Information from Multidimensional Interactive Representations model (PRIMIR; Curtin, et al., 2011) is set as the framework to examine the patterns of glides and gliding produced by these bilingual children, as this model accounts for how both languages are organized as mental representations. Through quantitative and qualitative analysis of the productions of single word productions that have or may have gliding in both Spanish or English, this presentation shows evidence of distributed phonological systems, as well as between-language interactions.

Keywords: Bilingualism; Spanish; Gliding

### **(M-3) Inhibitory Control and Bilingual Word Learning**

*Beatriz de Diego Lázaro, Andrea Pittman & Restrepo Laida*

Bilingual children have been shown to outperform monolinguals on word learning tasks (e.g., Kaushanskaya et al., 2014). Although the nature of this potential bilingual advantage is unknown, previous studies suggest that it may be related to enhanced inhibitory control abilities in bilingual children (e.g., Yoshida, et al., 2011). If word learning is facilitated by inhibitory control, then children with higher inhibitory control should learn more words than children with lower inhibitory control. To test this hypothesis, we assessed the vocabulary size, word-learning abilities, and inhibitory control of 20 monolingual-English and 20 bilingual English-Spanish children aged eight to twelve years. We assessed word learning training and retention on the next day in the languages familiar to the children (English and Spanish) and in a foreign language (Arabic). Inhibitory control was measured by total reaction time and accuracy percentage from the flanker task.

Correlation analyses revealed that the higher the accuracy and the lower the reaction time in the flanker task, the higher the total training percentage in the word learning tasks ( $r[40] = .38, p < .01$  and  $r[40] = -.31, p < .05$ , respectively). Linear regression analyses revealed that total accuracy, but no reaction time, predicted total word learning training after controlling for maternal education and total vocabulary size ( $F [3, 36] = 8.04, p < .001, R^2 = .40$ ). Retention scores were not predicted or correlated with the flanker task. Bilingual children had larger total vocabulary scores (English and Spanish combined) than monolingual children ( $t[38] = 8.81, p < .001$ ), but they did not differ in word learning training, retention, and flanker reaction time and accuracy. This suggests that, while inhibitory control predicts performance in word learning training, the variance in inhibitory control is not explained by language experience. A bilingual word learning or cognitive advantage was not observed.

Keywords: word learning; inhibitory control

### **(M-4) A doctor's foreign accent affects perceptions of competence**

*Chin Lorelei Baquiran & Elena Nicoladis*

Background: Many doctors work or train in foreign countries and speak with a foreign accent. People sometimes assume that a person who speaks with a foreign accent possesses negative traits and personality characteristics. The purpose of this study is to test if doctors who speak with a foreign accent are perceived as less competent than doctors who speak with a standard accent.

Methods: Both Canadian and Chinese Canadian undergraduates rated the competence of a doctor speaking English with either a standard Canadian accent or a Chinese accent. The doctor was delivering either good or bad news about the patient's cholesterol levels or cancer. Previous research has shown that when reminded of death, participants favor in-group members.

Results: We found that the Chinese-accented doctor's competence was judged more negatively than the standard Canadian accented doctor by all participants. Both doctors were deemed less competent when delivering bad news than good news.

Conclusion: These results suggest that foreign-accented doctors face biases about their competence from their patients.

Keywords: Language, speech accent, foreign-accented doctors

### **(M-5) The Two Sides of the Bilingual Experience**

*Ethan Kutlu, Beatrice Villanueva & Holly Redman*

The cognitive and health-related advantages of being bilingual are extensively documented (Bialystok, 2011). However, bilinguals with accents are often discriminated against (Gluszek & Dovidio, 2010). Research suggests that linguistic features, such as the variety of English spoken (inner-or outer-circle English), affect listeners' attitudes towards bilingual speakers; furthermore, non-linguistic features such as race and ethnicity affect listeners' perceived accentedness and intelligibility (Babel & Russell, 2015). There is no study to date, however, that includes all these factors to examine how important they are relative to each other, and/or how they may interact with each other. The current study seeks to contribute to research that takes variables like geographical context, the speakers' race, ethnicity, and linguistic variation into consideration to obtain a contextually situated picture of what it means to be bilingual, as this should help raise awareness and minimize negative stereotyping for future generations of bilingual speakers. To this end, we adopt a social-psychology perspective to investigate the effects of race and type of English variety on sentence comprehension using different bilingual populations on both sides of communication (listeners and speakers). The experimental setup manipulates race (i.e., Caucasian vs. South-Asian) and English varieties (British vs. Indian English) to test if and to what extent they affect intelligibility and perceived degrees of accentedness. Monolingual and English-Spanish bilinguals will complete a battery of cognitive tasks and a South-Asian implicit bias test. We hypothesize that both other-race (i.e., Indian faces) and outer-variety (i.e., Indian English) will equally contribute to lower intelligibility and higher accentedness judgments for monolingual listeners, but not for Spanish-English bilinguals, as bilinguals have higher exposure to variability (Baese-Berk et al., 2013) and perform better with variable auditory information. This suggests bilingual listeners are at an advantage, and that outer-circle English bilingual speakers are more likely to be linguistically discriminated against.

Keywords: world englishes; linguistic stereotyping; bilingual advantage

### **(M-6) Storybook Reading Practices of Bilingual Families: The Role of Language Proficiency**

*Ana Maria Gonzalez-Barrero, Nicholas Salama-Siroishka, Daphnée Dubé, Melanie Brouillard & Krista Byers-Heinlein*

Storybook reading contributes to preschoolers' language and literacy development (Sénéchal & LeFevre, 2002). Increasing numbers of children grow up in bilingual households (Paradis et al., 2011), but little is known about the reading practices of bilingual families. Bilingual families often wish to transmit literacy skills in both language, however, this could be challenging, particularly when parents and children are more proficient in one language than the other. This study aimed to characterize the home literacy practices of English-French bilingual families, and whether such practices are affected by the family's language proficiency.

Sixty-six bilingual families from Montreal participated in the study. One parent per family completed the Bilingual Home Reading Questionnaire (Dubé, Brouillard, & Byers-Heinlein, 2016), which assessed their home reading environment, reading habits, and perception of their child's literacy development in both languages. Participants were placed into one of three groups based on the parent's and child's proficiency in English and French (High-, Moderate-, and Low-Proficiency Bilinguals).

A series of mixed ANOVAs showed that families provided greater support for literacy in the dominant language, with more books in the home and time spent reading in the dominant language, and an increased tendency to switch to and discuss the story in the dominant-language when reading in the non-dominant language. These results suggest that parents' choices, together with children's preferences, may disadvantage the literacy development of the non-dominant language in a bilingual home. Nonetheless, parents perceived that children were learning regardless of the language of the book – a perception which needs further investigation.

Given the evidence that reading to children in their non-dominant language promotes general literacy skills in both their dominant and non-dominant language (Chow et al, 2010), our results point to the need to identify strategies to support enriched home literacy practices in the non-dominant language.

Keywords: Reading Practices; Bilingual Families; Language Dominance

## **(M-7) FAMILY LANGUAGE POLICY AND IDENTITY FORMATION IN TRILINGUAL CHILDREN: THE CASE OF CHINESE-VIETNAMESE FAMILIES IN AUSTRALIA**

*Eliane Thiravong, Ruying Qi & Bruno Di Biase*

This poster presents preliminary results of an investigation into the development of identity in Cantonese-Vietnamese children in Australia, through two longitudinal case studies. The research investigates the language policy and practices of two families and their impact on identity formation tracing the child self-identification and self-referring development (Qi, 2010) by means of speech recordings, field notes and interviews. These children are hypothesised to develop a composite, rather than unitary, self-identity.

Parents face challenges in raising children within a multilingual context e.g., where Cantonese and Vietnamese are spoken by different family members, with English as the extra-domestic language. Additionally, most families would wish their children to be able to speak to their monolingual grandparents, and thus may implicitly or explicitly implement policies to encourage the use of one language over the other. Previous studies on the development of Cantonese-English and Vietnamese-English language pairs (Pham, 1989; Yip & Matthews, 2007) have not looked into the issue of identity formation, although Yip & Matthews (2007) indicate that even before the age of two, a child can express bilingual identity awareness. Some recent studies have looked into family input as Language

Policy (Curdts-Christiansen, 2013; King, 2013) and others involving Asian languages have linked Family Language Policy to trilingual children's identity formation (Shi, 2005, 2012; Wang, 2008). Shi's study (2005) on a Mandarin-English-Japanese speaking boy supports the hypothesis of multiple identity construction. In the current study involving two families, with one child each, various circumstances and language practices seem to affect significantly the children's self-identification and multilingual identity formation. For instance, one of the children, at the age of six, mathematically identified as 50% Australian, 25% Chinese and 25% Vietnamese. Such result would indicate significant and complementary roles for a multilingual and multicultural family context, as well as the societal-dominant environment, in identity construction.

Keywords: Trilingualism; Identity; Family language policy

## **(M-8) The impact of bilingualism on pronoun interpretation in focus and non-focus constructions**

*Aurora Bel, Rut Benito & Núria de Rocafiguera*

Beyond sensitivity of subject pronouns to syntactic cues (i.e. Position of the Antecedent Hypothesis, Carminati 2002), recent studies have also identified sensitivity to discourse-level cues, such as the informational status of the antecedent. In particular, they have identified a pro-focus effect that makes the focused antecedent more accessible in intersentential contexts (Cowles et al 2007) and an anti-focus effect that makes the antecedent less accessible in intrasentential contexts (de la Fuente 2015 for Spanish, Colonna et al 2012 for German and French, Patterson et al 2017 for German and Russian). However, to date, no studies have investigated the effects of marked information structures in bilingual populations, characterised by having competing resources that affect the integration of information in interface phenomena, as is the case with pronoun solving (Sorace 2016). Therefore, the aim of this research is to analyse the impact of focus on the interpretation of null and overt anaphoric subject pronouns in bilingual Spanish in contact with Catalan, a language with roughly similar pronominal resolution patterns (Bel and García-Alcaraz 2018).

A group of 24 Spanish-Catalan bilinguals completed a forced choice interpretation task in Spanish that tested four conditions: information structure (neutral SVO sentences vs. focused OSV object-cleft constructions), sentential relation (intersentential vs. intrasentential), position of the antecedent (subject vs. object) and pronoun type (null vs. overt). Inferential statistics (ANOVAs) revealed that, in intersentential contexts, focusing somehow enhances object antecedents, giving rise to a weak focus effect. In intrasentential focused clauses, null and overt pronouns do not show any bias and therefore the expected anti-focus effect is not attested. We argue that Spanish-Catalan bilinguals do not seem to reproduce the same patterns as Spanish monolinguals (de la Fuente 2015) and we discuss these findings in relation to Sorace's (2016) view that anaphora resolution is cognitively taxing for bilinguals.

Keywords: anaphora resolution; focus constructions; bilingualism

## **(M-9) Sustaining heritage language literacy through language brokering: A survey of Spanish-English bilingual brokers**

*Katarina Antolovic & Belem G. López*

Recently, studies have highlighted the need to examine variation among bilinguals and their enduring effects (Baum & Titone, 2014; Kroll, Dussias, & Bajo, 2018; López & Vaid, 2018; Takahesu Tabori,

Mech, & Atagi, 2018). Language brokering is an informal translation practice, whereby bilinguals translate between their heritage language and the majority language for family and community members (Morales & Hanson, 2005). This informal translation can occur in speech, but also in the written modality (e.g. translating applications, bills, etc). Previous research has revealed that language brokering correlates positively with reading comprehension in the majority language (Dorner et al., 2007). Therefore, language brokering may foster acquisition of key literacy skills in the dominant language (Orellana et al., 2003). However, the effect of brokering on heritage language literacy has not been investigated to date. The present study examined how language brokering experience modulates heritage language literacy. Spanish-English bilinguals from the southwestern United States completed an online language background and brokering questionnaire (López & Mancha-Sumners, in prep.), which included questions about speaking, comprehension, reading, and writing abilities in Spanish (i.e., heritage language) and English. The survey also included questions about bilinguals' frequency and context of language brokering experience. Specifically, brokers were asked about the types of documents they translated (e.g., bills, report cards, etc.), who they brokered for (e.g., mother, father), and in what contexts (e.g., school, home, etc.). We hypothesized that brokering experience would affect heritage language proficiency, such that more brokering experience would predict higher self-ratings of writing and reading proficiency in Spanish. Results are discussed in regard to language broker status predicting proficiency in reading and writing in Spanish. Furthermore, this study contributes to the literature on the impact of language brokering on bilingual development and presents theoretical implications for linguistic factors that prevent the attrition of heritage language literacy.

Keywords: language brokering; literacy; translation

## **(M-10) Collaborative Learning through Multilingual Inquiry: Examining How Students, Families, Teachers and Researchers Create Multilingual and Multimodal Books**

*Gail Prasad, Esther Bettney & Jungwon Hyun*

Recently, studies have highlighted the need to examine variation among bilinguals and their enduring effects (Baum & Titone, 2014; Kroll, Dussias, & Bajo, 2018; López & Vaid, 2018; Takahesu Tabori, Mech, & Atagi, 2018). Language brokering is an informal translation practice, whereby bilinguals translate between their heritage language and the majority language for family and community members (Morales & Hanson, 2005). This informal translation can occur in speech, but also in the written modality (e.g. translating applications, bills, etc). Previous research has revealed that language brokering correlates positively with reading comprehension in the majority language (Dorner et al., 2007). Therefore, language brokering may foster acquisition of key literacy skills in the dominant language (Orellana et al., 2003). However, the effect of brokering on heritage language literacy has not been investigated to date. The present study examined how language brokering experience modulates heritage language literacy. Spanish-English bilinguals from the southwestern United States completed an online language background and brokering questionnaire (López & Mancha-Sumners, in prep.), which included questions about speaking, comprehension, reading, and writing abilities in Spanish (i.e., heritage language) and English. The survey also included questions about bilinguals' frequency and context of language brokering experience. Specifically, brokers were asked about the types of documents they translated (e.g., bills, report cards, etc.), who they brokered for (e.g., mother, father), and in what contexts (e.g., school, home, etc.). We hypothesized that brokering experience would affect heritage language proficiency, such that more brokering experience would predict higher self-ratings of writing and reading proficiency in Spanish. Results are discussed in regard to language broker status predicting proficiency in reading and writing in Spanish. Furthermore, this study contributes to

the literature on the impact of language brokering on bilingual development and presents theoretical implications for linguistic factors that prevent the attrition of heritage language literacy.

Keywords: language brokering; literacy; translation

### **(M-11) L1 and L2 phonological activation in L3 lexical learning: an ERP study**

*Stanislav Mulik, Mara Pimentel & Haydée Carrasco-Ortiz*

Empirical evidence suggests that proficient bilinguals can activate words in both of their languages when processing words in either their L1 or their L2. The aim of the present study was to investigate whether such cross-language lexical activation also appears during third language (L3) lexical learning. More specifically, we examined whether phonological similarity between words of either one of the bilingual's languages with those in L3 would lead to activation of L1 and L2 words. Two experiments were carried out to test 18 and 14 late proficient Spanish-English bilinguals while they learned auditory words from a new language (Slovak as L3). The experimental stimuli consisted of 60 Slovak words with substantial phonological overlap with either the bilinguals' dominant language (e.g. Slovak / ku a/ "chicken" with Spanish homophone "cura" /ku a/ "priest") or their non-dominant language (e.g. Slovak / ip/ "arrow" with English homophone "sheep" / ip/). Sixty matched control words had no phonological overlap with either Spanish or English words. Learning performance was determined by the participants' accuracy, reaction times, and the number of correct Slovak-Spanish translations they provided after each learning session (Experiment 1), and by recording bilinguals' neural responses to the auditory Slovak words by means of event-related potentials (ERPs), both before and after the three learning sessions (Experiment 2). Behavioral results showed similar learning facilitation effects of L1 and L2 homophony, despite English not being explicitly present in the learning task. Preliminary ERP results before the learning task showed that, compared to control words, homophones from both languages elicited smaller N400 responses, which suggests the activation of both bilinguals' languages during L3 word learning. After the learning task, however, a reduced negativity was observed for L1 homophones but not for L2 homophones, which points to a different contribution of L1 and L2 knowledge in the process of learning new L3 words.

Keywords: Parallel activation; Interlingual homophones; N400

### **(M-12) Narrative abilities in bilingual children with autism**

*Piyush Sone, Sapna Bhat, Prarthana Shivabasappa & Vishnu KK Nair*

Measuring oral narrative skills is one of the most reliable ways to assess language abilities in young children. Oral narratives provide a rich naturalistic data and an accurate understanding of a wide range of linguistic abilities including vocabulary and morphosyntax. Although narrative abilities are widely investigated in typically developing children, there is a lack of understanding into the narrative production in bilingual children with Autism Spectrum Disorder (ASD). Most of the norm referenced language tests are available in a majority language (mostly English), and it is challenging to appropriately measure language abilities in both the languages for children growing up in bilingual environments. Investigating narrative abilities in bilingual children with ASD provide a less biased understanding into the nature of linguistic abilities in both the languages. The present exploratory study focused on examining narrative production in ten Marathi-English bilingual children with ASD in the age range of 4 to 8 years and compared their performance with twelve typically developing Marathi-English bilingual children. Oral narratives were elicited in both languages using the picture

book One Frog too Many (Mayer and Mayer, 1975). The participants' language abilities were measured using a number of standardized tests (e.g., Clinical Evaluation of Language Fundamentals-5, Wiig, Semel, & Secord, 2013). The data collection is currently ongoing. The results will report microstructure and macrostructure analysis such as goals and lexical diversity in both languages for all language groups. Differences in macrostructure and microstructure abilities and comparison of performances in standardized language and narration tasks between language groups will be discussed.

Keywords: Narrative abilities; bilingualism; Children with ASD

### **(M-13) Gender agreement production by multilingual Russian heritage speaking children in Catalan/Spanish environment**

*TAMARA VOROBYEVA & AURORA BEL*

This study investigates the command of gender agreement by young speakers of heritage Russian (L1) and Spanish and Catalan (L2s). Previous research has shown that gender is challenging for both bilinguals and L2 learners (Polinsky 2008, Tsimpli 2014) and that L2 crosslinguistic influence plays a role on L1 gender features in case of microparametric differences (divergent gender values between languages; Schwartz et al., 2014). Whereas Russian has three gender categories (masculine, feminine and neuter), Spanish and Catalan only distinguish masculine and feminine and incongruencies between languages appear (non-equivalent pairs between Russian and Spanish/Catalan). Russian exhibits gender agreement on adjectives at the nominal level (as Spanish/Catalan) and on past tense verbs at the sentential level (different from Spanish/Catalan); we concentrate here on attributive and locative copular verbs in the past tense (stol byl krasnyj; 'table was.MASC red.MASC. '); the copula is omitted in the present tense. Under these conditions, the command of gender becomes a challenge for young bilinguals and different questions arise: (i) do HSs show difficulties with gender agreement?, (ii) does marking transparency help gender knowledge?, (iii) are there (in)congruency effects of the L2s gender features?, and (iv) are there differences between gender agreement on adjectives and verbs?

Thirty Russian HSs (Spanish/Catalan L2s) (aged 7-11) and 24 matched monolinguals completed four semi-elicited oral production tasks, each for one agreement construction, and were asked to describe pictures orally. Inferential analyses showed that (1) transparency has a significant effect on gender agreement accuracy: opaque nouns are error-prone in all gender features, (2) masculine gender accuracy is close to monolinguals whereas neuter is the most vulnerable gender, (3) no great impact of crosslinguistic influence is attested (unlike L2 adults, Kupisch et al 2013), and (4) subject noun-verb gender agreement seems more complex than noun-adjective agreement (both in NPs and in attributive null-copula clauses).

Keywords: HERITAGE SPEAKERS; GENDER FEATURES; BILINGUALISM

### **(M-14) The identity of Malaysian Mandarin by Malaysian Chinese and Mainland Chinese college students: an index for global Mandarin**

*Xiaomei Wang*

This paper discusses how Malaysian Mandarin is perceived by Malaysian Chinese and mainland Chinese college students against the framework of Global Mandarin. Malaysian Mandarin in this paper refers to the regional variety of Mandarin, which shares most linguistic features with Putonghua in China and other varieties of Mandarin elsewhere but has its own lexical, phonetic and syntactic

characteristics. In this study, seven different grammatical structures of Malaysian Mandarin are identified based on current literature and used in matched-guise test and questionnaire survey. For the matched-guise test, two pieces of stimuli of Malaysian Mandarin and standard Mandarin on the topic of Chinese New Year are used. The questionnaire survey aims to investigate the subjects' attitudes towards these grammatical structures. The target subjects for this study are college students from both Malaysia and China. The results of the study will shed lights on the understanding of global Mandarin, which is claimed to be the lingua franca of the Chinese worldwide based on Putonghua. In particular, the findings of the study will indicate whether Malaysian Mandarin is accepted by Mandarin speakers from other regions, which is an important index for the formation of global Mandarin.

Keywords: global Mandarin; Malaysian Mandarin; language identity

## **(M-15) Cantonese heritage speakers' online processing of English: Evidence from eye movements in the visual world paradigm**

*Haoyan Ge, Stephen Matthews & Virginia Yip*

While heritage speakers' minority languages have been found to be vulnerable in interface constructions (Montrul, 2006, 2010), there remains relatively little work focusing on their dominant language. This study investigates Cantonese heritage speakers' online processing of focus in their dominant language, English.

The interpretation of focus in English only-sentences involves prosody and semantics. Different prosodic placement triggers different interpretations of a sentence with the focus particle only and affects its truth-condition (Rooth, 1992). By contrast, the use of prosody to realize focus in Cantonese is confined to duration- and intensity-related cues. Rather, Cantonese uses focus particles and varies word order to achieve the same purpose.

In this 'visual-world' eye-tracking experiment, we investigated the processing of only-sentences with prosodic prominence on either the object or the verb:

- (1) The dinosaur is only carrying the BUCKET.
- (2) The dinosaur is only CARRYING the bucket.

The participants include Cantonese-English bilinguals who are heritage speakers of Cantonese (N = 11, mean age = 21) and native speakers of English (N = 40, mean age = 22). Participants heard auditory stimuli while looking at four pictures with their eye movements being recorded. All the heritage speakers acquired Cantonese from birth at home and English from the community, with English as their dominant language when they were tested.

Our results revealed that while the native controls showed anticipatory eye movements based on prosodic cues during the auditory processing, the heritage speakers' eye movements were similar across conditions regardless of the placement of prosody. Heritage speakers thus behaved like the Cantonese L2 learners of English as reported in Ge et al. (2017). This result indicates that the heritage speakers have difficulty with integrating prosodic information into semantic parsing, even in their dominant language. The findings deepen our understanding of interface vulnerability in heritage speakers' dominant language.

Keywords: Heritage speakers, dominant language, eye-tracking

## **(M-16) Subject-Verb code-switching between French and Spanish: The view from language dominance**

*Juana Licerias, Kassandra Ayala-Nájera & Estela García-Alcaraz*

Spontaneous and experimental code-switching data evidences that switches involving Determiner Phrase (DP) subjects (this student parle japonais/ cet étudiant speaks Japanese) are both produced and accepted by bilinguals from different language pairs while those involving pronominal subjects (she parle japonais / elle speaks Japanese) are seldom found in spontaneous speech and are highly dispreferred regardless of language dominance. This has been accounted for by the 'Phonetic Form Interface Condition' which is said to prevent mixed- language complex heads involving a weak pronoun and a verb. However, under the assumption that strong pronouns as the French or Moroccan Arabic strong pronouns in moi dxlt (I went in) or nta tu vas travailler (you go to work) behave like DPs, these sequences would be accepted because the condition would not be violated. However, to the best of our knowledge, the status of S-V switches involving strong pronouns (Lui speaks Japanese) or strong-weak pronoun sequences (Lui, il speaks Japanese) has not been investigated.

In order to determine whether subject strong pronouns have the same status as DPs in bilingual grammars, we have administered a Forced-Choice Task and an Acceptability Judgements Task to three groups of adult bilinguals: 10 L1 French/L2 Spanish, 10 L1 Spanish/L2 French, and 10 Heritage Spanish/French dominant.

The results from the two tasks reveal that none of the three groups show a preference for strong pronouns or strong-weak sequences over weak pronouns. We argue that the divide occurs between DP and pronominal subjects and that this may be due to a difference in the status of the Nominative Case and Agreement features in the two categories. We also argue that experimental data involving code-switched structures constrained by principles proposed by formal linguistics constitute an excellent ground to investigate how language is represented in the mind of the bilingual.

Keywords: weak/strong pronominal subjects; subject/verb code-switching; L1 French Heritage Spanish speakers

## **(M-17) The processing of cognates in second language learning: strengthening lexical connections in the developing bilingual lexicon**

*Jamile Forcelini*

The main goal of the present study was to investigate whether morphophonological features between English-Spanish cognates can contribute to a stronger L2 representation. It intended to attest if different degrees of overlap between English (L1) and Spanish (L2) cognates, can have an impact in L2 cognate processing. Semi-identical cognates, non-cognates and pseudowords in Spanish were included in this experiment. Cognate words were manipulated according to their degree of morphophonological overlap. The Levenshtein Normalized Distance measure (Schepens et al., 2012), was used as a measure of orthographical and phonological overlap. In addition, word length and frequency were also included as a control measure. A total of 150 bilingual speakers were recruited. All participants were enrolled in third level Spanish classes and performed a pre and post lexical decision

task (LDT) in Spanish as the main measure of L2 representation. Accuracy and reaction times (RTs) were recorded. After the pre LDT was conducted, participants watched an explicit-driven pedagogical tutorial on L2-Spanish cognate formation, in order to expose them to overlapping morphological lexical features in terms of formal cognate possibilities and constraints. Lastly, participants also completed a post LDT and a language history questionnaire about their language learning record. After data analysis is complete, it is hypothesized a higher overlap between cognates will actually result in slower lexical processes due to the dual lexical activation and cognitive competition in the bilingual mind. However, it's believed explicit tutorial will diminish competition, facilitate lexical retrieval and contribute to a stronger L2 Spanish lexical representation.

Keywords: L2 lexical representation, cognate processing, processing-oriented instruction

### **(M-18) Growing up monolingually: Experiences of language loss by adult mixed-ethnic children in Japan**

*Janice Nakamura*

In Japan, non-Japanese parents in exogamous families do not usually speak their minority language to their children (e.g., Yamamoto, 2005). This study investigates the experiences of minority language loss by adult mixed-ethnic children. It specifically examines the reasons for non-transmission of the minority language and the participants' perceptions of their language loss in adulthood. Nine participants (ages 18 to 22) whose one parent is Japanese, and another parent is either from the Philippines, Thailand, Iran, Pakistan or Ghana shared their language experiences in their childhood and teens. Transcripts from two 60-minute interviews with each participant were analyzed using the constructivist grounded theory approach (Charmaz, 2014). Findings that emerged from the initial coding and focused coding of interview data revealed that the monolingual participants grew up in a home environment where the exogamous marriages of their parents were disapproved by their Japanese grandparents who lived in the same household. Their parents' desire to assimilate into the Japanese family and society as well as their ideologies about language learning/teaching did not support ML use. The learning of English was also prioritized over the minority language for academic and career purposes. Their parents' use of Japanese made little difference to the participants because they received little support in doing their school homework and continued language brokering for their parents even in adulthood. In retrospect, most of the participants wished that their parents had spoken their minority language with them and expressed regret over their missed opportunity to acquire it in childhood. These results suggest that minority parents who are raising their children monolingually in the societal language need to consider the possibility of such 'language regrets' by their children after they have grown up.

Keywords: minority language loss; mixed-ethnic; intergenerational transmission

### **(M-20) Family Language Policy among second and third-generation Turkish parents in Melbourne, Australia.**

*Tülay Et-Bozkurt*

The research findings is informed by Family Language Policy, qualitative data on the maintenance and use of Turkish language by second and third-generation speakers across Melbourne, Australia. Investigating the next generation's bilingual outcome, the research explored the language use and choice patterns of second-generation Turkish parents, particularly, in raising their children, third-

generation Turkish speakers. The research involved case studies of forty-five families (all parents being Turkish), and included observations and interviews, examining the use of the community language within the second-generation and specifically, the third-generations' use of Turkish language. The effects of social media, the Internet and other related technologies on language management practices of Turkish families were also analysed. The findings show that whilst most parents aim to establish a strong foundation promoting Turkish cultural identity and Turkish language maintenance, for many third-generation speakers there is a notable language shift. Both observational and interview data found the following impacting, relative factors: views of the language prestige, values in maintaining Turkish and a connection to mother tongue and heritage land, parents and grandparents' active role in child's literacy and language promotion, changes in parenting styles and expectations (from first-generation), and a shift in learning practices of third-generation. The latter included underlying aspects concerning: resilience and mental health, drug and peer influences, interracial relationships, individual learning and subject preferences (i.e. choosing whether to study Turkish and thereby pursuing bilingualism), and furthermore, impacting lower levels in attention retention and literacy. The findings revealed some gaps between parents wanting their children to speak Turkish, but conflicting with either determining knowledge of the culture alone as adequate to Turkish language maintenance, and/or highlighting the short-comings of parents' own bilingual skills in the management process of fostering ongoing Turkish language maintenance within the family home.

Keywords: Turkish; Family Language Policy; Bilingual Language Maintenance

## **(M-21) A Sociocognitive Cross-sectional study of Metasyntactic Awareness and Cross-linguistic influence in French-Norwegian bilingual children in Oslo**

*Sébastien Lucas*

Recent studies on second language acquisition and bi/multilingualism have shown evidence of cross-linguistic influence when assessing metalinguistic awareness. Syntactic transfers related to word order patterns between two languages have been well-documented. However, to date no research has investigated that link between French and Norwegian, and bilingual family language policy.

In a sociocognitive, Bilingual First Language Acquisition framework, using a mixed method research design, this cross-sectional research aims to investigate the link between cross-linguistic influence in bilingualism between French and Norwegian, metasyntactic awareness, and family language planning and practices. Firstly, French-Norwegian bilingual children in the 5th grade (n=33) and French children living in France (n=30) judged French sentences in a reading grammaticality judgement. Two specific Norwegian grammatical features were found to be potential sources of ungrammaticality: verb placement or use of preposition in prepositional verb. Secondly, Judgment strategies and corrections were collected in semi-structured interviews of some French-Norwegian bilingual children (n=14). Thirdly, parents (n=66) were asked to answer a sociolinguistic questionnaire informing about their attitude towards code-mixing and their corrective feedback.

Results obtained from reading grammatically judgement task show high scores and no significant differences between French-Norwegian bilingual and French monolingual groups for grammatical/ungrammatical verb-placement related sentences. By contrast, monolingual group outperformed significantly their bilingual peers when the ungrammaticality came from preposition use. Thus, it suggests the existence of syntactic cross-linguistic transfer only when prepositions are involved. Moreover, qualitative analysis of metalinguistic discourse suggests metasyntactic skills, cross-linguistic awareness through explicit comparison between both languages, cross-linguistic influence

from Norwegian to French, and controlled activation/inhibition of languages. Finally, questionnaires show attention towards code-mixing, explicit planning, and use of explicit corrective strategies.

Findings contribute to our understanding of the link between cross-linguistic awareness, metasyntactic awareness in childhood bilingualism and family language planning and practices as well as of cross-linguistic transfer during reading comprehension task.

Keywords: sociocognition; metasyntactic awareness; crosslinguistic influence

## **(M-22) Priming cross-linguistic influence: evidence for shared syntax in bilingual children?**

*Sharon Unsworth*

**BACKGROUND** It has recently been suggested that cross-linguistic influence (CLI) in bilingual children can be conceptualized as cross-language structural priming (Hervé et al., 2016; Serratrice, 2016). This study tests this proposal by manipulating surface overlap – a factor found to modulate CLI in earlier work (e.g., Hulk & Müller, 2000) – in the possessive NPs of English-Dutch and Spanish-Dutch bilinguals. Like English ('the-astronaut's-father' vs. 'the-father-of-the-astronaut'), Dutch allows both prenominal and postnominal possessives ('de astronaut z'n-vader' vs. 'de-vader-van-de-astronaut') but preferences across the two languages differ. Spanish only allows postnominal possessives (\*'el-astronauta-su-padre' vs. 'el-padre-del-astronauta'). Our hypothesis is that both cross- and within-language priming should be possible and this will be modulated by structural overlap, i.e., English-Dutch bilinguals will show greater priming effects for prenominals and Spanish-Dutch bilinguals for postnominals.

**METHOD** Participants were 27 English-Dutch bilinguals, 26 Spanish-Dutch bilinguals and 26 Dutch monolinguals, aged 5 to 7. Pre- and post-nominal possessives were primed using a "snap" game (Messenger et al. 2012) with a baseline, priming and post-test phase (Skarabela & Serratrice, 2009). There were two sessions: within-language (Dutch to Dutch) and cross-language (English/Spanish to Dutch).

**RESULTS** As predicted, cross-language priming was observed in both bilingual groups. In line with the adult psycholinguistic literature, this suggests that children may share syntactic representations across languages (Hartsuiker et al., 2004; Vasilyeva et al., 2010). Within-language priming was observed in all three groups but contrary to expectations, there were no group differences, i.e., surface overlap did not modulate the extent of priming effects (Foroodi-Nejad & Paradis, 2009). Given the considerable individual variation in all groups, we explore whether language proficiency, exposure and use – all factors known to affect priming in adult bilinguals (Van Hell & Tanner, 2012) – may explain our findings.

Keywords: bilingual children; structural priming; cross-linguistic influence

## **(M-23) How different code-switching types modulate bilinguals' executive functions - a dual control mode perspective.**

*Julia Hofweber, Jeanine Treffers-Daller & Theo Marinis*

This study tests the hypothesis that code-switching and executive functions (EFs) share underlying cognitive processes. Most studies on the relationship between code-switching and EFs have focused on experimentally induced language-switching,

which differs fundamentally from naturalistic code-switching. In our study, we assessed the code-switching habits of German-English adult bilinguals (N=43) using a novel judgement task based on stimuli from corpora. Our findings reveal bilinguals to selectively outperform monolinguals at the EFs trained by their code-switching practices, underlining the importance of sociolinguistic variables in bilingualism research.

Crucially, we differentiated between different types of code-switching (Muysken, 2000) predicted to engage different aspects of the executive system (Green & Wei, 2014; Hofweber, et al., 2016). Our findings suggest that code-switching mechanisms are best explained by a dual control perspective, differentiating between reactive and proactive monitoring (Braver, 2012). Bilinguals engaging in Alternation, i.e. switching between longer stretches of language, displayed performance enhancements in flanker tasks requiring infrequent reactive inhibition. Dense code-switching, which involves sustained monitoring, explained performance in flanker tasks involving frequent proactive monitoring. Furthermore, a correlation between Dense code-switching and response inhibition suggested that linguistic co-activation may persist during articulatory production stages. Our results suggest that a fine-grained analysis of different code-switching patterns reveals crucial insights into the control processes underlying code-switching, thus informing the ongoing debate on the interaction of bilingualism with executive functions.

Keywords: bilingualism, code-switching, executive functions

### **(M-24) Moving towards the majority language?: 1pl verbal morphology in Picard**

*Julie Auger & Anne-José Villeneuve*

Endangered regional minority languages of Northern France face challenges in their quest for recognition, due to their perceived similarity with French. Picard is no exception. While scholars recognize that the two languages' phonology and lexicon differ considerably, Éloy (1997:137) argues that it is not the case for morphosyntax. Suspecting that such assessments rely on superficial comparisons, we carefully analyzed data collected from a bilingual Picard–French community of practice located in rural Picardie to determine how much Picard and French morphosyntax truly differ.

This paper examines 1pl verbal morphology, a variable which, superficially, seems to support Éloy's convergence claim.

FRENCH      PICARD

1pl FORMS Nous allions au lycée Oz allons rpèrler

'We went to high school' 'We are going to talk again'

3sg FORMS On va essayer O va pas rvnir

'We are going to try' 'We are not going to come back'

We compare older and contemporary Picard written data, as well as contemporary oral data from bilinguals, and show that the two languages use their shared structures differently. Indeed, a preliminary analysis points to apparent structural convergence, as the change from 1pl to 3sg morphology is quite advanced in French (Coveney 2000), and use of the 3sg form appears to be increasing in Picard, based solely on the distribution of forms. However, a detailed analysis of linguistic factors (e.g., pronoun reference, verbal aspect) indicates that the innovative form is primarily associated with indefinite reference in Picard, an intermediate stage which precipitated the change in French (King, Martineau and Mougeon 2011), as well as with habitual aspect.

Thus, our examination of this variable demonstrates the importance of carefully considering linguistic conditioning through the comparative method when assessing language change, especially when testing popular claims that a minority language is converging toward its dominant counterpart in a bilingual community.

Keywords: minority languages; language change; morphosyntax

## **(M-25) Ethnolinguistic Vitality, Ethnic Affiliation, Parental Effort and Heritage Language Maintenance in Southern California**

*Sara Castro, Madeleine Holtz, Nubia Ku & Malcolm Finney*

This research appraises effects of ethnolinguistic vitality, ethnic affiliation, and parental effort in maintenance of Spanish, Tagalog, Zapotec and Yucatec in California. Children tracing heritages to these languages exhibit tremendous variation in degrees of HL proficiency primarily due to pressure to accentuate their English language development. When families strive to preserve the heritage language (HL), several mitigating factors outside their control create obstacles and challenges.

The HLs in our study enjoy varying degrees of ethnolinguistic vitality (status, size, cohesion, etc.) and valorization in California. Spanish enjoys vitality and is valorized; Tagalog does to a lesser extent. Communities of both HLs nevertheless sometimes encounter difficulty maintaining the languages because of the expectation and immense pressure for HL children to develop English proficiency. Zapotec and Yucatec are increasingly marginalized indigenous languages in Mexico because of Spanish dominance. Pockets of California communities tracing lineages to these languages encounter insurmountable challenges in maintaining these languages in the US, with Spanish being the default HL emblematic of Mexican immigrants. Perceived valorization/marginalization of the HL impacts children's level of cultural affinity toward the HL-speaking group and motivation to maintain the HL. An overarching objective of our research is to identify and analyze, using information solicited through surveys of and interviews with children and adults, family and community attitudes and practices that influence the preservation or loss of HLs of varying degrees of ethnolinguistic vitality and valorization. The goal is to assess such attitudes and practices from the perspectives of both HL parents and children.

Results to-date (9 parents and 13 children) indicate a general trend of generational HL loss, despite parents' and children's acknowledgment of practical and cultural significance of HL maintenance. Positive attitudes are not always matched by parental effort. There is a discrepancy between parents'

and children's perceptions parental effort in HL maintenance.

Keywords: Heritage-Language-Maintenance; Language-Valorization; Parental-Effort

## **(M-26) Family Language Policy in Three Generations: Bilingual Strategies in Swedish-Finnish-speaking Families**

*Sannina Sjöberg*

The aim of the study is to examine how language use appears in bilingual Swedish-Finnish families in Finland. The essential focus is to identify how bilingualism in the family is maintained from one generation to another, particularly when considering the role of grandparents and societal attitudes. The methods for collecting data are semi-structured interviews with family members and observations of language use between them via sound recordings, film clips etc. This is collected by the informants themselves using their smartphones. The method for analyzing data is nexus analysis, an ethnographic discourse analytic method, where the focus lies on social action, in this case the language use within the family. Those taking part in the pilot study are a parent and a grandparent from a bilingual family. The preliminary results from the pilot study show that the language strategy used in the family in question is "one person – one language". The father speaks Finnish and the mother Swedish with their three children. The mother and father speak Swedish with each other and the children also speak Swedish with each other. The paternal grandmother speaks Finnish while both maternal grandparents speak Swedish with their children and grandchildren. According to the informants in the pilot study, parents need to be firm, supportive and consistent about their language use and choices in order to succeed in raising bilingual children. The informants emphasize that grandparents need to be natural role models and representatives of a language and culture in order to motivate and support children's bilingual development. The informants believe that school activities should support and encourage bilingual children more, rather than restricting them to a monolingual norm.

Keywords: language brokering; literacy; translation

## **(M-27) Developing abstract representations of passives: Evidence from bilingual children's interpretation of passive constructions**

*Elena Nicoladis & Sera Sajeew*

According to usage-based theories, children initially acquire surface-level constructions through usage before being able to abstract. Bilingual children use each of their languages less than monolinguals and might therefore show lags relative to monolingual children early in acquisition. However, when they can rely on abstract representations of constructions, they should be able to transfer the knowledge from one language to another. In this study, we test the prediction that younger bilingual children will show little signs of transfer while older bilingual children will be able to rely on transfer across languages. We focused on passive constructions. Full passives are formed in the same way in French and English. Therefore, one sign of French-English bilinguals' transfer from the other language is that they perform better than expected from the amount of exposure to each language. Previous studies have shown that abstract knowledge about passives starts to emerge around the age of three years and gets better through middle childhood. In the present study, children between three and six years of age interpreted passive constructions. French-English bilingual children did so in both of their languages and English monolingual children in English. As predicted, younger bilingual

children showed only weak signs of positive transfer across languages: they were less accurate than same-aged monolingual children. In contrast, the older bilingual children showed stronger signs of positive transfer, scoring just as many correct as same-aged monolinguals, despite less exposure to English. These results are consistent with the argument that children develop increasingly abstract representations of linguistic constructions over time. Once bilingual children have developed these abstract representations, they may not lag behind monolingual children, despite less input.

Keywords: passives; cross-linguistic transfer; abstract representation

## **(M-28) The Impact of Bilingual Childrens Interactional Context of Conversational Exchanges on Attentional Control**

*Hwajin Yang, Wee Qin Ng, Andree Hartanto & Sujin Yang*

Drawing on the adaptive control hypothesis (Green & Abutalebi, 2013), we investigated the impact of child bilinguals' interactional contexts on attentional control. Adult bilinguals' disparate interactional context has been suggested to modulate bilingual advantages in task-switching (Hartanto & Yang, 2016). However, there is a dearth of research that has investigated how young bilinguals' interactional context would affect attentional control during early childhood. Hence, we tested eighty-six bilingual preschoolers (43 months to 77 months) on (a) the Attention Network Test (ANT) as a measure of executive attention—alerting, orienting, and executive control—(b) Track-It as a measure of sustained attention, and (c) the Dimensional Change Card Sort Task as a measure of attentional flexibility.

We generated the index of bilingual children's interactional context based on parent-reported measures of the child's English and Non-English usage at home. Given that dual-language context (DLC) bilinguals use different languages within the same context, they should remain alert to readily detect and orient to different linguistic cues and resolve conflicts between them while sustaining attention to the relevant language throughout subsequent language switching. In contrast, given that single-Language context (SLC) bilinguals speak only one language in one environment, they do not necessarily undergo the same cognitive demand on their attentional control as their DLC counterpart. Thus, we hypothesized that young bilinguals' engagement in DLC would positively predict performance on executive attention and sustained attention. Our hierarchical analysis revealed that the index of young children's DLC predicted (a) heightened alerting (in accuracy), especially in the no-cue compared to double-cue conditions and (b) better sustained attention (in accuracy) when controlled for demographic characteristics (age, sex, and household income) in Step 1 and cognitive variables (receptive vocabulary for English and intelligence) in Step 2. Our findings underscore the modulating role of the child bilingual's interactional context in attentional control.

Keywords: Interactional context; attentional control; early childhood

## **(M-29) The role of language switching in the cognitive functioning of bilinguals**

*Rita Gross & Kaori Kubo Germano*

Studies exploring the effect of bilingualism on cognitive functioning have produced ambiguous findings, resulting in some debate about whether or not there is an advantage for bilinguals. There is some evidence that bilinguals may experience some cognitive costs when switching between their languages. This is reasonable, given the overlap in areas of the brain that are activated during language switching as well as during cognitive flexibility tasks. Festman and

Muente (2012) found that bilinguals who made fewer accidental language switches within a conversation performed better on a cognitive flexibility task than bilinguals who made more accidental language switches. In contrast, Jyllkae et al. (2017) found that a participant's language switching habits were not related to their performance on a cognitive flexibility task. However, neither of these studies considered a potential cultural third variable that could affect both language and cognitive processes. The present study examines the relationship between language switching and cognitive flexibility in a sample of English-German bilingual adults living in Munich, Germany as well as those living in New York. We chose these samples specifically to address the potential influence of cultural identification and norms on performances on switching tasks. The main hypothesis underlying this study is that there is a relationship between language switching ability and cognitive flexibility, such that bilinguals who make more unintentional language switches will make more perseverative errors and longer reaction times on cognitive flexibility tasks. The participants will be assessed on their language use, bilingual fluency, and their language switching abilities. They will also undergo a standardized cognitive switching task before completing a measure of their acculturation to their places of residence. We predict acculturation will moderate any relationship we find between performances on the switching and flexibility tasks.

### **(M-30) Implementing Dual Language Programs in Low-Income Neighborhoods with Shifting Demographics in Urban Centers in the U.S**

*Higinia Torres, Rimbau*

While the increasing segregation of ethnic minorities in urban schools due to poverty and immigration has been extensively documented (Orfield, 1996; 2014), implementation of innovative language programs in a mixed African-American, Latino context is a fairly recent phenomenon. However, given that shifting demographics in neighborhoods with a heavy African-American presence is becoming increasingly common in large urban centers, in the U.S., language programs are no longer limited exclusively to serving the needs of a mostly Latino, English learner (EL) population. For example, few studies have examined the effects of combining two groups often labeled as low-performing in additive bilingual programs such as dual language immersion, a model that has resulted in high levels of language proficiency and academic achievement for both ELs and mostly middle-class English speakers (Lindholm, 2014; Thomas & Collier, 2002; Valentino & Reardon, 2015).

This presentation will examine two programs from the perspective of teacher-informants currently assigned to different schools with similar African-American to Latino population shift. Both schools formerly enrolled a predominantly African-American population and now find themselves with an increasingly significant number of Latino students due to the gradual increase of a recently-arrived immigrant population.

Respondents were interviewed utilizing a structured interview protocol specifically designed for this study. The protocol included 21 open-ended questions that targeted program implementation issues (i.e., assessment and accountability, curriculum, instruction, staff quality, professional development, program structure, family and community, support and resources).

Common themes emerging from the two structured interviews provide a portrait of two dual language programs with very similar characteristics. The study describes the significance of administrative support and thorough planning, characteristics that adhere to proven guidelines for effective program implementation. Presenters will share the questionnaire specially designed to collect data for this

study.

Keywords: Dual Language Programs; low-performing schools; Urban centers

## Tuesday Talk Abstracts

### Theme Session Chair

#### **Designing Teaching and Learning through the Prism of Children's Plurilingualism: Theory, Practice, Partnership and Policy**

*Gail Prasad*

*Location: BS M 145*

Linguistic diversity is a defining feature of classrooms today. Traditionally, schools force English Learners to leave their cultural and linguistic repertoires at the door of their classrooms, resulting in poor educational outcomes, family language loss (Wong-Fillmore, 2005), and identity devaluation (Cummins, 2018; Flores, 2016). As schools are increasingly filled with students from diverse backgrounds, it seems negligent, if not altogether wasteful, to ignore the linguistic and cultural resources within a school's very own language ecology as resources for developing all learners' critical multilingual language awareness (CMLA) (Garcia, 2017; Helot, 2018) and their appreciation for diversity. For young learners, who begin navigating multiple different spheres outside their homes, it is crucial for teachers to support children in bridging multilingual and multicultural worlds.

This panel reports on various aspects of an ongoing research-practice partnership at Diversitas school, a culturally and linguistically diverse school in the US Midwest, investigating how teachers can leverage students' communicative repertoires across the curriculum for identity affirmation, academic achievement and greater social appreciation of diversity. We focus on the following question: Does transforming multilingualism and linguistic diversity from a problem into a resource have positive impacts on all students? Each of the three papers focuses on designing and implementing teaching and learning through the prism of children's plurilingualism (Prasad, 2015) based on the five principles of Collaborative Learning through Multilingual Inquiry (CLMI) (Prasad, submitted). The papers draw on various data sources, both qualitative and quantitative, to explore how a plurilingual approach to teaching and learning impacts students, families and language policies and practices within multilingual classrooms. The panel includes an initial overview by the Principal Investigator of key theoretical constructs that have shaped this on-going research-practice partnership including multi-/ plurilingualism, multiliteracies and language awareness. Following the three papers, the Discussant, Dr. Christine Helot will offer remarks in relation to international efforts to build CMLA and point to further questions and directions for CMLA research in schools before opening up a discussion amongst panelists and the audience.

### Theme Session Chair

#### **How studying early infancy informs our understanding of bilingual language development**

*Stephanie De Anda & Krista Byers-Heinlein*

*Location: BS M 149*

The last few decades have shown a marked increase in bilingual research in young children. Equally important is developing theory, models, and new hypotheses that synthesize this empirical work to provide a unified framework for understanding bilingualism. The present symposium seeks to provide a developmental lens to the empirical findings of this recent surge in research on these

youngest members of the next generation of bilinguals. Through a series of papers and discussion, the symposium aims to engage the following question: how does the study of early infancy provide models and hypotheses about developmental change in bilingual language acquisition?

The first paper examines the utility of Dynamic Systems Theory as a theoretical framework for describing early bilingual development. Predictions and hypotheses will be evaluated against extant empirical evidence in infants. In this talk, we will propose that the increased variability observed in early development makes it a ripe area of research from which to refine and extend theories about bilingual language development. The papers that follow present two case studies of this approach, demonstrating the utility of examining early infancy in increasing our understanding of the developmental process of (a) language learning and (b) language separation.

Specifically, the second talk compares language learning in monolinguals and bilinguals across several domains (i.e., word segmentation, phonology, word learning). Specifically, this paper proposes that the comparison between monolingual and bilingual infants has led to more evidence demonstrating similarities than differences in language learning between groups. Infants approach the problem of language similarly; monolingual and bilingual infants meet the same milestones and share similar processing skills in learning the sounds and words of the ambient language(s). The talk will show that a developmental focus on early infancy has informed this characterization of monolinguals and bilinguals. This will be followed by a discussion of the importance of replicating findings across development to capture trajectories of change in single and dual language contexts.

Next, the third talk puts forth a new hypothesis about language differentiation: the Gradual Language Separation Hypothesis which proposes that separation itself occurs gradually across the first years of life. That is, children come to distinguish their two languages through a sequential process that occurs across increasingly granular parts of language (sentences, words, phonemes) as more general capacities to process and represent language also develop. This hypothesis is based on a series of recent innovative empirical studies that inform our understanding of the process by which young children learn to disambiguate their two languages over time. The talk concludes with guidance for future infancy research in evaluating the proposed hypothesis.

Together the set of papers synthesize extant bilingual research in infants through a developmental perspective. The symposium will show how the systematic study of language in early childhood can inform methods, theories, and hypothesis about bilingual development that move the field forward. The panel will end with a discussant who will present an analysis of the three papers and an examination of how they extend our current understanding of early bilingual language development.

Keywords: infants; development; toddlers

## **Theme Session Chair**

### **The effect of bilingualism on cognitive control under scrutiny**

*Julia Festman & John Schwieter*

*Location: CCIS 1 140*

Bilingual and multilingual populations are steadily growing. However, it is still unknown how exactly bilinguals manage two or more language systems in their daily interactions and how being bilingual affects brain functioning and vice versa. Previous research showed that cognitive control plays a key role during bilingual language management. This is further supported by the fact that knowing

additional languages affects not only linguistic domains, but also other non-linguistic domains, such as cognitive control, attention, inhibition, working memory, etc. Learning languages seems to affect executive/brain functioning. In the literature, this is referred to as the bilingual advantage: people who know two or more languages outperform monolinguals in executive functioning (EF) skills.

The complexity of the EF construct is indeed difficult to tease apart for a number of reasons (Valian, 2015). One of these may be due to the fact that many prior studies have tested a variety of different EFs and types of bilinguals. While recent meta-analyses on the bilingual advantage debate have attempted to separately analyze variables such as inhibition, working memory updating, task switching, etc. (Ioannidis, 2016), there are still ongoing challenges regarding task differences and bilingual experiences that may lead to inconsistent findings.

Although there has been considerable evidence supporting this, recent reviews have put forth alternative explanations suggesting that such advantages are not fully understood and that they may be restricted to certain cases (Hilchey et al., 2015; Papp, 2019). Other researchers stress the impact that a number of confounding factors presumably have on the bilingual advantage, as noted by Bak (2016), “in many societies bilingualism can be associated with higher as well as lower educational, professional and economic background, so its effects can be either potentiated or attenuated by these variables” (p. 711).

Given that the search for identifying the influence of these variables on cognitive control is ongoing and timely, this thematic session aims to discuss new approaches that intersect with this debate. Bringing together researchers from Canada, Korea, Belgium, Austria, and Germany, the thematic panel reflects an interdisciplinary group of researchers who specialize in linguistics, psycholinguistics, psychology, cognitive neuroscience, and neuroscience. The papers take an in-depth look at specific factors and new domains regarding the development, use, and control of multiple languages.

The four talks reflect the investigation of the bilingual advantage from different angles by extending previous research with a focus on factors that modulate the effect of bilingualism on cognitive control. Van den Noort and colleagues summarize the state of the art of research on individual variability and cognitive control in a new meta-analysis. Poarch presents a replication study providing new support for the bilingual advantage hypothesis. Czapka and Festman illustrate how a new methodological approach of pairwise matching reveal a bilingual advantage for the multilingual primary school children which was not found when looking at a naturally highly heterogeneous sample. Schwieter and Festman examine self-concept as a new variable in the bilingual advantage context by focusing on the real-life use of such advantage among school children.

Keywords: Bilingual Advantage; Cognitive Control; Executive Functions

## **Theme Session Chair**

### **What Does Second Language Learning Reveal About Plasticity?**

*Mona Roxana Botezatu*

*Location: CCIS 1 430*

One of the most significant discoveries about bilingualism is that both languages are active at all times, even when bilinguals perform tasks in monolingual contexts. This discovery has served as the foundation of research that investigates the transfer on linguistic knowledge and processing strategies from the stronger first language (L1) to the weaker second language (L2) to facilitate

L2 learning. Surprisingly, the cross-linguistic influence in the opposite direction has been largely unexplored. A recent body of work has shown that the seemingly stable native language becomes susceptible to change in the context of L2 learning. Changes in L1 performance have been reported in both classroom and immersed learners at the levels of phonology, lexicon and syntax, respectively. The proposed symposium brings together a diverse group of researchers who employ a variety of measures (behavioral, electrophysiological and eye-tracking) to investigate the consequences of bilingualism on native language processing dynamics. The work to be presented evaluates the timing and patterns of native language change in immersed and classroom L2 learners and their relationship to L2 learning outcomes. Taken together, this work illustrates the plasticity of the language system.

## Predictors of bilinguals' naturalistic reading fluency at text level in their L1, L2, L3 and heritage language

Thoma Dieter

Location: BS M 141

If generalized to naturalistic reading, connectionist models of single word recognition predict that unbalanced bilinguals' reading fluency differs between their languages. Consistently, recent eye tracking research at sentence, paragraph and novel-level supports that L2 reading is less automatic (Cop et al., 2015; Whitford & Titone, 2017). For models of bilingual reading in the making, it is important to understand, (1) if naturalistic bilingual reading at text-level corresponds to single-word recognition, (2) if L1 and Lx reading differ structurally, and (3) if L2 findings generalize across language pairs.

We investigate how language-specific lexical access and subjective literacy explain individual differences in naturalistic text-level L1, L2, L3 and heritage language reading. In an eye-tracking design, 281 participants read two pages from an Agatha Christie novel (see GECO corpus, Cop et al. 2015) in their L1 German and two subsequent pages in their L2 English or their L3 French or their heritage Turkish. We inferred lexical access from bilingual lexical decision tasks, and participants self-assessed their literacies.

Bivariate comparisons of eye-movement measures of early and late reading processes showed very similar L1 vs L2 differences, compared to the GECO. L1 vs L3 vs heritage reading differed substantially more. To investigate how language (pair) as well as language-specific frequency, lexical access and literacy affect global reading performance, we ran LMER analyses. We included participant and word intercepts as random factors. In the best fitting models, lexical access and subjective predicted reading performance within and across and, thereby, independently of language.

In sum, results suggest that naturalistic bilingual reading is – similar to single word recognition – a language non-selective process building on highly similar operations in bilinguals' stronger and weaker languages. We discuss methodological challenges (e.g., cross-linguistic standardization of reading units, comparability of word frequencies) and implications for modelling naturalistic bilingual reading.

Keywords: bilingual reading; lexical access, literacy

### Theme Session Talk

## Multilingualism versus Monolingualism for all? Analyzing the dynamic negotiation of language policies at the district, school and classroom levels

Esther Bettney

Location: BS M 145

While linguistic and cultural diversity is a key component of many classrooms and schools today, including Diversitas school, policies still often construe multilingual learners as deficient based on their perceived lack of English language skills. This paper begins with a critical discourse analysis (Fairclough 2014; Wodak & Meyer, 2015) of official district level policies that construct language-minoritized learners from a deficit-based perspective. Then, we move on to analyze the ongoing negotiation between policy and enactment as teachers shift from an English-only approach to teaching and learning towards conceptualizing classrooms as spaces of multilingualism (Blommaert, Collins & Slembrouk, 2005). By drawing on Ruiz's (1984, 2010) Orientations in Language Planning, this paper

considers the ongoing negotiation at the district, school and classroom level between conceptualizing students' linguistic repertoires as problems or as resources. This paper analyzes shifting language-in-education policies and practices at Diversitas school as educators and children engage in weekly multilingual language awareness activities over the course of an academic year. In particular, we draw on several specific classroom instances across grade levels when students spontaneously entered into creative language play and exploration across a variety of languages to consider how teaching and learning can be redesigned to allow all students, English learners and English speakers alike, to expand their communicative repertoires.

## Theme Session Talk

### What theoretical models predict about early bilingual first language acquisition

*Stephanie De Anda*

*Location: BS M 149*

A wide variety of models have been proposed in the literature examining bilingual language representation and processing. Yet, there remains a relative dearth of theoretical models to describe early development despite the recent increase in bilingual infant and toddler research. One proposed model that has the capacity to capture bilingual first language acquisition (BFLA) from early life to adulthood is Dynamic Systems Theory (DST, DeBot, Lowie, & Verspoor, 2007). DST makes several predictions about early language processing in dual language contexts, including predicting a heightened sensitivity to conditions in early in development, the rise of attractor states, and the role of minimal growth conditions including social contexts.

In this talk, we will evaluate the available evidence in bilingual infants and toddlers to support the predictions set forth by available theories, with a particular focus on DST. For example, a series of studies have demonstrated that minimal changes in dual language exposure are most influential in early development, as early as 16 months of age (e.g., De Anda, Arias-Trejo, Poulin-Dubois, Zesiger, & Friend, 2016; Friend, De Anda, Arias-Trejo, Poulin-Dubois, & Zesiger, 2018). Further, by the second year, children demonstrate evidence of "attractor states" in that language dominance effects influence cross-language associations (e.g., De Anda, Hendrickson, Poulin-Dubois, Zesiger, & Friend, 2017; Singh, 2014). Throughout the discussion, we will highlight additional areas of future research and argue for a unified developmental approach to BFLA that considers the lifespan.

The talk concludes by proposing that careful study of bilingual first language acquisition in early development will refine available theoretical models. In this way, we maximize the possibility of interdisciplinary approaches that can provide stronger explanatory power for capturing variability in early life, a critical period of development that sets the stage for subsequent adult language skill.

## Theme Session Talk

### A systematic review of factors modulating the bilingual advantage and cognitive control

*Maurits Van den Noort, Esli Struys, Peggy Bosch, Lars Jaswetz, Benoît Perriard, Sujung Yeo, Pia Barisch, Sook-Hyun Lee & Sabina Lim*

*Location: CCIS 1 140*

Nowadays, bilingualism is common in the world with a prevalence of over 50%. In addition to increased second language skills, bilingualism was found to have beneficial effects in other cognitive domains,

such as attention, cognitive control, working memory, etc. In the literature, this effect is known as the bilingual advantage. However, the question remains which factors modulate the bilingual advantage on cognitive control?

We conducted a systematic review on bilingualism and cognitive control. We were particularly interested in the factors affecting this beneficial bilingualism effect. In this study, we searched the Medline, ScienceDirect, Scopus, and ERIC databases for all original data and review studies on bilingualism and cognitive control, with a cut-off date of August 31, 2018, thereby following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) protocol.

The majority of studies indeed reported beneficial effects of bilingualism on cognitive control tasks; however, not all studies did. Methodological differences in the set-up of the studies seem to be an explaining factor for these mixed results, more specifically the selection of the bilingual participants and the use of non-standardized tests seem to be responsible. Interestingly, to date, individual differences have often been neglected and longitudinal designs are rare. Moreover, there is a serious risk for bias in both directions. Nevertheless, the bilingual advantage has still been reported in recent studies in which important methodological limitations have been accounted for.

Evidence was found for the bilingual advantage hypothesis; however, not in all studies. Methodological issues and individual differences seem to be important explaining factors for these mixed results. Therefore, better designed, bilingualism studies on cognitive control are needed, particularly big data and longitudinal studies, in order to make progress.

## **Complete acquisition in the heritage language: Evidence from indefiniteness in Turkish**

*Gulsen Yilmaz & Antje Saueremann*

*Location: CCIS L2 190*

The present study is interested in the acquisition of a language property that is rather infrequent and inconsistently available in the input: Accusative marked indefinites in Turkish. Appropriate use of these forms requires a sophisticated coordination of linguistic, discourse and social knowledge. What makes it further challenging for heritage Turkish speakers living in Germany is the contrast between the two languages with respect to the semantics of indefiniteness, i.e., specificity and partitivity. Turkish morphologically distinguishes between specific versus nonspecific and partitive versus nonpartitive contexts by means of the Accusative case marking on the indefinite direct object while German does not do this morphologically. In view of previous findings on heritage grammars, we hypothesized that the speakers would be insensitive to differences in these semantic contexts and overgeneralize the caseless form since this is the form used in German regardless of the context. We further hypothesized that, if they ever opt for the case marked form, they would also do so incorrectly in nonpartitive and nonspecific contexts. The informants, heritage Turkish speakers living in Berlin (n= 35) were asked to provide their preferred forms in four different semantic contexts depending on specificity and partitivity. The results show that heritage speakers' referential choices are very similar to those of monolingual native speakers of Turkish (n= 30) and that they are able to successfully dissociate semantic contexts in Turkish. Our findings suggest that L1 can develop despite early onset of L2 and be maintained on a par with monolingual norms despite minimum input in the language and the presence of competing structures in the L2. We will discuss how insights from heritage language development can contribute to discussions about the bilingual's ability to acquire and maintain native-

like discourse knowledge and challenge the views about limitations of heritage speakers' abilities.

Keywords: indefinite; specific; partitive

## Theme Session Talk

### **Minding Inconsistency: Second Language Proficiency Impacts Sensitivity to Inconsistent Spelling-Sound Mappings in the Native Language**

*Mona Roxana Botezatu*

*Location: CCIS 1 430*

This talk examines the consequences of bilingualism on word reading in the native language. Decades of research on word reading in a deep orthography such as that of English have revealed that mapping spellings to sound is easier when spellings have one-to-one grapheme-phoneme correspondences, a property known as regularity and when spellings map to a single phonological representation, a property known as consistency. Effects of spelling-sound regularity and consistency are thought to be modulated by reading skill in children, yet to be stable in adulthood. Across a series of behavioral and electrophysiological studies with adult skilled readers, I made a surprising discovery: that these effects are disrupted during the early stages of second language (L2) learning. Replicated in non-native English speakers, where it is modulated by L2-English proficiency, this counterintuitive finding suggests that the magnitude of this typically robust, stable effect may be an early marker of native language change.

### **Defining and operationalizing content and language integration for the content-based language instruction classroom**

*Corinne Matthieu*

*Location: CCIS 1 440*

Content and language integration (C/LI) is a foundational concept in content-based language instruction (CBI) contexts where subject matter content is taught through a second or foreign language. However, despite its importance, the term is rarely explicitly defined in the literature. Moreover, C/LI is conceptualized and operationalized quite differently in two prominent CBI contexts: dual language and immersion (DLI) education in the United States and Canada and content and language integrated learning (CLIL) education in Europe. Although there is debate as to the relative comparability of these two educational contexts (Cenoz, Genesee, & Gorter, 2014; Pérez-Cañado, 2012), scholars from each at times cite one another when discussing C/LI (e.g., Llinares, 2015). This can lead to misunderstanding or misapplication of ideas due to their divergent underlying assumptions about C/LI.

In this pedagogy-focused paper, I will compare and critique how scholars from these two contexts conceptualize C/LI, focusing particularly on implications for classroom instruction. Drawing on research and conceptual writing from each context, I will highlight how some DLI scholars generally ground C/LI in theories of second language acquisition whereas some CLIL scholars employ systemic functional linguistics. These theoretical distinctions lead to differences in their basic assumptions of the nature of the relationship between content and language and the purpose for pedagogically integrating them in the CBI classroom. I will also outline two of the pedagogical approaches for C/LI that are proposed in each context – counterbalanced instruction in DLI (Lyster, 2007) and genre-based pedagogy in CLIL (e.g., Morton, 2010). Finally, I will propose a new framework for understanding CL/I

in CBI contexts that draws on and refines previous conceptualizations with the express goal of better facilitating teacher understanding of what C/LI is and how it can be achieved in the classroom.

Keywords: content and language integration; bilingual education; pedagogy

## **It Just Takes Time: Refining asymmetric switch costs using pupillometry**

*Michael Johns, M. Gabriela Puscama & Matthew Carlson*

*Location: CCIS L1 140*

Starting with Meuter and Allport's seminal 1999 study, various researchers have found asymmetric switch costs in bilingual language switching: switching from the non-dominant into the dominant language is costlier than the reverse. Reaction time (RT) data has suggested that in order to produce the non-dominant language, the dominant language must be heavily inhibited, and that removing this inhibition to speak the dominant language is cognitively difficult. One question that remains, however, is whether this observed asymmetric cost simply reflects the presence of inhibition, or if releasing inhibition is itself cognitively effortful. To examine this question, 21 early Spanish-English bilinguals, dominant in English, completed a picture naming study while pupil size was recorded. The pupillary response has been linked to numerous cognitive processes, particularly cognitive load and attention. Participants were cued by a colored border in which language to name the picture, and isoluminance across images and conditions were controlled.

Linear mixed-effects models on RTs revealed a significant cost of switching into English ( $\chi^2=8.41$ ,  $p=0.004$ ), but not into Spanish ( $\chi^2<1$ ). In the pupillary response, generalized additive mixed-models revealed a significant cost for switching into Spanish, but a reversal of this cost for switching into English. That is, while switches into English were associated with longer RTs, the pupillary response was reduced, indicating lower cognitive load. Conversely, while switches into Spanish led to no changes in RT, an enhanced pupillary response indicated greater cognitive load on these trials. One way to make sense of these apparently contradictory results is that switching into the dominant language—and the associated release of inhibition—is not more cognitively demanding, but rather this release of inhibition just takes time. Switching into the non-dominant language, however, is more cognitively effortful, either due to the application of inhibition, orientation into the non-dominant language, or both.

Keywords: language switching, switch costs, pupillometry

## **Language camps as an Indigenous language revitalization strategy: The nêhiyawak (Cree Peoples) Language Learning Experience**

*Belinda Daniels, Peter Turner, Randy Morin, William Cook, Dorothy Thunder & Andrea Sterzuk*

*Location: CCIS L1 160*

Because of colonial acts, most Indigenous languages in what is now known as Canada are threatened (Ball & McIvor, 2013). In response, Indigenous peoples have developed revitalization strategies (Hinton et al., 2018; McIvor & Anisman, 2018). Our paper presents a study of six adult participant experiences in a one-week, land-based, nêhiyawêwin (Cree language) immersion camp. This camp began fourteen years ago as the first author's master's project and has evolved into an annual gathering of language activists, both teachers and learners. Primarily situated in Sturgeon Lake First Nation, Saskatchewan, the central aim is to revitalize nêhiyawêwin through land-based immersion activities. Camp instructors

all have graduate degrees and expertise in second language teaching. Due to grassroots interest, the camp grows each year and participants come from across Canada.

Using Indigenous research methodology (Drawson, Toombs & Mushquash, 2017; Kovach, 2010) our paper asks: What are the experiences of adult participants in a land-based nêhiyawêwin immersion camp? Indigenous research methodology blurs the lines of researcher/participant and provides opportunities for co-learning (Castelden et al., 2017). As both co-researchers and study participants, our team uses two Sharing Circles (Baskin, 2005; Kovach, 2010; Lavallée, 2009) to explore the efficacy of language camps as a revitalization strategy. The first Circle, video-recorded and transcribed, invites us to share our camp experiences. The transcriptions are then shared with the research team. The second Circle, also video-recorded and transcribed, provides an opportunity to discuss the first circle. As researchers, we now co-construct another story based on those of the first Circle. Stories shared suggest that community leadership is key to the transmission of Indigenous languages and community and land-based language camps show promise as short-term, adult-focused immersion programs. The relationship between nêhiyaw (Cree person) identity and land-based learning also emerges as a significant aspect of the group narrative.

Keywords: Indigenous languages; language revitalization; pedagogy

## Strategy Use Predicts Reading Comprehension Success in Bilingual Adults and Children

*Deanna Friesen & Bailey Frid*

*Location: BS M 141*

Both children and adults often experience difficulty understanding texts in their second language. According to the Simple View of Reading (Hoover & Gough, 1990), reading comprehension success is determined by decoding skill and language comprehension (e.g., vocabulary). Yet, reading strategies should also uniquely contribute to reading comprehension success in both the first and second language. In the current study, students in French Immersion (grades 4 and 5) and young adults read passages in both English and French while performing a “think-aloud”. After each story, they answered three open-ended questions. Word reading fluency and vocabulary knowledge in each language was also assessed. Of interest was 1) whether children and adults used the same strategies and whether these strategies differed across languages, 2) whether reading strategies explained unique variance in reading comprehension success beyond language knowledge. Overall adults used more strategies than children, yet the pattern of strategy use was similar in each group. More summarizing and reference to unknown vocabulary was used in their weaker language (French); whereas more elaborative strategies (e.g., elaborative inferences, predicting, questioning) were used in their stronger language (English). However, adults engaged in proportionally more necessary inferencing than children. Importantly, strategy use explained reading comprehension success beyond language knowledge for both groups in French and for the French Immersion students in English. Specifically, engaging in more textbase strategies (e.g., summarizing, necessary inferences) and more situation model strategies (e.g., elaborative inferencing, questioning predicting) explained reading comprehension performance in addition to word reading fluency and vocabulary knowledge. Findings highlight that similar strategies underlie the success of good comprehenders of different ages. They also suggest that second language learners rely on these strategies and point out the value of promoting effective strategy selection in addition to language instruction in the development of reading comprehension skill.

Keywords: Reading Comprehension; Strategy Use; French Immersion

### Theme Session Talk

## Multilingual Language Awareness: From Theory into Practice

*Gail Prasad*

*Location: BS M 145*

This paper introduces five grounded theory principles for Collaborative Learning through Multilingual Inquiry (CLMI) (Prasad, submitted). Then, the paper moves from theory into practice to demonstrate how these principles have been enacted at Diversitas through content-based literacy projects and Critical Multilingual Awareness activities. Critical Multilingual Language Awareness (CMLA) refers to an individual’s explicit knowledge about language(s), as well as their attitudes towards languages, language learning and speakers of different languages (Garcia, 2017). To begin, we explore students’ engagement as consumers of multilingual mentor texts (Newman & Fink, 2012) who compare how language(s) work as they develop an appreciation of linguistic diversity. The paper illustrates how multilingual translations of well-known children’s literature such as Carle’s “Very Hungry Caterpillar” can be used to stimulate multilingual inquiry. We use James and Garrett’s (2014) five domains of language awareness (cognitive, performance, affective, social and power) to explore students’

engagement with the multilingual texts, emphasizing critical reflection about power relations among languages, language learners and language users. Then, the paper moves into an examination of students as producers of multilingual texts. We extend Cummins' (2001) original notion of "identity texts" as creative multimodal texts produced by English Learners in their home language(s) and the language of instruction towards designing collaborative multilingual content-based literacy projects that leverage the diverse linguistic and cultural resources of an entire class through Collaborative Learning through Multilingual Inquiry (CLMI) (Prasad, submitted). CLMI aims to bring students together across different backgrounds to develop an appreciation of language(s) as resources. This paper highlights examples of whole-class and whole-school multilingual and multimodal books generated across Kindergarten to Grade 5 classes with particular attention to the elements of collaboration, criticality and creativity. We conclude with a thematic analysis of students', parents' and teachers' reflections on the collaborative multilingual, multimodal book-making process along with its products.

## Theme Session Talk

### How infant research informs the "uniqueness" of simultaneous bilingualism

*Christopher Fennell*

*Location: BS M 149*

There has been a veritable explosion of research on bilingual infants' language development over the past decade. Unsurprisingly, differences between bilingual and monolingual language development have garnered much attention (e.g., differences in the timing of native-language phonological refinement, vocabulary size discrepancies). While acknowledging that there are some interesting developmental differences between the two groups, a growing amount of research demonstrates that monolingual and bilingual infants share common linguistic processes and language milestones. Indeed, it is specifically research on bilingualism in infancy, a developmental period wherein scientists primarily focus on basic language processes, that has richly informed this similarity approach.

I will focus on three areas of infant language development – word segmentation, phonology, and word learning – to highlight the similarities and dissimilarities between monolingual and bilingual development. Using recent data from my own lab and others, I will discuss how similar language processes can (and should) account for monolingual and bilingual language acquisition, even when outcomes differ. I will show that even apparent behavioural differences between the two populations may, in fact, reveal underlying similarities in their language processing. Why may this occur? These differences can be rooted in differing amounts of exposure to specific language categories: an effect that is not in any way unique to bilingual populations. Monolingual infants show the exact same exposure effects (e.g., less exposure to native-language speech also leads to lower vocabulary scores in monolingual infants). This again demonstrates that monolingual and bilingual learners are much more similar than different. Furthermore, striking differences between monolinguals and bilinguals in infant research should be interpreted with caution because of the increased variability in development in young children. Examining the same language skills across development is important to determine if any such differences stabilize or change in magnitude (increase or decrease).

## Theme Session Talk

### Executive function and child multilingualism: Using Bayes factor analyses

*Gregory Poarch*

*Location: CCIS 1 140*

The ongoing debate on the effects of bilingualism on executive function (EF) has seen an upsurge in

null-result findings in studies comparing monolingual and bilingual populations' performance on non-verbal conflict resolution tasks. Previously, there had been converging evidence of enhanced EF in tasks such as the Flanker task particularly for child and elderly bilinguals compared to age-matched monolinguals (Bialystok, 2017). The assumption was that bilinguals' sustained language control affected those components of EF that are responsible for the regulation of behavior serving to resolve any information-processing conflict that is detected. Given the growing body of null-result findings (e.g., Duñabeitia et al., 2014), closely replicating previous findings of differences between monolinguals and bilinguals while meticulously controlling for relevant background factors such as SES (Poarch & Van Hell, 2017) could strengthen the argument in favor of significant and systematic EF differences between groups.

In the present study, 34 L2 learners of English and 33 multilingual children (mean age = 7.0; SD = 0.7; range = 5.6-7.9 years) attending dual immersion German-English kindergarten and primary school were tested using two EF tasks (Simon and Flanker). Bayes factor analyses indicate strong to very strong evidence for the alternative hypothesis, namely smaller effect magnitudes for multilinguals over L2 learners in both EF tasks, which is in line with and replicates previous studies (e.g., Poarch & van Hell, 2012; see also Poarch, 2018). Critically, a correlational analysis indicated that children with more multilingual daily lives had smaller effect magnitudes (i.e., enhanced inhibitory control) than children with less multilingual daily lives.

The results will be discussed against the backdrop of the developmental trajectory of EF in children, EF task demands and corresponding cognitive loads, and which immersive contexts may be conducive to significantly affect EF development.

## **Constraints on subject-verb agreement in German/Turkish bilingual speakers**

*Serkan Ugyun & Claudia Felser*

*Location: CCIS L2 190*

Subject-verb agreement in Turkish differs from other languages in that 3rd person plural subjects normally appear with verbs that are unmarked for number, rendering these verb forms indistinguishable from the singular form. The plural morpheme *lar/ler* is preferentially omitted from the verb, especially in spoken discourse, so as to avoid repeating the same morpheme that also marks plurality on nouns. Plural suffix omission in Turkish is also affected by semantic factors including the degree of subject animacy (Bamyacı, Häussler & Kabak, 2014).

Following earlier findings which indicate that Turkish heritage speakers accept overt plural marking more readily than non-bilingual native Turkish speakers (Bamyacı, 2016; Lago et al., 2018), the present study investigates to what extent bilingual speakers are sensitive to grammatical, surface-level and semantic constraints on Turkish plural agreement marking. We carried out a scalar acceptability judgement task with 40 non-bilingual Turkish speakers resident in Turkey and 41 early (n=21) or late (n=20) German/Turkish bilinguals resident in Germany. Our experimental stimuli were created by manipulating both subject animacy and subject position, to test the effect of subject-verb distance on the acceptability of overt plural marking on the verb. The judgement task was implemented as a web-based questionnaire, with the bilingual speakers tested under supervision and the non-bilingual controls tested remotely.

Besides confirming the general preference for unmarked verb forms, participants' judgement patterns were affected both by animacy and by subject-verb distance. Significant differences were observed

between early bilingual speakers and non-bilingual controls, suggesting that the relatively subtle interplay between different types of constraint on number agreement marking is not always fully acquired under heritage language conditions. We used Gradient Symbolic Computation modelling (Goldrick, Putnam & Schwarz, 2016) to capture between-group differences in the relative weightings of the constraints under investigation.

Keywords: subject-verb agreement / Turkish / Gradient Symbolic Computation

## Theme Session Talk

### Individual Differences in Current L2 Experience Modulate Eye-Movement Measures of L1 and L2 Reading in Bilingual Younger and Older Adults

*Veronica Whitford*

*Location: CCIS 1 430*

A widely held view is that L1 skills are relatively insensitive to the influence of L2 knowledge and use, particularly in adulthood. However, assuming that the representation of language in the brain is sensitive to ongoing changes in language experience, L1 and L2 processes, such as reading, should trade-off with greater amounts of current L2 experience. Across a series of eye-movement studies, we demonstrate that increasing current L2 exposure improves various aspects of L2 reading fluency, but, more interestingly, impedes various aspects of L1 reading fluency in bilingual younger adults, and, to a lesser extent, in bilingual older adults (Whitford & Titone, 2016, 2017a, 2017b). Thus, our findings suggest that the representation of language in the adult brain is indeed sensitive to changes ongoing L2 knowledge and use, albeit less so in the later stages of life, potentially because of age-related changes in neuroplasticity.

### The Influence of Cognitive Control and Bilingual Experience on Event Processing

*Eleonora Rossi, Kyra Krass, Gitte Joergensen, Megan Zirnstein & Gerry Altmann*

*Location: CCIS L1 140*

We assessed how individual differences in proactive goal maintenance and reactive inhibitory control, measured with the AX-Continuous Performance Task (AX-CPT), predicted performance in event comprehension in monolinguals processing in the first language (L1), and in early and late bilinguals while processing information in their L1 or second language (L2). A total of 189 participants (64=English monolinguals; 61=early English-Spanish bilinguals; 64=late Spanish-English bilinguals) were tested using a visual world paradigm task (Altmann & Kamide, 1999), which recorded eye-movements. Participants also completed the AX-CPT while pupil size was obtained as an early psychophysiological measure of effort.

Replicating previous literature, eye-tracking results demonstrated that all participants were able to engage in anticipatory language processing, even bilinguals at different levels of L2 exposure. Importantly, both monolinguals' and bilinguals' cognitive control ability were correlated with looks to the target object. Bilingual comprehenders with higher goal maintenance abilities were better able to maintain the goal of what affords an action ( $r=0.33$ ;  $p=0.013$ ). However, for monolinguals, better response inhibition was correlated with more looks to the target word ( $r=-0.34$ ;  $p=0.008$ ). These results demonstrate that language processing relies on distinct control strategies, which appear to be engaged differentially as a function of language experience. Finally, the pupillometry results from the

AX-CPT demonstrated that pupil size was modulated across conditions with larger pupil size signaling mental effort and/or greater allocation of cognitive resources. However, the effect across conditions differed between groups, with early bilinguals showing a smaller difference in pupil size during the AY condition as compared to the baseline, signaling smaller allocation of mental resources.

In conclusion, these data show that language processing might rely on different cognitive control strategies as a function of language use and experience. The results demonstrate the importance of using language processing paradigms sensitive to the distinction between target activation and distractor inhibition.

Keywords: language comprehension; cognitive control; pupillometry

## **Finding a voice - inherent tensions of indigenous language reclamation**

*Pia Lane*

*Location: CCIS L1 160*

Language revitalisation is often portrayed as emancipatory, because it allows speakers to find and develop their own voice and identity. Often, indigenous languages are associated not only with positive belonging to place and family, but also alienation and shame resulting from colonialism, oppressive policies and stigmatization, described by King and Hermes (2014) as 'the scars of colonization'. Indigenous languages are often perceived as belonging to a specific group of people and rooted in a cultural context, and their speakers may be portrayed as embodying this rootedness. Such new speakers who have acquired an indigenous language through the educational system (O'Rourke and Pujolar 2015) may therefore be expected to reclaim what they already have or ought to possess. This tacit expectation places them in a precarious position: the goal of language revitalization efforts is to enable individuals to reclaim a minority language, but paradoxically the language use of such speakers may be perceived as less authentic because the variant acquired through education tends to be standardized, and therefore not recognised as legitimate speakers. Emotional aspects of language learning in indigenous contexts run deep because of identity politics and social control as to who has the right to claim the role of an authentic speaker. Therefore, reclaiming a minority language can be a painful experience for the individual, sometimes so painful that the fear of speaking silences people. In Sámi communities in Northern Norway, this is referred to as the language barrier. Drawing on data from blogs and sociolinguistic interviews, I will use nexus analysis (Scollon and Scollon 2004, Lane 2019) to investigate how new speakers of Sámi experience the process of language reclamation and how they attempt to resolve the inherent tensions in these processes.

Keywords: Language revitalisation; multilingualism and emotions; nexus analysis

## Using dialect to teach formal language: the teaching of Arabic as a minority language in the UK

*Fatma Said, Beatrice Szczeppek Reed & Ian Davies*

*Location: BS M 141*

Supplementary (or complementary or heritage) schools in the UK, play a major role in the teaching and transmission of heritage minority languages (Li Wei, 2003; Creese et al., 2008). Although there is some research about these schools, there is no study to date about the teaching of Arabic as a heritage language in UK schools. This pilot study is one of the first to report how Arabic is taught in three UK supplementary schools (Reed, Said & Davies, 2017, Said, Reed & Davies, to appear).

This paper focuses on the classroom practices employed by teachers to teach formal Arabic; the data was collected through video recorded lessons, and audio recorded student and teacher interviews. The data suggests that the teaching of a minority and diglossic language like Arabic is complex and can be a challenge for both teachers and students. The nature of the language challenges teachers to be creative in their delivery as well as strive to match the quality of teaching in mainstream schools. The findings do affirm that these schools are effective resources for teaching a minority language (formally) and supporting transnational families who wish to transmit Arabic to their children to maintain their language(s). The classroom data illustrates that teachers predominantly use the target language and its dialects, repetition, re-casting, narratives and plays in order to teach grammar and lexicon. Although the use of Arabic dialect inside the classroom is often frowned upon and many educators discourage it, the data in this project suggests that in the context of Arabic as a minority language the use of dialect acts to scaffold the meanings of formal Arabic and to support the learning and development of a heritage language.

Keywords: Arabic; Minority language; Heritage schools

### Theme Session Talk

## Parents as Multilingual Experts and Advocates: On family engagement and home language maintenance through collaborative multilingual literacy-based projects

*Jungwon Hyun*

*Location: BS M 145*

Like many schools around the world today that have an increasing number of students who speak a variety of languages in and out of school, families of Diversitas school speak 23 different languages. Nonetheless, monolingual orientations persist and can result in students' rich linguistic repertoires being overlooked, if not completely rejected by schools (Charmian and Ruby, 2012; Chumak-Horbatsch 2012; Cummins 2001; Garcia and Wei 2013; Garcia, Skutnabb-Kangas and Torres-Guzmán, 2006; Wong-Fillmore 2005). This paper focuses on how students' and families' linguistic backgrounds have been acknowledged and celebrated at Diversitas school through collaborative multilingual book projects. To produce multilingual books that reflect the diverse language ecologies of each class from Kindergarten to fifth grade, parents and family members were invited to help translate student-generated texts. This paper discusses how this positioning of parents and family members as multilingual experts and advocates allowed for culturally and linguistically diverse families to actively partner in the production of whole class multilingual books and to have their linguistic expertise affirmed by the school. Parents also partnered with the school to perform readings of student-

generated books. In addition, this paper analyzes key themes that emerged during parent focus groups and surveys following a year of implementing a multilingual language awareness curriculum. This paper concludes with a reflection on the power of collaborative multilingual literacy-based projects to support not only children's language learning and performance in the dominant language but also their families' sense of belong within the school community.

## Theme Session Talk

### **Becoming bilingual in infancy: The Gradual Language Separation Hypothesis**

*Krista Byers-Heinlein*

*Location: BS M 149*

One of the most enduring – yet unanswered – questions in the field of bilingualism is whether bilingual infants initially have one language system or two. An early theory was the Unitary Hypothesis, proposing that bilingual infants begin with a fused language system (Volterra & Taeschner, 1978). In contrast, the Differentiated Hypothesis proposes that bilinguals begin with a differentiated language system (Genesee, 1989; Werker & Byers-Heinlein, 2008). Children older than age 2 can speak their languages appropriately with different interlocutors (Genesee et al., 1996), providing strong evidence for language separation at this age. However, most claims about language separation in infants under age 2 cite evidence that bilingual infants can discriminate sentences from their languages (Bosch & Sebastián-Gallés, 2001; Byers-Heinlein et al., 2010; Molnar et al., 2014), a skill that is perhaps necessary, but not sufficient for language separation.

This talk puts forward a novel theoretical approach: the Gradual Language Separation Hypothesis. This hypothesis is based on evidence that infants are born equipped with the necessary perceptual sensitivities to separate the languages to which they are exposed (Byers-Heinlein et al., 2010; Byers-Heinlein & Fennell, 2014). Uniquely, it proposes that separation occurs gradually across the first years of life, occurring sequentially across increasingly granular parts of language (sentences, words, phonemes) as more general capacities to process and represent language at these levels develop.

New experimental approaches are enabling, for the first time, direct tests of language separation in infancy. For example, 11-month-old bilinguals modulate their interpretation of phonetic information according to the language they are hearing (Singh & Foong, 2012), and 20-24-month-old bilinguals are slower to process mixed-language than single-language sentences (Byers-Heinlein et al., 2017; Potter et al., 2018). The talk will conclude with a discussion of necessary future research for confirming – or refuting – the Gradual Language Separation Hypothesis.

## Theme Session Talk

### **How to detect the bilingual advantage through pairwise matching**

*Sophia Czapka & Julia Festman*

*Location: CCIS 1 140*

supporters (for a meta-analysis, see de Bruin, Treccani, & Della Sala, 2014) and critics (Paap et al., 2015; Papp, 2019) of the bilingual advantage hypothesis still cannot answer if and how bilingualism influences executive functions (EF). One challenge most studies in this field need to face is matching participants. Matching often means that mono- and multilingual groups do not differ significantly in certain variables (e.g., Antón et al., 2014; Bialystok & Viswanathan, 2009; Duñabeitia et al., 2014). Unfortunately, this approach focuses only on a group level and dismisses the complex set of

characteristics on an individual level. To resolve this issue, our study uses pairwise matching on an individual level.

We pursued two goals: First, we used a large and naturally heterogeneous sample of primary school children to investigate their EF-performance. Secondly, we matched individual couples of mono- and multilinguals pairwise on five potentially influential variables to create two highly homogeneous samples, what is crucial to investigate the bilingual advantage.

Our sample comprised 69 monolinguals (age = 9.0 years) and 57 multilinguals (age = 9.3 years) residing in Germany. They performed three EF-tasks tapping into interference inhibition, response inhibition and updating. Homogeneous groups were built by matching pairs of mono- and multilinguals on age, gender, intelligence, socioeconomic status and German lexicon size, resulting in 21 children per group.

Initially, multilinguals were disadvantaged in socioeconomic status and German lexicon size. Mixed effect models for the heterogeneous groups revealed that multilinguals answered slower in updating and response inhibition, but comparably fast in interference inhibition. This indicates that superior EF compensated the detrimental effects of the background variables. After pairwise matching, the groups performed similarly, except for interference inhibition. Here, an advantage for multilinguals in the form of globally reduced reaction times emerged, indicating a bilingual executive processing advantage.

## **Heritage language speakers in Germany: Turkish-German and Italian-German children compared.**

*Tanja Rinker*

*Location: CCIS L2 190*

In Germany, about 65% of children with a migrant background speak a language other than German at home (Federal Education Report, 2016). In the state of Baden-Württemberg in the south of Germany, families of Turkish and Italian descent form the largest groups of heritage language speakers (Federal Statistical Office, 2018). A survey shows that the interest of passing on the heritage language Turkish in third generation Turkish individuals is still very high (around 80%), while in families with Italian there is much lower interest to pass on the heritage language (around 40%) (Fick et al., 2014). Family language background and linguistic skills (particularly the lexicon) have been shown to be closely related (e.g. Hoff et al., 2012, 2014). What is the relationship between the family language background and the linguistic skills of Turkish-German and Italian-German children and how do these two groups compare to each other?

This comparison draws on three data sets: a) Turkish-German children aged 2-3 years (n=19); b) Turkish-German children aged 5-8 years (n=19); and c) Italian-German children aged 6-8 years (n=40). In all groups, the lexical and / or morphosyntactic skills were investigated in Turkish or Italian and German. The parents of all groups also filled out an extensive language background questionnaire.

The differences between the children of Turkish or Italian descent are quite striking: In line with the survey by Fick et al. (2014), Turkish is quite strongly represented in families of Turkish descent, and children generally perform much better in Turkish language tests compared to German. Children of Italian descent are, however, mainly orientated towards German, which is in line with the parental reports of a loss of Italian over the years. Both scenarios have consequences for the German

education system as will be discussed.

Keywords: heritage language speakers, Germany

## Theme Session Talk

### Competition and Cooperation Change the Native Language

*Kinsey Bice & Judith Kroll*

*Location: CCIS 1 430*

Research on bilinguals and second language (L2) learners challenges the traditional assumption that an adult's native language (L1) is stable and fixed. As the L2 is incorporated into an adult's language system that has been optimized for L1 processing, several distinct changes can be observed to the L1 as well as the entire language system. The L1 undergoes convergence with the L2 where they overlap, and must be regulated to enable L2 use, while the language system increases its reliance on domain-general components of cognitive control to achieve the necessary levels of language regulation. We present behavioral and electrophysiological data that reveals these changes from the earliest stages of L2 learning and how early L1 changes relate to current and future levels of L2 proficiency. Understanding the mechanisms that produce these distinct changes to the adult language system reveals the flexibility of the mature brain to accommodate new learning.

### An Examination of Elementary French Immersion Students' Extended Oral Output through Literacy-Based Learning Centers

*Josée LeBouthillier & Joseph Dicks*

*Location: CCIS 1 440*

Oral communication abilities are crucial to the development of strong literacy skills for young second language (L2) students (Cook, 2016). Literacy centers are also a well-established practice in French immersion classrooms (Author, XXX). However, baseline data for this study and results of previous studies on literacy centers (Author, XXX) reveal a serious lack of attention to oral language development. This presentation will describe how grade 1 (year 1 of the program), 4 and 5 French immersion students produced extended output (Swain, 1993) while participating in oral learning center activities.

This study used a "research design" methodology (Brown, 1992), reflecting a pragmatic perspective. The ultimate aim of the research was to improve the development of oral language in the context of literacy centers. To do this, the researchers identified seven characteristics necessary to create effective oral activities, and developed tools, materials and activities for L2 teacher use. These activities were then assessed in an elementary French immersion program.

Two grade one, two grade four and one grade five teachers, their students (n=97) and two literacy mentors participated in this study. A researcher and the literacy mentor offered professional learning sessions on oral literacy centers in an immersion setting. With the help of the researcher and the literacy mentors, the five teachers then created activities based on the seven characteristics and used these activities in their oral literacy centers. Students were audio and video recorded. These recordings were transcribed and analyzed based on the following categories: communication to practice specific oral learning outcomes, negotiation of meaning (Long, 1996; Varonis & Gass, 1985), negotiation of form (Swain, 1993), negotiation of the oral activity and socialization.

The results showed that elementary students were able to practice specific oral learning outcomes, and to negotiate meaning, form and activity while engaging in extended oral output.

Keywords: Extended Oral Input; Elementary French Immersion program; Literacy Learning Centres

## **Bilinguals use parafoveal preview to anticipate and adjust code-switch costs: Interactions between regularity, habitual code-switching, and cognitive control**

*Megan Zirnstein, Michelle Bruni, Brandon King & Paola Dussias*

*Location: CCIS L1 140*

Encountering an unexpected language or code-switch can incur processing costs. While language switching is considered effortful, code-switches can be opportunistically generated due to the parallel activation of the two languages, difficulty with lexical retrieval, strategic shifts in topic, or some combination thereof. Bilinguals who habitually code-switch have been shown to be sensitive to the statistical regularities inherent in naturalistic speech, and show preference for the syntactic properties of switches produced more frequently (el dog vs. la fork). They can also use phonological cues to anticipate when a switch is likely to occur (Fricke et al., 2016). In the current study, we investigated whether bilinguals can use visual cues in the parafovea, such as orthographic form (cognate vs. non-cognate) and language status, to anticipate and reduce costs related to the processing of a code-switch. A secondary aim was to investigate the extent to which these effects were impacted by syntactic gender of the switched word, code-switching experience, and cognitive control ability. Spanish-English bilingual participants (N=65) read sentences while their eye movements were recorded, half in Spanish and half with Spanish-to-English switches. Half of these sentences were masked with x's at the critical noun, and reverted to text when the eye passed an invisible boundary. Results showed that bilinguals benefit from parafoveal preview when code-switched words do not share orthographic form across languages (non-cognates), but fail to do so for cognates, and effect driven by masculine switches. These findings and the literature indicate that bilinguals can use both acoustic and parafoveal information to anticipate upcoming switches, primarily when cues are more easily distinguished and when the switch follows known regularities in everyday speech. For bilinguals who engage in both behaviors, code-switching and language switching may rely on different underlying language and control mechanisms, and therefore have differential effects on cognition more broadly.

Keywords: code-switching; eye tracking; cognitive control

## **Community documentation of language and culture as a way to contribute to language revitalization. The case of Huastec.**

*Anuschka van t'Hoof*

*Location: CCIS L1 160*

Mexico is rich in indigenous languages. Over ten million people speak one or more of the 364 existing language variants, which belong to 11 distinct language families (4 of which are isolates). Although all are minority languages, these variants are in different situations and degrees of vitality and endangerment.

In this presentation we first describe the current situation of Mexico's indigenous languages and the efforts to document them. Then we present an internet-based strategy developed for a collaborative

documentation project of the Huastec language and culture. The strategy includes the collection, creation, management, analysis, storage and mobilization of language resources. Our proposal is community-based and moves beyond the aim of generating a comprehensive and lasting record of the speakers' linguistic practices. We want speakers to take care of their own heritage and be actively involved in all the phases of the documentation. This process creates new documentation practices, as well as new language registers -such as social networks messages-, and new stakeholders who are working for and in their language to help preserve what is valuable to them. We will show the results of our strategy and discuss how it contributes to language revitalization of the Huastec language.

Keywords: language documentation; endangered languages; revitalization

## Vocabulary and Literacy: English Language Learners and Heritage Language Learners

*Aline Ferreira & Gottardo Alexandra*

*Location: BS M 141*

A large body of research has examined the relationships between language and literacy skills in second language learners (L2). However, researchers rarely compare the profiles of English language learners (ELLs) and heritage language (HL) learners, who have varying degrees of exposure to their L1 (Cummins, 2005; Ortega, 2005). At present, most of the literature on HL involves theoretical discussion with very little empirical data. With the recent acknowledgement that bilingualism confers benefits for speakers (Bialystok, 2012), more researchers, educators and parents are interested in actively promoting bilingualism or multilingualism. Based on the growing research evidence of cross-language transfer in different literacy processes (Durgunoglu, 2002, Ferreira et al. 2016, among others), the present study examined language and reading skills in three groups, two groups of ELLs, specifically early and late sequential bilingual Spanish-English speakers, and a group HL learners who speak English and Portuguese.

Results showed group similarities and differences in terms of performance and variables related to reading comprehension. Systematic instruction facilitates literacy acquisition even a shallow orthography, experience with the oral language in the home facilitates the development of expressive language skills such as vocabulary and morphology. Furthermore, results showed that even less intensive exposure to a language seems to facilitate receptive vocabulary skills, although individual experience might have an impact on receptive vocabulary.

Keywords: bilingualism; literacy; vocabulary

### Theme Session Talk

#### Extending the bilingual advantage: Self-concepts in reading and writing among mono- and multilingual children

*John W. Schwieter & Julia Festman*

*Location: CCIS 1 140*

The notion of self-concept comprises an individual's cognitive representations and beliefs of him/herself (Shavelson, Hubner, & Stanton, 1976). A positive self-concept, essential for a healthy personality and identity development (Hellmich, 2011), is related to and influences academic achievement (Martschinke, 2011). When domain-specific self-concept is compared with achievement in the same domain, the relationship is positive and strong (Marsh, 1993). However, insufficient attention has been paid to the investigation of domain-specific self-concepts of multilingual children in conjunction with their actual academic outcomes.

In this study, we examine reading and writing self-concepts since effects of schooling (e.g., quality of teacher-student interaction or efficient feedback) strongly contribute to the development of metacognition and executive functions (EF; Roebers, 2017). We contextualize this within the bilingual advantage debate which holds that the constant use and management of multiple language systems may entail cognitive benefits. We examine the relation between children's domain-specific self-concepts (through a questionnaire) and reading and writing competences (using standardized tests assessing reading comprehension, reading fluency, and spelling) against the background of potential differences in self-evaluations (found for general academic self-concept in Mücke, 2008) between monolingual German ( $n = 69$ ) and multilingual ( $n = 56$ ; L2/L3 German) third-graders.

Group-wise comparisons suggested no significant differences in self-concepts nor measures of reading. However, the monolingual group outperformed the multilingual on the spelling task. Correlations between domain-specific self-concepts and associated academic achievement in reading comprehension, reading fluency, and spelling were positive and significant for both groups.

Regardless of language background, children passed realistic evaluations of their academic achievement in reading and writing. We suggest that if provided efficient feedback, a supportive learning environment, and deliberate dealing with heterogeneity in today's classroom, metacognition and EFs can allow children to experience the benefits and use of EF, and ultimately, the educational outcomes for multilingual children can be improved.

## **Lost in Translation? Emotional Confusion among Ethnolinguistic Minority Children: A Family Approach**

*Graziela Dekeyser*

*Location: CCIS L2 190*

An increasing number of ethnolinguistic minority children in European cities grow up multilingual, learning a heritage language (HL) at home that differs from the institutional language of society at large (IL). This dual language acquisition can lead to differing language practices and preferences within the household (Alba et al. 2002). Such dissonances could result into divergent emotion languages between generations (Chen, Kennedy, and Zhou 2012) and possibly, higher levels of emotional confusion (i.e. difficulties in distinguishing emotions) among children since language and emotional intelligence are related. One example is the finding that the depth of emotion vocabulary that children possess is linked to their ability to recognize and distinguish their own emotions and those of others (Beck et al. 2012).

Here, we explore how dissonance in language use between parents and children, independent of children's and parents' language abilities, attitudes and language management tools (e.g. brokering), affects emotional confusion among ethnolinguistic minority children living in Antwerp, Belgium (N = 528). Antwerp provides an excellent site for the study since a large share of the population speaks a non-native language at home (in 2016: 44% of the primary school children).

Preliminary analyses suggest that dissonance in language use with mothers increases children's emotional confusion, while dissonance in language use with fathers decreases it. Also, brokering is positively associated with emotional confusion, as is father's IL proficiency and the importance that parents place on learning the HL. Conversely, the better the child is in the IL and the more value parents attach to the learning of the IL, the less emotional confusion children report. Our results suggest parents' use and support of the IL impacts children's emotional well-being. It's important to understand the causes of emotional confusion better because it is associated with higher risks on problem behavior and decreased mental well-being.

Keywords: Emotional Intelligence; Multilingualism; Children

### **Theme Session Talk**

#### **Grammatical gender and first language attrition**

*Monika Schmid*

*Location: CCIS 1 430*

One of the most interesting aspects of bilingual development is the discrepancy between the early acquisition of grammatical gender in L1 development versus the problem it poses for late L2 learners. This difficulty has been ascribed to the fact that native-like knowledge and processing of this feature necessitates coordination of information from different linguistic levels: Gender is encoded as part of the lemmatic information in the mental lexicon (and is therefore item-based), but it also triggers concord across the items in the phrase or sentence (rule-based). Studies on L2 development have investigated whether and how non-native speakers can build grammatical representations where the lemma of each noun contains information about its gender if their L1 lacks this system, and whether they can integrate this knowledge in online processing in a nativelike way.

More recently, interest has focused on the representation, processing and use of gender information in an L1 that exists in competition with another language: can the gender information associated with some items become weakened, and will items that are infrequent and/or violate some principle that governs gender assignment in a language be particularly vulnerable? Such a process of attrition of gender assignment information might then lead to phenomena such as gender concord errors, a shift in the detection of concord violations, or a weakening of the predictive use of gender to facilitate upcoming information.

This presentation will give an overview of existing work on L1 attrition of grammatical gender, and then present new findings from experiments on gender priming in several languages (Spanish, Italian and German). I will argue that gender as a grammatical feature is largely resilient to attrition processes in late bilinguals, but that there are changes in how activation spreads through lexical networks and how gender facilitates this spreading of information between monolinguals and bilinguals.

## **Langage et développement chez les enseignants de langues: les commentaires sur l'agir professionnel comme processus d'intériorisation et développement des savoir-faire**

*Fabio Carneiro*

*Location: CCIS 1 440*

L'objectif général de ce travail est de réfléchir sur les effets développementaux du discours des enseignants sur leur activité professionnelle, en particulier celles qui concernent l'enseignement des langues (langue première ou seconde).

Concernant la méthodologie, le dispositif de recherche vise à analyser les données orales issues d'entretiens réalisés avant et après une séance d'enseignement de langue maternelle et de langue étrangère. Il est important d'avoir un ensemble de textes préfiguratifs (entretiens avant le cours) et un autre de textes évaluatifs (entretiens après le cours) car ces deux modalités de réflexion peuvent être comparées. Des entretiens s'étendent pendant une année scolaire. Un ensemble de cinq enseignantes de chaque langue (CP, CE1, CM2, 6ème et 3ème) est la population de la recherche.

Face au corpus recueilli, une méthodologie d'analyse descendante a été utilisée en partant des types de discours (BRONCKART, 1997) et en arrivant à des stratégies énonciatives et aussi aux choix thématiques. Le cadre théorique de référence pour l'analyse est issu de l'interactionnisme socio-discursif, particulièrement celui concernant la figuration d'agir (BRONCKART, 2001 ; BRONCKART, BULEA ET FRISTALON 2006 ; BULEA, 2007, 2010).

Les données montrent que l'enseignant commente non seulement ses actions, mais aussi les actions

des élèves et surtout leurs réactions aux pratiques proposées par les enseignants. L'évaluation du succès ou de l'échec de l'enseignant à mobiliser les élèves pour des tâches d'apprentissage correspond à environ 50% du discours produit dans les commentaires. Nous pouvons conclure que la caractéristique majeure d'agir de l'enseignant est de dédoubler son action dans une série de micro-activités dont l'axe de référence socio-subjective est la négociation sur l'agir des élèves. L'enseignant construit ainsi un réseau de significations complexes, multimodales et discursivement pluri-ancré dont le fonctionnement dynamique et la modification constante constitue une zone de développement (VYGOTSKI, 1997, 2014).

Keywords: Langage; Développement; Enseignement des langues

## **Non-invasive neurostimulation differentially affects cognitive effort in the processing of L2 Mandarin tone**

*Nick Pandza, Ian Phillips, Valerie Karuzis, Polly O'Rourke & Stefanie Kuchinsky*

*Location: CCIS L1 140*

Tone languages such as Mandarin are particularly challenging for native English speakers to learn. We investigated whether neurostimulation can facilitate lexical tone learning via optimizing the mental effort with which these non-native sound contrasts are processed. Specifically, transcutaneous vagal nerve stimulation (tVNS) can be non-invasively delivered via earbuds and has been shown to facilitate pure tone discrimination in animal models. This double-blind study investigates the impact of tVNS on the processing of Mandarin tones within an active Oddball task, as measured with pupillometry, an index of cognitive effort. Participants were native English speakers, naïve to tone languages. Individuals were assigned to active or sham tVNS conditions while balancing for non-linguistic pitch ability and musical experience. Participants received 10 minutes of active or sham tVNS stimulation before an Oddball task. The syllable of /ka/ with a flat tone recorded by a native Mandarin speaker was modified in Praat to produce rising and falling tones. This tightly controlled for non-tonal acoustic differences in the stimuli. The flat tone was the frequent non-target stimulus (73.3% of trials). The rising and falling tone items (13.3% each) were either infrequent targets or infrequent non-target, depending on task instructions. This was counterbalanced across participants. Preliminary results from 29 participants (15 tVNS, 14 sham) suggested that tVNS is associated with (1) a more sustained pupil response when the target was the rising tone, which is generally more difficult for native English speakers to perceive, and (2) a more peaked, less sustained pupil response when the target was the falling tone, which is easier to perceive. This suggests that tVNS may facilitate language learning via optimizing cognitive effort: increasing attention to challenging stimuli while reducing effortful processing for easy-to-learn stimuli. Thus, tVNS may have important consequences for language learning populations and specific benefits for learners of tone languages.

Keywords: neurostimulation; pupillometry; tone learning

## **Indigenous language revitalization and maintenance: a case study of Tiv language**

*Vanessa Chivir Adzer*

*Location: CCIS L1 160*

Indigenous languages are assets that must be jealously preserved. A people's language is a way of life; it encapsulates their culture, their uniqueness, their worldview, their essence and worth. It matters beyond an individual to social, political, economic development and harmonious coexistence in the society. Despite the immense value of these languages, they are fast disappearing. Thus, all possible

measures must be employed to revive and sustain them. This paper aims at providing answers to questions such as: why should we revive our indigenous languages? How can this be done? Of what relevance is this revitalization to this generation and the next? Who should revive what language? This paper is an added voice to the ongoing sensitization on the relevance of not letting go of our heritage as well as suggestions on how not to let go.

Keywords: Indigenous language, revitalization, maintenance

## Theme Session Chair

### Minimizing cognitive load in Simultaneous Interpreting

*Alexis Hervais-Adelman*

*Location: BS M 145*

Simultaneous interpreting is a hugely challenging linguistic task that requires the coordination and exploitation of a complex array of cognitive components, including (but not limited to) listening comprehension, the conversion of a message from one language to another, speech production and error-monitoring, all in real time. Together, these components result in a high cognitive load that must be handled by the interpreter. To do this, interpreters employ a variety of strategies and acquired skills, such as prediction, rapid lexical access, and enhanced short-term and working memory. This theme session explores the ways in which interpreters minimize their cognitive load. Across the papers, we will consider this theme broadly, looking at conscious and subconscious processes, the influence of training and use, and the role of interpreting mode. Additionally, the papers make use of a wide range of methodologies (ERPs, eye-tracking, text analysis, behavioral data), each of which allows a unique take on the topic at hand. This panel explores some of the latest opinions and data at the interface of research on interpreting and cognition. We aim to foster discussion and enhance interest in the multi-disciplinary approaches required to help us make sense of simultaneous interpreting. Specifically, we will examine the impact of interpreting experience on anticipatory semantic processes, the consequence of interpreting training on predictive processing, and lexical access, and further insights into the efficiency of the interpreting process that have been gleaned from analyses of interpreters' output. Simultaneous interpreting is a topic that has recently seen renewed interest from multiple research perspectives, intersecting with several key themes in multilingualism research. Notably, investigations of the mechanisms and processes of simultaneous interpreting can provide unique insights into the way in which language control processes are implemented under the extreme demands of maintaining two languages active simultaneously. Furthermore, it provides a model system for probing the consequences of the exercise of multilingual control in other domains, enabling us to investigate claims relating to the cognitive changes resulting from the regular exercise of language control. The panel would allow the cognitive science of interpreting community to capitalise on this rare opportunity for productive exchange between researchers approaching the topic from differing perspectives, using different methodologies, in order to advance the field of Simultaneous Interpreting studies and to continue to promote its integration with mainstream multilingualism research.

Keywords: Simultaneous Interpreting, Cognitive Control, Neuroimaging

## Theme Session Chair

### Measures, Modality, & Means: The 3 "M"s to define the bilingual experience

*Klara Marton*

*Location: BS M 149*

Bilingual language proficiency (BLP) and use is typically measured with questionnaires (e.g., Marian et al., 2007) that provide subjective outcomes. To evaluate BLP with more objective measures, researchers have used vocabulary tests (e.g., PPVT-4; Dunn & Dunn, 2007) or comprehensive language tests (e.g., CELF-5; Wiig, Semel, & Secord, 2013). The results from different questionnaires and language tests are inconsistent, however. Bedore and colleagues (2012) found that depending on the measures they used, the same bilingual children fell into different BLP categories. Correlations

between self-assessment and scores from language tests showed mixed results for the same participants (Butler & Lee, 2010).

Reasons for these conflicting findings include that most of the language tests have been normed on monolingual populations only; they have been developed to distinguish between typical and atypical language development, therefore, they measure participants' language knowledge and not BLP; and only 30% of English standardized tests show fair sensitivity and specificity values (e.g., Lugo-Neris et al., 2015). An additional problem is the existence of a disciplinary gap between studies on bilingualism and second language (L2) assessment. In the bilingualism literature, individuals who use two or more languages on a regular basis are considered to be bilingual (Grosjean, 2010). Researchers studying L2 assessment, however, consider L2 learners as bilinguals only if they exhibit high BLP. Unfortunately, policymakers are similarly divided. Although there are a number of valid and reliable BLP tasks for adults in the L2 assessment literature, they are not used in bilingualism studies and they are not appropriate for children.

Aim 1 of this symposium is to examine the outcomes from a number of subjective and objective measures that have been widely used in the bilingualism literature and evaluate how consistent the results are in children and adults.

Aim 2 is to determine factors that need to be considered when choosing a BLP measure for a given study.

Study 1 points to the importance of considering language modality when testing BLP. BLP was examined in young adults using 2 questionnaires (ACTFL; LEAP-Q) and 2 subtests from an objective language measure (Dialang). The results from 53 participants show inconsistencies between outcomes from the objective and subjective tasks and across modalities.

Study 2 calls attention to the impact of the global context on language performance. Young adults' (N=45) BLP measures were compared using a questionnaire, synonym production, and a picture-naming task. The results show that despite participants' similar BLPs in the questionnaire, all of them performed faster in English picture naming than in Korean.

Study 3 was designed to raise awareness to the difference between BLP and language ability. Data from 68 bilingual typically developing children and 14 bilingual children with developmental language disorder show inconsistencies in outcomes between the LEAP-Q questionnaire and the CELF-4/5 comprehensive language test.

During the discussion, we will point to the importance of supplementing subjective measures with objective ones, paying attention to different language modalities and to the global language-context, and to selecting measures in accordance with the research questions of a given study.

Keywords: language proficiency; language modalities; subjective versus objective measures

## **Theme Session Chair**

### **A world of possibilities: Bilingual development in children with ASD**

*Tamara Sorenson Duncan*

*Location: CCIS 1 140*

Autism spectrum disorder (ASD) is a common neurodevelopmental condition characterized by differences in social communication and restricted and repetitive behaviors (DSM-V, APA, 2013). These behavioral differences are often accompanied by difficulties in language acquisition, leading many to conclude that bilingualism is too challenging for children with ASD (Drysdale et al., 2015). Emerging empirical evidence, however, contradicts this assumption and instead suggests that bilingualism is feasible for children with ASD (e.g., Beauchamp & MacLeod, 2017; Drysdale et al., 2015; Kay Raining-Bird et al., 2012; Ohashi et al., 2012). Building on this growing body of research, this symposium brings together leading researchers from across Canada to provide an in-depth and multifaceted perspective on bilingualism in children with ASD. In particular, we offer new insights into the nature of bilingual exposure for children with ASD, the relationship between bilingual exposure and emerging language abilities, and the influence of bilingualism on children's cognitive abilities and academic achievements.

In terms of bilingual exposure, Govindarajan & Paradis and Gonzalez-Barrero & Nadig found that increased majority-language exposure was similarly related to individual differences in the language abilities of bilingually exposed children with ASD, with developmental language disorder and with typical development. Thus, as one would expect, the amount of input children with ASD receive in each language is related to their language proficiency. In their study of minority/majority bilingual households, however, Sorenson Duncan et al. did not find a relationship between increases in majority-language input at home and children's emerging language ability. Notably, this apparent discrepancy parallels research with typically developing children, which has shown, for example, that increased input from native speakers, but not non-native speakers, is associated with increased language ability (e.g., Chondrogianni & Marinis, 2011; Páez, Tabors, & López, 2007; Paradis, 2011; Pham & Tipton, 2018; Place & Hoff, 2016). Thus, taken together, the findings presented in this symposium highlight that, as is the case in typical bilingual development, the variability inherent within bilingual environments needs to be given greater consideration when seeking to understand the nature of bilingual development in children with ASD.

This symposium further extends our understanding of bilingualism in children with ASD by considering the extent to which bilingualism influences other areas of development: notably executive function and academic achievements. Gonzalez-Barrero and Nadig, for example, highlight that, as is the case for typically developing children, bilingual children with ASD show increased performance on executive function tasks compared to their monolingual peers with ASD (Calvo & Bialystok, 2014). As such, their work not only points to the possibility of bilingualism for children with ASD but suggests a potential benefit of bilingualism. The study by Sutton and colleagues will round out this discussion of the potential benefits of bilingualism for children with ASD by considering whether the benefits of bilingualism extend to increased academic success.

In sum, through this collection of work, we strive to move the conversation beyond "can children with ASD become bilingual?" and towards meaningful dialogue about the nature and impact of bilingual development in children with ASD.

Keywords: autism spectrum disorder; special education; linguistic input

### **Theme Session Chair**

## **Impacts of language diversity on language abilities, executive control, and brain plasticity in bilingual and monolingual adults**

*Jason Gullifer & Debra Titone*

*Location: CCIS L2 190*

Two core assumptions pervade investigations of language processing and its relationship to cognition: 1) bilingual or nonnative speakers tend to exhibit high heterogeneity in their language profiles, primarily due to differences in language proficiency, and 2) monolingual or native speakers tend to exhibit low heterogeneity in their language profiles. However, these assumptions may be ill-conceived, leading to wrongly justified comparisons between groups of bilinguals and monolingual “controls,” and empirical quagmires such as the hotly-debated bilingual advantages hypothesis (see e.g., Titone, Gullifer, Subramaniapillai, Rajah & Baum, 2017).

Thus, the aim of this thematic session is to bring together emerging research showing that a novel construct—diversity of language use—captures natural and expected variability in language and cognitive processing among highly proficient bilingual and monolingual speakers. Each talk in the session raises innovative ways to measure language diversity, whether at the individual level (Gullifer & Titone; Pliatsikas), or at the group level (Beatty-Martínez et al.; Bice & Kroll). Together, we show that language diversity, over and above language proficiency, modulates language abilities and engagement of executive control (Gullifer & Titone; Beatty-Martínez et al.), and the structural and functional neural networks that underlie language and executive control (Pliatsikas). Moreover, it is not only bilinguals who are sensitive to language diversity; ambient language diversity modulates the acquisition of novel features in a second language among monolingual speakers (Bice & Kroll). These findings cohere with recent neurocognitive perspectives on (bilingual) language processing, such as the adaptive control hypothesis (Abutalebi & Green, 2016; Green & Abutalebi, 2013) that highlight the interactional context of language usage. Language diversity thus appears to be a universally important construct in language research.

Keywords: language diversity; language abilities and executive control; plasticity

## **Invited Theme Session Symposium Organizer** **Advances In Immersion Teacher Education Research**

*Diane J. Tedick, University of Minnesota*

*Discussant: Roy Lyster, McGill University*

*Location: CCIS L1 160*

Language immersion education is a form of additive bilingual education that provides subject-matter schooling in a second, foreign, heritage, or Indigenous language for extended periods of time with intentional development of language, literacy, and academic skills in at least two languages (including the societal majority language) (Lyster, 2007). The crux of effective immersion teaching is content and language integration, yet teaching with a dual focus on content and language is challenging for myriad reasons (Cammarata & Tedick, 2012; Lyster, 2011). Scholars agree that immersion teaching is distinct from either traditional language teaching or content teaching and that it requires a specific pedagogical skill set and knowledge base (e.g., Cammarata & Tedick, 2012; Lyster, 2007; Tedick & Lyster, 2014; Tedick & Fortune, 2013). Teachers need (1) analytical tools that help them integrate language and content, (2) professional development experiences focused on integration, and (3) feedback on their teaching with particular attention to how they attend to language in their planning and during content instruction. The three studies presented in this symposium address these very issues. This invited symposium will showcase studies from three distinct geographical contexts that have a long history of immersion education: Canada, Ireland, and the United States. The two-hour session will proceed as follows: We will begin with a brief introduction followed by the three

presentations, each lasting approximately 25-30 minutes. Following the presentations, a discussant will offer comments for about 10 minutes. The remaining time will be devoted to discussion with the audience and among presenters.

## Over generalized Use of Japanese Intransitive Verb's Potential Form by L1 Cantonese Learners of Japanese

*Yumi Inoue*

*Location: BS M 141*

Ungrammatical sentences with a potential marking (below) are commonly observed even among advanced Japanese learners of L1 Cantonese speakers. However, we know little about the patterns of learner's overextended use of potential forms.

Kono tana  $\varphi$  ugo -ke -nai.

this shelf-NOM move- POT-NEG

"This shelf doesn't move"

Kaze ga nao -re -nai.

cold -NOM recover- POT-NEG

"I can't get rid of a cold"

The study involves grammaticality judgment tests (N= 23 advanced learners of L1 Cantonese) using forty intransitive verbs which have transitive counterparts, in three semantically different intransitive sentences, namely unergative KOOI where the subject is a doer/actor, unaccusative KANYO where outside force made a change, and unaccusative NAIHATSU where the change comes from within. Forty transitive-intransitive paired were chosen among 10 morphologically different verb groups. Each of ninety-nine sentences has choices of four verbs: intransitive, transitive, potential form of intransitive verb, and potential form of transitive verb where participants were asked to choose the correct one/s and rank them according to their acceptability.

The initial findings are 1) about 20% of overgeneralization of the potential form by Chinese learners was observed in unaccusative KANYO and NAIHATSU sentences where Japanese native speakers never or rarely made errors, 2) Learners who chose intransitive verbs correctly, didn't overuse its potential form (KANYO  $t=19.341$ , NAIHATSU  $t=33.348$ ,  $p .05$ ), 3) learners' overextended use of Vi's potential form in unaccusative sentences tends to become stronger in unaccusative KANYO more than unaccusative NAIHATSU, 4) among morphologically different groups of verbs, overuse was observed in only one group of verbs whose transitive morphology is -eru and intransitive morphology -u , such as nukeru, yakeru, wareru.

These findings may suggest that over generalized use of potential form of intransitive verb occurs mainly due to a semantic restriction of Japanese unaccusative sentences.

Keywords: unaccusative, potential form, overgeneralization

### Theme Session Talk

#### Lexical access in simultaneous interpreting trainees

*Laura Babcock, Silvia Fanton & Antonio Vallesi*

*Location: BS M 145*

Lexical access is of critical importance during simultaneous interpreting (SI) as rapid access can free up cognitive resources for other processes. It is unsurprising then that previous studies have found an advantage among professional interpreters compared to non-interpreters on tasks of lexical access. What remains unclear, however, is whether these advantages are stable or transient. The former would suggest that once the SI skill is acquired, the efficiency in lexical access remains even in the absence of further experience, while the latter would suggest that the SI skill needs to be continuously rehearsed to allow the maintenance of lexical benefits. To investigate this, students at various stages of interpreting training completed a verbal fluency task in their native language and a non-native language. We classified the students based on two factors: completion of the coursework for the Master in Conference Interpreting and recent practice with interpreting. These factors aimed to separate long-term from practice-dependent effects. We found that while training and recent practice did not modulate the number of items produced, these factors did influence the frequency of the items that were produced and when during the response period they were produced. Specifically, the students with no training and no practice and those with training and recent practice produced higher frequency words and exhausted the pool of available words earlier than students with only training or only recent practice. We suggest that this similar performance is due to different underlying language control processes, with a small vocabulary size most strongly driving the performance of the first group and low interference between the languages driving the performance of the second group. Beyond shedding light on language control in SI, these data also highlight the importance of examining non-canonical measures in the verbal fluency task.

## Theme Session Talk

### Bilingual Young Adults' Proficiency: Does modality matter?

*Thorfun Gehebe, Deepti Wadhera, Jungna Kim & Klara Marton*

*Location: BS M 149*

From behavioral to neuroimaging studies, the criteria by which bilingualism is defined may ultimately determine the outcomes. Researchers studying bilingual young adults have reported language proficiency using a variety of subjective (Dussias & Sagarra, 2007; Marian et al., 2007) and objective (Montrul et al., 2008) measures, yet these measures have yielded inconsistencies. The purpose of this study was to compare results from one objective and two subjective measures of English proficiency in a group of bilingual young adults ( $N=53$ ; mean age=27.02;  $SD=3.11$ ). Our aim was to determine: 1) if participants show similar proficiency when using subjective and objective measures; 2) if measures of spoken and written language proficiency are correlated.

Subjective measures included two widely accepted questionnaires: the American Council on the Teaching of Foreign Languages: Performance Indicators for Language Learners (ACTFL; Huhn, 2011; Kissling & O'Donnell, 2015) and the Language Experience and Proficiency Questionnaire (LEAP-Q; Marian et al., 2007). The ACTFL consisted of "can-do" statement checklists with 11 levels ranging from novice low to distinguished. The LEAP-Q required participants to rate their overall level of proficiency on a scale of 0-10. The objective measure was the Dialang (vocabulary & reading comprehension; Alderson & Huhta, 2005). Preliminary descriptive statistics have been conducted and some key Spearman's correlation coefficients are reported below:

1. The two subjective measures were strongly correlated ( $r_s=0.716, p<0.001$ ).
2. Subjective and objective measures of reading were strongly correlated ( $r_s=0.658, p<0.001$  for ACTFL

and Dialang).

3. Unlike written language tasks, the results from the spoken objective measure did not strongly correlate with the ACTFL ( $r_s=0.427, p<0.01$ ) or the LEAP-Q ( $r_s=0.480, p<0.001$ ). This suggests that subjective and objective measures may not be used interchangeably to determine language proficiency.

These findings point to the importance of utilizing both subjective and objective measures of language proficiency and taking modality into consideration when designing a study with bilingual individuals.

## Theme Session Talk

### Internal State Terms in the Narratives of English L2 learners with Autism Spectrum Disorder, Developmental Language Disorder and Typical Development

*Krithika Govindarajan & Johanne Paradis*

*Location: CCIS 1 140*

Cross-disorder comparisons can elucidate linguistic characteristics that are disorder-specific. To date, few cross-disorder comparisons have been conducted with bilingual children. This study investigated the narrative abilities of child English L2 learners with Autism Spectrum Disorder (ASD), Developmental Language Disorder (DLD) and Typical Development (TD). Monolingual children with ASD have difficulties with aspects of narratives that rely on perspective-taking, such as the use of internal state terms (ISTs). Accordingly, we asked whether children with ASD would show similar difficulties in their L2 and if they would differ from L2 children with DLD. First, we examined how each of these groups used ISTs in their narratives. Second, we examined how length of exposure to English influenced children's use of ISTs and whether it did so differently for each group. A standardized English narrative test was administered to L2 children with ASD (N=9), with DLD (N=9) and with TD (N=10). The participants had diverse L1 backgrounds and were matched for age (mean=6;7), non-verbal intelligence and receptive vocabulary. Narratives were coded for the following categories of ISTs: physiological terms, perceptual terms, consciousness terms, emotion terms and cognitive terms. The total number of ISTs produced was then calculated. Regression models were used to analyze how group (L2-ASD, L2-DLD and L2-TD) and exposure influenced the production of ISTs. L2-ASD produced fewer ISTs than L2-TD, as predicted. L2-DLD showed a trend toward producing more ISTs than L2-ASD, and were not different from L2-TD. More exposure to English was associated with more production of ISTs, but there was no interaction with group, so more exposure to the L2 did not especially advantage L2-ASD compared to the other groups. We conclude that children with ASD have difficulties with perspective-taking in narratives in their L2, and these difficulties are greater than those evidenced by children with DLD.

## Theme Session Talk

### Language entropy predicts language abilities and executive control: Evidence from the inhabitants of the diverse city of Montréal

*Jason Gullifer & Debra Titone*

*Location: CCIS L2 190*

Bilinguals vary in their language usage across social contexts, which has consequences for language and executive control. Theoretical and empirical studies in the neurocognition of bilingualism attempt to capture this variability, but there is a persistent focus on classic measures of language experience,

including static measures like age of acquisition and one-dimensional measures like current exposure to a second language. These measures may fail to capture the full range of bilingual experience. Drawing on insights from information theory, we propose an innovative measure of language experience: language diversity formalized as entropy.

Language entropy continuously characterizes individuals' language diversity from compartmentalized (one language usage, low entropy/diversity) to integrated (balanced dual language usage, high entropy/diversity). On a large sample of bilinguals living in Montréal (N=507), we show how language entropy relates to classic measures of experience: language entropy is weakly associated with AoA and strongly associated with overall L2 exposure. Crucially, language entropy is a significant predictor of self-reported L2 abilities over and above classic measures, indicative of its utility as a measure of bilingual experience (Gullifer and Titone, under revision; R package available at <https://github.com/jasongullifer/languageEntropy>). Together with prior work from our lab showing that language entropy predicts resting state organization of functional brain networks and executive control abilities (Gullifer et al., 2018), these results suggest that language diversity is an important construct, consistent with recent neurocognitive theories of bilingualism such as the adaptive control hypothesis (Abutalebi & Green, 2016; Green & Abutalebi, 2013). These perspectives further predict that bilinguals' language diversity should be related to the degree of cross-language activation and control abilities recruited to manage it. Planned extensions of this work will examine this issue in an additional sample of Montrealers.

## **L2 immersion and L2 speaking enhance cognitive control among Chinese-English bilinguals**

*Zhilong Xie, Shuya Zhou, Xue Ruan, Hualan Tan & Jia Yang*

*Location: CCIS 1 430*

The issue of bilingual advantage has been a controversy in recent literature. Some studies find positive evidence while others do not. We believe the inconsistency is a result of a combination of the complexities of bilingualism and the multiple dimensions of cognitive control. The current study intends to investigate whether L2 immersion and L2 speaking could have impact on cognitive control among unbalanced Chinese-English bilinguals, with relevant variables controlled, e.g., SES, L2 proficiency, IQ, age, AoA etc. Three groups of bilinguals were compared with the administration of a flanker task and a WCST, which were used to measure inhibition, conflict monitoring and mental set shifting. Group 1 (control group) were Chinese undergraduate students who majored in English Language Education. Group 2 (L2 immersion) were Chinese undergraduate students who majored in a mix of specialties but studied in New York with L2 immersion experience for 1.3 years. Group 3 (L2 speaking) were Chinese undergraduate students who majored in English and had English speaking training for 2.8 years. Data analyses showed that both L2 immersion group and L2 speaking group performed significantly faster than control group in all three conditions of the flanker task, whereas no differences among the three groups in the WCST performance. The result indicates that L2 immersion experience, as L2 public speaking training, contributes significantly to cognitive control differences in conflict monitoring. We propose that bilingual advantage exists, but further study needs to sort out how specific bilingual experience/type moderates cognitive control in different dimensions.

Keywords: bilingual advantage; L2 immersion; L2 speaking

## **Supporting students with special educational needs in immersion education**

*Padraig Ó Duibhir, Sinéid Nic Andriú & Joseph Travers*

*Location: CCIS 1 440*

Research related to the educational attainment of typically developing students in language immersion programmes indicates that across many curriculum areas they perform as well as, if not better than, their peers in majority language schools. In addition to this, they achieve a high level of competence in the target language. The suitability of immersion education for students with special educational needs (SEN) has been a topic of debate for many decades. Recent evidence suggests that SEN students ought not be excluded or transferred from an immersion programme, once the additional support needed by the students can be provided. This evidence runs counter to the advice offered to parents of SEN students by some teachers, educational psychologists and external agencies. The practice of discouraging SEN students from immersion programme participation is questionable. It may deny SEN students access to a second language and lead to reduced diversity in immersion education.

This study sought to assess what additional learning supports were required by pupils with SEN. A mixed methods approach was adopted to survey a random stratified sample of Irish immersion schools (n=29) followed by case studies in four of these schools. The case studies focussed on students (n=11) with autism spectrum disorder (ASD), specific speech and language disorders (SSLD), and dyslexia. Students' teachers, parents, and principals were also interviewed. Parents who chose to transfer their children with SEN to an English-medium school were also interviewed.

This presentation will draw on survey and case study data to report on the additional supports required by teachers, parents, and external agencies to ensure that immersion students with SEN can access the curriculum appropriately and reach their potential.

Keywords: special educational needs, immersion, learning support

## **Bilingual Children's Modifications of Codeswitching in Prepositional Phrases as a Window to Linguistic Representations**

*Aviva Soesman & Joel Walters*

*Location: CCIS L1 140*

The study investigated children's modifications of codeswitched prepositional phrases (PPs) via an elicited repetition task. By analyzing these modifications, the study provides a testing ground for proposed constraints on codeswitching involving prepositions and determiner-noun phrases (Jake, Myers-Scotton, & Gross, 2002; Joshi, 1985; MacSwan, 2014).

Participants were L1/English–L2/Hebrew sequential bilingual children (N = 78), ages 5;5 – 6;8. Stimulus sentences consisted of 36 English and 36 Hebrew sentences, matched for semantic content and syntax. Six switch conditions were examined: a codeswitched preposition (P), a preposition switched along with a subsequent determiner (PD), a preposition switched along with a subsequent determiner and noun (PDN), a codeswitched noun (N), a noun switched along with a preceding determiner (DN), and no switch. Modifications of the PP stimuli were coded for six types: failure to codeswitch P/D/DN and non-elicited codeswitched P/D/DN.

Fewest modifications resulted for single Noun switches, and most frequent modifications occurred for the English-to-Hebrew CS-DN condition and for the Hebrew-to-English CS-P condition, i.e. switches involving an English P adjacent to a Hebrew D as in (1). The modification patterns showed a preference

for maintaining the P+D in the same language, as seen in (2):

- (1) Stimulus The girl played inside HA- XEDER [the room] all day
- (2) Modifications The girl played inside the XEDER all day

The girl played betox HA- XEDER all day

Three possible interpretations are offered: a) typological differences in the way definiteness is expressed in the two languages (free vs bound/cliticized morpheme); b) preference for codeswitching a single N; and c) preference for maintaining D in the language of the stimulus sentence. Differences for English-to-Hebrew and Hebrew-to-English codeswitching suggest that the grammatical features of the two languages must be compatible. Findings are discussed in light of claims that the two monolingual grammars constrain codeswitching (MacSwan, 2014; Mahootian, 1996).

Keywords: intra-sentential codeswitching; prepositional phrases; elicited imitation

## Theme Session Talk

### Exploring the Potential of the Interconnected Knowledge for Integration (IKI) Analytical Tool to Optimize Immersion Teachers' Professional Growth

*Laurent Cammarata*

*Location: CCIS L1 160*

In recent years a few attempts have been made to try to modelize the required knowledge teachers implementing an integrated approach need to possess to be effective (e.g., Morton, 2016; 2017; Troyan, Cammarata, & Martel, 2017). This presentation will describe the Interconnected Knowledge for Integration (IKI) analytical tool specifically designed to map the different domains of expertise and knowledge immersion teachers as well as immersion teacher educators need to develop to successfully implement a well-integrated approach. Illustration of the analysis conducted with the analytical tool will be provided and implications for professional development and future research will be discussed.

## An intergenerational look into referentiality: the bare object in Turkish

*Gulsen Yilmaz*

*Location: BS M 141*

While native language skills of adult immigrants may gradually weaken, their preferred and most proficient language of communication in the family often remains the first language. Younger immigrants and heritage speakers, however, usually become more dominant in the second language. This can lead to tensions and communication problems in the family and the community. The present study is interested in a language skill that is integral to successful communication: the ability to refer to entities in discourse. This issue is particularly interesting when languages involved differ in encoding referentiality. i.e., Turkish and German. An intriguing feature of Turkish is that only the object that occurs with the determiner *bir* can introduce a new discourse referent that can be referred to in the ensuing discourse; and the bare object cannot:

Nihan bir elbise/\*elbise dikti. Sonra onu mezuniyet balosunda giydi.

Nihan a dress/ dress sew-Past-1Sg. Then it-Acc graduation party-LOC wear- Past-1Sg

'Nihan sewed a dress/a dress or dresses. Then, she wore it at the graduation party.'

In stark contrast with Turkish, German disallows bare objects. In order to investigate whether bilinguals have maintained this distinction in Turkish, we tested first and second generation immigrants living in Germany (n=61) via a self-paced reading and a grammaticality judgment test. Our preliminary analyses reveal that the first generation immigrants' judgments about opacity of the bare object were intact but they were insensitive to ungrammatically introduced referents in the reading test. The second generation speakers were neither able to realize the ungrammatical use of the bare object nor make correct referential judgments. Our reflections will have the potential to increase awareness of the repercussions of native language change within and across generations. We contend that this is of particular societal importance in the contemporary era of increasingly larger waves of migration across the world.

Keywords: intergenerational; reference; discourse

### Theme Session Talk

## Anticipation of semantic information in interpreter bilinguals, non-interpreter bilinguals and monolinguals

*Christina Lozano-Argüelles & Nuria Sagarra*

*Location: BS M 145*

This study investigates the differences in anticipatory processes between monolinguals and L2 learners of Spanish with and without interpreting experience. Specifically, we look into how anticipatory experience during simultaneous interpreting might affect the use of a prosodic cue, namely lexical stress, to anticipate semantic information. In this eye-tracking study, participants listened to a sentence while seeing two words on the screen and their task was to select the word they had heard by pressing a right or left button. Target words had identical first syllables except for the lexical stress. Half of them were paroxytone (DEdo, 'finger') and the other half were oxytone (deDAL, 'thimble'). We analyzed eye fixations at the onset of the second syllable, before the semantic information was

disambiguated, to examine whether participants are already looking at the target word.

## Theme Session Talk

### Language proficiency, lexical knowledge, and the bilingual language context

*Jungmee Yoon, Klara Marton & Loraine K. Obler*

*Location: BS M 149*

We investigated the relationship between self-rated proficiency and active vocabulary use in highly proficient bilingual speakers. Forty-five Korean-English bilingual adults living in the US aged between 18 and 35 years (mean=28.9, SD=3.9) participated in this study. Self-reported information about proficiency was obtained on a zero- to seven-point Likert scale (LEAP-Q, Marian et al., 2007). An objective measure of lexical knowledge was obtained using a synonym-naming task based on the Bilingual Verbal Ability Test (BVAT; Cummins, Muñoz-Sandoval, Alvarado, and Ruef, 1998). Participants were asked to name a synonym for each stimulus word (i.e., a noun or adjective) for a total of 18 trials in each language. In addition, they performed a simple picture-naming task (20 words) in each language. Participants rated their spoken language proficiency in the two languages at a comparable level (M=6.5, SD=.9 for Korean; M=5.9, SD=1.0 for English) and performed the synonym naming task at similar accuracy (M=62.7%, SD = 22.2% for Korean; M=69.2%, SD=19.2% for English). The self-rated spoken language proficiency and the synonym naming accuracy showed a moderate correlation ( $r=.475$ ,  $p=.001$  for Korean;  $r=.412$ ,  $p=.005$  for English). Yet, our bilingual participants were significantly faster in picture naming for English than Korean ( $p<.001$ ), showing some discrepancy among measures and a unique role of the global language-context.

The results suggest that a single measure of proficiency is not sufficient and self-rated questionnaires need to be supplemented with more objective measures. Moreover, the frequency of language use and the global language- context, in which bilingual young adults are immersed, have a great impact on their language performance.

## Theme Session Talk

### Majority-language shift in the bilingual households of children with ASD: A cautionary tale for sustained bilingualism

*Tamara Sorenson Duncan, Annie E. Richard, Isabel M. Smith & the Pathways in ASD Team*

*Location: CCIS 1 140*

This longitudinal study of bilingually exposed children with ASD examines whether caregivers continue to provide minority-language input from the time of ASD diagnosis until age 6 years, and whether this is influenced by children's verbal abilities at diagnosis. We also investigated whether continued minority-language input hinders children's majority-language abilities.

Method: Primary caregivers reported on the linguistic input of 39 bilingually exposed children with ASD. The ADOS, CDI and PLS-4 were administered to the children. Children were categorized as verbal ( $n = 19$ ) or minimally verbal ( $n = 20$ ).

Results: There was a substantial shift towards the majority language. At diagnosis (T1), 32% of primary caregivers of verbal children (Mage = 38.79 months; SD = 5.47) compared to 75% of minimally verbal children (Mage = 33.34 months; SD = 6.48) used a minority language as the primary language with their children ( $\chi^2(1) = 7.39$ ,  $p = .01$ ). By T2 (Mage = 48.46 months), only 16% and 15% of caregivers

used the minority language as primary and by T3 (Mage = 80.70 months), 11% and 15% did so. Alarming, 32% and 45% of caregivers of verbal and minimally verbal children, respectively, stopped using the minority language by T2, although three caregivers from each group reintroduced it at T3. PLS-4 and CDI scores at age six years were not significantly different if the primary caregiver discontinued the minority language or not; this was true for both verbal and minimally verbal children.

These results indicate that regardless of the child's verbal ability at diagnosis, few primary caregivers of children with ASD continue to use the minority language as a primary language across the preschool years. This raises concerns about sustained bilingualism for these children, which is further worrisome because loss of the bilingual environment was not tied to increased majority language abilities.

## Theme Session Talk

### **Bilinguals' interactional contexts and immersion status impose different demands on language production and cognitive control**

*Anne Beatty-Martínez, Christian Navarro-Torres, Paola Dussias, M. Teresa Bajo, Rosa Guzzardo Tamargo & Judith Kroll*

*Location: CCIS L2 190*

Proficient bilinguals use two languages actively but the contexts in which they do so may differ quite dramatically. The present study asked what consequences the contexts of language use hold for the way in which cognitive resources modulate language abilities. Three groups of speakers (N = 96) were compared, all of whom were highly proficient Spanish-English bilinguals who differed with respect to the contexts in which they used the two languages in their everyday lives. They performed two language production tasks and a nonlinguistic measure of cognitive control. Results showed that the context of language use rather than proficiency determined the way that bilinguals planned speech and engaged cognitive control. The relative accessibility of words in each language was modulated depending on whether bilinguals used the two languages separately, whether they were immersed in a second language (L2) environment, or whether they used the two languages interchangeably. Critically, we demonstrate that inhibitory control modulated language production only for bilinguals who were immersed in the L2, where there is a constant requirement to keep track of who speaks which of their two languages. The results demonstrate that even bilinguals who speak the same two languages at a high level of proficiency are not necessarily alike in the way in which they engage cognitive resources. Our findings support the adaptive control hypothesis (Green & Abutalebi, 2013) in showing that being bilingual does not, in itself, identify a unique pattern of cognitive control. An important implication is that much of the controversy that currently surrounds the consequences of bilingualism for cognition may be understood, at least in part, as a failure to characterize the complexity associated with the context of language use.

### **Are Bilingual Children Better Able to Integrate a Speaker's Information Access and Past Accuracy in Communicative Cues Than Monolingual Children?**

*Xiaoqian Li, Shirlyn H.M. Sia, Yee Ning Tan & W. Quin Yow*

*Location: CCIS 1 430*

A bilingual advantage is found in children for integrating multiple cues to understand others' communicative intent (e.g., Yow & Markman, 2015). Bilinguals are thus likely better at dealing with complex communicative situations than monolinguals, such as when children need to consider

reasons for a speaker's (in)accuracy (e.g., information-access) to assess the speaker's (un)reliability. We explored whether bilingual children would be better able to use information-access to account for a speaker's past (in)accuracy than monolinguals.

Sixty-two monolinguals (37 males; Mage=4.48 years) and 69 bilinguals (40 males; Mage=4.52 years) interacted with an experimenter, whose prior accuracy and access to information were manipulated. In the familiarization trials, a sticker was placed in one of two boxes, where the sticker was either visually accessible by the experimenter (informed-speaker) or not (uninformed-speaker). The experimenter then indicated the sticker location by pointing/gazing towards either the box with the sticker (accurate-speaker) or the empty box (inaccurate-speaker). In the test trials, the experimenter hid a sticker in one of two opaque boxes, and asked the child to find the sticker while providing a (correct) pointing/gazing cue. We examined whether children would follow the experimenter's cues to successfully locate the sticker.

We found a main effect of accuracy: children followed the accurate speaker's cues more than the inaccurate speaker,  $F(1,123)=35.81, p<.001$ ; and a near-significant interaction between accuracy, information-access, and language-group,  $F(1,123)=3.36, p=.069$ . Pairwise comparisons showed that bilingual children followed the accurate-and-informed speaker's cues more than the accurate-but-uninformed speaker,  $p<.001$  (similar trend for monolinguals,  $p=.079$ ). Importantly, bilinguals followed the inaccurate-and-uninformed speaker's cues more than the inaccurate-yet-informed speaker,  $p=.022$ , indicating that they used information-access to reason about earlier inaccurate cues, but not monolinguals,  $p=.50$ . These results suggest that the bilingual advantage in integrating communicative cues to understand others' intent extends to considering information-access as a reason for a speaker's prior inaccuracy.

Keywords: information access; communicative cues; past accuracy

## Taxing Language Control Processes Through Elicited Codeswitching Negatively Impacts Executive Control

*Clara G.H. Chan & W. Quin Yow*

*Location: CCIS L1 140*

Several studies document bilingual advantages in executive control (see review in Bialystok, 2017). This advantage presumably arises from bilinguals' constant practice of managing two languages, and such language control is part of a domain-general process that also underlies executive control. However, this common-resource mechanism is still under debate. In support for this view, we seek to experimentally demonstrate that taxing language control processes negatively impacts subsequent executive control (EC) task performance.

We utilized a novel language switching manipulation by randomly assigning 84 English-Chinese Singaporean college students (M age=22.49 years) to one of two conditions: 1) codeswitching condition: participants read two 300-400 word passages with inter-sentential switches between English and Chinese, or 2) control condition: participants read the two passages in English only. Participants were subsequently asked four questions regarding the passages. Participants in the codeswitching condition answered two questions each in English and Chinese, where the answers were found in the passage in the other language. Those in the control condition answered the questions in English. All participants then performed three EC tasks: Letter-number task switching, N-back (3-back), and Stroop. We hypothesized that participants in the codeswitching condition would

have poorer EC task performance compared to participants in the control condition, moderated by individual degree of bilingualism in proficiency and usage.

We conducted multiple linear regression analyses, with separate models for individuals' self-reported bilingual proficiency and usage, controlling for self-reported unintended language switching. We found interactions between bilingual proficiency and experimental condition on the Stroop interference effect ( $b=54.21$ ,  $p=.02$ ), and bilingual use and experimental condition on the  $d'$  scores of N-back task ( $b=-.41$ ,  $p=.01$ ). Overall, codeswitching resulted in worse task performance for less-balanced bilinguals, but facilitated more-balanced bilinguals' performance. Thus, language control overlaps with executive control resources, with balanced bilingualism enhancing such resources, making executive control less resistant to depletion.

Keywords: Cognition; Language control

## Theme Session Talk

### **Making the Invisible Visible: Facilitating Language and Content Integration through Professional Development in Secondary Immersion**

*T.J. Ó Ceallaigh, Muiris Ó Laoire & Máire Uí Chonghaile*

*Location: CCIS L1 160*

This presentation will contribute to the somewhat limited knowledge base on professional development (PD) experiences of immersion teachers by reporting on the experiences of nine Irish-medium secondary immersion teachers as they engaged in the instructional integration of language and content during a year-long PD program. The study focuses on teachers' experiences as they worked to conceptualize language and content integration and to plan and implement instructional sequences. Data were collected from an extensive online questionnaire, individual interviews, reflections, lesson plans, online discussion fora, and focus groups. Findings illustrate several points of access into classroom research and pedagogy and uncover core aspects of high impact experiences. We conclude with implications for designing meaningful and effective immersion PD experiences.

## Theme Session Talk

### Best practices in assessing language proficiency in bilingual children with and without DLD

*Zhamilya Gazman, Lia Pazuelo, Jessica Scheuer, Luca Campanelli, Yasmine Ouchikh & Klara Marton*

*Location: BS M 149*

It is a common practice in bilingualism research to assess language proficiency with subjective language history questionnaires (e.g., Morales et al., 2013). Alternatively, researchers use standardized assessments of language abilities to determine children's language proficiency, and often in one language only. However, the purpose of these measures is to identify whether a language disorder is present, not to assess language proficiency. Additionally, these tests are often normed on monolingual children only. We examined methods for assessing bilingualism in children with typical language development (TD) and with developmental language disorder (DLD) to determine the degree of relationship between subjective measures of language proficiency and objective measures of language ability.

To examine methods that are used to classify bilingualism, the language skills of 68 children with TD and 14 with DLD were assessed. They were between the ages of 8-13 years and their primary language was English. The parent or guardian of each participant completed a questionnaire adapted from the LEAP-Q (Marian et al., 2007). Child language abilities were assessed using the Clinical Evaluation of Language Fundamentals (CELF-4/5), a standardized measure of expressive and receptive language skills. The Core Language Score subtests (CLS; an overall measure of receptive and expressive language ability) were given according to each child's age. All participants completed the Formulated Sentences (FS) subtest, which evaluates the ability to verbally formulate complex sentences using a target word or phrase while using an illustration as a reference. Spearman's rank-order correlation results indicate that the subjective measures (LEAP-Q speaking and comprehension scores) were highly positively correlated with each other for children with TD ( $r_s=.0.779$ ,  $p<.001$ ) and DLD ( $r_s=0.600$ ,  $p=0.022$ ), but not with the objective measures ( $p>0.200$  for both groups). These findings suggest that neither one of these measures would suffice at determining bilingual proficiency on its own.

## Theme Session Talk

### Language Skills and Executive Functions of Bilingual Children with Autism Spectrum Disorders

*Ana Maria Gonzalez-Barrero & Aparna Nadig*

*Location: CCIS 1 140*

Despite the belief that bilingualism is challenging and may be harmful for language acquisition in children with Autism Spectrum Disorders (Yu, 2013), the available evidence does not support this claim. Instead, findings suggest that bilingual children with ASD do not present additional language delays relative to their monolingual peers with ASD (Hambly & Fombonne, 2012; Reetzke et al., 2015). However, most studies have focused on early childhood using parent report, while less is known about the impact of bilingualism on language abilities in school-age children with ASD. Furthermore, no published study had directly investigated the impact of bilingualism on executive functions in this population.

To address these questions, we investigated the lexical and morphological abilities of school-age bilingual children with ASD using standardized tests, as well as examining the relationship between

amount of language exposure and linguistic competence (Study 1). In parallel, we examined the impact of bilingualism on executive functions, with set-shifting, verbal fluency and working memory tasks (Study 2).

Study 1: Current amount of language exposure was the strongest predictor of both vocabulary (explaining 62% of variance) and morphological skills (explaining 49% of variance), for both typically-developing children and children with ASD. A group comparison showed that bilingual children with ASD performed in the average range on standardized measures of vocabulary, although they exhibited lower scores than well-matched monolingual peers with ASD. No significant differences were found on morphological skills. Study 2: Concerning executive functions, bilingual children with ASD showed enhanced performance in experimental paradigms assessing set-shifting and verbal fluency relative to monolinguals with ASD. Taken together, these findings build on previous research suggesting that bilingualism is not detrimental for the language skills of children with ASD and provide novel evidence concerning benefits of bilingualism for some executive function skills in children on the autism spectrum.

## Theme Session Talk

### Understanding structural plasticity in the multilingual brain: The Dynamic Restructuring Model

*Christos Pliatsikas*

*Location: CCIS L2 190*

Research on the effects of multilingualism on the structure of the brain has so far yielded variable patterns. Although it cannot be disputed that learning and using additional languages restructures both grey and white matter in the brain, the reported effects vary considerably, with both increases and reductions in grey matter volume and white matter diffusivity having been reported (Pliatsikas, 2019). This paper reviews the available evidence from the perspective of experience-based neuroplasticity, and links these findings to patterns from other domains of learning. Critically, theoretical suggestions about the biological explanation and time course of experience-related volume expansion and renormalisation of grey matter, as well as of fluctuations in white matter diffusivity, are discussed. Within this framework, multilingualism-induced neuroplasticity is examined on the basis of proxies of language experience such as immersion, age of acquisition and amount of usage and switching. Evidence from simultaneous and sequential bilinguals, multilinguals, interpreters, children, dementia patients and healthy older adults is reviewed and evaluated based on their reported or assumed language experiences. The presentation concludes with a theoretical suggestion reconciling the available findings to theories on the biological basis of experience-based neuroplasticity: the Dynamic Restructuring Model (DRM). Suggestions for future research are also presented, in particular longitudinal studies that should be able to capture the full pattern of multilingualism-related neuroplasticity.

### Do learners of English as an Additional Language have a metalinguistic advantage in the primary foreign language classroom?

*Katy Finch*

*Location: CCIS 1 430*

The introduction of statutory Modern Foreign Language (MFL) teaching for primary pupils (aged 7-11) in England in 2014 brought an additional linguistic dimension to an increasingly multilingual

environment. With 20.6% of pupils classed as learners of English as an Additional Language (EAL) in England (National Statistics, 2017) a significant proportion of the school cohort are approaching their new foreign language curriculum as L3 (or L4) learners. Although many primary teachers have expressed concerns regarding the delivery of MFL to learners of EAL (Legg, 2013), this study assessed whether the linguistic profiles of these children may in fact be advantageous in the foreign language classroom. Focussing on the debated metalinguistic advantage of bilingualism (Bialystok, 2001; Simard, et. al., 2013; Reder, et. al., 2013), a battery of four metalinguistic-awareness tasks concentrating on: phonological, morphological, morpho-syntactic and syntactic awareness, were administered at two time points, one academic year apart, to both learners of EAL (N=43; M=10;5 years; range = 9;10–11;0) and their monolingual peers (N=37; M=10;4 years; range = 9;10–11;0). At the first time point, we found a significant advantage for the EAL group in the areas of foreign language phonology  $p = .024^*$ ; morphology  $p = <.001^*$ ; and syntax  $p = .017^*$ , but not for morpho-syntactic error correction. However, preliminary analysis from the second phase of data collection suggests that the gap between the groups may be closing. This suggests that the early advantage for the EAL group may be dependent upon specific cognitive processes or learning strategies that they bring to the task, but classroom-based teaching of MFL is sufficient to support comparable learning in their monolingual peers. These data make a new contribution to our understanding of the timing and longevity of the bilingual metalinguistic advantage.

Keywords: EAL; metalinguistic awareness; foreign language learning

## **“Je parle français”: Bilingual Identities of French Immersion Middle School Students**

*Kelle Keating-Marshall & Wendy Bokhorst-Heng*

*Location: CCIS 1 440*

s Canada’s only officially bilingual province, New Brunswick (NB) has separate school systems for the Anglophone majority and Francophone minority, with a provincial-wide French immersion (FI) program in the Anglophone schools. The outcomes listed for NB’s FI curriculum emphasize (a) the need for Anglophone students to learn French to better understand Canada’s multicultural heritage; (b) the need to increase understanding and appreciation of French culture in NB; and (c) the importance of French for participation in the global market. Of interest is how FI immersion students have imbibed these objectives, and how they position their identity within NB’s official bilingualism and the linguistic spaces it creates. In this paper, we discuss results of a discourse analysis conducted on focus group data collected during May and June 2016. The data regard bilingual identity of 31 Middle School FI students. We see bilingualism as a socially defined concept (Heller, 2007), couched in socio-political, socio-cultural and historical processes. Furthermore, we draw from language socialization theory: learners are not passive and will not always appropriate the (socio) linguistic forms, practices and values of their teachers or the curriculum. In particular, we ask:

- What does it mean to these students to be bilingual?
- What do they think they can and will be able to do with their bilingualism?
- How do they position themselves within bilingual NB and define their relationship with French New Brunswickers?
- How do they position themselves within multicultural Canada?

Preliminary findings of students' discourse suggest a greater emphasis on the commodification of linguistic competence and utility (jobs, navigating public spaces), with only nascent conceptualizations of their own intercultural identity as bilingual subjects. We argue instruction in intercultural competence is essential within FI education to facilitate the development of an enriched bilingual identity.

Keywords: Intercultural competence; Immersion education; Language identity

## **Cognate-triggered codeswitching in Welsh-English conversations**

*Diana Carter, Agnieszka Konopka, Kevin Donnelly & Mirjam Boersma*

*Location: CCIS L1 140*

This study investigates the psycholinguistic process underlying triggered codeswitching within the context of conversational dynamics. The triggering hypothesis, first put forth by Clyne (1967, 2003), proposes that cognates facilitate codeswitching. The adjusted trigger theory (Broersma and De Bot, 2006) proposes that cognates may facilitate codeswitching due to a shift in the activations of two languages in the mental lexicon. Cognates are strongly connected in the mental lexicon. Therefore, the activation of a word that is shared by two languages may lead to a change in activation of both languages at the lexical level. This in turn may 'boost' the least active language to the extent that the next time a lemma is selected it may be one from the boosted language instead of the previously spoken language.

Evidence is provided through analyses of a large-scale digital corpus of Welsh-English conversational speech recorded from 151 bilingual participants from Wales, UK. Our results showed that 1) producing cognates facilitated codeswitching, 2) speakers who generally produced more cognates generally codeswitched more, 3) codeswitching temporarily remained facilitated after the production of cognates, 4) larger numbers of cognates in a clause increased the likelihood of codeswitching, and 5) hearing rather than producing cognates did not facilitate codeswitching. The findings confirm the validity of the proposed cognitive account of triggered codeswitching, and clarify the relation between the lexical activation of cognates and consecutive language choice, in accord with current insights in lexical processing.

Broersma, M., & De Bot, K. (2006). Triggered codeswitching: A corpus-based evaluation of the original triggering hypothesis and a new alternative. *Bilingualism*:

*Language and Cognition*, 9, 1-13.

Clyne, M. (2003). *Dynamics of Language Contact: English and Immigrant Languages*.

Cambridge: CUP.

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Keywords: Triggered codeswitching; Cognates; Lexical activation

## **Theme Session Talk**

## Designing and Implementing a Rubric for Assessing Immersion Teaching

*Diane Tedick & Corinne Mathieu*

*Location: CCIS L1 160*

Immersion teaching requires a specific knowledge base and pedagogical skill set, distinct from either traditional content or language teaching. Yet the field lacks research-based tools for evaluating immersion teachers' abilities to apply such knowledge and skills in their practice. This presentation will discuss the development, evaluation, and piloting of an extensive rubric designed to guide immersion teachers and administrators in assessing, reflecting on, and improving instructional practice. Findings from two integrated studies will be shared: a survey study designed to establish the rubric's construct validity and a qualitative study examining the experiences of clinical supervisors who piloted the rubric with immersion student teachers.

## How Japanese Bilingual Children Utilize Argument-Omitted Sentence in Direct and Indirect Object Case-markers Learning

Akiko Zhao

Location: BS M 141

This study investigates how bilingual children utilize the sentence with an argument omission by focusing on direct and indirect object case-markers in Japanese, a language that allows a high percentage of argument omission. Despite the seemingly “insufficient input”, Japanese monolinguals manage to acquire object case-marker by the age of seven. But how Japanese bilinguals comprehend the case-markers and how environmental input plays a role remains unknown. Thus, we first examined how Japanese bilinguals comprehend existing direct and indirect object case-markers *wo* and *ni* (Experiment 1). Second, we investigated how effective it is for Japanese bilinguals to learn an artificial direct and indirect object case-marker when given full-argument or argument-omitted sentences in a short exposure (Experiment 2).

To investigate the first question, the participants were required to choose the semantically matching one from two pictures after listening to a sentence structured as either “Object-*wo*-Verb” or “Object-*ni*-Verb” (Study 1). For the second question, the participants learned *po* which marks subject, and *bi* which marks object, by watching and imitating four single action scenarios while listening to the sentence. Half of the participants received full-argument sentences (Subject-*po*-Object-*bi*-Verb), which took both case-markers, and the rest received argument omission sentences, where either argument was omitted (Subject-*po*-Verb/Object-*bi*-Verb) and correspondingly only one case-marker was used.

A mixed effect model for children’s responses (correct or incorrect answer) showed that, for experiment 1, Japanese bilinguals could not comprehend direct and indirect case-makers correctly. And for experiment 2, the argument-omitted group comprehended the case-markers better than the full-argument group comprehended them. Results indicated that argument-omitted exposure was useful for Japanese bilinguals in learning case-markers, but not full-argument exposure. Our finding supports the ability of utilizing appropriate linguistic information in childhood, which argument-omitted sentence is more useful than full-argument sentence in the case of learning direct and indirect object case-marker.

Keywords: artificial case-marker, argument omission, object case-marker

### Theme Session Talk

#### Pickering Prediction in simultaneous interpreting

Rhona Amos, Kilian Seeber & Martin Pickering

Location: BS M 145

People make comprehension easier by predicting upcoming language. We might therefore expect prediction to occur during the extremely difficult task of simultaneous interpretation. We report a study that used the visual-world paradigm to investigate the time-course of prediction during a simultaneous interpreting task. Based on Ito (2017), twenty-four L1 French professional conference interpreters and twenty-four L1 French professional translators heard an English sentence containing a highly predictable word (e.g. The dentist asked the man to open his... mouth a little wider) and viewed four objects, one of which was either a target object (mouth; *bouche*), an English phonological competitor (mouse; *souris*), a French phonological competitor (cork; *bouchon*) or an unrelated word

(bone; os). We considered whether 1) professional interpreters predict in their non-native language during comprehension 2) professional interpreters predict word-form during non-native language comprehension and 3) professional interpreters predict more rapidly than professional translators during comprehension with concurrent production. Both interpreters and translators looked predictively at the target object, but preliminary results show different patterns of prediction in the two groups.

Keywords: simultaneous interpreting; visual world; prediction

## Theme Session Talk

### French Immersion outcomes of children with special education needs

*Ann Sutton, Elizabeth Kay -Raining Bird, Fred Genesee & Xi Becky Chen & Joan Oracheski*

*Location: CCIS 1 140*

Typically developing children from English language backgrounds develop strong French comprehension and production skills in early French Immersion (EFI) programs and achieve academic and English language abilities comparable to peers in programs with English as the language of instruction (e.g., Genesee & Lindholm-Leary, 2014). However, the success of children with special education needs (SEN) in EFI programs has rarely been studied. In part, this is because children with SEN rarely enroll in EFI programs (Willms, 2008) and children in EFI who begin to experience language or academic difficulties often transfer to English programs (Bruck, 1978; Wise & Chen, 2010). This presentation addresses this gap in the literature, using data collected in a partnership between the Ottawa-Carleton District School Board (OCDSB) and researchers from four universities. Specifically, two questions are addressed: 1. Do children with SEN in French immersion differ on English language and academic achievement measures relative to those with the same diagnosis in English programs? and 2. To what degree do children with SEN in EFI programs acquire French language and reading skills? Participants are children with SEN enrolled in either EFI or English programs in the OCDSB. Children with SEN include those with ASD, mild cognitive impairment, language impairment, deafness or hard of hearing, or learning difficulties. To address question 1, children with the same diagnosis attending EFI or English programs are compared on a) board-wide Grade 3 English reading and math assessments, and b) standardized English language and reading tests administered to a subset of children with SEN. To address question 2, the subset of children who attend EFI programs and who were administered English standardized measures will also be tested in French on parallel language and reading measures. Analysis of board-wide data and recruitment and testing of a subset of children with SEN is currently underway.

## Theme Session Talk

### Living in linguistically diverse communities bolsters foreign language learning

*Kinsey Bice & Judith Kroll*

*Location: CCIS L2 190*

Accumulating evidence shows how language context shapes bilingual language use (Elston-Guttler, Gunter, & Kotz, 2005; Kreiner & Degani, 2015) and its consequences for broader cognition (Green & Abutalebi, 2013). In contrast, little attention has focused on the impact of language context for monolinguals. Monolinguals' language processing is assumed to be relatively stable and homogenous. Yet other research has shown that monolinguals become sensitive to novel languages though exposure alone, even in the absence of attention and intention to learn (Saffran et al., 1997; Gullberg

et al., 2010). Monolinguals living in linguistically diverse communities regularly overhear foreign languages, and may therefore absorb information about their sounds and features in ways that shape how monolinguals use or learn language.

The current study addressed how ambient linguistic diversity impacts monolinguals' acquisition of novel features in Finnish. Monolinguals living in linguistically diverse southern California (CA) were compared with monolinguals in homogeneously unilingual central Pennsylvania (PA). Critically, none of the participants had previous exposure to Finnish, which follows vowel harmony (a phonological rule preventing front and back vowels from occurring within a word). Participants learned Finnish vocabulary without explanation of vowel harmony. At test, they discriminated between novel words and vowel harmony violations to measure generalizability while brain activity was recorded for event-related potentials (ERPs).

Monolinguals in both contexts demonstrated similar behavioral performance and neural sensitivity to previously learned words. However, their ERPs differed significantly for novel words at test. CA monolinguals revealed an anterior late positive component for novel words vs. violations, indicating that their brains generalized the vowel patterns from trained vocabulary to novel words. Conversely, PA monolinguals exhibited no differences between novel words and violations. The pattern of results suggests that exposure to linguistic diversity in bilingual communities promotes monolinguals' sensitivity to meaningful phonemic distinctions across languages, which benefits foreign language learning.

## **Unravelling the bilingual advantage in foreign language learning: The role of proficiency in the majority and the minority language**

*Anna Rijkers-Baranova, Elma Blom & Elena Tribushinina*

*Location: CCIS 1 430*

Folk wisdom has it that bilingual children have an advantage in learning all subsequent languages. However, research findings are quite controversial: some studies do find a bilingual advantage in third language (L3) acquisition, whereas others do not (see review in Cenoz, 2003). Empirical research from the bilingual communities suggests that bilingual linguistic proficiency is an important factor that might explain the inconsistent results attested in prior work (Lasagabaster, 2000). However, the role of previously acquired languages in L3 learning so far received no attention in studies on bilinguals living in a monolingual community. The present study investigated the relationship between bilingual linguistic proficiency in two previously acquired languages (Dutch, Russian) and L3 (English) proficiency. This study also addressed the possible mediating role of metalinguistic awareness in L3 learning.

Participants of the study were Russian-Dutch bilinguals (N=29, age range: 11–15 years) who learned English as a foreign language in regular education in the Netherlands. Proficiency in the three languages was measured with the Peabody Picture Vocabulary Test (Dunn & Dunn, 1997) and the LITMUS sentence repetition test (Marinis & Armon-Lotem, 2015). A metalinguistic awareness test (MLA) was designed for the purpose of this study and assessed participants' capacity to recognize regularities in a new language (Finnish) and apply these rules to novel sentences.

The results demonstrated that Dutch proficiency predicted L3 English proficiency, whereas Russian proficiency did not. The mediating role of metalinguistic awareness was not supported by the results of the study. The results suggest that L3 learning may be facilitated by positive transfer from a

typologically similar language (in this case, from Dutch to English) (cf. Bosma et al., 2016). Hence, bilingual advantages in L3 acquisition are not unconstrained and depend on the typological properties of the three languages.

Keywords: L3 acquisition; proficiency; metalinguistic awareness

## **Beliefs about TBLT and their impact on task design in pre-service teacher education.**

*Xavier Gutierrez, Bill Dunn & Leila Ranta*

*Location: CCIS 1 440*

Teachers' beliefs about best practices play a crucial role in whether they decide to adopt any pedagogical innovation (Erlam, 2016). Thus, teacher-training programs are more likely to have an effect on the adoption of such innovations if teachers' prior beliefs, knowledge and experiences are acknowledged and if teachers are engaged in reflection and critical questioning of those beliefs (Ogilvie & Dunn, 2010; Richards & Rodgers, 2014). In this regard, despite the widespread support in the SLA literature, Task-based Language Teaching (TBLT) has had a somewhat limited influence on actual practice (Ellis, 2017; Ogilvie & Dunn, 2010). Furthermore, research on TBLT teacher-training programs that examines issues such as teachers' conceptualization of and attitudes toward TBLT, challenges in design and implementation, and impact of teacher training is still scant (Brandl, 2016; Ellis, 2017; Han, 2018). The present study addresses this gap by exploring the impact a 13-week teacher-training program at a Canadian University had on 24 pre-service teachers' beliefs about and attitudes toward TBLT and on the design features of task-based units developed as end-of-term projects. Data regarding attitudes and beliefs were collected through responses to a pedagogical beliefs questionnaire (Ogilvie & Dunn, 2010) administered at the beginning and at the end of the term and by means of written reflections gathered throughout the course. With respect to the design of a task-based unit, data consisted of the detailed lesson plans that made up the unit and the written justifications for and reflections about those plans (Erlam, 2016). This presentation will discuss the findings obtained through the qualitative and quantitative analyses of both the beliefs and task-design data, and it will put forward implications for teacher-training programs focusing on TBLT in light of the potential to promote innovation that such programs have and the challenges that they may face.

Keywords: TBLT; teacher-training programs; beliefs

## Theme Session Chair

### Teachers' attitudes on multilingualism across countries

*Chair: Andrea C. Schalley*

*Location: BS M 149*

Classrooms are often characterized by a considerable diversity in students' backgrounds, with a broad range of minority languages spoken. Meeting the needs of children and students with a multilingual background, and catering to their abilities while offering quality education for all, poses an enormous challenge. The pre-primary and primary levels are crucial for this, as it is here that children enter the education systems and acquire fundamental literacy skills.

National policies and political ideologies deal with this challenge differently. Some strongly encourage a monolingual, majority-language-only mindset, while others embrace the ensuing multilingualism, supporting students' acquisition of the majority language and providing formal education in the minority language. This has impacts on both teachers' training and teachers' everyday work in the classroom. If a monolingual mindset prevails, teachers may not receive the support and tools needed to cater for their students' needs. Yet, even if policies are supportive of multilingualism, the implementation of such policies is not always a given.

Since teachers form the essential link between top-down policies and bottom-up practices, their attitudes on multilingualism are critical to achieving inclusive education for multilingual students. However, not much is known about teachers' attitudes on multilingualism. While some studies exist for specific national contexts (such as Björklund, 2013; Byrnes et al., 1997; De Angelis, 2011; Gkaintartzi et al., 2015; Pulinx et al., 2015; Young, 2014), there is an extensive gap in studies that generate comparable data from different countries and that illustrate the impact of societal circumstances on inclusive education for multilingual students.

This theme session takes a first step in this direction. Initial results of an ongoing international study are presented, in which all theme session presenters participate. The to date qualitative results are based on an interview protocol which has been developed by researchers from eight different countries, and which has been used consistently in the data collection by all researchers. Based on the data collected with this interview protocol, presentations in the theme session will address the attitudes of pre-primary and primary teachers on multilingualism. Four countries have been selected for this theme session, spanning a range of societal circumstances. Two, Germany and Sweden, have both taken in large numbers of refugees in recent years. However, while Sweden has been offering minority language education since 1977, Germany still exhibits a strong focus on integrating incoming students, and on the teaching of German as a second language. The two other countries, the Netherlands and the United Kingdom, on the other hand, both display a monolingual mindset in their political ideologies. The Netherlands has seen a recent shift from an attitude supportive of minority languages to a majority-language-only belief in policy-makers, while the United Kingdom has a long tradition of fostering only English, at the expense of other languages.

The presentations in the theme session discuss the outcomes of the interviews. Thereby, a unique comparative transnational study of what shapes teachers' attitudes on multilingualism becomes possible, allowing for insights into the interplay between language policies, teacher training, and pedagogical practices.

## Theme Session Chair

## Exploring language learning in bilinguals

*Laura Spinu*

*Location: CCIS L2 190*

While certain aspects of bilingual cognition have been researched extensively, e.g. selective attention and its relation with executive function (Bialystok 2018; Thomas-Sunesson et al. 2018; Adesope et al. 2010), a lesser known area of study has recently gained prominence, concerned with the effect of bilingualism on the acquisition of a third language. The results have been mixed, with bilinguals showing inconsistent successful performance on certain linguistic tasks (Grosjean, 2008; Kopeckova, 2016). Such studies underscore the possible interference of extraneous factors, e.g. relative distance between the target language and those spoken by experimental participants, the universal learnability of linguistic structures, individual differences in learning conditions and aptitude complexes (Hu et al. 2013; Robinson 2001), the degree of bi-/multilingual experience (Cenoz, 2013), the role played by sensory mechanisms (Spinu et al. 2018), and the fact that bilingualism is not a categorical experience in the first place (Bialystok et al. 2012). Our theme session presents some of the latest work in bilingual novel language/dialect learning, all of which took special care to ensure that aspects such as those enumerated above are to some extent incorporated directly into the experimental design.

Thus, our first talk examines the mechanism of lexical acquisition in a novel language over time: initial learning, retention of learned vocabulary, and transfer to new vocabulary. The effects of strategy use and mood during learning are considered as well, providing a much richer picture of this process than we previously had. Our second talk delves deeper into aspects of phonetic and phonological learning. Speakers' phonetic talent is explored in a large-scale experiment with simultaneous and sequential bilinguals, and monolinguals. The connection between phonetic skill and auditory sensory memory is evaluated, with all subjects being tested on both phonetic learning ability and the span of their auditory sensory memory. Our third talk narrows the search down even further, by examining bilinguals' ability to discriminate between different tones and vowels on a continuum. This study considers not only fine-grained differences in bilingual background but also prior musical training, teasing apart the effects of these two aspects on discriminatory ability. Our final talk explores the possibility that higher-level syntactic representations may affect the working of serial memory. Using a novel approach to the analysis of digit span scores, subtle differences between the memory mechanisms of bilinguals and monolinguals are uncovered. A by-product of this study is an algorithm that can be reused in future digit-span experiments, thus also making a methodological contribution.

In sum, our session presents several approaches to bilingual third language/dialect learning, unified by the goal of gaining insight into its relationship with cognitive, sensory, and external factors. The picture emerging is one in which our understanding of bilingual cognition benefits from experimental paradigms attempting to quantify and include extraneous factors involving individual differences and language properties more generally. The work presented in this session thus offers a unique perspective on how long- and short-term experience of various types can shape cognition and affect learning.

Keywords: language learning; memory; extra-/metalinguistic factors

## Invited Symposium Organizer

### Language disorders in bilingual children

*Sharon Armon-Lotem*

*Location: CCIS 1 430*

The present symposium addresses language disorders in bilingual children, with a major focus on Developmental Language Disorder (DLD) and a secondary focus on the language of bilingual children on the autistic spectrum and how it compares with children with DLD. Variations in bilingual language acquisition due to Developmental Language Disorder (DLD) impact language development and literacy skills, while showing more complex relationships with cognitive factors. Features of typically developing bilingual language acquisition overlap with those reported for impaired language leading to methodological and clinical confounds, over- and under-diagnosis, and possible blurring of the potential benefits of bilingualism. Thus, it is of a great importance to explore the impact of the bilingual experience on the linguistic performance of children with DLD but also on the performance of children with other impairments, e.g., children on the Autistic Spectrum. It is further important to understand the linguist profile of bilingual children with language disorders not only for understanding the nature of the impairment, but also for future assessment and possible intervention.

The present symposium offers to do this using tools from COST Action IS0804 for Language Impairment Testing in Multilingual Settings (LITMUS, Armon-Lotem, de Jong & Meir, 2015). Armon-Lotem will provide a crosslinguistic perspective on the use of sentence repetition for disentangling bilingualism and DLD. Meir will address the features of the language of bilingual autistic children and how they differ from those of children with DLD using the same sentence repetition task. Blom will add the longitudinal perspective using non-word repetition and the LITMUS-MAIN narrative task (Gagarina et al. 2012). Finally, Restrepo will discuss the relevance of these tasks and findings to assessment and intervention pointing to the need of more dynamic tasks to complement them.

## **Implementing Dual Language Programs in Low-Income Neighborhoods with Shifting Demographics in Urban Centers in the U.S.**

*Higinia Torres-Rimbau*

*Location: BS M 141*

While the increasing segregation of ethnic minorities in urban schools due to poverty and immigration has been extensively documented (Orfield, 1996; 2014), implementation of innovative language programs in a mixed African-American, Latino context is a fairly recent phenomenon. However, given that shifting demographics in neighborhoods with a heavy African-American presence is becoming increasingly common in large urban centers, in the U.S., language programs are no longer limited exclusively to serving the needs of a mostly Latino, English learner (EL) population. For example, few studies have examined the effects of combining two groups often labeled as low-performing in additive bilingual programs such as dual language immersion, a model that has resulted in high levels of language proficiency and academic achievement for both ELs and mostly middle-class English speakers (Lindholm, 2014; Thomas & Collier, 2002; Valentino & Reardon, 2015).

This presentation will examine two programs from the perspective of teacher-informants currently assigned to different schools with similar African-American to Latino population shift. Both schools formerly enrolled a predominantly African-American population and now find themselves with an increasingly significant number of Latino students due to the gradual increase of a recently-arrived immigrant population.

Respondents were interviewed utilizing a structured interview protocol specifically designed for this study. The protocol included 21 open-ended questions that targeted program implementation issues (i.e., assessment and accountability, curriculum, instruction, staff quality, professional development, program structure, family and community, support and resources).

Common themes emerging from the two structured interviews provide a portrait of two dual language programs with very similar characteristics. The study describes the significance of administrative support and thorough planning, characteristics that adhere to proven guidelines for effective program implementation. Presenters will share the questionnaire specially designed to collect data for this study.

Keywords: Dual Language Programs; low-performing schools; Urban centers

## **The Impact of Bilingualism on the Executive Function Skills of Children with Autism Spectrum Conditions and Their Typically Developing Peers**

*Shereen Sharaan*

*Location: BS M 145*

Background: there is evidence to suggest that certain executive function (EF) skills (mental processes which allow people to plan, organize and complete basic activities) are impaired in children with autism spectrum conditions (ASC), underlying several of ASC's key characteristics. There is also evidence to suggest that the regular use of two languages has the potential to extend EF capacities. Though the evidence surrounding a bilingual advantage in EF skills has been so far inconsistent, investigating these concepts in ASC samples can offer great insight, particularly to those who are potentially disadvantaged in areas that could potentially be advantaged by a linguistic experience

like bilingualism. Furthermore, parents, therapists, and educators continue to make choices about language and instruction for bilingual children with ASC every day without having sufficient evidence to support their decisions. These choices hold consequences for the treatment, education and formation of ethnic identities of the increasing number of bilingual children with ASD.

**Objective:** to investigate the impact of bilingualism on the EF performance of children with ASCs (and typically developing peers), thus contributing to the evidence-base surrounding bilingual children with ASC.

**Methods:** a battery of EF tests tapping into mental flexibility, sustained attention, working memory and interference control was administered to 132 participants based in the United Arab Emirates made up of 4 groups (33 typically developing Arabic-English bilinguals, 33 ASC Arabic-English bilinguals, 33 typically developing Arabic/English monolinguals, and 33 Arabic/English ASC monolinguals) matched on age, non-verbal IQ, and socioeconomic status.

**Results:** data collection commenced in March 2018 and is on-going, with an average recruitment rate of 13 participants per month, anticipating a reach of 132 participants by December 2018. In June 2019, we aim to report group differences between bilingual and monolingual groups (in ASC and typically-developing children) on the EF processes listed in the methods section.

**Keywords:** Bilingualism, Autism, Cognition

## Theme Session Talk

### **Swedish teachers' attitudes, beliefs and knowledge on multilingualism – a qualitative study**

*Andrea C. Schalley, BethAnne Paulsrud & Päivi Juvonen*

*Location: BS M 149*

Pre-primary and primary educational settings are changing because of increased mobility, with the resulting classroom heterogeneity posing immense challenges to teachers. Teachers' attitudes, beliefs and knowledge (ABK) of multilingualism are critical factors in efforts to provide inclusive education for all children. This is corroborated by Borg's (2003, 2006) discussion of teacher cognition, which addresses the interplay between teachers' ABK and the pedagogical and language developing practices in schools and classrooms. Four major factors have been identified to interactively shape and be shaped by teacher cognition: teachers' own schooling experience, teacher education, contextual factors such as the organization of education, and classroom practices. Against this theoretical backdrop, our study investigates Swedish teachers' attitudes, beliefs and knowledge on multilingualism, an issue of heightened importance in the nation's current context.

Semi-structured interviews were conducted with pre-primary and primary teachers from varied school demographics in Sweden. These interviews form part of the first data collection phase of a larger international project, which aims at studying what shapes teachers' ABK on multilingualism across countries. Interview data collection in four Swedish regions (Dalarna, Småland, Stockholm, Värmland) were transcribed and analysed in Atlas.ti using appraisal theory (Martin & White, 2005; White 2015). Results indicate that teachers have positive attitudes and beliefs towards multilingualism. Yet, while educational advantages of mastering more than one language and students' traditions are highlighted, greater issues of students' identity appear to play a minor role in teachers' perspectives. In the school context, Swedish is seen as more important than students' additional languages, which are

often merely seen as an added value not directly relevant to the daily activities in the Swedish school system. Moreover, the findings point to a need for more extensive pre-service teacher education and professional development of teachers, on multilingualism more generally, and on related classroom practices more specifically.

## **Morphosyntactic abilities of early L2 learners in adolescence and young adulthood: Convergence with monolinguals and role of vocabulary size**

*Brian Rusk, Adriana Soto-Corominas, & Johanne Paradis*

*Location: CCIS 1 140*

It is often assumed that children's L2 skills converge with those of monolinguals in 5-7 years (Murphy, 2014). However, Paradis et al. (2016) found that, in this timeframe, English L2 children had not converged with monolinguals on a morphological elicitation task, although those with larger vocabulary sizes had greater accuracy. Accordingly, this study examined the morphological abilities of early English L2 learners (EL2ers) in their adolescence and adulthood in order to determine when they converge with monolinguals and what role vocabulary plays in their long-term outcomes.

We examined sentence repetition task (SRT) performance by 4 groups (N=122): EL2 and monolingual adolescents (age=12-15), and EL2 and monolingual adults (age=18-23). The EL2ers had a mean English AoA of 3;8 and diverse L1 backgrounds. The SRT was comprised of sentences with 3rd singular '-s', 'do' and 'be' in agreement contexts increasing in complexity: (1) Short sentences where subject and verb were adjacent, (2) Long sentences where the subject and verb were adjacent, and (3) Long non-adjacent sentences, where subject and verb were separated by a heavy PP.

GLMER analyses found the following: (a) Vocabulary size predicted accuracy on the SRT for all groups. (b) The smallest number of repetition errors occurred in the short condition and the largest in the long non-adjacent condition, in line with sentence complexity. (c) There were no EL2-monolingual differences among the adolescents, but the adult monolinguals showed greater accuracy than adult EL2ers in the long conditions. (d) Monolingual and EL2er adults performed better than their adolescent counterparts, with the largest difference for the monolinguals.

We conclude that there was development in morphological abilities between adolescence and adulthood, as indexed by this task, for both EL2ers and monolinguals. However, EL2ers did not completely converge by adulthood for the more challenging long conditions.

Keywords: morphology; vocabulary; SRT

## **Theme Session Talk**

### **Effects of Native Language Similarity on Foreign Language Acquisition, Retention, and Transfer**

*Sayuri Hayakawa, James Bartolotti & Viorica Marian*

*Location: CCIS L2 190*

Would an English speaker find it easier to learn German or French? It is intuitive that initial acquisition of a similar language (such as German) would be less challenging, as learners can rely on existing knowledge to a greater extent. But is language similarity always an advantage? Here, we investigate the effect of language similarity on three stages of learning: initial acquisition, retention of learned

vocabulary, and transfer to new vocabulary. English speakers learned words from an artificial language that were either similar (“Familiar”; N=33) or dissimilar to English (“Unfamiliar”; N=32) over a period of 4 weeks. In Weeks 1 and 2, participants learned a list of 48 novel words paired with English translations (initial acquisition). In Week 3, participants learned a new list of 48 “Neighbor” words that resembled the previously learned words (transfer). Lastly, in Week 4, participants received a surprise recall test of the originally learned words (retention).

Consistent with past results, we observe that accuracy was higher for Familiar words during initial acquisition. Furthermore, this difference in performance was partly attributable to relatively greater strategy use and better mood when learning Familiar words. These same Familiar words were generally retained better than Unfamiliar words in the final surprise recall test. However, for words that were fully learned during initial training, the pattern reversed. Unfamiliar words were retained better than Familiar words in the surprise recall test, suggesting that a greater initial challenge may facilitate long term retention so long as a strong foundation is established. Lastly, accuracy for new “Neighbor” words was higher after learning Unfamiliar than Familiar words. Together, these findings suggest that while greater linguistic distance may hinder initial acquisition, it can yield benefits down the line both through the retention of already learned vocabulary as well as the acquisition of related novel words.

## Theme Session Talk

### Quasi-universal nonword repetition and narrative performance over time

*Elma Blom & Tessel Boerma*

*Location: CCIS 1 430*

Previous research showed that the identification of Developmental Language Disorder (DLD) in 5- and 6-year-old bilingual children is supported by measures that do not tap into language-specific knowledge, but, instead, enable bilingual children to use prior experience with both their first and second language. A quasi-universal nonword repetition task (Q-U NWRT) and narrative task analyzed on the macrolevel (MAIN) disentangled the effects of DLD and bilingualism, and demonstrated adequate diagnostic validity in both monolinguals and bilinguals. It is, however, unknown whether performance on these measures is stable over time.

The present study followed monolingual and bilingual children with and without DLD (N=128) over a three-year period, starting at age 5 or 6, and administered the Q-U NWRT and MAIN at yearly intervals. Results showed that children’s quasi-universal nonword repetition scores at each time point were strongly correlated, whereas weak to moderate correlations were found for macrostructural narrative skills. No differences were found between performance of monolinguals and bilinguals on the Q-U NWRT and the MAIN, while children with DLD scored weaker than their typically developing (TD) peers. The magnitude of the effect of DLD decreased, but remained significant. Together, the Q-U NWRT and MAIN attained adequate diagnostic accuracy at each of the three time points. Sensitivity and specificity reached levels above 80% at all waves in both monolinguals and bilinguals.

The findings from the present longitudinal study demonstrate that the Q-U NWRT and MAIN remain sensitive to DLD and insensitive to bilingualism as children grow older. This strengthens the conclusion of previous work that these instruments can reduce the bias against children with differing language experiences. In addition, the instruments’ adequate diagnostic accuracy in a monolingual and bilingual group at each wave of testing indicates that they can effectively identify DLD in different learning contexts and at different ages.

## Raising the next generation of multilinguals in Quebec: An investigation of parents' language choices in communications with their children

Ruth Kircher

Location: CCIS L1 140

In Quebec, French faces the challenge of English as the global lingua franca and as the language of upward mobility in North America at large. Language choices in the home environment can play a crucial role in ensuring the maintenance of endangered languages - but in the Quebec context, there is a paucity of research dedicated to the factors that determine such language choices. This paper presents the first known sociolinguistic study to investigate the factors that determine the language choices Quebec-based parents make in communications with their children. A questionnaire was used to elicit quantitative and qualitative data from 275 participants of different mother tongues - namely French, French and English, English, and other(s) - throughout the province. The quantitative data were analysed statistically, the qualitative data thematically. The findings reveal that French-English bilingual parents and those who have mother tongues other than French or English display a particularly strong tendency to omit French when speaking to their children. This is the case in Montreal as well as in the rest of Quebec, for women and men, and among immigrants and non-immigrants alike. However, parents' language choices are determined not only by their own mother tongue(s) but also by the strength of their social identity as a Quebecer and their attitudes towards French. The paper discusses the implications of these findings for language planning measures that aim to ensure the maintenance of French among the next generation of Quebecers. The focus is on measures that encourage French-English bilingual parents and those who have mother tongues other than French or English, to include French in communications with their children - so that these children are at least raised multilingually, with French as one of their languages, rather than monolingually in English, as they tend to be currently.

Keywords: language endangerment; language choices; language policy and planning

## The Next Generation of Language Teacher: Blogging about Language Teaching and Learning During Study Abroad

Roswita Dressler, Katie Crossman & Colleen Kawalilak

Location: CCIS L1 160

Culturally and linguistic diverse students benefit from teachers who understand their experiences of language learning, cultural learning, and seeking to belong in an unfamiliar classroom context. Teachers with international experiences bring these intercultural competencies into the classroom. An ideal time to embark upon such an international experience is during teacher education, as the pre-service teacher looks at the world through the lens of future teaching. Yet, living and working abroad is not a guarantee that pre-service teachers will reflect upon their experiences in a meaningful way. However, when these sojourners participate in a reflective practice, such as blogging, they give themselves time and a means to engage with the topics of language learning, cultural learning, and personal and professional identity. In this study, we examine how pre-service teachers (n= 45) living and volunteer-teaching abroad over 9 weeks documented and reflected upon their learning and experiences through blogs. Although most were not studying second language teaching or intending to become language teachers, they often found themselves in language teaching situations by default. Through these situations, they learned firsthand about language teaching, including the role of differentiation, engagement, and oral language development. They reflected upon cultural attitudes

toward languages and language learning. Some also wrote of the privilege of the native speaker norm and English as lingua franca. We argue that some of this reflection might not have taken place without the medium of blogs and that, in the end, many of the pre-service teachers, regardless of their content area specialization, became de facto language teachers and would carry this learning into new classrooms to the benefit of their future students.

Keywords: language teaching, study abroad, blogging

## **Bilingualism and non-typical language development: code-switching as an indirect way of investigating the status of grammatical gender in the Spanish grammar of an English-Spanish bilingual with Prader-Willi Syndrome.**

*Estela García-Alcaraz & Juana Liceras*

*Location: BS M 145*

The study of bilingualism in non-typically developing (NTD) populations should become a priority for “the next generation” because it is an underexplored area of bilingualism and it will raise awareness about the relevance that facilitating L2 learning and improving the status of their heritage languages may have for NTD individuals.

Here we use code-switched structures to investigate how gender is represented in the mind of a 35-year-old English-Spanish bilingual (Spanish is the Heritage language) who has Prader-Willi Syndrome (PWS), a genetic disorder that presents both behavioral disturbances and intellectual and linguistic disabilities. The latter remain entirely unexplored in the case of PWS bilinguals.

Previous research using an acceptability judgments task (AJT) and a sentence completion task (SCT) has shown that typically-developing (TD) Spanish-dominant English-Spanish bilinguals prefer gender-matching switched concord and agreement structures, as in (1) and (3), over non-matching ones, as in (2) and (4), which means that these bilinguals abide by the so-called ‘analogical criterion’: they assign English Nouns the gender of their translation equivalent in Spanish.

(1) La [theF] house [casaF] [matching]

(2) El [theM] house [casaF] [non-matching]

(3) The house[la casaF] es roja[is redF] [matching]

(4) The house[la casaF] es rojo[is redM] [non-matching]

These same two tasks were administered to our 35 year bilingual with PWS. The results show that in the AJT, he rates both matching and non-matching structures high but has a stronger preference for all structures that abide by the ‘analogical criterion’. In the SCT, he unambiguously abides by the ‘analogical criterion’ with both types of structures as TD Spanish-dominant bilinguals.

These results constitute a first step towards investigating which linguistic abilities may be compromised in the case of the PWS population and provide evidence that bilingualism does not have a negative effect on the activation of formal features in their grammars.

Keywords: Prader-Willi syndrome; code-switching; grammatical gender

### **Theme Session Talk**

## **Multilingual teaching practices: The role of language policies and professionalization for teachers’ language diversity management. A case study with German teachers from different geographical contexts**

*Galina Putjata & Simone Plöger*

*Location: BS M 149*

Multilingualism, how it emerges and how it is maintained, depends on various factors, among others, the way linguistic diversity is managed within the society (Irvine/Gal 2002). Strikingly, the educational system in most countries is characterized by monolingual norms (Fürstenau 2015). Empirical data and normative discourse suggest that this approach results in underperformance of students from immigrant families, and request a “multilingual turn.” Teachers play a key role in this process, acting as “ideology brokers” (Blommaert 2005) and agents between language policies and practices (Shohamy 2010).

The paper will present a qualitative study with teachers from different contexts - Western and Eastern Germany. These contexts are of particular interest because of the difference in migration history, teacher training and language diversity management. One of these regions was chosen because of the controversial discussions on refugees prevailing in the social discourse. Data were gathered through semi-guided interviews with 30 teachers and analyzed following qualitative content analysis (Mayring 2009). Based on the model of professional competence (Baumert/Kunter 2006) and Bourdieu’s theory of linguistic exchanges (1990) particular attention was paid to perception of and experience with immigrant languages.

The results allow insights into teachers’ attitudes, beliefs and knowledge on multilingualism. They reveal the importance of policies that would make multilingualism a binding topic: Teachers who have experienced multilingualism as part of training have more knowledge about and show positive attitudes towards home languages. Yet, their practices still align with a monolingual habitus. On the other hand, teachers who have not been trained, but have experienced multilingual practices, perceive them as normal and reproduce this ideology at school.

## **How bilingual experience and executive control influence development in language control among bilingual children**

*Maki Kubota*

*Location: CCIS 1 140*

This longitudinal study investigates whether the development in executive control and bilingual experience predicts change in language control in bilingual children. Children were tested twice over the course of one year, using the language-switching paradigm (set to measure language control) and the Simon task (set to measure executive control). The participants were Japanese-English bilingual ‘returnee’ children (ages 7-13), who returned to their first language (L1) environment after spending some years in a second language (L2) dominant environment. Testing these children upon their return to the L1 environment allowed us to disentangle the effect of age from bilingual experience, as they experienced an increase in age but a decrease in L2 exposure over time. Children who had less L2 English exposure showed smaller improvement in naming pictures in English baseline performance (i.e., when English was relevant across all trials). Moreover, development in trials where children had to switch between languages were modulated by development in executive control (but not L2 exposure). That is, children who became faster at naming in English while switching between languages also performed better on the executive control task over time. In sum, bilingual children’s development in the English baseline performance which involves language-specific processing (i.e., matching concept to appropriate form) was predicted by L2 exposure and rate of improvement in executive control. Most importantly, their development in the mixed-language trials which is expected to involve domain-general processing was predicted by the rate of improvement in executive control. Taken together, the findings suggest that language control development in bilingual children is modulated by both bilingual

experience and improvement in executive control.

Keywords: language control development; executive control; bilingual returnee children

## Theme Session Talk

### Exploring phonetic and phonological learning in bilinguals: is there a link between auditory sensory memory and skill?

*Jiwon Hwang, Nadya Pincus & Laura Spinu*

*Location: CCIS L2 190*

Bilingualism has been linked with improved function regarding certain aspects of linguistic processing, e.g. manipulating language in terms of discrete units (Bialystok et al. 2005), novel word acquisition (Kaushanskaya & Marian 2009), and learning unfamiliar sound patterns in novel accents (Spinu et al. 2018). A study in which subjects learned vocabularies that differentiated words using foreign phonetic contrasts (Antoniou et al. 2015) reports that bilinguals possess an advantage over monolinguals in phonetic learning. Other experimental work with non-native contrasts (Tremblay & Sabourin 2012) suggest that multilinguals and bilinguals have enhanced speech perception abilities compared to monolinguals. Two non mutually-exclusive approaches attempt to explain these results in the literature. One is related to executive function, relying on attentional mechanisms and speculating that more effective learning is achieved through active selection of relevant information and suppression of potentially interfering information (Anderson et al. 2018). The other approach emphasizes the role of sensory mechanisms (Calabrese 2012, Spinu et al. 2018), specifically auditory sensory memory (ASM). Bilinguals have already been shown to perform better than monolinguals in tasks involving auditory processing (Krizman et al. 2012) and episodic memory recall (Ljunberg et al. 2013). The questions whether (1) bilinguals' ASM skills are also enhanced, and (2) phonetic skill and ASM are correlated, remain open, however. Our study is the first to investigate phonetic learning skills and ASM in the same subjects (N=101) from three groups: simultaneous and sequential bilinguals, and monolinguals. The subjects were trained and tested on an artificial accent of English and their ASM was measured in a digit span task. It was found that the ASM of both types of bilinguals significantly outlasts that of monolinguals. After completing the phonetic analysis of the recordings, it will also be possible to establish the degree of correlation between ASM and phonetic skill.

## Theme Session Talk

### Comparative use of sentence repetition to disentangle bilingualism from DLD in different language pairs

*Sharon Armon-Lotem*

*Location: CCIS 1 430*

The heterogeneous linguistic profile of bilingual children challenges the use of standardized language tests. Emerging bilinguals demonstrate linguistic patterns that overlap with those of children with DLD, but the gap from monolinguals can last for more than five years of bilingual exposure. To meet this challenge, COST Action IS0804 developed a battery for Language Impairment Testing in Multilingual Settings (LITMUS, Armon-Lotem, de Jong & Meir, 2015), that included sentence repetition (SRep) and non-word repetition (NWR) tasks. The use of these tasks with bilingual Russian-Hebrew speaking children in both languages yielded cut-off points for distinguishing bilinguals with and without DLD using SRep scored for correct repetition of the target structure (Armon-Lotem & Meir 2016). The present paper aims to test whether these findings can be replicated in a second group of Russian-

Hebrew bilingual children with a shorter version (Hebrew-SRep-short) that is composed of a subset of the best items used in Armon-Lotem & Meir (2016). Data comes from 130 Russian-Hebrew speaking children with TLD and 20 children with DLD. The second aim of this chapter is to extend the exploration to a group of bilingual children with a different home language (HL) but same school language (SL), English, in order to explore the generalizability of Armon-Lotem & Meir's findings. This is tested for 55 English-Hebrew speaking children with TLD and 10 children with DLD. All the children in these studies are matched in age (ranging for 5;6 to 6;6). These explorations showed that the shorter version is as good as the longer one when tested for the same language pair. Yet, when testing a different language pair, it was necessary to apply different cut-off point in order to meet the requirements of accuracy. These findings are interpreted in light of the status of the different home languages (Armon-Lotem et al. 2015).

## **Bilingualism is a spectrum of experiences that variably affect neurocognitive adaptation**

*Vincent DeLuca, Jason Rothman, Christos Pliatsikas & Ellen Bialystok*

*Location: CCIS 1 440*

The effects of bilingualism on executive control are heavily debated, given the variable results found across studies. However, few studies have specifically examined effects of individual differences in bilingual language use on executive control processes and their neural correlates. We address this by examining a range of specific language experience factors and their effects on brain function related to executive control processes in bilingual individuals. We assess the hypothesis that specific language use factors will confer distinct neural recruitment patterns in regions implicated in language/executive control processes. Typically developing bilinguals ( $n = 65$ , 49 female,  $\text{mage} = 31.8\text{yrs}$ ,  $\text{SD} 7.59$ ) were scanned (fMRI) while they completed a Flanker task which contained mixed blocks (congruent and incongruent trials), a congruent block, and a neutral block. Participants also completed a detailed language use and background questionnaire (LSBQ; Anderson et al., 2017). Factors derived from LSBQ scores were used to predict both task performance and neural recruitment. Four were included in the model: second language Age of Acquisition (L2 AoA), length of L2 immersion, and two weighted composite factor scores detailing degree of L2 use in 1) social/community settings (L2\_Social) and 2) home settings (L2\_Home). Robust task effects were found for the flanker task, but these were not modulated by language factors (all  $p > 0.05$ ). However, individual factors predicted neural recruitment of distinct and specific regions related to language and executive control. For example, more cognitively demanding task effects (Mixing cost and Flanker effect) showed increased recruitment of posterior and subcortical regions of the brain, indicating increased efficiency of processing commensurate with increased degree or duration of bilingual language use. Crucially, the degree of activation across task contrasts was calibrated to the degree of bilingual experience. The data together highlight the need to consider specific language experiences in assessing the neurocognitive effects of bilingual language use.

Keywords: Bilingualism, fMRI, individual differences

## **"Spanish at home, English at school": Perceptions of bilingualism and home language usage among Spanish-speaking parents of preschoolers in the U.S.**

*Sarah Surrain & Gigi Luk*

*Location: CCIS L1 140*

In the United States, approximately one in three children under five speak a non-English language at home. Given the predominance of English in schools and society, many of these language minority (LM) children shift towards English monolingualism after beginning school in early childhood. While language input and usage are central to acquisition and maintenance in each language, less is known about parents' perceptions of bilingualism and how perceptions inform parents' actions to support their child's bilingual development in early childhood. By applying a Family Language Policy framework to data from 14 in-depth qualitative interviews, this study explores the beliefs and practices of Spanish-speaking mothers of preschoolers in a small northeastern US city. The interviews were conducted in the mothers' preferred language (12 in Spanish, 2 in English) and were recorded, transcribed and coded using a grounded theory approach. Thematic analyses revealed that the mothers attached a high value to their child's bilingual development; they viewed Spanish maintenance alongside English acquisition as essential for upward economic mobility and family communication. However, they differed in their home language practices and strategies to support their child's development. Six mothers reported establishing a Spanish-only-at-home policy, delegating their child's English development to the school setting. The remaining eight mothers avoided setting rigid boundaries around language use and reported that both languages were used at home to different degrees. Many mothers reported using discourse strategies to elicit their child's active Spanish use (mirroring Lanza's 1997 typology of 'parental discourse strategies towards child language mixing'). In a minority of cases mothers sought out school-based Spanish-language supports, but others were not aware of the availability of such programs in their school district. Social pressures on the child, incomplete knowledge of local bilingual programs, and the current political climate countered mothers' efforts to support their child's emergent bilingualism.

Keywords: Minority language maintenance; Family Language Policy; Language attitudes

## To what extent are the linguistic benefits of study abroad long lasting? A 5-year longitudinal study

*Amanda Huensch & Nicole Tracy-Ventura*

*Location: CCIS L1 160*

Investigations of language development during residence/study abroad (RA) have demonstrated positive and immediate effects on participants' oral language skills (e.g., Du, 2013; Mora & Valls-Ferrer, 2012). However, less is known about what happens in the long term to gains made during RA because research has primarily included only immediate posttests. Those studies with delayed posttests (Llanes, 2012; Regan, 2005) have reported that gains made while abroad are largely maintained. Nevertheless, those studies are limited to one year post-study abroad and include participants who continued to receive formal instruction. As a consequence, very little is known about the long-term evolution of language skills once participants are no longer instructed learners.

This presentation reports on the results of a 5-year longitudinal study of English L1 university students who completed degrees in Spanish ( $n = 15$ ) and French ( $n = 17$ ). Data were collected seven times: once before residence abroad, three times while abroad in a French- or Spanish-speaking country, twice after returning home during their final year of university, and once three years after graduating. At each data collection wave, participants completed an oral proficiency test, an oral interview, an oral picture-based narrative, an argumentative writing task, and a language engagement questionnaire. In addition, at the final data collection point, participants completed an extensive questionnaire about their language exposure and use since graduation. Language data were transcribed following CHAT conventions

(MacWhinney, 2000) and measures of complexity, accuracy, lexis, and fluency were examined. Based on mixed-effects analyses, results indicate that participants have largely maintained the oral skills they developed during their year abroad, and that evidence of attrition is mostly related to writing. Both language exposure and proficiency at the end of study abroad contribute to predicting language maintenance in regression analyses but how much depends on the linguistic variable being examined.

Keywords: study abroad; longitudinal; second language retention

## Developing Language and Phonological Awareness in Bilingual Children with Down Syndrome

*Rebecca Ward & Eirini Sanoudaki*

*Location: BS M 145*

Research in the field of bilingualism increasingly explores the development of metalinguistic awareness in comparison to monolingual populations. Although conflicting evidence has been reported, some researchers propose accelerated development of phonological awareness in bilingual children (Campbell & Sais, 1995; Bialystok, Majumder & Martin, 2003). Within children who have Down syndrome (DS), phonological awareness has been identified as being particularly challenging (Kennedy & Flynn, 2003), however, phonological awareness has not been investigated in bilinguals with DS to date. Concurrently, phonological awareness has also been closely associated with reading and spelling development in both typically developing children and children with DS (Fletcher & Buckley, 2002). Therefore, any impact that bilingualism may have on phonological awareness may also influence these other aspects of development. The aim of this research was to explore how language and more specifically, phonological awareness develops in bilingual children with DS.

Welsh/English bilingual children with DS completed a battery of language and phonological awareness assessments and were compared with individually matched monolinguals with DS on non-verbal mental age as well as typically developing bilingual and monolingual children. Language profiles show that bilingual children with DS had comparable language abilities to the monolinguals with DS. Furthermore, results reveal no significant group differences on any of the phonological awareness measures and bilinguals with DS displayed comparable profiles of phonological awareness as monolinguals with DS on rhyme, syllable and phoneme level measures. Overall, no evidence of any bilingual advantage or of any detrimental impact of bilingualism was found within these populations. This is the first empirical group study of phonological awareness within bilinguals with Down syndrome to date. Findings add to the growing body of literature documenting no adverse outcomes on L1 or L2 development for bilinguals with DS which may have implications on clinical assessment, speech and language therapy and education.

Keywords: Down Syndrome; Phonological Awareness; Developmental Disability

### Theme Session Talk

## Dutch primary school teachers' opinions, beliefs and knowledge on multilingualism

*Kutlay Yagmur & Emilie Diephuis*

*Location: BS M 149*

Due to increasing world-wide migration the number of languages spoken in a country is growing. In an educational context this means that classrooms consist of children with diverse linguistic backgrounds. Given the fact that many educational systems are still mono-cultural and monolingual, teachers are trained to serve monolingual student populations. The presence of a large number of immigrant pupils in the Netherlands raises the question of how teachers deal with diversity issues and how their personal beliefs may influence their practices in the classroom. Therefore, this research studies the attitudes, beliefs and knowledge of primary teachers on multilingualism. We conducted an exploratory research into teachers' attitudes, beliefs and knowledge (ABK) on multilingualism in their classrooms. We want to see whether their ABK are influenced by (a) the geographical location of the school and (b) by the composition of pupils with a non-Western background in the school? In

order to find answers to our questions, semi-structured and informal interviews were held with primary teachers from schools in Maastricht (N=20) and North Brabant (N= 15) to gain a deeper insight into their attitudes, beliefs and knowledge on multilingualism. After conducting the interviews, the data were transcribed and analyzed using the Grounded Theory approach in combination with Atlas.ti qualitative software. The findings of this research show that teachers predominantly have positive attitudes and beliefs towards multilingualism, which, however, are not reflected in their knowledge and classroom practices. There are major differences in dealing with local dialects and immigrant languages. The findings point to the need to support teachers both during their initial teacher education and in-service professional development in adequately teaching multilingual pupils in order to meet the multilingual school reality.

## **Language internal factors in heritage language development. Subject and object realization revisited**

*Christina Flores & Esther Rinke*

*Location: CCIS 1 140*

This study compares the linguistic output of two generations of bilingual speakers of European Portuguese (EP) living in Germany: first generation migrants and second generation heritage speakers (HSs). We will focus on two domains that have received much attention in research on bilingualism: subject and object omissions. Results show that HSs tend to overuse overt subjects and to omit more objects in their heritage language, compared to the 1st generation speakers. We argue that the HSs' performance is not the result of attrited input nor is it the result of crosslinguistic influence from German. Instead, the extended use of null objects and the overuse of overt subjects (esp. 1st and 2nd person) by heritage bilinguals resembles a language-internal diachronic evolution, which has been observed in other varieties of Portuguese, namely in Brazilian Portuguese (BP). This development has been explained by Cyrino et al. (2009) by proposing that the realization of an argument is related to its status on a referential hierarchy: The more referential an object is (e.g. 1st vs. 2nd person; animate vs. inanimate, specific vs. non-specific) the more likely is it that this element is realized as a non-empty pronoun. Diachronically, both developments in BP are two different sides of the same medal: the extension of null objects in BP proceeds from non-referential elements to more referential ones and the extended use of overt subjects from more referential to non-referential ones. Given that these are universal tendencies, a more plausible explanation of the tendencies found in the heritage bilinguals is that reduced input in their heritage language may cause diachronic developments following universal pathways.

Keywords: Null objects, Subject realization, Heritage Speakers

## **Theme Session Talk**

### **The effects of bilingualism and musical training on vowel and tone discrimination**

*Yasaman Rafat & Laura Spinu*

*Location: CCIS L2 190*

The current study explores perceptual skill in monolinguals and bilinguals using two experimental paradigms: a tone discrimination task (Winkler & Cowan 2004) and a vowel discrimination task (Crowder 1982). The participants were 34 monolingual speakers of English and 45 bilinguals of different language backgrounds, all undergraduate students at the University of Toronto (mean age = 22). The subjects' experience with formal musical training was also recorded. In the tone

discrimination task (same/different) a 500 Hz reference tone was employed together with other tones displaying a percentage change in frequency from 1% to 100% (14 steps). The reference and test tones were presented 3s apart, this interval being filled either with silence (no distractor) or a 1-second distractor stimulus. The vowel discrimination (same/different) task employed vowels along a 12-step continuum from 'beat' to 'bit'. The statistical analysis is based on mixed effects modeling and significant effects of musical training and distance between tones were found for the tone discrimination task (with the more similar tones being more difficult to distinguish). No effect of bilingualism was found. By contrast, the analysis of the vowel discrimination task responses reveals a significant effect of bilingualism, as well as of the distance between the two members of a pair (with the items closer on the continuum being more difficult to discriminate). It was also found that this skill is further enhanced in bilinguals who had early exposure (before the age of 5) to both of their languages. Musical training did not have a significant effect on vowel discrimination ability. These findings are consistent with earlier findings suggesting that auditory working memory is influenced by top-down processing (Bloom, 2006, Pilotti et al., 2002), and that different neural activities support auditory working memory in musicians and bilinguals (Alain et al. 2018).

## Theme Session Talk

### **Bilingualism does not impede morpho-syntactic development of children with Autism**

*Natalia Meir & Rama Novogrodsky*

*Location: CCIS 1 430*

Little is known about the influence of bilingualism on morpho-syntactic abilities of children with Autism Spectrum Disorder (ASD ( Yu, 2013) . Previous studies on monolingual children with ASD show large variability (Kjelgaard & Tager-Flusberg 2001, Sukenik & Friedmann, 2018). Some children with ASD have intact morpho-syntactic abilities, while others show at risk for Language Impairment profiles, similar to those reported for children with Developmental Language Disorders (Bishop, 2010). Eighty-seven monolingual Hebrew-speaking and bilingual Russian-Hebrew speaking children, aged 4;6-9;2, participated in the study: 29 children with ASD (17 monolingual and 14 bilingual) and 58 children with typical language development (TLD) (28 monolingual and 30 bilingual). The groups were matched for age and non-verbal IQ. Syntactic abilities were assessed using short versions of Hebrew and Russian LITMUS Sentence Repetition tasks (Armon-Lotem & Meir, 2016). Bilingual children were tested in Russian and Hebrew. The findings showed negative effects of bilingualism and ASD on morpho-syntactic abilities of children, yet there was no interaction between the two variables. The negative effect of bilingualism disappeared once vocabulary scores were controlled for. Within the group of ASD, some children (monolingual and bilingual) scored at risk for Language Impairment, while some showed intact morpho-syntactic abilities. The majority of bilingual children with ASD (71%) showed intact syntactic abilities in one of their languages or both. Error patterns of monolingual and bilingual children with ASD, who scored at risk for Language Impairment, were similar and bore striking similarities to those previously reported for monolingual and bilingual children with Developmental Language Disorder (e.g., simplification of complex syntactic structures). To conclude, our study shows that bilingualism affects similarly children with TLD and ASD. Importantly, exposure to two languages does not aggravate morpho-syntactic abilities of children with ASD.

### **The impact of bilingualism on cognitive abilities in multiple sclerosis**

*Fraibet Avelado, Yolanda Higuera, Ariana Meldaña, Arpita Bose, Theo Marinis, Christos Pliatsikas & Maria Luisa Martinez*

*Location: CCIS 1 440*

Bilingualism has been suggested to be beneficial in performing tasks involving executive functions, such as inhibition and attention. These benefits could have positive long-term effects on the ageing brain, and even delay the onset of symptoms of degenerative illness (i.e. cognitive-reserve hypothesis), such as dementia. This investigation is the first to turn the focus on the effects of bilingualism in patients with multiple sclerosis (MS), an autoimmune disease that can early impact patients' cognitive and neuropsychological abilities. In patients with MS, cognition is frequently impaired, with common cognitive deficiencies observed in executive control (EC) tasks such as attention, inhibition and shifting. Given that studies suggest that performance on EC tasks is enhanced in bilinguals, we aimed to study whether being bilingual has an effect on the inhibitory control and attention abilities in MS patients with different degrees of cognitive impairments. Following Costa et al.'s (2009) methodology, two groups of bilingual (20), matched on L2 proficiency, and monolingual (20) young adults, one with MS and one healthy control group (matched on age and education), performed two flanker tasks with different attentional and inhibition demands. Participants' indices on inhibition (measured by the difference in reaction times (RT) and accuracy in responding to congruent and incongruent trials in the flanker task) and attention (measured by the overall RTs in performing the tasks) were analysed. Results suggest with respect to attention abilities, that bilinguals showed better performance than bilingual MS-patients, the latter performed better than monolingual controls and monolingual MS-patients. With regard to inhibition skills, all groups showed similar behaviour, although bilingual controls revealed the better skills. Our results, however, only approached statistical significance, possible due to our low number of participants. Several hypotheses explaining these results will be discussed as well as implications for future research in MS, language and bilingualism.

Keywords: bilingualism, cognitive-reserve hypothesis, cognition

## **Parental language policy supports bilingual language development: the importance of qualitative factors in the process**

*Fatma Said*

*Location: CCIS L1 140*

Parental or family language policy (Curdt-Christiansen, 2016; King & Fogle, 2013; Said & Zhu Hua, 2017) has been shown to be the driving force behind parents' interaction styles and input frequencies with children (De Houwer, 2007; Luykx, 2003; Hoff, 2013). This longitudinal sociolinguistic study followed a 3-year-old bilingual Arabic-English speaking pre-schooler over a period of 18 months (from 2;00-3;06). Data was collected in two ways: naturally occurring conversations through audio and video recording of her mundane conversations with her mother and at times with her aunt over Skype. And second through interviews with the mother, father and nanny.

The child spends most of her time with her mother and nanny (who speaks Arabic but not English) and less time with her father. The data is analysed qualitatively for the interviews and with conversation analysis for the natural interactions.

The data shows that parental language policy (ideologies and beliefs) influences input, quality and type of utterances, and parents' choice to hire an Arabic speaking nanny all of which support the child's bilingual development. Based on the natural conversations, this presentation will focus on lexical acquisition of words and phrases in both languages and illustrate that bilingual children flout the mutual exclusivity rule (Markman, Wasow, & Hansen, 2003). The child is also able to produce translation equivalents consciously (on demand) and spontaneously (unconsciously). Her translation goes beyond the lexical meaning of words because she also tries to prosodically match the words.

This study illustrates the importance of looking at qualitative factors in the process of acquisition and for tracking the process longitudinally and not cross-sectionally as is currently prevalent (Kidd, 2017). Finally, the study calls for a longitudinal turn in acquisition studies, so as to perhaps expand our understanding of this process.

Keywords: Bilingual language development; Family language policy; Quality of input

## **A LINGUISTIC AND INTERCULTURAL EDUCATIONAL EXPERIENCE IN CHILE**

*Valeria Sumonte, Susan Sanhueza, Miguel Friz & Andrea Fuentealba*

*Location: CCIS L1 160*

Even though, Chile has received immigrants from centuries, it is been the last three years where the society has become aware about this movement, because of the arrival of a non Spanish-speaking collective; the group that is growing exponentially comprises Haitians. They provide a new social and cultural reality in the language landscape. This new landscape has prompted assorted actions to minimize the effect of language and cultural barriers pose on immigrants' social, educational and labor integration.

This presentation will focus on one of those actions. It is a program where professionals from public institutions directly involved in the integration of these immigrants learn how to communicate with them in their own language: Kreyòl Ayisyen. These professionals were interested in learning the basics of to facilitate mutual understanding. The presenters designed and implemented the program placing the focus on the linguistic and the cultural areas based on the assumption that to understand the "other", it is also necessary to comprehend it from its own understanding of the world.

The program adopted Intercultural Communicative Competence as a theoretical lens to facilitate a degree of efficient communication, and allow appropriate and effective behavior within a shared social and cultural context. In addition, the sociocultural perspective underpinned the program designed, emphasizing four principles: cooperation between speakers; acknowledgement of the interdependence between languages, which presupposes that while learning a second language the mother tongue also develops; the recognition of situated learning where knowledge develops through experience and cultural mediators, helping to construct knowledge between the host society and immigrants. The program deemed crucial for language learning- ranged from linguistic elements to cultural allowing a communicative "bridge" between the host society and the immigrants. It also contributes to shaping and emerging research agenda on language and cultural matters related to migration.

Keywords: culture; language; Intercultural Communicative Competence

## What Machine Learning can tell us about the role of language dominance in the diagnostic accuracy of German LITMUS nonword and sentence repetition tasks

*Lina Abed Ibrahim, Istvan Fekete & Cornelia Hamann*

*Location: BS M 145*

The present study investigates the performance of 21 monolingual and 56 bilingual children (Table 1) aged 5;6-9;0 on German LITMUS-sentence-repetition (SRT; Hamann et al., 2013) and nonword-repetition-tasks (NWRT; Grimm et al. 2014), which are constructed according to the LITMUS-principles (Language Impairment Testing in Multilingual Settings; Armon-Lotem et al., 2015) and incorporate phonologically and syntactically complex constructions reported to be cross-linguistically challenging for children with Specific-Language-Impairment (SLI), see Marinis & Armon-Lotem, 2015; Polišenská et al., 2014 for sentence-repetition; Gallon et al., 2007; Chiat, 2015 for nonword-repetition. Given the great variability in bilingual language exposure, we examined whether variables related to bilingualism, especially language dominance, could compromise the diagnostic accuracy of the tasks. We further investigated whether a combination of the tasks provided better diagnostic accuracy and helped avoid misdiagnosis. To address this, we used an unsupervised machine learning algorithm the Partitioning-Around-Medoids (PAM, Kaufman & Rousseeuw, 2009) for deriving a clinical category for the children as  $\pm$ language impaired based on performance scores on SRT and NWRT while withholding information about their clinical status based on standardized assessment in L1 and L2. Subsequently, we calculated diagnostic accuracy and used regression analysis to investigate which background variables best explained clinical-group-membership (age and length of acquisition, degree of language dominance, socio-economic-status, and risk factors for SLI). Results show that although language-dominance clearly influences the performance of BiTDs, especially in the SRT (Figure 1), these tools are not compromised by language dominance: while risk factors for SLI were significant predictors in all models, language dominance did not contribute at all to explaining clinical cluster membership as typically-developing or SLI based on the children's NWRT and SRT performance scores. Additionally, results confirm that a combination of SRT (scored by correct) target structure and NWRT yields better diagnostic accuracy than single measures also neutralizing the effect of socio-economic-status (Figure 2).

Keywords: Specific Language Impairment; repetition tasks; language dominance

### Theme Session Talk

## Stories of teachers' struggles in a divided nation: attitudes about multilingualism in the mainstream UK education system

*Claire Cunningham & Sabine Little*

*Location: BS M 149*

Research on mainstream (and often monolingual) teachers' attitudes towards multilingualism and multilingual children is scarce, particularly in the UK (with exceptions such as Flynn 2015; Cunningham 2017, under review) and Europe, but also elsewhere (Karathanos 2009). Additionally, the multifaceted nature of this topic means that studies undertaken have had varying aims, including capturing attitudes towards multiculturalism, bilingualism and language diversity, around home languages and their maintenance, and on classroom practice and preparedness to work with the changing demographic in schools.

As part of a wider project, this paper presents initial findings and discussion from a study conducted

in the UK context with the aim of exploring attitudes, beliefs and knowledge about multilingualism of current practising primary school teachers. This was achieved using semi-structured interviews adopting an interview guide agreed across the participating international group of researchers. The intention was to improve researchers' understanding of the perspectives of teachers who are now tasked with providing support to students who are classified as 'EAL' (English as an Additional Language).

Following a thematic analysis of the interview transcripts, initial findings suggest that the particular context of the UK situation is relevant for teachers, as they clearly articulate their struggles to:

- understand the role of home languages in school environments;
- recognise the limits of the support that they are able to offer in an economically challenged context of the 'austerity' era;
- make sense of the sometimes-conflated identities relating to language, social class and ethnicity;
- teach the next generation in a society that is experiencing significant political upheaval causing societal divisions that have rarely been as marked.

Recommendations about the need for sharing good practice stories, to ensure practitioners feel supported and encouraged, and about the need for researchers to situate teachers as positive agents for social change will be discussed.

## **A preliminary analysis of input and early lexical productions in monolingual and bilingual Totonac acquisition**

*Faustino Montes-Castañeda*

*Location: CCIS 1 140*

Totonac is a Mesoamerican language spoken by about 240,000 speakers in Mexico. At a sociolinguistic level we find trends of rapid language shift and a significant decrease of contexts for its acquisition as a first language.

The present study is the first one to document monolingual Totonac (MT) and bilingual Totonac/Spanish (BTS) early acquisition at a comparative level. This paper focuses on two children at two data points in two different homes: (1) a Totonac only home (Girl 1, age 1;11), and (2) a Totonac/Spanish home (Girl 2, age 2;3).

This work, still in progress, compares caregivers' direct input in two homes observing the girls' early lexical productions of nouns and verbs in both languages.

Preliminary analysis shows Girl 1 (MT) having a preference of verbs over nouns consistent with her caregiver's input. This pattern is shown also in the Totonac input and the girl's early lexical productions on the BTS family. In contrast, the Spanish input and early lexical productions of Girl 2 show a preference of nouns over verbs.

Previous work on early lexical acquisition of Mesoamerican languages (Brown 1998, de León 1998) has revealed preferences of verbs over nouns based on the linguistic typology (head marking

languages) and the cultural context of language socialization. In contrast, studies in Spanish early lexical development have mostly reported preference of nouns over verbs (Jackson-Maldonado, Thal, Marchman, Bates, and Gutiérrez Clellen, 1993). The preliminary analysis reveals consistency between inputs and early lexical productions for both languages.

The overall study documents one monolingual child and two bilingual children with bi-weekly recordings and ethnographic documentation over a ten-month period with a total data base of 180 hours in the town of Santa Ana, Chumatlán, Veracruz, Mexico.

Keywords: early lexical development, Totonac, Spanish

## Theme Session Talk

### The Effects of Syntactic Parameters on Serial Memory Error Patterns in Bilinguals and Monolinguals

*Noah Phillip-Muller*

*Location: CCIS L2 190*

While research shows that bilinguals tend to outperform monolinguals on certain linguistic tasks, the mechanisms underlying these differences are not fully understood. It has been suggested that serial memory may be enhanced in bilinguals, accounting to some extent for the linguistic differences observed between these populations, particularly in terms of phonetic and phonological learning. Bilinguals have been shown to perform better than monolinguals in a variety of memory recall tasks, but it remains unclear whether these findings generalize to tasks involving serial memory. To address this question, a digit recall task was conducted with 84 undergraduate students, about half of which were monolingual and half bilingual. The results were algorithmically analyzed to explore the mechanism through which bilingualism impacts serial memory. The algorithm tested for transpositional errors, and showed that bilinguals made significantly fewer transpositional errors than monolinguals in the recall task ( $p < .02$ ,  $d = .6$ ). A potential explanation for this group difference may be in terms of syntactical processing. Research suggests mechanisms supporting the manipulation of item and order information in short term memory are linked to performance on tasks requiring syntactically based comprehension. It is not clear, however, whether pre-existing syntactic representations also shape the way in which participants process items in serial memory. An analysis is underway to explore the possibility that syntactical co-activation contributes to serial memory differences between monolingual and bilingual populations. Specifically, do error patterns and transposition directionality replicate syntactical parameters of the languages spoken by the participants? The results will answer this question and uncover whether bilingual serial memory is affected by such influences to a larger extent than monolinguals. This study contributes to our understanding of bilingual cognition and top-down effects on memory mechanisms.

## Theme Session Talk

### Assessment methods in diagnosis and intervention planning for bilingual children

*Maria Adelaida Restrepo*

*Location: CCIS 1 430*

The purpose of the talk is to discuss how assessments such as nonword repetition and sentence repetition are accurate in diagnosing language disorders in bilingual children; however, for intervention they do not provide enough information on how and what to treat. I will review two methods that focus

on learning, dynamic assessment and response to intervention to show how they can complement the more focused tasks. These methods not only help us identify whether or not the child presents with a disability, but also provide information on the nature of the disability and the children's language specific needs. I discuss the use of these measures crosslinguistically to examine the nature of transfer in the specific linguistic components, and how these could inform intervention. In the presentation, I will review two studies that used learning as a means to identify language disorders in bilingual children and discuss the potential for future research on intervention. In the first study, we examined preschool children who are Navajo, and examined how they learned narratives in a dynamic assessment measure. In the second study, we examined Spanish-English preschool children in a response to intervention program. In both studies, all children learned. In the dynamic assessment study, we not only obtained accuracy in diagnosis, but we also identified cross cultural differences in story retelling. In addition, children with language delays showed difficulty with story structure and syntax. In the second study, all children learned how to tell stories and identification was not as expected; however, adding a modifiability scale may improve overall accuracy. Further, we can use the data to examine the same skills in the different language and identify the strengths in each. I will discuss how different types of assessments have different purposes and the combination of methods is necessary for the different purpose.

## **On the contribution of Linguistic and Cognitive Factors to the Micro and the Macro levels of Reading Comprehension among Heritage Language Children**

*Marie Nader & Daphnée Simard*

*Location: CCIS 1 440*

Reading comprehension (RC), i.e. the ability to construct a coherent mental representation of the written text (Kintsch & Rawson, 2005), is crucial for school success (Bialystok, 2001). However, a large proportion of heritage language children (HLC), i.e. children who speak or at least understand their heritage language (Valdés, 2001), presents RC difficulties (e.g. Droop & Verhoeven, 2003). Thus, individual-difference factors influencing RC are increasingly a focus of interest in both research and practice. Among linguistic factors, oral language comprehension and word reading are commonly recognized (Melby-Lervåg & Lervåg, 2014). Metasyntactic ability, i.e. the ability to intentionally control and manipulate syntactic aspects of language is also significantly related to reading (e.g. Mokhtari & Thompson, 2006). However, few have documented its contribution to HLC's RC (e.g. Abu-Rabia & Siegel, 2002). Moreover, fewer have examined linguistic and cognitive factors' relation to levels of RC, that is the micro level referring to the local discourse of the text, and the macro level, referring to the more global discourse of the text (Kintsch, 1998). The aim of our study was to advance a more comprehensive understanding of RC by (a) examining the relative contribution of linguistic and cognitive factors to RC while controlling for word recognition, and (b) investigating their relation to both micro and macro levels of RC. Arabic heritage language 5th-6th graders (n=62) in French schools participated in our study. We measured their RC ability, oral language comprehension (CELFCDN-F), metasyntactic ability (asemantic-ungrammatical sentence repetition task) and word reading ability (BALE). Additionally, working memory was measured using the Highest Number task (Oakhill et al., 2011). Regression analysis revealed that several factors contribute to explain RC at the micro, not the macro level. In light of previous studies, we will present our results and discuss theoretical and practical implications drawn from our findings.

Keywords: reading comprehension levels; heritage language children; individual differences

## **Bidirectional Associations between Language and Socio-emotional Competencies in**

## Young Dual Language Learners from Germany

*Beyhan Ertanir, Jens Kratzmann & Steffi Sachse*

*Location: CCIS L1 140*

In terms of multilingualism, recent research in Germany was mainly concentrated on language proficiency of dual language learners (DLLs), but less attention has been paid to the socio-emotional development of young DLLs. Using the results from three measurement points of the longitudinal study “IMKI-The effects of actively integrating multilingualism into preschools”, this paper examines the socio-emotional competencies of dual language learners and their interplay with the first (L1) and second (L2) language competencies of these children.

The sample consists of 377 dual language learners aged between 3 and 6 years, which were recruited from 19 preschools. The language skills in L1 (limited to Russian and Turkish-speaking children due to their higher proportion and the availability of instruments) and L2 (German) were assessed once a year at three measurement points by standardized tests addressing expressive and receptive vocabulary. Children’s socio-emotional strengths and behavior concerns were measured via teacher and parent reports using the German version of Strengths and Difficulties Questionnaire (Goodman, 2005; Woerner et al., 2002) and KIPPS-Scales of BIKO 3-6 (Seeger et al., 2014).

The results show that our sample consists of children with age-appropriate socio-emotional and L1 competencies, but relatively low L2 vocabulary skills in German (compared to monolinguals). Moreover, correlational analyses confirmed cross-sectional relations between the aforementioned developmental aspects. Cross-lagged panel analyses also provide support for early socio-emotional competencies serving as an indicator of later language skills, rather than effects of early vocabulary skills on later socio-emotional skills. Taken together, our results suggest unidirectional relations in the early childhood period. Implications for further research and educational practice will be discussed.

Keywords: Dual Language Learners; Socio-emotional competencies; L1 skills

## Mainland Chinese university students' multilingual experiences in Hong Kong: Multilingual language practices, ideologies and identities

*Matthew Sung*

*Location: CCIS L1 160*

Recent years have witnessed a growing number of mainland Chinese students studying in Hong Kong universities. While Putonghua is the national language in mainland China, Cantonese is the dominant community language in Hong Kong where English is the main medium of instruction in higher education. This paper investigates how mainland Chinese make sense of their multilingual experiences during their cross-border studies in Hong Kong. Drawing on interview and observation data as part of an ethnographic study, the paper examines a group of mainland Chinese students’ ideologies about multilingualism, their identities associated with different languages, and their multilingual practices. Findings revealed that their perceptions towards different languages were markedly different and that they constructed different identities when speaking these different languages. While they saw the symbolic value of Cantonese in terms of integration into the local community, they expressed uncertainty about learning it for their imagined future, given its limited vitality beyond the local context. They also expressed their strong desire to acquire English, as a result of its instrumental and symbolic values, and associated it with the expression of their identity as a global identity. While they expressed pride in being speakers of Putonghua, a language with growing importance in the global world, they

recognized its marginal status in the university and in the local community. It was also found that the participants expanded their multilingual repertoires during their cross-border studies, developed a flexible multilingualism ideology, and engaged in translanguaging practices during their studies in Hong Kong. While the university practiced a monolingual English-only policy in the classroom, they were in favour of the use of multilingual language resources for pedagogical reasons. By acquiring Cantonese and improving their English proficiency in Hong Kong, the participants embraced empowered identities and affirmed the value of their multilingual ability for their future.

Keywords: ideology; identity; sociolinguistics

## Tuesday Poster Abstracts

### **(T-1) Bilingualism in the elderly by Ellen Bialystok: a review of the articles published in 2012-2017**

*Luana Breda Cristiano, Gabriel Sousa Andrade, Plinio Marco Toni & Genner Mateus Secco*

Due population's aging pace, studies that aim neuroprotective competences against cognitive decline are becoming more prominent. One of such fields is the relation between bilingualism and cognition in the elderly, it's growing interest emerged mainly because the cognitive reserve hypothesis, which has serious implications for healthy aging, dementia and public health. Ph.D. Ellen Bialystok, main investigator of Lifespan, Cognition and Development Lab (York University, Canada) is one of the main researchers in this field and, because of her importance to the field and contribution to further expand knowledge regarding the phenomenon of bilingualism and aging, this research intends to review every data collection article related to the elderly that was published in a scientific journal by her in the years of 2012-2017. The publication list is located in the Lab's website. 14 articles that met the inclusion criteria were found, being them on different cognitive and neurophysiological aspects. The studies indicate significant neurophysiological differences between bilinguals and monolinguals and that there are evidence in favor of the cognitive reserve hypothesis in bilingual populations.

Keywords: bilingualism; dementia; cognitive reserve.

### **(T-2) Preparing for a Multilingual Reality: The Case of a Bilingual Teacher Preparation Program in India**

*Anuja Sarda & Martha Allexsaht-Snider*

Annamalai (2004) identifies India as 'multilingual,' demographically and functionally, with 22 official languages and 270 mother tongues. It is clear that all educational settings in India are multilingual. At the primary stage of education, only 26 languages are used as the mediums of instruction out of the 122 languages recorded in the census (2011 census). With the push for English as a medium of instruction due to globalization in both private and public schools in cities and small towns, it seems a large number of children begin schooling in an unfamiliar language environment. This complex linguistic landscape calls for critical analysis of a case of a teacher education program aimed at maintaining the official status of Hindi as the national language along with English and also at sustaining multilingualism. In this poster, we engage in a qualitative study, using the conceptual frameworks of language ideology (Irvine & Gal, 2000) to consider the case of a bilingual elementary teacher education program in Delhi University. Development of appropriate strategies for multilingual classrooms is daunting, particularly during initial teacher training. There has been little research and experimentation in India on this issue. Agnihotri (2007) and Kumar (2000) do talk about the use of children's languages as a resource in the classroom, but this has remained in the realm of theoretical discussion. Through interviews with faculty, responses by pre-service teachers on an open-ended questionnaire, and analysis of documents such as the course handbook and teacher education policy and program descriptions, we will examine the ideological stance of the one teacher education program toward 'multilingualism' and the way bilingual instruction is promoted, modeled, and practiced with the pre-service teachers within their programs of study. Implications for future research and teacher education program development in multilingual settings will be discussed.

Keywords: Bilingualism; Teacher; Education

### **(T-3) Novel Word Learning and Executive Function in Active and Inactive Bilinguals**

*Athena Szeto & Cassandra Foursha-Stevenson*

The relationship between bilingualism and cognition has been studied extensively over the years. However the effect of language use on the bilingual advantage has not been commonly studied. Previous studies have reported bilingual participants demonstrating faster reaction times (RT) and greater accuracy than monolinguals in tasks that test inhibition and task switching (e.g. de Bruin, Bak & Della Salla, 2015). Previous studies have also found an advantage for bilinguals in further language learning (e.g. Kan, Sadagopan, Janich & Andrade, 2014). For this study, we wanted to examine the effect of language usage and switching between languages on executive functioning and novel word learning in young adults. Participants were divided into three groups, monolinguals, inactive bilinguals (bilinguals who regularly use only one language), and active bilinguals (bilinguals who regularly use more than one language), and were compared on their performance on executive function and novel word learning tasks to determine whether there is an effect of active language use. Contrary to our predictions, the monolingual group demonstrated significantly faster RT than the active bilingual group on the Simon task ( $F(2, 58) = 4.50, p < .05, \eta^2 = .134$ ). We found no significant differences between groups' reaction times and accuracy in the ANT (Attentional Network Task), card sort, and novel word learning tasks. No evidence supporting a bilingual advantage as a result of language use was found in the Simon, ANT, card sort, or novel word learning tasks. Conversely, active language use can result in a disadvantage in inhibitory processing in young adult bilinguals. It is possible that active language use may exhaust cognitive resources, thereby increasing RT.

Keywords: active bilingualism; executive function; language use

### **(T-4) Multilingual Effects on Mandarin Production: Cognitive Control and Allocation of Attentional Resources**

*Hsiu-ling Hsu*

In recent years, exploring the differences in cognitive control and attention allocation between monolinguals and multilinguals has garnered substantial attention from researchers of relevant fields, thereby yielding detailed studies and polished models of lexical access (e.g., Costa et al., 2006; Hsu, 2017). However, thus far, how multilinguals and monolinguals employ cognitive control mechanism(s) and attentional resources to produce Mandarin characters within different time windows has been an underresearched area. Through the usage of error and self-repair analysis and based on Eriksen and James' (1986) zoom-lens model, the current research attempted to investigate the differences in cognitive control and the allocation of attentional resources on monitoring among monolinguals, bilinguals, and trilinguals in the Mandarin production task with diverse time limitations. In this research, we conducted one experiment with three versions of time—700 milliseconds, 1000 milliseconds, and unlimited time—a stimulus stayed on the screen. In the experiment, each participant read Chinese characters displayed on a computer screen, one at a time, by using E-prime. Sixty adults, participating in the study, were classified into three groups—Mandarin monolingual, Hakka-Mandarin bilingual, and Hakka-Mandarin-Minnan trilingual—with 20 participants in each group. The major findings were: (1) unexpectedly, the three language groups all produced significantly the fewest errors when the test character stayed on the screen for 1000ms and incurred the most errors when time was

unlimited; (2) as anticipated, monolinguals and bilinguals tend to correct errors when longer time was allowed, whereas trilinguals, interestingly, repaired more errors in the 1000-ms version rather than in the untimed version. These findings implied that additional attentional resources did not boost subjects' performance in the Mandarin production; furthermore, these results disclosed the optimal attention allocation of each language group and the importance of processing density in the language production, which, in turn, partly supported the zoom-lens model.

Keywords: cognitive control; attentional resources; processing density

## **(T-5) The relationship between perceptual ratings of accentedness and prosodic features of the English speech of bilingual children in Canada**

*Youran Lin, Stephanie Limacher & Karen Pollock*

Many children across Canada learn English as a second language. A large body of research investigates the socio-demographic factors that influence the acquisition of English speech in these children, while limited literature is found on the acoustic characteristics of their speech productions. In adult learners, prosody is believed to have a strong effect on the perceived accentedness. However, little is known about the perception of accentedness in children.

The present study seeks to determine whether there are unique patterns in English speech prosody of young bilingual children who have been exposed to English before the "critical period", and how the prosodic features contribute to the perceptual ratings of accentedness.

Speech samples were collected from 17 bilingual children with various first languages and 17 monolingual children in a sentence repetition task. 10 speech-language pathologists rated the accentedness of the sentences. Two prosodic components, pause and intonation, were measured in terms of the percentage of pause duration within the utterance and the variability in fundamental frequency (f<sub>0</sub>) contour for each child.

According to t-test comparisons, bilingual and monolingual children's percentage of pause duration and variability of f<sub>0</sub> differed significantly. The percentage of pause duration was positively correlated and the variability of f<sub>0</sub> was negatively correlated with the perceptual ratings of accentedness.

The results show that more paused and/or intonationally less variable speech tends to be judged as more accented. It also confirms prosody as an effective descriptor of accentedness compatible with perceptual judgement.

This study is a starting point to emphasize the importance of acoustic analysis when understanding accentedness. It will help speech-language pathologists understand the prosodic characteristics of bilingual children's speech, and provide much-needed evidence for accent management for child English learners, educators, and clinicians. It will also shed lights on the prosodic features of English speech.

Keywords: Bilingual children; Foreign accent; Prosodic features

## **(T-6) Parent-reported Beliefs, Practices, and Outcomes of Dual Language Learners in Hispanic vs. Non-Hispanic Families**

*Juliana Ronderos, Marissa Ramos & Anny Castilla-Earls*

In 2012, the Pew Hispanic Center reported that over 87% of Hispanic adults believe that both Spanish and English are essential to succeed in the US. Despite the perceived high value of bilingualism, it is projected that the percentage of Hispanics who speak Spanish at home will drop from 74% in 2011 to 66% by 2020. Interestingly, non-Hispanic families are increasingly opting for bilingual education due to the perceived benefits in workforce. The purpose of this study was to examine the impact of parental beliefs and practices regarding Spanish and English bilingualism on the language outcomes of their children. A survey was administered online or in person to 246 families. Responses to the survey were aggregated in scales representing beliefs, practices and outcomes in each language. We analyzed these data using regression analysis in Mplus. In general, the results suggested that positive beliefs predicted outcomes mediated by practices in that language. For Spanish language outcomes, a one-unit increase in positive beliefs towards Spanish resulted in a 0.672 unit expected increase in Spanish outcomes. This relationship was mediated by Spanish practices, which contributed a 0.240 unit increase in Spanish outcomes. In contrast, we found a one-unit increase in positive beliefs towards English resulted in a 0.465 unit increase in English language outcomes with English practices as a mediator or this relationship contributing a 0.167 unit increase. This effect was greater for positive beliefs towards Spanish having influencing practices that result in higher Spanish language outcomes than for positive beliefs towards English having the same effect on English language outcomes. These results might be explained by the dominance of the English language in the US. The results of this study are important to bilingual parents: greater emphasis on Spanish practices might be needed to ensure language maintenance.

Keywords: Spanish-English Dual Language Learners; Parental beliefs and practices towards bilingualism; Bilingual language outcomes

## **(T-7) Language Maintenance in Children with Cochlear Implants**

*Anny Castilla-Earls, Ferenc Bunta, Melissa Montenegro & Juliana Ronderos*

Spanish-English bilingual children raised in the United States often show a strong preference for English early on, and by their adolescent years report to have higher proficiency in English than in Spanish (Lutz, 2008; Tran, 2010) This shift in preference and proficiency is the result of complex cultural, educational, and sociolinguistic circumstances (e.g., Rothman, 2007). Spanish language maintenance is ideal for many families, but it is not a common outcome in bilingual context such as the United States. This shift in language proficiency and preference for English might affect children with hearing loss differently: children with hearing loss who receive cochlear implants in the US also tend to receive intensive speech and language therapy in English. In this study, we explored Spanish language maintenance in bilingual children living in Houston, TX: 23 children with normal hearing (NH), and 11 children with cochlear implants (CI). Children were 6 years of age on average (SD= 10 months). All children were administered the PLS-5 in Spanish twice, 8 months apart. To examine Spanish maintenance, we conducted analysis at the item level. Our results indicate that children with CI maintained a lower percentage of Expressive Spanish items (77%) in comparison to their NH counterparts (94%) ( $p < .001$ ). We found a similar pattern for receptive skills with children with CI maintaining 75% of the Spanish items, while the children with NH maintained 96% of the items ( $p < .001$ ). Items that were not maintained in Spanish were either changed to English or lost. The results of this study suggest that children with CI tend not to maintain Spanish as well as children with NH. The results of this study have important implications for families with children with hearing loss since they

might need to add additional strategies for language maintenance.

Keywords: maintenance; Spanish; cochlear implants

## **(T-8) The Cognitive and Neurological Effects of Bilingualism on Healthy Ageing and Dementia**

*Toms Voits, Christos Pliatsikas, Holly Robson & Jason Rothman*

Recent evidence has shown that bilingualism is a factor that has an impact on one's cognitive abilities and brain structure in older age: cognitive abilities are better preserved (Bialystok et al., 2012), brain structures maintain their integrity for longer (Luk et al., 2011), and it has been suggested that bilingual individuals experience clinical onset of dementia later in life than comparable monolinguals (Alladi et al., 2013). Bilingual patients also maintain better cognitive function at higher levels of brain atrophy than monolinguals, suggesting bilingualism is related to higher cognitive reserve (Schweizer et al., 2012). However, to date, there is no longitudinal evidence linking bilingualism to the progression of dementia.

We present the design and some preliminary data of a currently ongoing cross-sectional and longitudinal project testing monolingual and bilingual groups of patients with an early diagnosis of dementia and comparing them to healthy age-matched monolingual and bilingual individuals. Data for the first cross-sectional comparisons will be presented. The study consists of two – behavioural and brain imaging (MRI) – components. The behavioural testing battery includes assessment of cognitive abilities tapping into various aspects of cognition, such as attention, memory, verbal fluency and executive function, along with a questionnaire on participants' language history and use (Anderson et al., 2017). The MRI protocol consists of structural scanning sequences examining grey matter volume (MPRAGE), white matter integrity and connectivity (DTI), white matter hyperintensities (FLAIR), brain metabolism (MRS) and resting state functional connectivity (EPI BOLD). Participants will be tested twice using the same testing batteries with approximately 18 months between the testing visits.

It is predicted that bilingualism will result in a slower dementia-related cognitive and structural decline over time. Healthy ageing bilinguals are expected to exhibit increased brain atrophy when compared to monolinguals of matched cognitive ability due to increased cognitive reserve.

Keywords: bilingualism; ageing; dementia

## **(T-9) Kam-Mandarin bilingual children's comprehension of subject- and object-relative clauses**

*Wenchun Yang, Angel Chan & Evan Kidd*

We present the first experimental study investigating the comprehension of relative clauses (RCs) in Kam-Mandarin bilingual children. Forty-two children aged 5;11-10;3 from a minority Kam village in Mainland China were tested on their comprehension of head-final subject and object RCs in both Kam (L1) and Mandarin (L2) with a picture-pointing task.

The children in general showed a subject over object preference in both languages, a pattern consistent with the existing literature on bi- and tri-lingual Mandarin-speaking children. These children found object head-final RCs in Kam significantly more difficult than those in Mandarin, even

though Kam was their first language and the stronger language for the younger group. Children's knowledge of Mandarin (measured by their Mandarin vocabulary scores) positively predicted their accuracy in comprehending Kam object head-final RCs, and negatively predicted their error rates when comprehending Kam object head-final RCs. We therefore argue for a specific case of backward L2-to-L1 positive transfer in the younger group of bilinguals, despite Kam being their stronger language.

This study is empirically and theoretically significant. Empirically, it features an under-studied language, Kam, which not only attests the typologically rare combination of SVO canonical word order and head-final RCs, but also instantiates both head-final RCs and head-initial RCs. Theoretically, these word order properties bear on the theme of competition between constructions (Chan, Chen, Matthews & Yip, 2017; Kidd, Chan & Chiu, 2015; Rowland, Noble & Chan, 2014). We will also address the following conceptual issues: (i) the issue of subject/object asymmetry in languages attesting the rare combination of SVO order and head-final RCs; (ii) the nature of difficulty in comprehending object RCs in Kam versus Mandarin; and (iii) the possibility, nature and directionality of cross-linguistic influence in these bilingual children, given the structural overlaps (Hulk & Müller, 2000).

Keywords: Kam-Mandarin bilingual children; comprehension; relative clause

## **(T-10) Receptive vocabulary of children in a multilingual forest school**

*Julia Boegaeva*

The study aims to examine receptive vocabulary of young children in Brussels, Belgium, attending the multilingual forest school, which offers simultaneous dual immersion teaching in Dutch and French (two NS educators all the time), elective CLIL workshops in English, and parents-run activities in up to three other home languages. Inspired by the Scandinavian 'uteskole', children spend up to 70% of time in the forest in free play. We hypothesise that naturalistic environment, both in direct and linguistic sense, and simultaneous dual immersion teaching will facilitate vocabulary acquisition of the selected narrative in two main languages of instruction, which could be L1, L2 or L3 for different children. To do this, we will analyse the results of pre- and post-tests of the treatment devoted to a selected narrative. We will also learn more about multiple language exposure of children in Brussels through parents' questionnaire and will conduct an emic observation of how many times a child approaches every educator per period and if the preference to approach a Dutch-native or a French-native educator could be justified by the child's language proficiency (preference) or by some other factor. In case of the latter, we want to see if there is a correlation between the preferred educator and vocabulary acquisition of her language. The research will be finalised by April 2019.

Keywords: simultaneous dual immersion; vocabulary; outdoor

## **(T-11) How do Western and heritage cultural internalizations predict EFL students' language motivation and confidence?**

*Nigel Mantou Lou & Kimberly Noels*

Internalizing Western culture can facilitate English-as-a-foreign-language (EFL) learners' motivation to learn and confidence to use English. However, the role of heritage cultural internalization and the interactive impact of Western and heritage cultural internalizations on English learning are unclear. The cultural and sociolinguistic background of Macao provides an excellent condition to examine our research questions. Macao Chinese, consisting of 95% the population, are strongly influenced by

Chinese culture and Western culture due to a long history of colonization by Portugal.

We surveyed 172 EFL students from Macao and found that those who internalized Western culture to a greater extent indeed held more a positive view towards English learning and were more autonomous learners, which in turn predicted their confidence in using English. However, for those who internalized Western culture to a lesser extent, internalizing Chinese culture was also linked to positive attitudes and English use confidence. These findings suggest that a strong heritage cultural orientation is also important for EFL learners' English language development, especially among those do not embrace Western culture. Language researchers and teachers should pay attention to learners' orientations towards not only the target culture but also their heritage culture.

Keywords: Cultural identity; Language Motivation; EFL

## **(T-12) Sentential Biasing of Lexical Tone Perception in Heritage and Native Mandarin Speakers**

*Hanna Zhang & Philip Monahan*

Second-generation (heritage) speakers (HS) are a unique bilingual population: their proficiency in a later acquired second-language (L2) surpasses that of their first (L1). For Mandarin HSs with a non-tonal L2 (i.e., English), this invites the question of whether their ability to perceive lexical tone is altered by their non-tonal L2 dominance and in particular, whether HSs can effectively leverage syntactic context to infer target lexical tone. The current experiment investigates how sentence closure probability (CLOZE, Taylor 1953) affects lexical tone perception differently for HS versus native (NS) Mandarin speakers.

With NSs, excising lexical tone from spoken Mandarin does not impair sentence-level comprehension (Feng et al., 2012). Top-down processing based on sentential context appears strong enough to compensate for this missing lexical information. Our question then, is whether listeners not only compensate for, but recoup lexical tones absent from the speech. Specifically, can HSs do so at the level of NSs and does closure probability (i.e. strength of sentential context) play a role in this process.

Here, participants (HS: 26, NS: 30) were auditorily presented with 64 experimental and 128 filler Mandarin sentences. They performed a tone-monitoring task: to respond if and when a given target tone occurred in the sentence. Critically, half the target tones were manipulated to a pitch contour that does not exist in Mandarin. The factors were Group (HS, NS), CLOZE (high, low) and Manipulation (manipulated, unmanipulated). The dependent variable was accuracy.

Results show a CLOZE x Manipulation interaction for both groups. This suggests that both groups attune to sentential context and have expectations of hearing a tone, even when absent from the signal. In sum, non-tonal L2 dominance does not trump early tone acquisition for heritage Mandarin bilinguals.

Keywords: Perception; Chinese; Heritage-Speaker

## **(T-13) The Relationship Between L2 Learners' Vocabulary Knowledge and the Lexical Diversity of Their Writing**

*Shizuka Brooks & Gavin Brooks*

In order to be able to write in second language L2 learners need to be able plan, monitor, and review their writing as well as monitor their vocabulary selection and grammar (Weigle, 2013). Previous studies have shown the importance of language knowledge and a correlation between L2 learners' language ability and their ability to write in English (e.g., Beglar & Hunt 1999; Olinghouse & Wilson, 2013). One aspect of this is that the lexical richness of L2 compositions has been shown to correlate closely with the quality their writing (Henriksen & Danelund, 2015; Laufer & Nation).

This research builds on these earlier studies by trying to determine to what extent this lexical richness is a product of learners' language skills as opposed to their overall academic writing abilities. The researches examine the relationship between the L2 vocabulary size (New Vocabulary Levels Test (nVLT), McLean & Kramer, 2015) of 62 first year L2 English learners enrolled in a university level CLIL class and the lexical diversity of these students L1 and L2 academic writing (measured using a Type Token Ratio (Laufer & Nation, 1995) and Guiraud's index (Milton, 2009)).

The results showed no statistically significance correlation between students nVLT scores and the lexical diversity of their compositions indicating that even students with high levels of receptive vocabulary tended not to use lower frequency words in their writing. However, analysis did show a statistically significant correlation ( $p = 0.016$ ) between the lexical diversity of the students' L1 and L2 compositions. This is important because it shows that simply teaching students vocabulary in the classroom is not enough, L2 English learners also need to be taught how to use vocabulary correctly in their writing.

Keywords: Academic Writing; Vocabulary; CLIL

## **(T-14) Identifying Student Motivation and Agency in Language Learning**

*Tristan Verboven*

In multicultural classrooms, the dynamics drive the pedagogy. Student motivation can be impeded by a wide range of factors. A student's identity, education and background have an important influence on the learning process. Research reveals that the factors influencing learning all manifest themselves similarly: they affect student's motivation. When motivation types are identified, they lay the groundwork for effective pedagogical design. This study focused on identifying levels of motivation in diverse adult-education ESL (English as a Second Language) classrooms. Since the courses were not driven by evaluations, and attendance was not compulsory, students were outside of the context of standard education. The study identified levels of intrinsic and extrinsic motivation, investment in the culture of the language, and factors of agency that determine success. This analysis was applied to the population as a whole to determine if motivational types or categories were consistent with success rates. Results showed that pertinent information can be organized by broad motivational theories, and that the motivational profiles can predict success outcomes, and guide educators to reaching students' pedagogical needs. This is relevant to adult-education courses, but can be applied to a wide range of management and training contexts. Motivation plays an important role in all learning, regardless of its place within an educational system. It can also be relevant to credit-courses and public school contexts where extrinsic factors have a more significant effect on motivation. Standardized testing typically measures instrumental factors, both intrinsic and extrinsic, but does little to identify negative investment and agency factors. While this process does not diagnose specific problems, it identifies broad factors that manifest themselves in similar ways. These broad notions are easier to adapt to curriculum than individual cases, and can serve educators in a more accessible way.

Keywords: Motivation, Language learning, Adult Education

## **(T-15) Overt and Null Subjects in Late L1 Attrition of Bulgarian and Near-Native L2 Acquisition of German**

*Dobrinka Genevska-Hanke*

This paper reports on two studies, investigating the use/knowledge of overt and null subjects of a speaker with late attrition in her L1-Bulgarian and her near-native late L2-German. Both focus on the syntax-discourse interface by studying pronominal subjects in a pro-drop-L1/non-pro-drop but expletive- and topic-drop-L2 constellation. Interface syntax has been claimed problematic in similar cases, namely for attrited L1-Italian/L2-English and L1-English/near-native L2-Italian speakers (Interface Hypothesis, IH, Sorace&Filiaci 2006). Both groups overused overt subjects (OS) in topic-continuity contexts compared to non-attrited Italians. However, recent studies indicate that this kind of attrition is temporary and dependent on processing since L1-knowledge is reactivated after short L1-reexposure (Chamorro et al. 2016, Genevska-Hanke 2017). For the L1-study, four recordings of spontaneous speech were analyzed. Only the recording in the target language country (TC) at investigation-point 1 showed an OS rate, significantly higher than those of non-attrited controls. After three weeks in the home country (HC) attrition effects disappeared and the OS rate fell within the monolingual range. These results at investigation point 1 after ten years abroad were compared to results obtained five years later at a second investigation point, for which both rates, TC and HC, were monolingual-like. This is in-line with the above-mentioned reexposure results and further supports the assumed stability of fully-developed L1s (Schmid&Köpke 2007). The results of the L2-study (GJT on expletive and referential subjects) revealed that the use of German subjects of the near-native speaker differed significantly from that of L1-speakers, corroborating assumptions on the unavailability of uninterpretable L2-features (Tsimplici&Dimitrakopoulou 2007). She failed to differentiate between distinct subjects, replacing null referential and expletive subjects by any type of OS (referential, expletive, arbitrary). Hence differences were found for both interface and narrow syntax. Taken together, the present results indicate that the IH needs modifications to properly explain L1-attrition and L2-acquisition effects.

Keywords: null subjects; L1 attrition; L2 acquisition

## **(T-16) Plural formation in Moroccan heritage speakers in France**

*AMAL EL HAIMEUR*

To understand the linguistic performance of heritage speakers in France, plural formation in Moroccan Arabic was studied. Plural formation consists of both sound and broken plurals. These structures give insights into concatenative and non-concatenative morphology. 15 participants took part in this study. In a production experiment, participants were asked to form sound plural nouns using sound plural morphemes [-at,-in,-a], and broken plural, represented by 14 patterns.

Results of sound plural showed that participants acquire the sound plural [-at] and 80% acquire the sound plural [-in], and just 33% of the participants acquire the sound plural [-a]. This study suggests an implicational hierarchy for the acquisition pattern of plurals in MA. Results of broken plural show that just three patterns were acquired by a significant number of participants. Non-target like data is systematic and rule governed. Overgeneralization was used as a main strategy and the sound morpheme [-at] was used as the primary fallback strategy to compensate for the patterns that were

not acquired. The sound plural [in] was overgeneralized in about 20% of non-target-like data. In a low percentage, broken patterns were generalized as well which shows that HS are testing their hypothesis and unsure which template should match a stem. Results suggest that participants are leveling out the irregularities. Results also suggest that non-concatenative morphology is modified because of its complexity. Plural formation results demonstrate that HS in France have a different variety that is systematic, distinct and rule governed. We may propose that HS in France have 'an immigrant variety' that evolves as a result of language change.

Keywords: Heritage speakers, plural formation, language acquisition

## **(T-18) The expression of temporal relations in oral and written narratives of personal experience: A comparative developmental study of L1 & L2 Spanish**

*Judy Kupersmitt, Melina Aparici & Elisa Rosado*

The expression of temporality is fundamental in the development of narrative-embedded linguistic abilities, and is affected by language typology and age (Berman, 2014; Hickmann, 2003). While most languages have morphological tense distinctions (present, past, future) and lexical distinctions of aspect, only some languages (e.g., Spanish, English, Arabic, Russian) exhibit enriched systems of grammaticized aspect (Comrie, 1976).

This study examines the expression of temporal relations in the oral and written narratives produced after watching a video on conflicts at school (Berman & Verhoeven, 2002), by 60 L1 and 60 L2 speakers of Spanish (L1s: Arabic, Chinese) in three age groups (9-10 years, 12-13 years, and adults). The study aims (i) to analyze the types of temporal relations (e.g., sequentiality, simultaneity, anteriority) in the narratives; (ii) to analyze the linguistic devices to express these functional domains; (iii) to compare forms and functions in Spanish as L1 & L2, by age and modality (oral versus written).

Preliminary results on the written narratives only show different patterns of development in temporal relations and linguistic forms in L1 and L2. Sequential relations decrease with age and non-sequential ones increase and vary with age in L1 but remain stable in L2 narratives. In use of forms, learners of Spanish prefer the present tense across ages (including the simple and perfect aspects), while native speakers prefer the past. Other differences between L1 and L2 Spanish were noted in use of aspectual verbs, modal verbs, subjunctive mood, and pluperfect (past perfect). As with functions, the L2 group showed no development with age.

The discussion focuses on the interrelation(s) between typological, developmental and modality factors in the expression of discourse-embedded temporality in L1 and L2 discourse, as well as onto the characterization of temporality as a discourse style as has been shown for other linguistic domains (e.g., discourse connectivity).

Keywords: temporality, L2, narratives

## **(T-21) Native-language dominance predicts linguistic and cognitive transfer to the non-dominant language in preschool-age bilinguals**

*Jonathan Robinson Anthony, Irina Potapova, Henrike Blumenfeld & Sonja Pruitt-Lord*

Here we asked whether language dominance (relative exposure to bilinguals' two languages) would

predict transfer of skills from the dominant to the non-dominant language of preschoolers, and whether such transfer would be evident at the linguistic and cognitive levels. At the linguistic level, transfer of cognate knowledge (elephant-elefante) from the dominant to the non-dominant language has been shown (Poarch & van Hell, 2012). At the cognitive level, metalinguistic awareness (MLA) has also been shown to transfer in a similar pattern (Serratrice et al., 2009). Examining these types of transfer together allows us to better understand the value of a maintained home language in children learning a majority language in preschool.

Forty-six preschool-aged, Spanish-dominant bilinguals were selected based on Spanish-English bilingualism, typical nonverbal intelligence, and no history/concern for language impairment. Language dominance was established using parent-reported input and output percentages; English values were subtracted from Spanish ones, creating difference scores, and then averaged to give equal weight to input/output. Cognate effects (cognate minus noncognate accuracy) were derived from an English receptive vocabulary task (Dunn & Dunn, 1997). If cognate effects were present, this would reflect linguistic transfer. MLA was indexed by a composite score of English versions of Chaney's (1992) word manipulation and Piaget's (1929) word swap tasks. If MLA skills on the English task increased with proficiency in Spanish relative to English, this would reflect cognitive-linguistic transfer.

Results indicated that language dominance predicted crosslinguistic (cognate) facilitation from Spanish to English. MLA skills transferred from Spanish to English for children with lower English mean lengths of utterance (MLU), and no transfer of MLA was statistically evident for children with higher English MLU.

Findings suggest that transfer from a dominant to non-dominant language happens at linguistic and cognitive levels in preschoolers, although possibly influenced by second language proficiency (English MLU).

Keywords: language transfer; cognates; metalinguistic awareness

## **(T-22) The role of L1 lexical gender in the processing of L2 gender agreement: an ERP study**

*Mara Pimentel, Stanislav Mulík & Elia Haydée Carrasco-Ortiz*

Previous research has shown that native language (L1) morphosyntactic structures can influence second language (L2) learning, so that L2 structures present in the L1 will be learned faster than L2 structures that are not present in the L1 (Steinhauer et al., 2009). The aim of the present study was to investigate the extent to which L1 facilitates the processing of gender agreement, a similar morphosyntactic feature between German and Spanish languages. Crucially, we were interested in testing whether the processing of gender agreement in German L2 was modulated by lexical gender overlap across languages. German nouns involved feminine and masculine categories present in Spanish and a third gender category (neuter) only present in the L2. To this end, we recorded Event Related Potentials (ERPs) from 16 Spanish German late bilinguals and from 16 native German speakers while they were reading sentences in German involving a gender agreement violation between the determiner and the noun (Der Baum ist hoch/\*Die Baum ist hoch). Results for both participant groups showed a P600 effect to gender agreement violations involving nouns that shared gender between Spanish and German (el(masc.) árbol – der(masc.) Baum) and nouns that had opposite gender (la(fem.) mesa – der(masc.) Tisch) across languages. In addition, gender agreement violations involving neuter nouns in German elicited the expected P600 effect for native German

speakers and a N400 effect for the bilinguals. These results suggest that proficient bilinguals rely on their L1 lexical gender system and the processing of gender agreement in L2 is modulated by the lexical gender overlap across languages.

Keywords: second language; lexical gender; ERP

### **(T-23) Form-based associations in L2 acquisition - the impact of Swedish å, ä, ö**

*Gisela Håkansson & Catrin Norrby*

To ask people what word they come to think of when they see or hear a certain stimulus word is a standard method in studies of the organisation of the mental lexicon. Findings based on native speakers show that they tend to select words from the same semantic field, connected by e.g. collocation, synonymy and antonyms (Aitchinson 2012:99-112). In language acquisition studies, however, it has been found that both L1 and L2 learners (Entwisle et al. 1964, Meara 2009) also use form-based associations, so-called clang associations. These refer to the shape of the stimulus word without connection to the meaning, often exemplified by rhyming responses, such as bite–light (Meara 2009:7). An additional finding is that the clang phenomenon typically occurs with unfamiliar vocabulary.

In our study on L2 learners of Swedish neither of these claims were found for clang associations (Håkansson & Norrby 2010, Norrby & Håkansson 2007). Instead of oral stimuli we used a written version of the Kent and Rosanoff list (1910) of 100 words to elicit associations. Thirty-seven university students of Swedish as L2 participated in the study. The results demonstrate that the learners took particular note of stimuli words containing the characters å, ä, ö. Of words containing these, 70% elicited clang associations. In other words, the learners did not interpret such words semantically, despite some of them being basic words the learners were expected to be familiar with, such as smör ('butter'), and törstig ('thirsty') which were associated to små ('small') and torsdag ('Thursday') respectively.

We argue that focussing on the form of a word when reading a text could be an obstacle that hampers L2 learners' text comprehension.

Keywords: L2 Swedish; word associations; form-based

### **(T-24) The Implementation of Translanguaging Pedagogy at Zayed University in the United Arab Emirates: Challenges and Success Stories**

*Telma Steinhagen & Ahmad Aljanadbah Aljanadbah*

The United Arab Emirates with their unique population constellation faces challenges in its educational institutions. More than 80 % of the population are expatriates, and one finds the same percentage of foreign educators at its universities. The language of instruction in the UAE is English, while the students are native speakers of Arabic.

Now the country is at an important crossroads, wanting to move forward with its economic development, while at the same time attempting to preserve and promote its cultural heritage and language. Here, translanguaging as a pedagogical stance can become an effective tool at universities to be used to educate students for the growing job market as well as encourage them to continuously

enhance the proficiency of their native language, Arabic.

We teach and research in two different Departments at Zayed University, English and Writing Studies and Arabic, where we started a collaborative pilot project to implement translanguaging's pedagogical tools. The aim is to increase students' meta-linguistic awareness and to achieve a higher level of cognitive academic competence in both languages.

Using Grounded Theory (Strauss & Corbin 1998) as our research method, students were asked to write reflective comments about their trajectories on translanguaging. This was combined with semi-structured qualitative interviews, which also brought to light new aspects and phenomena. The findings so far reveal that there is an inherent interplay of factors that promote transformative learning. More importantly, the results also show that the use of effective translanguaging strategies can have a positive effect on students' level of motivation and 'self-efficacy.'

### **(T-25) A translanguaging instinct in pre-service teachers - and a move from spontaneous to pedagogical translanguaging?**

*Jonas Iversen*

This paper reports on findings from an ongoing PhD study, which explores pre-service teachers' spontaneous translanguaging practices and how they assess their own translanguaging practices during field placement in schools characterized by linguistic diversity. The study contributes with valuable knowledge about when and why pre-service teachers employ translanguaging practices during field placements, and provides directions for how one might move from spontaneous translanguaging practices to pedagogical translanguaging practices.

The data of this study was collected through seven focus groups interviews with pre-service teachers during or shortly after their first field placement. Twenty-four first-year pre-service teachers enrolled in two teacher education institutions participated in these focus group interviews. Further, one of the groups was observed during one week of their first field placement of their teacher education.

The findings from this study indicate that pre-service teachers spontaneously employ their complete linguistic repertoire in situations where communication in the classroom is otherwise difficult. This supports Li Wei's (2018) notion of a translanguaging instinct, understood as 'an innate capacity to draw on as many different cognitive and semiotic resources as available to them to interpret meaning intentions and to design actions accordingly' (Wei, 2018, p. 24). However, the pre-service teachers do not always argue that translanguaging is an appropriate approach for teaching and learning; rather they often consider it a last resort. Hence, if one assumes that the translanguaging instinct enables pre-service teachers to translanguage in multilingual classrooms, it should be further developed to move pre-service teachers from current spontaneous translanguaging to pedagogical translanguaging.

Keywords: translanguaging instinct; pedagogical translanguaging; teacher education

### **(T-26) Next generation multilingualism and social cohesion in Singapore: Educational discourses**

*Daniel Kwang Guan Chan & Gilles Forlot*

In 1965, Singapore was founded on the principles of ethnic, religious and linguistic plurality, with

English as a common language both for inter-community communication and international development. About half a century later, the country is known in sociolinguistic and educational academic circles for its multilingual management, for its teaching of assigned 'mother tongues' and for its debates on the legitimate use of different linguistic forms.

Our research focuses on the roles of language practices, management, and education in the construction of the nation, in particular in the international, superdiverse and globalized contexts the country has evolved in. Our aim is to present results of an investigation on the way university students and language teachers perceive the evolution of the management of language learning and the traditional perception of Singapore as a stable, multilingual state. In particular, we focus on the discourses on language learning and teaching as grounded on identity and instrumental functions – maintenance of cultural and linguistic heritage of the various communities.

Both national statistics and scholarly work show that language practices have not met the exact objectives of the country's founders: Chinese dialects are beginning to be reclaimed, Mandarin has not gained the affection and trust of the Chinese Singaporean population, while English is becoming the dominant medium of communication, and Singapore Colloquial English (Singlish) has grown as the real linguistic identity marker in the population. The first stages of our fieldwork tended to show that young Singaporeans do not necessarily reproduce the official discourse on what Singapore multilingualism should look like. We will analyze teachers' discourses on multilingualism as practiced in educational settings, and how their discourses compare to those of the pupils and students themselves. We resorted to semi-structured interviews and a large-scale questionnaire administered in Singaporean universities and educational circles.

Keywords: Multilingualism, Social Cohesion, Educational Discourses

## **(T-27) The persisting role of orthography in the L2 speech of highly proficient Korean- and Farsi-English-speaking bilinguals in Canada: acoustic evidence for language-specific effects**

*Yasaman Rafat, Veronica Whitford, Marc Joanisse, Natasha Swiderski, Sarah Cornwell, Mercedesh Mohaghegh, Celina Valdivia, Nasim Fakoornia & Parastoo Nasrollahzadeh*

Recent work has shown that exposure to orthographic effects can promote first-language (L1) phonological transfer (Bassetti, Escudero & Hayes-Harb, 2015, Young-Scholten & Langer, 2015). However, it is relatively unknown whether orthographic effects persist in highly proficient bilinguals (Bassetti 2017), and what their modulating factors are (Rafat, 2016). Here, we examined how L1 orthographic depth (regularity in grapheme-phoneme correspondences) modulated Korean-English and Farsi-English bilinguals' (n = 25 each) production of digraphs (double letters) in English words (e.g., <mellow> / 'meloo/ vs. <melon> / 'melən/). Native English speakers (n = 25) served as a control group. Because digraphs are produced as geminate (long) sounds in both Korean (a shallow orthography) and Farsi (a deep orthography), we expected L1-based transfer. Participants completed four tasks: an eye-movement reading task, word-naming task, cloze test, and language background questionnaire. The stimuli were controlled for word frequency, word length, number of syllables, and stress. Preliminary results of an acoustic analysis revealed that Korean-English bilinguals were more likely than Farsi-English bilinguals to produce digraphs as a longer sounds in both the reading and word-naming tasks. These language-specific effects are attributed to differences in L1 orthographic depth, corroborating previous neuro-linguistic evidence that shallow and deep orthographies differentially rely on phonological and lexical pathways, depending on the language-specific demands in learners (Buetler et

al., 2014, 2015).

Taken together, our results suggest that orthographic input influences bilinguals' underlying phonological representations, as a function of L1 orthographic depth. This work has implications for both second-language (L2) speech learning models and classroom instruction.

Keywords: Bilingualism; L2 speech learning; orthography

## **(T-28) Investigating the acquisition of Mexican Spanish rhotics by Haitian Creole speakers: a socio-phonetic approach**

*Natasha Swiderski & Yasaman Rafat*

It is a well-known fact that rhotics ('r' sounds) are difficult sounds to acquire as a second language (e.g., Rafat, 2015; e.g., Face, 2006; Major, 1986) and for children (Carballo and Mendoza, 2000). This study will investigate the acquisition of Spanish tap and trill by Haitian Creole (HC) speakers living in Tijuana, Mexico. By examining (a) cross-linguistic influence (CLI) and (b) the effect of participants' attitudes towards Spanish and the Mexican community on the degree of CLI. Currently the models of second language (L2) speech learning (see Flege, 1995; Best & Tyler, 2007; Colantoni & Steele, 2008) have only focused on the effect of similarity between the first language (L1) and L2 on CLI, and not much is known about social factors. Whereas in Mexican Spanish the rhotic is realized as a tap [t̬], trill [r̄] and fricative rhotic, in HC, the rhotic is realized as a voiced velar fricative [ʁ]. Therefore, it is predicted that there will be transfer from L1. Moreover, it is predicted that a positive attitude (see Gardner 1985 and AlMansour 2016) towards Spanish and the Mexican community will correlate with more target-like productions of the Spanish rhotics. The participants included 10 HC speakers who had lived in Mexico as refugees for a year, as well as 5 native speakers of Mexican Spanish. Participants completed a word-naming task, reading task, background questionnaire, and a language attitude survey. The results were analyzed acoustically using PRAAT. The phonetic parameters measured included: manner and duration. The results indicate a strong rate of L1 transfer. The correlation between language attitude and transfer will be reported. This study is important because both the examination of L2 speech learning from a sociolinguistic perspective and the language pairing are novel. Findings will have implications for the current models of L2 speech learning.

Keywords: Haitian Creole; Spanish; language acquisition

## **(T-29) Avoiding Monolingual Bias in Attrition Research: Comparing Bilingual Attriters to Bilingual Non-Attriters**

*Anastasia Sorokina*

First language (L1) attrition refers to changes in grammar and lexicon as a result of acquiring a second language (Schmid, 2011). Although L1 attrition is very common among speakers of multiple languages (Yilmaz & Schmid, 2018), this phenomenon has not been fully understood, more specifically, the main causes of L1 attrition have not been identified (Schmid, 2016). The main reason is the limitations of the current L1 attrition methodologies employed in the field, especially utilizing a monolingual control group. It is common to collect L1 data from monolingual speakers and use that as a baseline. However, it is highly problematic to apply a monolingual standard to speakers of multiple languages due to multiple factors, such as language change and language variation (Isurin, 2013). Most importantly, it

might be inappropriate to use monolinguals as a reference point to assess bilinguals.

The current study aims to address this issue by introducing a method of comparing bilingual attriters to bilingual non-attriters in order to assess L1 attrition. A total of 35 Russian-English bilinguals ages 18-33 ( $M=3.3$ ;  $SD=4.4$ ) with comparable L2 mastery were assessed for L1 attrition based on six measures: can-do-scales, L1 usage, word recognition, lexical diversity, fluency, and syntactical complexity. The results revealed that while there was a continuum of L1 attrition levels, a group of bilinguals ( $n=12$ ) who retained their L1 emerged, as it was evident from their self-assessment, productive, and receptive knowledge of Russian. This group of bilingual non-attriters could be used in order to evaluate causes of L1 attrition. More specifically, a researcher can examine how this group was able to retain a high level of L1 mastery in comparison to other participants who experienced more changes to their L1 lexicon and grammar. Possible advantages and limitations of this within-group comparison in order to assess L1 attrition are discussed.

## Wednesday Talk Abstracts

### Motivation in learning Mandarin as a foreign and heritage language

*Chuan Lin*

*Location: BS M 141*

Dörnyei (2005, 2009) proposed the second language (L2) motivational self system that is made up of ideal L2 self, ought-to L2 self, and L2 learning experience. Researchers have started to test the applicability of the model, and have found that the ideal L2 self correlates highly with intended learning effort, and the variables of the L2 Motivational Self System have been tested through many studies conducted with English as a foreign language learners. However, there is a lack of research testing the model with languages other than English. To fill this gap, this study further tests L2 Motivational Self System in the context of learning Mandarin. It also examines possible differences of motivational factors between heritage and non-heritage language learners of Mandarin at the college level in the United States.

238 learners of Mandarin from 10 colleges in the United States participated in this study. Structural equation modeling was employed to investigate the causal relationships among the motivational factors and between these factors and criterion measures. The results showed ideal L2 self and L2 learning experience of the L2 Motivational Self System motivated learners to put more effort into learning Mandarin. However, the ought-to L2 self could not be seen as a strong predictor of intended effort of learning Mandarin. In addition, significant differences were found between heritage and non-heritage learners of Mandarin on L2 learning experience, intended effort and family influence. Pedagogical suggestions for teachers to motivate students to make more effort in learning Mandarin both in and outside of the language classroom are also discussed.

Keywords: Motivation; Mandarin; Self

### Predictive processing of gender in Welsh-English bilinguals

*Tesni Galvin & Vivienne Rogers*

*Location: BS M 145*

The role of prediction in the processing of gender in second language acquisition has garnered increasing interest in recent years (Grüter et al, 2012; Hopp, 2016). While the same system is thought to underscore both L1 and L2 gender processing, the latter is more cognitively demanding and subject to greater working memory effects (Cunnings, 2016; Sagarra & Herschensohn, 2010). Much previous work on predictive gender processing has concentrated on languages such as French, German and Spanish, which clearly mark gender on the determiner. To date, there has been a lack of investigation with bilingual populations and in languages with more complex gender systems, such as Welsh.

Welsh has a binary gender system that is mainly viewed post-nominally. However, it is possible to test gender predictively through the use of the cardinal numbers with both masculine and feminine forms, e.g:

1. Dau gar (two-MASC car/cars-MASC)

2. Dwy bont (two-FEM bridge/bridges-FEM)

As Wales is a bilingual country with extensive influence from [-gender] English, our research questions are:

1. Do Welsh-English bilinguals make predictive use of grammatical gender information in Welsh?
2. Do the following individual factors; dominance, proficiency, age of acquisition, length of exposure and working memory affect the predictive processing of gender?

22 participants were administered a battery of tasks including a visual-world eye-tracking task, the Bilingual Language Profile (BLP), TMT Parts A & B as a measure of attention and central executive control (Salthouse, 2011), cloze tests in English and Welsh, and an elicited oral production measure.

The results show that Welsh/English bilinguals show considerable variation in their use of gender predictively. Those, who do use gender predictively are bilingual from birth and over the age of 30. We suggest that this is a length of exposure effect. We will discuss these results in terms of other individual differences.

Keywords: Gender; bilingualism; processing.

## **Multilingual strategies of newly arrived pupils at the transition between preparation and regular class**

*Simone Plöger*

*Location: CCIS 1 140*

In Hamburg, newly arrived pupils are normally educated during one year in preparation classes that focus on the learning of the German language (BSB 2012). Based on ethnographic data from a research project, the paper investigates how the pupils develop multilingual strategies in order support their own language learning process.

The transition to the regular classes constitutes a great challenge for the pupils' language-learning process, which is not completed yet. Hence, education policies demand a close interlinking between preparation and regular classes to support the language education which includes not only skills of German as second language and Cognitive Academic Language Proficiency (CALP, Cummins 1979), but also a productive inclusion of all linguistic repertoires, pupils bring to the classrooms (Tracy 2014; Fürstenau 2017). Researches in language learning demonstrate that the investment in learning a second language consists of an interplay between capital, ideology and identity (Darvin und Norton 2015).

In consideration of this theoretical background, the present paper aims at uncovering insights during the process of language learning in the preparation class as well as the regular class. The research question was as follows: Which multilingual strategies do newly arrived students use in order to learn German as a second language and how do teacher enhance or restrict them? Ethnographic field notes with detailed documentation as well as informal conversation and qualitative interviews were analysed following the concept of Grounded Theory (Charmaz 2014). By giving very concrete examples of multilingual practices pupils use in classroom interactions, the paper provides information about how they use their linguistic capital to develop language-learning strategies and how teachers are engaged

in this process.

Keywords: Multilingual strategies; Newly arrived pupils; preparation class

## **The Scope of Inhibitory Control in Bilingualism**

*Eve Higby, Paulina Vasquez-Rocha & Judith Kroll*

*Location: CCIS L2 190*

When bilinguals plan speech in one of their two languages, the other language is active and potentially competing for production. Bilinguals may inhibit the dominant language (L1) to produce words in the non-dominant language (L2) (Misra et al., 2012). In this experiment we asked whether bilinguals inhibit specific words that might interfere in speaking L2 (local inhibition) or whether they inhibit the L1 lexicon as a whole (global inhibition). Two groups of Spanish-English bilinguals completed a picture naming task in which they first named pictures in separate blocks in L1, then L2, then L1. One group named the same pictures across all the blocks. The other group named novel pictures in the L2. If the L1 is inhibited globally, we expect to see the same patterns for both groups. However, if specific items are suppressed, repetition priming for those who named novel pictures in the L2 is expected. In a final block, they named pictures in both languages depending on a cue. In mixed blocks, switching into the L1 is more costly than switching into the L2 (Meuter & Allport, 1999). However, it is unclear from previous research how that inhibition is affected by prior naming. Preliminary results from 34 participants suggest that L1 suppression is global. L1 naming was similarly affected by repeated and novel items. Participants who named the same pictures across all blocks were faster in the mixed block for both English and Spanish than those who named different pictures in each language. This pattern suggests that naming the same pictures in both languages led to a greater L1 repetition advantage for the language-mixing condition. Thus, the scope of L1 inhibition is not limited to the specific items retrieved. Instead, bilinguals inhibit the L1 lexicon as a whole when planning L2 speech.

Keywords: Lexicon, inhibition, psycholinguistics

## **A multigenerational investigation of the acoustics of English-Modern Hebrew heritage speakers**

*Kyle Jones*

*Location: CCIS 1 430*

This research investigates the speech acoustics of two generations of U.S. olim (immigrants) in Israel: First generation immigrants, whose first language (L1) is American English (AE), and their second-generation children, for whom English is a heritage language (HL).

A specific HL accent has been demonstrated in the studies that have investigated the phenomenon, showing that heritage speakers have good control of phonetic/phonological contrasts between their two languages but distinct patterns from both native speakers (NS) and second language (L2) learners (who both show L1 influence).

The research focuses on issues of heritage language phonology and intergenerational multilingualism: What is the speech of HL speakers of AE in Israel like? How does this speech compare to the speech of their parents (their main source of input for AE)? How does Modern Hebrew (MH), their L2 or primary language, affect their AE? These questions are investigated through a language questionnaire and a picture naming task targeting voice onset time (VOT) in the AE and MH stops /bdg ptk/, which differ in

how phonological voicing/voicelessness is cued phonetically by VOT: AE voiced stops /bdg/ have short lag VOT (< 40 ms), while voiceless stops /ptk/ have long lag VOT (> 40 ms). In MH, voiced stops /bdg/ exhibit prevoicing (sometimes up to -100 ms or more), while /pt/ have short lag VOT (< 40 ms) and /k/, unusually, exhibits long lag VOT (often greater than 60 ms). A total of 9 HS of AE; 10 American olim; and 5 NS of MH participated in the experiment. Acoustic analysis demonstrates that HL speakers, echoing previous studies, have excellent control over phonetic and phonological contrasts in salient distinctions between their two languages, despite greater overall variability. VOT is within MH norms when speaking MH and within AE norms when speaking AE.

Keywords: heritage speakers; acoustics

## French-English bilingual children's sensitivity to genericity and specificity: evidence of implicit and explicit knowledge

*Coralie Herve*

*Location: CCIS 1 440*

Recent research posits the role of processing mechanisms on cross-linguistic influence (CLI) (e.g. Hsin et al., 2013). To-date, off-line studies on the bilingual acquisition of genericity reported transfer from the Germanic to the Romance language in the form of inappropriate form-function mapping (e.g. \*null determiner in Italian/French in a generic context) that were mediated either by the wider-community language or by fluency (Serratrice et al., 2009; Hervé & Serratrice, 2018).

This paper assesses 8-to-10-year-old French-English children's sensitivity to grammatical violation online and offline; and considers how individual measures of fluency and language exposure affect CLI. Forty-five French-English children, 24 French and 20 English monolinguals took part in an online self-paced reading task (SPR), an offline Acceptability Judgement task (AJT), and a cloze-test in their respective language(s). In a generic context, French requires the projection of a definite article while English allows bare mass nouns and bare plural nouns. Based on these differences, all the tasks across languages included 8 paired-sentences in the generic condition (e.g. Paul loves green fruits, he thinks 0/\*the kiwis are delicious) and 8 in the specific condition (e.g. Julie wants to buy some fruit at the market, she thinks the/\*0 pears are ripe). Cattani et al.'s (2014) parental questionnaire was used to measure language exposure and fluency.

Our results show bi-directional CLI in the online tasks only. In French, the bilinguals significantly differ from the monolinguals in the SPR but not in the offline tasks. In English, reading times increased for ungrammatical sentences in the SPR as a function of French fluency. In the AJT, the bilinguals' higher acceptance rates of ungrammatical sentences are correlated to English exposure. In the cloze-test, the bilinguals are significantly less accurate at selecting the target article than the monolinguals. These results will be discussed in terms of explicit/implicit knowledge (R.Ellis, 2005).

Keywords: genericity; sentence processing; heritage speakers

## Learning Portuguese grammar: Perceptions of foreign and heritage language speakers.

*Gláucia Silva*

*Location: CCIS L1 140*

Research on learner perception has shown that foreign language (FL) learners consider formal grammar study quite important (Schulz, 1996), including studying grammar forms in isolation (Spada & Lima, 2015). Research has also demonstrated that these beliefs may be related to the learner's culture (Schulz, 2001; Spada & Lima, 2015) or the language learned (Loewen & al., 2009). However, we know little about perceptions and beliefs of heritage language (HL) learners in what relates to grammar instruction. In a qualitative study on HL instruction at the college level, Schwarzer and Petró (2005) do include the opinions of their participants on grammar instruction: that explicit grammar instruction was not useful for them. In fact, it is now widely accepted that HL instruction needs to be different from FL instruction (Beaudrie, Ducar, & Potowski, 2014; Parodi, 2008; Valdés, Lozano, & García-Moya, 1981). Given this scenario, this paper discusses 1) whether HL and FL learners of Portuguese prefer grammar instruction that is isolated or integrated/contextualized, 2) whether they believe explicit grammar instruction helps their linguistic development in Portuguese, and 3) whether the two groups benefit from explicit grammar instruction. The methodology included a survey among college students matriculated in Portuguese language classes, as well as pre- and post-instruction tasks. Results suggest that HL learners tend to prefer integrated/contextualized grammar instruction, whereas the FL group does not appear to have a clear preference. However, results about the impact of explicit grammar instruction are not conclusive. The paper closes with a discussion of the theoretical implications of these findings for research into heritage and foreign language learning and of pedagogical procedures that might enhance the opportunities created in grammar activities developed for those two groups of learners.

Keywords: Portuguese, heritage language, grammar

## **Bilingualism and the Next Generation: Evidence from Estonia, Cyprus and Sweden**

*Anastassia Zabrodskaja, Sviatlana Karpava & Natalia Ringblom*

*Location: CCIS L1 160*

Translanguaging is 'flexibility of bilingual learners to take control of their own learning, to self-regulate when and how to use a language, depending on the context in which they're being asked to perform' (Garcia and Li Wei, 2014:80). The aim of this study is to investigate translanguaging practices of bilingual/multilingual Russian-speaking children and their parents in Cyprus, Sweden and Estonia, at home, at school and in the society. Multilingual families were in the scope of our research: 50 in Cyprus, 20 in Estonia and 50 in Sweden. Using parental written questionnaires with the focus on general background, socio-economic status and language proficiency, as well as oral semi-structured interviews, our study attempts to describe how family language policy (FLP) is managed through translanguaging and literacy activities in multilingual Russian-speaking families in three different cultural and linguistic environments. Our results show both differences and similarities among Russian-speakers in the three countries, not only in their family language practices, but also in their attitudes towards fluidity of language, language repertoires, translanguaging and Russian-language literacy. Russian-speakers incorporate a wider range of language repertoires for their everyday lives. Sometimes, such language contacts generate power struggles and the language ideological dimension becomes a key terrain to explore how speakers feel about the need to effectively attain a degree of multilingualism. Multilingualism and the maintenance of the Russian language and culture are usually encouraged and parents often choose the OPOL approach at home. However, not all of the efforts result in successful home language transmission. Not all the families are making a conscious choice towards a specific FLP and have a so-called laissez-faire attitude to the languages in the family. We show how FLP and child-directed translanguaging can support, expand and enhance dynamic bilingualism/multilingualism, reinforce and integrate minority language in a wider context – societal

and educational.

Keywords: translanguaging; language transmission; Russian

## Fortasse lingua latina non mortua est: Motivation to become bilingual in Latin

Joshua Katz, Kimberly Noels & Amanda Fitzner

Location: BS M 141

Few studies have examined why people learn classical languages, and none have grounded learners' reasons within theories of motivations for language learning. We conducted interviews with 12 intermediate to advanced-level Latin learners ( $M = 39.58$ ,  $SD = 4.11$ ) to investigate why they chose to learn the classical language. A thematic analysis of interview transcripts revealed nine themes. Some themes were consistent with self-determination theory, including the themes "intrinsic interest" (intrinsic motivation), "sense of prestige" (introjected regulation), and "program requirements" (external regulation), while other themes were consistent with notions of Gardner and Lambert's model of language learning (e.g., "transferable language benefits" and the instrumental orientation). Other themes have not been addressed in motivational models, and seem specific to learning classical languages like Latin. Some themes addressed by extant motivational models were not evident in the transcripts, or necessitated a reinterpretation of extant constructs (e.g., the integrative orientation). Given these findings, it would appear that motivation to learn classical languages can be explained using theories of motivation to learn modern languages, however, we did find themes that did not align with characteristics of these theories. For example, "methodological approach to learning" describes facets of Latin that enable people with specific personality characteristics to more easily learn the language. The results of this study are discussed in terms of contemporary theories' ability to predict motivation to learn classical languages.

Keywords: Latin; motivation; self-determination theory

## Context effects in processing of cross-language semantic ambiguity among different-script bilinguals

Tamar Degani

Location: BS M 145

Ample research suggests that same-script bilinguals co-activate both of their languages, even when words are embedded in sentential context. However, little is known about how these cross-language interactions operate among different-script bilinguals, when the orthography provides unequivocal cue to language membership. The goal of the present study was therefore to explore whether cross-lingual homophones are processed differently than single-language control words among proficient different-script bilinguals, when words are embedded in neutral or high semantic-constraint sentences. To this end, a group of 48 Arabic-Hebrew bilinguals were compared to a group of 48 native Hebrew speakers on a Hebrew self-paced reading task. Fifteen cross-language homophones (e.g., the word /sus/ means 'chick' in Arabic but 'horse' in Hebrew) and control words, which do not overlap phonologically across Hebrew and Arabic, were embedded in neutral or in semantically biasing Hebrew sentences (target cloze predictability  $>.80$ ). Reading times across various sentence regions (critical word, spill over, final word, and total reading time) were analyzed to reveal time-course modulations of the effects. Preliminary analyses provide evidence for cross-language activation for Arabic-Hebrew bilinguals despite clear language context provided by the Hebrew sentence, and these effects are stronger in regions indexing meaning integration (final word and total reading time). Effects were modulated by sentential context, but were nonetheless present even in a highly semantically constraining context. Additional analyses will test how these effects are modulated by L1 vs. L2 fluency as measured by both subjective ratings and objective semantic fluency tests. Findings will be discussed with reference to the role of language context and semantic context in bilingual lexical processing, and extensions of

bilingual models to accommodate different-script bilinguals.

Keywords: cross-language ambiguity; context, different-script

## **Improving Bilingual Language Processing through Language-Switching Training**

*Kevin McManus*

*Location: BS M 149*

A defining feature of bilingualism is that use of a single language activates both languages (Marian & Spivey 2003, Wu & Thierry 2010). This parallel activation leads to crosslinguistic influence, the resolution of which necessitates a series of cognitive processes that help detect and resolve conflict, including, for example, inhibitory control (Calabria, Costa, Green, & Abutalebi, 2018). Research with successive bilinguals indicates larger switching costs for L1-L2 switches than L2-L1 switches, suggesting that larger amounts of inhibitory control are needed to inhibit the dominant language (Linck, Schweiter, & Sunderman 2012). To date, two studies have investigated the extent to which inhibitory control skills can be trained through language-switching practice (Zhang et al., 2015; Wu et al., 2018), indicating that language-switching practice involving lexical processing can improve inhibitory control skills. Since language-switching training in both studies involved lexical processing with different-script languages (Chinese-English), the extent to which language-switching practice involving grammatical processing of same-script languages could lead to the same benefits remains unclear.

The current study addresses these gaps in our understanding by examining the effects of language-switching training involving grammatical processing of same-script languages. Participants were seventeen successive English-French bilinguals who were in first year university-level French courses. Subjects completed three training sessions (each lasting one hour) over fourteen days. The training required subjects to process English (L1) and French (L2) sentences for aspectual information.

Findings indicate that L2 L1 switches initially incurred a larger time cost than L1 L2 switches, but that switching costs reduced over time for both trial types. The magnitude of these training effects was larger for L2 L1 switches than L1 L2 switches, indicating that language-switching training involving grammatical processing of same-script languages can benefit bilingual inhibitory control skills. These findings are discussed in light of previous research. Implications for classroom foreign language learning are discussed.

Keywords: Crosslinguistic influence; cognitive processing; training

## **Linguicism in School: Experiences of Plurilingual Students in Germany**

*Liesa Rühlmann*

*Location: CCIS 1 140*

Despite the fact that a large number of students in German schools is plurilingual, common educational practice is influenced by a monolingual habitus. Through (hidden) language curricula, many schools marginalize several languages and thus require students speaking these languages to assimilate to an environment in which many of their home languages are not welcome.

The pivotal actors who put schools' policies into practice are teachers. Teachers act as representatives of a societal norm system, and thus, impact young people in a way that they provide knowledge on

how to view the world. Hence, visiting school is a crucial and intensive experience for young people. The aim of my study as part of my PhD thesis is to understand the ways in which plurilingual students have (not) felt acknowledged in the usage of their heritage languages in school. The focus will be on the role of teachers, specifically their impact on identity concepts of plurilingual students by their treatment of language diversity. I am conducting a qualitative research design by interviewing former students, thus utilizing a retrospective approach.

First results provide insights into institutionalized discrimination, specifically linguistic experiences, a form of racism based on the language(s) an individual speaks. Taking into account my findings and International research on teachers' beliefs as well as students' experiences, in my proposed presentation, I will discuss the relevance of support of heritage languages in school in order to provide classrooms accepting and promoting plurilingualism. This discussion is crucial not only for language maintenance of plurilingual students but their sense of belonging and identity development.

Keywords: Germany; teachers; linguicism

## **Cross-linguistic syntactic priming in Korean-English late bilinguals**

*Myeongeun Son*

*Location: CCIS L2 190*

Priming with a particular construction in the first language leads to faster processing of that construction in the second language on subsequent presentations, indicating that late bilinguals share an abstract syntactic representation between the two languages (e.g., Hartsuiker & Bernolet, 2017; Hartsuiker et al., 2004;). However, there has been no consensus yet on the factors that might affect the cross-linguistic syntactic priming and little evidence for development of the shared representation (e.g., Bernolet et al., 2009; Hwang et al., 2018; Song & Do, 2018). This study investigates the effects of different word order, asymmetrical syntactic features (particularly, different restrictions on the order of thematic roles), and different level of L2 proficiency on cross-linguistic syntactic priming from L1 to L2.

In this study, 48 pairs of Korean and English dative alternations were created as a prime sentence by scrambling the order of Korean postpositional dative sentences' constituents (i.e., six types of sentences; two types starting from the agent, two types starting from the recipient, and two types starting from the theme). Twenty-two intermediate and 24 advanced Korean – English late bilinguals read aloud a Korean prime sentence and sometimes answered a comprehension question. Then, they were required to complete an English fragment, using assigned keywords to describe a picture. The participants' transcribed productions were coded and analyzed by logit mixed-effects models in R.

The results showed that the bilinguals were more likely to follow a grammatical form of a Korean prime sentence in the production of an English target, although Korean and English have different word orders. In addition, the magnitude of syntactic priming effects differed, depending on scrambling in Korean. Proficiency did not influence the priming effects. The results indicate the Korean – English bilinguals share an abstract syntactic representation of dative alternations between Korean and English.

Keywords: cross-linguistic syntactic priming, different word order, asymmetrical syntactic features

## **Intergenerational Transmission of Norwegian as a Heritage Language**

*Arnstein Hjelde & Kristin Melum Eide*

*Location: CCIS 1 430*

This presentation addresses how heritage America-Norwegian changes over generations. Our data consists of recordings made in the 1940s (collected in Wisconsin by Einar Haugen), in the 1980s (recorded in Wisconsin and Minnesota by Arnstein Hjelde), and in the 2010s (collected in the same two states by the CANS project; lead by Janne Bondi Johannessen).

We take these data sets as idealized representations of the speech of three different generations of speakers, those born in the last half of the 1800s as the first, those born in the first decades of the 1900s as the second, and those recorded in the 2010s as the third generation (as here we find speakers born after 1940). We also have recordings of several pairs of actual parents and children, allowing us to study in detail how a language is transmitted between generations within the family.

The aim of this study is to investigate a selected set of features to detect which features are robust survivors of this intergenerational transmission, and which features are more vulnerable for change and extinction. We search for changes at the phonological, morphological, and (morpho-)syntactic level; via the attested diachronic development of some selected linguistic features at each level.

These are the vowel /y/ and the consonants /r/ and /ʀ/ («thick l» (retroflex flap)); double definiteness in DPs (an exotic trait belonging to Euro-Norwegian); inherent reflexives where the reflexive obligatory occurs in Norwegian but not in English; verb movement (to the verb second position) and topicalization (“fronting”) in declaratives; an infrequent option in English but very frequent in Norwegian. These features are reported to be targets for change, but some (like /ʀ/) are clearly more frequently than others (like /r/).

We hence explain these different changes as being subject to convergence (Matras 2009).

Keywords: heritage language, convergence

## **Different interference control mechanisms underlying L2 auditory sentence comprehension in listeners with high and mid L2 proficiency**

*Jungna Kim, Teresa S. Pisano, Klara Marton, Brett A. Martin & Obler Loraine*

*Location: CCIS 1 440*

Listening to speech in noise requires interference control. For bilinguals, second language (L2) proficiency may modulate their ability to suppress interfering auditory stimuli during L2 listening comprehension. In this study we examined interference control in L2 listeners with different proficiency levels during L2 auditory sentence comprehension using distractors from L1 and L2.

Forty Korea-born, Korean-English bilingual neuro-typical individuals ages 18-40 years were recruited from the New York Metropolitan area. They were divided into high (HPG) vs. mid (MPG) proficiency groups based on two self-rating proficiency measures. Two experimental conditions were created: 1) L2 target sentences with L2 distractors and 2) L2 target sentences with L1 distractors (-3 dB signal-to-noise ratio). In a plausibility judgment task, participants listened to target sentences masked by either L1 or L2 distractors and made judgments for each target sentence regarding semantic plausibility. In the second task, word selection with similarly constructed stimuli, participants identified all the words that they heard from a given list. The list consisted of words from the target and distractor sentences as well as words that were not presented in any of the sentences.

Mixed-effects analyses, with conditions and groups as fixed factors and subject as a random effect, showed that L1 distractors created a stronger interference effect for the MPG than for the HPG on the plausibility task. The HPG did not show a significant accuracy difference in the L1 and L2 interference conditions. On the word selection task, both groups selected significantly more non-target words in the L1 interference condition than in the L2 condition. Nonetheless, the HPG demonstrated comparable accuracy in selecting the target words in the L1 and L2 interference conditions. Findings suggest that interference control differs between high and mid-proficiency speakers during L2 auditory comprehension in L1 and L2 noise.

Keywords: interference control; L2 proficiency; L2 auditory processing

## **Null arguments in Polish-German bilingual children: comparing simultaneous vs early successive bilinguals**

*Bernhard Brehmer, Aldona Sopata, Kamil Długosz & Raina Gielge*

*Location: CCIS L1 140*

The current study aims at exploring the distributional patterns of null arguments in simultaneous and successive Polish-German bilingual children in both of their languages. Numerous studies revealed a tendency of bilinguals to overuse overt subject pronouns which is sometimes accounted for by CLI, sometimes by processing problems of bilinguals at interfaces (Polinsky 1995, Sorace et al. 2009 and others). German and Polish allow null arguments in different contexts. In Polish, there are null subjects conditioned by subject verb agreement and null objects conditioned by discourse (Pilarski 2013). German is a topic-drop language (Hong 1995).

We compare four groups with differing ages of onset of exposure to the second language and differing countries of residence: (1) simultaneous bilingual children living in (a) Germany (n=10) and (b) Poland (n=10); (2) early successive bilingual children living in (a) Germany (n=20), and (b) Poland (n=20). Data from these groups have been compared to age-matched monolingual German and Polish children (age range from 5 to 11). The main research questions include (1) whether there is a difference between simultaneous and early successive bilinguals regarding the ratio of overt vs. null arguments and (2) whether the effects are different for the home (heritage) language and the majority language. Data were gathered in different experimental tasks which targeted production (elicited narrations, sentence repetition) as well as evaluation (forced choice and acceptability judgment tasks) and comprehension (picture matching task) of null arguments.

The analysis of the data revealed that simultaneous bilinguals did not differ from the monolingual controls in the elicited narrations, but the successive bilinguals used overt subject pronouns twice as often if compared to the monolinguals. Furthermore, age at testing seemed to impact on the ratio of null vs. overt subject pronouns, with younger children having higher ratios of overt subject pronouns than older bilingual children.

Keywords: null arguments; simultaneous and successive bilingualism; heritage languages

## **Bilingual Students' Attitudes towards Translanguaging**

*Gail Cormier*

*Location: CCIS L1 160*

Translanguaging, using code-switching as a pedagogical tool in language classrooms (Williams, 1996), has recently evolved into a theoretical stance (Poza, 2017). The translanguaging stance views languages as connected and not part of separate, autonomous systems (García & Kleyn, 2016). When languages are viewed in this way, bilingual communication, i.e. mixing and borrowing elements from different languages, is not only acceptable but natural (Pacheco & Smith, 2015). Educators are encouraged to adopt a translanguaging pedagogy by recognizing linguistic diversity and viewing it as a resource so that students may be allowed to communicate naturally in class using all their languages (MacSwan, 2017; Pacheco & Smith, 2015; Sayer, 2013). While translanguaging posits a positive outlook on language mixing, this presentation will show how students view translanguaging practices negatively. The qualitative data is selected from my recently defended doctoral thesis which explored Linguistic Landscapes in three Manitoban schools. In particular, I will explore student perspectives with regard to oral and written translanguaging and accents. Notably, many students expressed positive attitudes towards monolingual accents and negative attitudes towards bilingual and multilingual accents and translanguaging in general. Using translanguaging pedagogy to teach bilingual and multilingual students may well be the approach of the future. However, educators must first and foremost address students' attitudes towards translanguaging and work to undo the monolingual ideology present in schools systems around the world (Agirdag, 2010). In order to truly promote students' entire language repertoire, attitudes with regard to translanguaging need to be transformed.

# Thursday Talk Abstracts

## Theme Session Chair

### **From Bilingual to Multilingual Education for Future Generations in Europe: Rethinking Policies, Models and Practices for New Diversities**

*Christine Hélot & Andrea Bogner*

*Location: BS M 141*

Bilingual education (BE) in Europe has taken many forms in different contexts but apart from micro-states or regions where it is widely implemented (Aosta Valley, Malta, Luxembourg, the Basque Autonomous country in Spain, Wales for example), it is still not offered extensively. As the past 50 years of research have shown, BE has many benefits for learners who can avail of it, but it is not exempt of politicized and ideological debates. BE serves different kinds of learners, different kinds of languages and has different kinds of societal goals (Hélot & Garcia, 2018). As far as learners are concerned, being instructed at school through two (or more) languages can concern children who speak only one named language and who are exposed to an additional language as a medium of instruction, or learners who are already bilingual when they start their schooling. As far as languages are concerned, BE can concern dominant languages with societal power, minority languages which have become endangered because of colonisation, or languages that have gone through a process of minorization because of policies of assimilation (Flores & Rosa, 2015).

In Europe, language education policies have favoured endogenous languages, referred to as regional languages, and so-called 'foreign' languages, meaning European languages, with a strong dominance of English in most BE programs. In other words, the main objective of language education in Europe is for learners to develop a European identity, as well as intercultural understanding and, despite a more recent acknowledgement of the necessity to linguistically integrate 'vulnerable' groups such as adult migrants, "BE in migrant languages has nowhere been able to establish itself as a fully valued teaching model" (Sierens and Van Avermaet, 2017: 489). Indeed, even if 'migrant' languages are now included in the Council of Europe's conceptualization of language education, and the notion of plurilingual competence is more widely understood, meaning national conceptions of language should be transcended so as to leverage speakers' actual linguistic competence, minoritized language speakers remain linguistically underserved by most European education systems.

This bilingual panel will present different research projects carried out in four European countries: France, Norway, Germany and Ireland. The four presentations will illustrate how new conceptualisations of bi- and multilingual education need first and foremost, 1) to question traditional ideologies of bilingualism and bilingual education, 2) to move away from a focus on named languages to one of linguistic practices as resources, and 3) to raise awareness of the way language practices, discourses and ideologies concerning bi/multilingual education contribute to the construction of social inequalities.

The four papers will propose an analysis of the power differentials between learners, languages and programs in the case studies presented, and the impact they have on the kinds of policies, models and pedagogical practices of bi/multilingual education in Europe today.

## Theme Session Chair

## Teacher's beliefs about multilingualism across Europe

*Tanja Rinker*

*Location: BS M 145*

This thematic session reports on studies on teachers' and student teachers' knowledge of and beliefs about multilingualism carried out in four different European countries: Norway, Austria, Belgium, and Germany. Language education policy contexts of these countries differ widely in how multilingualism in the classroom is addressed, how student teachers are trained, and what the potential outcomes of these differences in training are. The comparative perspective across countries and policies will allow for an in-depth discussion of curricular possibilities for fostering multilingualism and language learning in the classroom.

The first talk by Speitz & Hegna presents insight from a study of pre-service teachers' beliefs about plurilingualism and multilingual classrooms in Norway. This mixed-method study focuses on beliefs of teacher students in languages, social studies and mathematics.

The second talk by Festman, Bellet, Gerth, and Gucanin-Nairz includes three data sets from primary school teachers and teachers in training from Austria who were examined with respect to their knowledge and professional approaches towards multilingualism in the classroom.

The third talk by Avermaet addresses issues of monolingual education policies, teachers' perceptions, and teacher-pupil interactions in secondary schools in Belgium.

The fourth talk by Rinker & Ekinici shows the attitudes and beliefs of future teachers towards multilingualism in schools. Their views are still characterized by a lot of uncertainty towards multilingualism, even after three-month course at the university.

Keywords: multilingualism, teachers, Europe

## Theme Session Chair

### University immersion programs: Fostering the next generation of advanced bilinguals

*Alysse Weinberg & Jérémie Séror*

*Location: Campus St. Jean*

Recent years have witnessed an expansion of integrated content and language approaches in higher education (Dalton-Puffer, 2011; Wilkinson, & Walsh, 2015). Popular through the world, these programs endorse the simultaneous integration of language development with content learning to help develop advanced literacy skills in more than one language (Knoerr, Weinberg, & Gohard-Radenkovic, 2016). In Canada, despite a long tradition of elementary and secondary immersion programs, tertiary immersion options for advanced language learners remain rare as does research on the impact of these programs for students' linguistic, academic and professional development. The proposed session highlights four papers which have investigated the impact of university immersion as a means of promoting advanced levels of French English bilingualism in the context of the French Immersion Studies (FIS) program, Canada's largest university immersion program offered at the University of Ottawa. Each speaker will offer a different facet of the university immersion experience as evidenced through the voices of both administrators and students. The first paper will present an overview of a recent evaluation of the FIS after 10 years of existence and the recommendations stemming from this exercise as a means of helping increase the effectiveness of this program for

student language development. The second study will explore the transfer of immersion students' language skills and knowledge to bilingual professional domains as part of their participation in coop programs. The study highlights the key differences that transform for students the "immersion" experience as they take their bilingualism outside of the classroom to the job market. The third study focuses on the categories employed by students in university immersion programs from across Canada to define and label their identities as bilingual students. The findings underscore the importance of students' agency in selecting the labels and discourses that allow them to position themselves in a manner that reflects their sense of what it means to be bilingual. The final study reports on the longitudinal evolution of immersion students' representation and relationship to their plurilingual linguistic repertoires as captured in visual language portraits. Each portrait and the related interpretation by students add details to the complex and idiosyncratic nature of the local and global forces that help shape students' views of their linguistic landscape. The arguments and insights presented by the panellists seek to highlight the shifts and advancements that have been made in Canada to meet the needs of the next generation of advanced bilinguals in Canada, while also identifying those areas in need of further questioning and exploration.

## Theme Session Talk

### **Bilingual Education in Ireland: Rethinking Policies, Models and Practices for New Diversities**

*Muiris Ó Laoire*

*Location: BS M 141*

Ireland has a long history of bilingual education, where the emphasis since the beginning of the state in 1922 has been on achieving Irish-English bilingualism by teaching Irish in English-medium schools, and in particular by immersion education programmes. While there have been many benefits for learners who have availed of immersion education, recent research, however, e.g. Ó Duibhir (2018) has highlighted the limitations of immersion programmes in primary and post-primary schools in generating active and accurate users of the Irish language outside the immersion settings. Over the years, there has been less emphasis on discourses on bilingual education that include other minoritised languages in Ireland, namely, Shelta or Cant the language of the Travelling Community and ISL (Irish Sign Language). There are also new diversities. With rapidly increasing levels of immigration to Ireland in recent decades and a subsequent growing increase in the percentage of children attending schools with a first language other than English or Irish; there has been a gradual rethinking of bilingual education policies and practices to include home language(s) maintenance as well the official languages of the state (Irish and English). This paper will discuss the shift in how bilingualism is being re-conceptualised in Ireland and the ideologies and discourses that govern this re-conceptualisation. It will also examine current models of pedagogical practices and policies that fall short of a more inclusive model of bilingual education and that needs to be rethought to address new diversities more effectively.

## Theme Session Talk

### **Student Teachers' Beliefs about Plurilingualism and Multilingual Classrooms in Norway**

*Heike Speitz & Jorunn Hegna*

*Location: BS M 145*

This paper presents research on Norwegian pre-service teacher students' beliefs about plurilingualism, plurilingual students and multilingual classrooms (for definitions of these terms, see Council of Europe 2001). The research method is a combination of survey and focus group interviews, targeted students in the survey are pre-service teacher students in a range of subjects. Among these students, focus groups were recruited in the subjects Norwegian, English, 'foreign languages', social studies, and mathematics.

Plurilingualism is an increasing phenomenon in Norwegian schools. Both numbers of plurilingual students and students learning additional languages in school are increasing. About 45 000 students in 1st to 10th grade have first languages other than Norwegian or Sami. All students in Norway learn English from 1st grade, and a number of schools, especially in urban areas, offer additional, 'foreign languages' from 6th or 7th grade. All schools, however, offer additional languages (LOTE) from 8th grade. All of these students have or develop plurilingual competences and can thus be called plurilingual. Plurilingualism as a phenomenon, as well as children's plurilingual development and practice, are therefore very important aspects in all subjects in teacher education. Research shows, however, that teachers to a very limited degree explore and exploit the potential of plurilingual aspects in learning and teaching, such as reading or writing or reading strategies across languages, learning

strategies, and metalinguistic awareness (see e.g. Scarino 2014, Haukås 2016, Haukås and Speitz 2018). The central research questions in this paper are:

- What do pre-service teacher students know, think and believe about plurilingual students and multilingual classrooms? (See Pitolés & Martí 2018, with reference to Borg 2003)
- Does teacher education prepare our future teachers to understand their students' plurilingualism as a resource?

## **Variability in language regulation is modulated by bilinguals' interactional context**

*Christian Navarro-Torres, Anne Beatty-Martínez & Paola Dussias*

*Location: BS M 149*

Previous research indicates that bilinguals momentarily activate information from their two languages, even when only one is required. For bilinguals to successfully function in one language, they must learn to regulate such co-activation in response to contextual demands. A recent study (Zirnstein et al., 2018) observed that bilinguals' ability to generate predictions during L2-comprehension was mediated by individual differences in L1 regulatory ability, arguing that verbal fluency can be used both as a measure of proficiency and regulation ability depending on the demands imposed on each language by the environment. However, little is known about how such regulatory processes are manifested in language production across bilingual populations who differ in their language environment. We investigated this by examining individual differences using two production tasks (category fluency and picture naming, PN) in three groups of Spanish-English bilinguals (N=96), all highly proficient in both languages, and who live in different contexts of language use. Two groups consist of individuals who live in Spanish-dominant environments where: a) both languages are kept separate (separated-context); or b) both languages are used opportunistically (integrated-context). A third group initially came from Spanish-dominant environments but switched to become English dominant following English immersion (varied-context). Individual difference analyses revealed that category fluency performance was associated with PN performance, but the pattern of association was modulated by the context of language use. For separated-context bilinguals, Spanish fluency negatively predicted English PN performance, suggesting that reduced Spanish interference enabled efficient English lexical access. For varied-context bilinguals, both Spanish and English fluency predicted better overall PN performance, suggesting that more cross-language regulation enabled efficient use of each language. However, for integrated-context bilinguals, Spanish/English fluency predicted Spanish/English PN performance, respectively, likely reflecting proficiency. This suggests that regulation may not be as crucial in contexts that favor opportunistic and interdependent use of the languages.

Keywords: language regulation; language production; interactional context

## **Cross-talker perceptual learning in a second language**

*Matthew Carlson, Christianna Otto, Katharina Schuhmann & James McQueen*

*Location: CCIS 1 140*

Differences in how languages map acoustic space onto phonetic categories present challenges in second language (L2) learning, but those challenges are exacerbated by phonetic variation within the L2 (e.g. regional or social lects). In this study, we asked what happens when L2 listeners encounter native speakers whose speech exhibits unfamiliar features. Listeners adapt easily to such features in their native language, a process known as perceptual learning, but the evidence suggests that

they often attribute those features to talker-specific idiosyncrasies. This may also be the case in L2 listening, but since L2 users are more likely to encounter unfamiliar lects shared by many talkers, they might be more open to the possibility that a second talker would share the same features.

We explored this hypothesis by presenting proficient, late Dutch-English bilinguals, residing in the Netherlands, with English speech exhibiting a vowel merger and a consonant merger. / / and / / were merged, either in favor of [ ] (e.g. pitcher p[ ]tcher) or [ ] (e.g. ketchup k[ ]tchup), counterbalanced across participants, and /s/ and /f/ were merged, either in favor of [s] (perfect per[s]ect) or [f] (mustard mu[f]tard). Participants were familiarized with the novel lects via sentences produced by a single talker. Learning was then assessed via a cross-modal priming task in which participants made lexical decisions on visual targets preceded by matching or mismatching auditory words (with or without the merged phonemes). Words exhibiting the mergers initially produced weaker priming, which strengthened throughout the task, demonstrating learning of the unfamiliar variation. The speech of a second talker, exhibiting the same mergers, was then introduced in a second cross-modal priming task. Words with the merger immediately yielded strong priming, suggesting that listeners had formed the expectation that the second talker's speech would exhibit the same features.

Keywords: phonetic variation; second language; perceptual learning

## **The joint effects of bilingualism, DLD and item-frequency on children's lexical retrieval performance**

*Tamar Degani, Varad Kreiser & Rama Novogrodsky*

*Location: CCIS L2 190*

Bilingual children and children diagnosed with developmental-language-disorder (DLD) are characterized by reduced lexical retrieval abilities. The current study aimed to explore the joint effects of bilingualism and DLD in the lexical domain by adopting a four-group comparison, in which the difference between bilingual and monolingual children with DLD is directly compared to that of bilingual and monolingual children with typical language development (TLD). To examine the mechanisms underlying these effects, we further tested how the strength of linguistic representations, as measured by item-frequency of use, modulate the effects. Fifty-eight children (aged 9-14) who were either Hebrew monolingual or Hebrew-English bilinguals and were either diagnosed with DLD or had TLD, completed a Hebrew picture-naming task and verbal working memory tests. Results showed that bilinguals performed less accurately than monolinguals and that children with DLD were less accurate than children with TLD. Critically, the two factors interacted such that their joint presence resulted in less than additive effects. Although bilingual children with DLD performed worse than all other groups, they performed better than expected under an additive model. This finding suggests that differences between bilingual and monolingual children with DLD must be considered in reference to the gap in lexical retrieval performance observed between bilingual and monolingual children with TLD. Further, monolingual children with DLD performed similarly to bilingual children with TLD, highlighting the need for sensitive diagnostic tools. Finally, bilingualism and DLD interacted with item-frequency, such that being bilingual, having DLD, or both, resulted in exceptionally lower performance on low-frequency items. This latter finding speaks to the mechanism at play, and suggests that the strength of linguistic representations is an important factor in the effect of bilingualism, beyond active competition, and in the effect of DLD, beyond baseline differences in cognitive resources.

Keywords: Children; Developmental Language Disorder; Lexical Retrieval

## The Effects of Explicit and Implicit Learning of Chinese Numeral Classifiers on Native English Speakers' Object Categorization

Yee Pin Tio & Usha Lakshmanan

Location: CCIS 1 430

This study addressed the relationship between language learning and cognition by examining whether Native-English speakers' learning of Chinese numeral classifiers (NCs) impacts how they categorize objects. The positive effects of explicit language learning have been documented in many studies (see Norris & Ortega, 2000 for review). However, in relation to the learning of fuzzy prototypical morphological rules, DeKeyser (1995) found that implicit instruction is more beneficial than explicit instruction. As Chinese NCs exemplify such rules, we sought to compare the effects of explicit versus implicit approaches to the learning of NCs on object categorization.

Native-English speaking undergraduate students (N=153) were randomly assigned to one of three groups (explicit-learning, implicit-learning, and control group). The explicit-learning and implicit-learning groups were systematically exposed to four Chinese NCs via computer-based tasks. We predicted that compared to controls, both the explicit-learning and implicit-learning groups would select classifier-sharing objects more frequently in the Forced-Choice Task that they completed in the testing phase due to their exposure to Chinese NCs. Concurrently, we hypothesized that the implicit-learning group would outperform the explicit-learning group by showing a stronger preference for classifier-based categorization.

A one-way ANOVA revealed a significant effect of exposure to classifier knowledge on classifier-sharing object categorization,  $F(1, 151) = 47.65, p < .001$ . Post-hoc Tukey's test indicated that the explicit-learning group selected a significantly ( $p < .01$ ) higher number of classifier-sharing objects ( $M = 0.84, SD = 0.13$ ) compared to both the implicit-learning group and the control group. The implicit-learning group's selection of classifier-sharing objects ( $M = 0.73, SD = 0.12$ ) was significantly ( $p < .01$ ) higher than that of the control group ( $M = 0.60, SD = 0.13$ ). Our findings supported a causal link between exposure to NCs and a shift in object categorization preferences. Moreover, our findings suggest that explicit exposure to NCs has a stronger influence on object categorization preferences.

Keywords: Implicit and Explicit Learning; Chinese Numeral Classifiers; Object Categorization

### Invited Theme Session Talk

#### The Cuna Nahuat immersion program

Jorge Lemus

Location: CCIS 1 440

In this presentation the author describes the ongoing revitalization process of the Pipil/Nahuat language of El Salvador, an endangered language with less than 200 elder speakers and with no intergenerational transmission. The discussion focuses on the Cuna Nahuat, an early immersion program for Pipil children ages three to five that functions since 2010 in the village of Santo Domingo de Guzmán, in the province of Sonsonate, El Salvador, the last stronghold of Nahuat speakers. The Cuna Nahuat is run by Pipil women from the community who have been trained as teachers as part of the project. They are known as *nanzin tamatxtiani* or mother-teachers. These Pipil women grew up in a social exclusion system that prevented them from going to school. Illiteracy is the norm for indigenous men and women in this community and elsewhere in El Salvador. Despite their lack of

formal education, through training and hard work, they have become teachers and have gained the respect of the community. They serve as linguistic models for the children of the Cuna Nahuat who are to become the relief generation of Nahuat speakers. The Cuna Nahuat has had a positive effect on recovering the community's indigenous identity, a sine qua non for language revitalization.

Keywords: Pipil, Nahuat, revitalization, Cuna Nahuat, language immersion, nanzin tamatxtiani

## **Determinants of Academic Achievement of Secondary School Students in Science Subjects: Moderating Role of Instruction Language**

*Aisha Zubair, Anila Kamal & Irum Naqvi*

*Location: CCIS L1 140*

In Pakistan, secondary school education consistently employed two parallel medium of instruction languages that is Urdu and English which had a diverse impact on the academic performance of the students. The present study attempted to determine the role of school climate, perceived teacher efficacy, and perceived ability to read English as determinants of academic achievement among Urdu and English medium schools. It was also intended to determine the moderating role of instruction language in predicting academic achievement of the secondary school students. A convenient sample (N = 550) of school students of grade 5 to 8 was acquired from public and private schools. Measures of School Climate Questionnaire (Anwar & Haque, 2014), Teacher Efficacy Scale (Tabassum & Rehman, 2008), and self-structured Ability to Read English Scale were employed to assess the study variables; while academic achievement of the students was determined through their annual academic records. Results showed that school climate, teacher efficacy, and ability to read English positively predicted academic achievement among students of both Urdu and English medium schools. Results further showed that instruction language moderated the relationship between teacher efficacy and perceived ability to read English in predicting academic achievement. It was also found that English as a second language strengthen the relationship between higher perceived ability to read English and academic achievement of the secondary school students in science subjects. Findings also showed significant group differences in terms of gender, type of schools, and academic grades of the students. Results of 2x2 ANOVA showed that students of English medium and private sector schools displayed better perceptions of school climate, teacher efficacy, and higher academic achievement as compared to their counterparts. Future implications of the study were also discussed.

Keywords: School climate; academic achievement; instruction language

## **The effect of language dominance and exposure on the acquisition of gender agreement**

*Sviatlana Karpava*

*Location: CCIS L1 160*

The present study investigates the acquisition of gender agreement in Russian and Greek by Russian-CG bilingual children. Both Russian and Greek have tripartite gender distinction: masculine, feminine and neuter (Corbett, 1991). Gender in L1 Russian and L1 Greek is acquired early, by the age of 3. Gender assignment and agreement is transparent and can be predicted using morphological cues, prototypical noun suffixes (Gvozdev, 1961; Rodina, 2007; Rodina and Westergaard, 2017; Ralli, 2002; Anastasiadi-Symeonidi and Cheila-Markopoulou, 2003; Mastropavlou, 2006).

22 Russian–CG children participated in the study. Their age ranges from 6 to 14 (Mean 10.4; SD 1.9),

and they attend primary and secondary CG schools, where the language of instruction is Greek. 14 CG and 10 Russian monolingual, age-matched children were used as controls.

Picture naming production task (naming of coloured pictures of objects) elicited gender agreement in adjective + noun combinations (Russian) and determiner + adjective + noun combinations (Greek). There were 9 conditions: 3 gender match and 6 gender mismatch, 8 test items in each condition.

Regarding the Russian test, the most vulnerable conditions were mismatch conditions (Russian vs. Greek): FEM. vs. MASC. (48.44% non-target production); MASC. vs. FEM. (43.75%); NEUT. vs. MASC. (46.88%) and NEUT. vs. FEM. (60.94%). The participants had mainly substitution errors due to transfer from Greek. In the Greek test, the participants had substitution errors in the gender mismatch conditions (Russian vs. Greek): FEM. vs. MASC. (46.43%); NEUT. vs. MASC. (41.97%) and NEUT. vs. FEM. (56.25%). The deviant production is due to transfer from Russian. The participants had also no production and some code-switching errors from Russian and English.

The results of the study showed that language dominance and use, the quantity and quality of input, frequency and consistency of exposure affect the acquisition of gender assignment and gender agreement in Russian and CG.

Keywords: Gender agreement; language dominance; language exposure

## Theme Session Talk

### Towards French Immersion Studies 2.0 at uOttawa

*Anne Chantal Soucie*

*Location: Campus St. Jean*

French Immersion Studies (FIS) at the University of Ottawa is a unique pedagogic mechanism to promote university level content-based language learning in Canada (Brinton, Snow, & Wesche, 2003). Created in 2005 as part of the university's Vision 2010 strategic plan, this program sought to achieve the goal of playing a leadership role in promoting Canada's official languages by offering one of the first and largest university immersion programs in Canada (University of Ottawa, 2005). In 2018, the FIS is now offered in more than 80 programs and welcomes around 700 students annually. This year, the FIS has undergone a critical evaluation of its accomplishments and key components with the intention to identify those elements which can be modified or added to help increase the effectiveness of this program. This paper presents the result of this evaluation process focusing on the impact of the program on campus-wide faculties and the target student population. Key questions explored the nature and adequacy of the admission processes associated to the program, the ways in which the program could better take into account the growing presence of international students and an analysis of the structure of the adjunct courses that scaffold students' disciplinary studies in their L2. Findings highlight the role of institutional practices that can encourage students to engage in literacy activities in their target language, the importance of content professors' preparation and the place of experiential learning opportunities for immersion students. Conclusions present the recommendations stemming from this evaluation to establish a renewed French Immersion Stream that will meet the needs of "The Next Generation", of French language learners in Canada.

## Theme Session Talk

### How bilingual migrant teachers challenge and enforce prevailing monolingual ideologies

*Joke Dewilde*

*Location: BS M 141*

In Norwegian language education policies, there are clear hierarchical differences between different minority languages, the indigenous language of the Sami being at the top and the languages of newer minorities at the bottom. According to the Education Act, students from newer minorities are only entitled to subject teaching in their mother tongue as long as their skills in Norwegian are insufficiently developed to follow mainstream teaching in Norwegian. This paper addresses some of the consequences from the point of view of bilingual migrant teachers responsible for the teaching of newly arrived students from the same linguistic background during this transition phase.

The empirical starting point is a qualitative case study of two bilingual migrant teachers and their collaboration with subject teachers in Norwegian mainstream school (Dewilde, 2013). More precisely, the two teachers were shadowed during their working day over a period of three months. This meant participant observing of their teaching, while continuously reflecting upon the challenges and possibilities they encountered while teaching small groups of newly arrived students across different grades and school subjects.

In line with critical sociolinguistic understandings of language as social constructions and language users as social agents (Blackledge & Creese, 2010), I will describe and interpret how the bilingual teachers related to traditional ideologies of bilingualism and bilingual education in their local contexts, sometimes challenging entrenched ideologies and at other times reinforcing them. I will argue that dynamic understandings of multilingualism in education have the potential of challenging a strict separation between subjects and teacher responsibilities, creating complementing rather than competing collaborative relationships between bilingual teachers and their subject colleagues.

## Theme Session Talk

### Multilingualism in the educational context of Austria

*Julia Festman, Sandra Bellet, Sabrina Gerth & Verena Gucanin-Nairz*

*Location: BS M 145*

Teachers' knowledge of and attitude towards a specific educational situation strongly impacts on the teachers' behavior. This direct connection has been observed in different educational contexts such as language support (Hopp, Thoma & Tracy, 2010) and school (Borg, 2003; Farell & Kun, 2008; Fang, 1996; Lee & Oxelson, 2005; Morys, et al., 2014). This talk aims to shed light on teachers' knowledge of and attitude towards multilingualism in Austria.

This joint project draws on three data sets: First, a questionnaire-study with primary school students (n= 58) of English as a Foreign Language in Austria was carried out. They read case vignettes that tapped into school-situations involving multilingualism and were asked to provide descriptions of how they would react in these situations and why. In order to determine the impact of the course „Introduction to Multilingualism with English“ (cf. Wiese et al. 2017), the questionnaire was used before and after the course. Second, the same questionnaire was used with students of primary school

education (n=78) for whom the course „Multilingualism in the educational context“ was mandatory in their 2nd year of studies. The same pre-post design was used. Finally, primary school teachers (n=361) were surveyed for their didactic approaches towards plurilingual children in their classes, in particular for reading and writing instruction.

In this talk we provide new insights into teachers' knowledge of and professional approaches towards situations in which multilingualism plays a key role in the educational context. Influential factors such as prior experience with multilingualism, age, sex, etc. are considered.

An in-depth understanding of teachers' knowledge of and professional, unbiased approaches towards multilingualism and diversity (Wiese, et al. 2017) is crucial for teacher education to reduce drawing on myths about multilingualism in school and to improve the educational context towards best learning conditions for all children.

## **Business students think across contexts and languages: a comparative study**

*David Palfreyman & Jingjing Qin*

*Location: BS M 149*

Students throughout the world study subjects in a second language – most often English. When they graduate (if not before), they are often expected to apply what they have learned in their own community, or in other contexts. In both China and the United Arab Emirates, English is the main foreign language used in higher education, while another language (Chinese or Arabic) is seen as important for both national and transnational purposes. University students navigate bilingual cultural landscapes as they learn disciplinary concepts and start to apply them in the changing context of life outside/after university. This study compares how business students in these two countries jointly construct meaning with concepts from course material, drawing on varieties of their L1 and of English, in combination with other meaning-making resources, to discuss and apply disciplinary concepts in work-related scenarios. Several hours of discussion tasks were recorded, in which pairs of students discussed a business-related academic text written in one language (English or L1) in preparation for a role-play presentation to a visitor using their other language. Following this, an individual interview with each student elicited their response to extracts from the discussion/presentation recordings and their views about language and course concepts more generally. We analyse this data from the perspective of sociocultural theory (e.g. Swain & Lapkin, 2013), heteroglossia (Bakhtin, 1981) and translanguaging (Garcia & Li, 2014), tracing the students' changing uses of language as they negotiate understandings in the two different national contexts, articulate their own thinking, and attempt to persuade a business audience, in the context of the cultural landscapes described above. Episodes from the tasks show how students negotiate and reinterpret knowledge using common strategies in ways dependent on their different contexts.

Keywords: languaging; translanguaging; heteroglossia

## **Active and Dormant Languages in the Multilingual Mental Lexicon**

*Agnieszka Ewa Krautz-Tytus*

*Location: CCIS L2 190*

Two experimental paradigms, a picture-naming task and a Stroop interference task, were employed to address the structure of the multilingual mental lexicon; more specifically, the process of multilingual non-selective lexical access. German-English-French speakers named objects in their native and

most dominant language in a task that included a manipulation of triple (Wein, wine, vin) and double cognates (Beere, berry or Zitrone, citron). The vocal Stroop task was administered in both within- and between-language conditions to explore the interference patterns between the languages. In general, it was hypothesised that differing levels of language proficiency will play an integral role in the observed results. The speech onset times were measured for both tasks and pointed to complex interaction patterns. German and English were seen as the most active and prone to interference systems, whilst French appeared more as a dormant language that does not exert much influence on the other two systems.

Keywords: non-selective lexical access, multilingualism, picture-naming task, Stroop paradigm, interference

## **A comparative study of the acquisition of Mandarin Classifiers in English-Mandarin Bilinguals and Monolinguals in China and Australia**

*Ruying Qi, Wanhua Wu & Bruno Di Biase*

*Location: CCIS 1 430*

This paper compares results of an investigation into the development of Mandarin classifiers in four English-Mandarin bilinguals and four monolingual controls, attending the same childcare centre in mainland China (Wu, 2018), with a two-year longitudinal Mandarin-English bilingual case study (Qi et al, 2006). Participating children aged between three and five years old were audio- and video-recorded over four months in their childcare context. They are exposed to English at home from their native English-speaking parents and to Mandarin in their monolingual native childcare environment in China. The child in the longitudinal case-study was recorded from ages 1;7 to 4;6 (82 sessions) in a Chinese immigrant family in Australia. In Mandarin, a classifier is obligatory in a noun phrase with quantification and/or demonstrative reference (Li & Thompson, 1981). Quantifiers (definite or indefinite) and Classifiers are strongly interdependent (Börjars, Hicks & Payne, 2018). Several dozen classifiers are discussed by Chao (1968). Lust (2006:251) places the figure to “roughly 150” distributed over semantic classes of nouns. This poses a considerable learning challenge. Findings so far indicate that bilingual children and their monolingual peers show a broadly similar pattern of acquisition of Mandarin classifiers. Both groups rarely omit a classifier when it is required. They all use the general classifier *gè* and extend its use to most quantified Noun Phrases. However their use of specific classifiers is not at all uniform and it is relatively rare as it follows environmental input (cf. Erbaugh, (1986) who found similarities between Chinese monolingual adult and children use of classifiers) and, to some extent, it may reflect individual preferences. After checking for the emergence point of specific classifiers we attempt to uncover whether there may be common sequences in bilingual and monolingual children and what principles may be at play.

Keywords: Classifiers, Mandarin-English, bilingual and monolingual development

## **Theme Session Talk**

### **La revitalización lingüística y cultural en Honduras: enfoque, iniciativas y desafíos del Grupo de Investigación de las Lenguas Indígenas de Honduras (GRILHO)**

*Claudia Marcela Carías & Teresa Leyva*

*Location: CCIS 1 440*

En esta ponencia se aborda el enfoque teórico-metodológico del Grupo de Investigación de las

Lenguas Indígenas de Honduras (GRILHO) en torno a la revitalización lingüística y cultural, así como su puesta en práctica y resultados relevantes a la fecha. De igual manera, se presenta y discute los procesos investigativos en marcha, bajo una visión integradora que se articula en torno a los principios fundamentales del GRILHO: (i) la documentación, enseñanza-aprendizaje y divulgación de las lenguas indígenas de Honduras; (ii) la promoción de la labor académica-investigativa en torno a las lenguas y culturas indígenas del país, con una orientación hacia la formulación de políticas públicas pertinentes; y (iii), la puesta en marcha de estrategias y acciones de revitalización lingüística.

De manera particular se abordará en esta presentación las acciones realizadas por el GRILHO en torno a la revitalización de las lenguas garífuna y miskitu, en el ámbito universitario. En este sentido, se discutirá los cursos de lengua y cultura miskita iniciados en 2015, bajo la responsabilidad de John Scott Wood, estudioso de su lengua y cultura miskitas. La iniciativa de revitalización lingüística del garífuna desde la UNAH corresponde a la solicitud de la comunidad garífuna universitaria para aprender su lengua ancestral. Siguiendo la experiencia de creación de currículos de revitalización lingüística de la Universidad de Victoria en Canadá, se creó un laboratorio innovador que adaptó el enfoque co-accional para la enseñanza de lenguas en el que simultáneamente se avanzó durante dos años para configurar un currículo y una metodología e iniciar el desarrollo y validación de materiales didácticos de manera participativa. En ambos casos se trata de espacios de investigación, intercambio, diálogo y enseñanza–aprendizaje alrededor de temáticas lingüísticas, antropológicas, políticas y ecológicas, en los que se persigue la revitalización lingüística y cultural de los pueblos de Honduras.

Palabras clave: Revitalización lingüística. Lenguas indígenas de Honduras. Garífuna. Miskitu. Documentación lingüística. Sociodidáctica

## **The development of first and second language writing skills in elementary school students enrolled in intensive English as a second language (L2) programs in Québec**

*Corinne Haigh, Olivier Dezutter & Véronique Parent*

*Location: CCIS L1 140*

In Québec, an increasingly number of French schools offer an intensive English as a second language (L2) program during the final year of elementary school. Several studies demonstrate the positive impact of similar intensive or immersion models of L2 education. However, the implementation of these programs may be a challenge for teachers, who, along with parents, raise a number of concerns, in particular about the impact of L2 learning on competency in the language of instruction (L1), as well as whether students with learning differences can take full advantage of these intensive models of L2 education. We present the results of a study that examines the impact of such an intensive model of L2 learning on the development of writing competence in both the L1 (French) and L2 (English). Grade 6 students ( $n = 179$ ) completed a standardized writing test (WIAT-II) three times (beginning, middle and end of school year) to measure their skills in both languages. Analyses indicate that students show progress in overall writing performance in both French and English, with L2 writing scores being significantly lower at all three time points. Some differences are observed when we compare two different models of intensive L2 instruction that students were exposed to: a model where students alternated between 9 day cycles in each language, and a model where they studied each language intensively for 5 months at a time. While L1 writing scores were not impacted by the model of instruction, L2 scores were, with steeper gains observed in the 5 month model. Finally, results for below average, average, and above average writers were compared. All three groups showed significant progress with regard to both L1 and L2 writing development across the three time points,

suggesting that this model of bilingual education is appropriate for writers at all levels.

Keywords: writing development, intensive second language instruction, bilingual education

## **The acquisition of grammatical gender cues by German-Russian bilingual children**

*Tanja Kupisch, Natalia Mitrofanova, Yulia Rodina & Marit Westergaard*

*Location: CCIS L1 160*

We investigate whether Russian-German bilingual children acquire cues to grammatical gender assignment in their two languages successfully and separately.

Background: German and Russian both have a three-way gender system (M, F, N). Although the German gender system is overall less transparent than the Russian one, reliable morpho-phonological cues have been argued to exist in both languages, and young monolingual and bilingual Russian and German children have been reported to acquire gender relatively early in real-word tasks (e.g. Mills 1985, Gvozdev 1961, Müller 1990, Dieser 2009, Polinsky 2008, Mitrofanova et al. 2018).

Participants: 60 German-Russian bilingual children aged 3-10 growing up in Germany, tested in both Russian and German.

Methodology: The experiments were inspired by Karmiloff-Smith (1979) and Rodina and Westergaard (2015). The children did a set of tasks eliciting gender assignment with real and nonce nouns with language-specific morpho-phonological gender cues. Additionally, we collected narratives in both languages (MAIN, Gagarina et al. 2012) and parental background questionnaires to evaluate the amount of input and proficiency in both languages.

Results: Even the youngest children were sensitive to morpho-phonological gender cues in both languages. Performance increased with age and was significantly better with real words than nonce words. Accuracy was substantially higher in Russian than in German. In German, the children were significantly more accurate with respect to the F cue than other cues, and least accurate with respect to M. This is strikingly different from Russian, where the children were most accurate with respect to M on both real and nonce word tasks. In Russian, the N condition was the most challenging for the children, while M functioned as the default gender irrespective of the task, with least proficient children defaulting the most.

We discuss our results in relation to language separation in bilinguals, cue strength and item-based vs. rule-based acquisition.

Keywords: gender cues; Russian; German

## **Theme Session Talk**

### **French immersion students and their learning experiences in a work-study Co-op Placements**

*Laura Castano Laverde*

*Location: Campus St. Jean*

In Canada, bilingualism has long been part of our cultural and linguistic heritage leading to federal and provincial initiatives to support and foster official bilingualism (OCOL, 2006). In the national capital

region, this has fuelled an increasing demand for “work-ready” bilingual graduates and educational programs that can help students acquire relevant linguistic and cultural knowledge that can be transferred to professional settings. Whereas some research has been conducted focusing on language development in university level immersion programs in Canada, studies of the how these students manage (or not) to complete work assignments in their second language remain rare. At the University of Ottawa, students in the French Immersion program have the opportunity to enhance their learning experience by participating in bilingual work- study co-op placements. This setting offers a unique work integrated learning environment (Sattler & Peters, 2013) to explore how the next bilingual generation learns to navigate both academic and professional worlds in French. The paper reports on an ethnographic study (Hammersley & Atkinson, 2007) of three focal participants drawing on semi-formal interviews, an online work diary, observations and the examination of relevant documents submitted by participants. Findings explore the degree to which students can in fact use their second language during their coop placements and highlight the strategies and the disciplinary knowledge and skills used by students as they navigate a bilingual workplace and the challenges of adjusting to new literacy demands as they move from an academic to a professional setting. Conclusions focus on the impact of a university level immersion program on students’ ability to enter the work place and how universities can better address the unique needs of this next generation of bilingual workers.

## Theme Session Talk

### Education plurilingue en France Métropolitaine et en Outre-mer : entre discours progressistes et pratiques conservatrices. Quels changements envisageables pour les générations futures?

*Pascale Prax-Dubois & Tímea Kádas-Pickel*

*Location: BS M 141*

Si, en comparaison avec ses voisins européens, la France détient la plus longue expérience en matière d'accueil et de scolarisation d'élèves migrants, elle n'en rencontre pas moins de sérieuses difficultés pour définir clairement les objectifs de sa politique d'inclusion.

Nous avons déjà questionné les finalités éducatives et la terminologie corollaire des directives nationales régissant l'intégration des élèves dits « allophones », en comparant nos deux terrains de recherche, en France métropolitaine et dans le département-région français ultramarin de La Réunion (Kádas Pickel & Prax-Dubois, 2018). Il s'agira ici de poursuivre cette comparaison en revisitant cette fois-ci le concept de plurilinguisme scolaire à la lumière des travaux de Garcia (2009) et ceux des créolistes (Prudent, 2005 ; Lebon-Eyquem, 2013), selon qui les pratiques translangagières des locuteurs plurilingues – et non les langues, ou entités abstraites, figées dans les livres de grammaire et les dictionnaires - doivent constituer le point de départ de toute étude dans ce domaine.

Face à ces enjeux, en quoi une nouvelle approche de la formation permettrait aux enseignants de s'approprier les apports de la recherche favorisant aussi bien la déconstruction de la vision monolingue du plurilinguisme de l'État français (Hélot, 2007 ; Laroussi, 2003 ; Blanchet, 2007 ; Weber, 2009) que le « lâcher prise » (Aden, 2008) indispensable pour le transfert de ces nouvelles approches et la transformation de pratiques de classe plus respectueuses du plurilinguisme des élèves migrants ?

Pour y répondre, nous aborderons la question de l'autocensure des enseignants en analysant leurs discours, croisés avec ceux des élèves et de leurs familles, discours récoltés dans le cadre d'entretiens semi-directifs. Nous analyserons ainsi les idéologies monolingues puis l'opposition entre discours progressistes et pratiques éducatives conservatrices, avant d'envisager un changement de perspective pour les générations futures.

## Theme Session Talk

### Multilingual classrooms and monolingual mindsets in Germany?

*Tanja Rinker & Erkam Ekinci*

*Location: BS M 145*

The attitudes of teachers towards multilingualism and the role of language(s) in different school subjects have an impact on teaching behavior in linguistically heterogeneous contexts (Morys, 2014). International studies have shown that even in multilingual environments, the subjective beliefs of teachers are mainly oriented along a norm that is formed by their own set of linguistic and cultural experiences (Hachfeld et al., 2012; Morys, 2014).

In Germany, virtually all teachers are teaching in multilingual classrooms. Yet, most teachers feel unprepared to respond to the challenge accordingly (Becker-Mrotzek et al., 2012). The mindset of the individual teachers is of utmost importance in the process – and in changing schools to operating in a “multilingual habitus” (rather than in a “monolingual habitus” (Gogolin, 1994; 2008). Based on a

study conducted in Belgium with secondary school teachers (Pulinx, Van Avermaet, & Agirdag, 2015) in which quite monolingual mindsets were observed in the Flanders region of Belgium, we investigate the attitudes towards multilingualism in schools (e.g. use of heritage languages, the role of German versus heritage language) in future secondary school teachers of different subjects at two universities in the south of Germany (n=296). Our data shows more multilingual attitudes than in the Belgian study. We can also demonstrate that the individual background of the teachers-to-be is very relevant (e.g. gender, language background) in forming their beliefs. In a follow-up study with a subset of the teachers in training (n=84), we examined potential changes after a three-month course on multilingualism in the classroom in the summer term 2018. Attitudes towards multilingualism were virtually unchanged, albeit with a small trend towards more multilingual attitudes. Implications for future research but also practical considerations for fostering multilingual mindsets in teachers will be discussed.

## **Education Technology supports Individualized Practice for English Language Learners**

*David Harper, Anita Bowles & Lauren Amer*

*Location: BS M 149*

The percentage of English Language Learners (ELLs) in U.S. K-12 schools is increasing, and currently around 1 in 10 students fall into this classification (National Center for Education Statistics). Acquiring English while simultaneously mastering content knowledge can be challenging, but educational technology may help by providing these students with individualized English practice at a personalized pace and level. Increased opportunities for language production practice may lead to improvements in several learning domains. (Hopman & MacDonald, 2018).

The current study examined the effects of Rosetta Stone® Foundations software as an intervention in the English classroom using a pre-test/post-test randomized controlled trial design. The study took place in a large school district in the U.S. where approximately 20% of the student population is classified as ELLs. Students in grades 6-8 (N=223) who were beginning level learners of English participated. Treatment group learners studied with the interactive English software during part of an English instruction block each day. The Foundations software trains all four language skills but focuses on speaking and listening. Control students continued with their normal English curriculum.

Predictors of interest included Time of Testing (Pretest vs Posttest), Software Usage, and their interaction. Covariates included Grade, Attendance, and Sex. Principal Components Analysis of scores from a standardized proficiency test extracted three outcomes: Speaking-Listening; Reading-Writing; and Reading Aloud. No differences were seen between groups at pre-test. Multilevel models indicated that, relative to the control group, students in the treatment group showed larger gains on oral/aural outcomes (Speaking-Listening and Reading Aloud). In contrast, while both groups showed overall gains in Reading-Writing during the year, there were no significant differences based on software usage.

This study provides evidence of educational technology's impact on the development of second language English speaking and listening skills through personalized practice.

Keywords: English Language Learners; educational technology; K-12

## **SOCIOPHONETIC VARIATION IN THE L1 AFFECTS L2 PHONOLOGICAL DEVELOPMENT**

*Mariela López Velarde & Miguel Simonet*

*Location: CCIS 1 140*

In the Spanish spoken in Sonora, Mexico, the phoneme that corresponds to the digraph <ch> may be pronounced either as an affricate, [tʃ], or as a fricative, [ç] (Alessi & Torres, 1994; Serrano, 2000). Within Mexico, [ç] (as a variant of <ch>) characterizes the speech of various northwestern states but not that of the states in the central high valley (Carreón, 2007; Mendez, 2017; Moreno, 1994). Sociophonetic studies have shown that, in northwestern Mexican Spanish, the choice of [tʃ] vs. [ç] (as variants of <ch>) is modulated by a variety of social factors (Carreón, 2007; Herrera, 2006; Méndez, 2017). This creates an interesting asymmetry: Whereas people who reside in the central high valley of Mexico are exposed to only one of the phonetic variants of <ch>, those who live in the northwestern region are recurrently exposed to two. Interestingly, in English, [tʃ] and [ç] are phonemic, as they contrast in minimal pairs such as "chair-share" and "cheap-sheep." How does sociophonetic variation in one's native dialect modulate phonological development of one's second language? The present study examines the phonological encoding of English /tʃ/ and /ç/ in a categorical discrimination task with two participant groups, a group of native Spanish speakers studying English as a foreign language in Sonora and another group studying English in Querétaro, in central Mexico. We recruited participants from various proficiency levels in both locations. We hypothesized that the Querétaro learners would outperform the Sonorans in a processing task that required them to discriminate English /tʃ/ and /ç/, since, for the Sonoran learners (but not the central Mexicans), both sounds exist in their native variety but are linked with the same phoneme. A perception task explored the learner's discrimination of a target contrast (cheat-sheet), and three control contrasts (cheat-seat, sheet-seat, seat-sit). The results confirmed our hypothesis.

Keywords: Cross-language interactions; L2 Phonology; Sociophonetics

## **Predictors of Bilingual Children's Code-Switching in a Scripted Confederate Paradigm**

*Megan Gross & Margarita Kaushanskaya*

*Location: CCIS L2 190*

The Lexical Gap Hypothesis (Nicoladis & Secco, 2000) suggests that bilingual children tend to switch languages when they do not know a word in the target language. However, children's prior experience with code-switching could also play a role. The Language Mixing Scale (Byers-Heinlein, 2013) has been used to relate parental language mixing to child language outcomes but not to children's own code-switching. In the current study, we examined exposure to mixed-language input and children's lexical knowledge as predictors of language mixing.

The study included 65 Spanish-English bilingual children, ages 4-6, with a broad range of language skills. During the scripted confederate dialogue paradigm, children took turns describing picture scenes with video partners who presented themselves as monolingual speakers of English or Spanish. Children's descriptions were coded as mixed if they contained at least one word in each language. To examine their lexical knowledge, children completed a post-test in which they were asked to name the noun and verb elements from the scenes in each language. Primary caregivers completed the Language Mixing Scale.

A mixed-effects logistic regression model revealed a significant effect of target language ( $b = -3.27$ ,  $p < .001$ ), with more mixing when interacting with a Spanish speaker. There was a significant effect of

children's Spanish lexical knowledge ( $b = -1.04$ ,  $p = .009$ ), but not their overall language ability ( $b = .17$ ,  $p = .68$ ). There was no significant effect of parental language mixing ( $b = 0.14$ ,  $p = .66$ ).

These findings suggest that children's use of language mixing when interacting with monolingual partners was related to their language-specific knowledge, consistent with the Lexical Gap Hypothesis. The greater tendency to mix in Spanish may reflect sociolinguistic trends. A role for parental code-switching was not identified here, but different results might be obtained if children interacted with a bilingual partner. Further work will also consider the role of children's naturalistic code-switching habits.

Keywords: code-switching; mixed-language input; lexical gap

## Processing Filler-Gap Dependencies in Mandarin Chinese: An Effect of Language Exposure?

*Stanley Chen*

*Location: CCIS 1 430*

This study investigated how speakers of Mandarin Chinese process filler-gap dependencies in potentially ambiguous fronted wh-questions. The study recruited 39 native speakers of Mandarin with different degrees of English proficiency between the ages of 23 and 36. In the experiment, participants were first presented with a Mandarin wh-in-situ question and then a wh-ex-situ alteration of it that had the wh-phrase fronted to the beginning of the sentence. Participants were asked to judge and rate whether the pair of sentences could express a similar meaning or not. Positive scores (+1~+3) were given to synonymous (acceptable) pairs with +3 being the most confident and +1 being the least confident. Likewise, negative scores (-1~-3) were given to pairs with different meanings. Two conditions were tested, in which one had the focus marker shi before the wh-phrase (zai nali) and one without it. The results showed that the movement of the wh-phrase zai nali ('where') was generally accepted by Mandarin speakers, despite Mandarin being a wh-in-situ language by default. More specifically, the movement of zai nali was more accepted for participants with higher English proficiency. Faster response times were also observed in the shi condition ( $\chi^2(1) = 4.39$ ,  $p < .05$ ). These findings suggest that exposure to a second language could affect one's acceptability judgments under the assumption that there is in fact a shared syntax available to both languages.

Keywords: bilingualism; sentence processing; wh-movement

## Clashing views on accepted second language teaching and learning approaches: the experience of teaching Nahuat in El Salvador

*Sandra Durán*

*Location: CCIS 1 440*

It is a fact, according to several authors, that to teach a second language, teachers have to, first and foremost, be proficient speakers, competent in L2 teaching and experienced in the target culture. However, in the case of moribund languages such as Salvadoran Nahuat, where the reduced number of native speakers has stopped passing the language onto new generations, disruptive measures are in need to preserve their linguistic heritage. After discussing how the most salient theoretical views on approaches and methods in language teaching clash with the Nahuat teaching experience in El Salvador, in this presentation the researcher seeks to discuss the impact that the most common

strategies used by the Nahuat teachers have on the students' learning of L2. The results are based on the observation of twelve Nahuat classes and follow up discussions with the teachers. Findings indicate that, in spite of the fact that teachers lacking native-like proficiency in L2 and not having the ideal language teaching scenarios described in the literature, the students, in the lessons observed, show gradual progress in the ECRIF (Encounter, Clarify, Remember/Internalize, and Fluently Use) language learning framework. As for the Nahuat teachers, it is evident that even though they do not fulfill the generally accepted L2 teaching standards, they are motivated to continue developing competencies for language teaching and stimulating students learning.

## Featured Speaker

### Learning Klingon: What a Barely-Human Grammar Can Teach Us about Language Acquisition

*Joseph W. Windsor*

*Location: CCIS L1 140*

In this seminar, I discuss the history of Klingon; what makes it a barely-natural language; sociolinguistics of its learners; and, the potential role of Klingon and other constructed languages in language acquisition testing.

Klingon was invented by linguist, Dr. Marc Okrand in the 1980s to give substance to the alien antagonists in Star Trek III. Since then, thousands of people have tried learning this barely-human language, which uses some of the typologically rarest elements of phonology ([ t ] and [q χ]), morphology (simultaneous subject and object tracking on the verb), and syntax (OVS word order).

One might think that a language that employs stress shift rules not based on phonetic plausibility or phonological structure (Windsor & Stewart 2017), or that allows the construction of the three-word sentence in (1) according to its templatic design would spell game-over for would-be learners.

(1) nobwl'a'pu'qoqvam'e'  
 nob-wl'-a'-pu'-qoq-vam-'e'  
 give-NMLZR-AUG-PL-so.called-PROX-TOP

nuHegh'eghrupqa'moHlaHbe'law'll'neS  
 nu-Hegh-'egh-rup-qa'-moH-laH-be-'law'-ll'-neS  
 3.PL>1.PL-die-self-prepare-resume-cause-able-NEG-seemingly-progress-HON

SeH'eghtaHghach'a'na'chajmo'  
 SeH-'egh-taH-ghach-'a'-na'-chaj-mo'  
 control-self-PROG-NMLZR-AUG-POSS-due.to  
 'The so-called great benefactors [are] seemingly unable to cause us to prepare to resume honourable suicide, which was already in progress, due to their definite self-control'  
 (David Baron)

However, the grammar of this constructed language can successfully be acquired (Windsor & Stewart 2017) due to the fact that the input is regular, well-attested, and does not rely on complex mental structures (cf. Peperkamp & Dupoux 2007; Moreton & Pater 2012); this is despite analysis that it does not supply a substantive bias (Carpenter 2005, 2006, 2010;

Moreton & Pater 2012) or a Domain Generalization Bias (Zymet 2018) to assist in acquisition. Further, according to Moreton & Pater (2012), because of their purposeful and rule-based construction, constructed languages may prove ideal for L2 acquisition testing due to their ability to isolate a particular variable that the researcher is interested in; evidence to support this claim is offered in this presentation from a Klingon stress acquisition study (Windsor & Stewart 2017)

## **Production Training Benefits Comprehension of Grammatical Gender in L2 German**

*Valerie Keppenne, Elise Hopman & Carrie Jackson*

*Location: CCIS L1 160*

A recent artificial language study showed that participants with production-based training were more accurate and faster on comprehension tasks targeting the acquisition of agreement features than participants with comprehension-based training (Hopman & MacDonald, 2018). Memory research suggests that language production provides a stronger learning experience than language comprehension due to the different memory processes involved (MacLeod & Bodner, 2017). However, the generalization of production skills to comprehension in L2 acquisition is contested (DeKeyser, 2007; VanPatten, 2013). Furthermore, results from lab-based artificial language studies do not always replicate among beginning classroom-based learners (Paul & Grüter, 2016). To test whether findings from Hopman and MacDonald (2018) extend to classroom-based learners, the present study adapts their comprehension- vs. production-based paradigm to test the acquisition of grammatical gender agreement among beginning L2 German learners.

First-semester English L2 German learners received production-based (N=21) or comprehension-based (N=20) training on grammatical gender assignment and gender agreement between articles, adjectives, and nouns (einMASC grünerMASC gepunkteterMASC Becher 'a green dotted cup') for 15 German nouns via a computer-based training module. Immediately after training, both groups performed a forced-choice comprehension task, an error monitoring task, and a written production task, all targeting articles and gender agreement markers. Preliminary analyses showed that production-based participants were significantly more accurate on the forced-choice task, and in identifying correct sentences in the error monitoring task, than comprehension-based participants. Comprehension-based participants, however, were significantly faster in identifying erroneous adjective endings in the error monitoring task. The study largely replicates Hopman and MacDonald (2018), indicating higher accuracy for production-based over comprehension-based training for learning gender assignment and agreement in L2 German. Analysis of production data will reveal whether effects extend to gender agreement production. These findings demonstrate the generalizability of production skills to comprehension in L2 learning and have important implications for classroom instruction.

Keywords: grammatical gender; L2 acquisition; production and comprehension

## **Theme Session Talk**

### **Reflections on the identity of immersion students: Francophiles, francophones or “in-between”?**

*Catherine Buchanan*

*Location: Campus St. Jean*

To celebrate the 10th anniversary of the French Immersion Studies program at the University of

Ottawa, a symposium focusing on tertiary level immersion was organized. Among the different activities, four university immersion students from various Canadian provinces and background experiences participated in a round table panel to retell their experiences in immersion programs. The discussion was guided by three main questions:

- a) How did the students experience their immersion?
- b) How do they define themselves linguistically?
- c) How did their immersion experience influence their academic, professional and personal identity?

Drawing on a qualitative discourse analysis tradition (Duff, 2009), this paper focuses on the analysis of the transcribed recording of the accounts offered by the participants during this round table.

The analysis explored the students' linguistic trajectories, their years of formal schooling and the impact of informal family and travel experiences. This presentation will first, outline the theoretical foundations of the notion of identity and its changes through school and through the acquisition of another language. Second, it will look at the alignment of students' discourse with the definitions of "francophone", "francophile" and "in-between" (Roy, 2010, Lamoureux 2016). Third, it will describe the four participants' family background and scholarly path, and tell of their experiences of immersion. Findings highlight the themes of identity, its dynamic nature for language learners (Lamoureux and Cotnam, 2012; Séror and Weinberg, 2015), and how participants perceived their identity construction and the manner in which others perceived them. The students' discourse reveals powerful elements of identity construction that move from linguistic insecurity to linguistic activism as they defend the right to express themselves in their second language and to legitimately define themselves as "francophones."

## Theme Session Talk

### Flexible Bilingual Education: A case study of a two-way immersion program in Frankfurt

*Reseda Streb & Valérie Fialais*

*Location: BS M 141*

In our talk we propose an analysis of an Italian/German two-way immersion program in a primary school in Frankfurt where Italian, the 'minority' language spoken at home, is legitimized alongside the dominant language German. This program grew out of a political collaboration between the German government and several countries (Italy, Greece, Turkey) to increase the labour force needed to rebuild the country after the Second World War.

Our analysis is based on ethnographic data gathered through longitudinal participative observations in two different bilingual classrooms (2008-2012 and 2013/14) where the declared language in education policy was based on the one language on teacher principle but implemented far more flexibly and strategically to meet the needs of the learners, i.e.; both teachers used the partner language alongside their own language of reference to clarify content, to make classroom language more efficient and to translate, thus elaborating new pedagogical affordances through the use of translanguaging and encouraging learners to do the same. Through detailed analysis of moments of translanguaging pedagogy we will show how the students felt more linguistically secure, how their full language competence was used to acquire academic content and how the two languages were given equal value. We will also focus on the two-way immersion model as an approach to bilingual education that could offer future generations of plurilingual learners an opportunity to cross ideological borders through the education of minority and majority language speakers together. However we will also show that power differentials between the two languages in question in a bilingual program (German and Italian in this case) cannot always be erased, particularly when the two teachers working together do not have the same status within an educational institution.

## Theme Session Talk

### Quantifying Interpreting Types: Language Sequence Mirrors Cognitive Load Minimization in Interpreting Tasks

*Junying Liang*

*Location: BS M 145*

Most interpreting theories claim that different interpreting types should involve varied processing mechanisms and procedures. However, few studies have examined their underlying differences. Previous results based on quantitative approaches show that different interpreting types yield outputs of varying lexical and syntactic features. Language sequences that form without relying on a specific linguistic approach or grammar excels other quantitative approaches at revealing the sequential behavior of language production. As a non-grammatically-bound unit of language sequence featuring frequency values, frequency motif can visualize the local distribution of content and function words, and can also statistically classify languages and identify text types. The current research investigates the distribution, length and position-dependent properties of frequency motif across interpreting outputs. It is found that the distribution, the length and certain position-dependent properties of the specific language sequences differ significantly across simultaneous interpreting and consecutive interpreting output. Frequency motifs of both interpreting types manifest that the output is produced in the manner that abides by the least effort principle. The current research suggests that interpreting

types can be differentiated through this type of language sequential unit and offers evidence for how the different task features mediate the sequential organization of interpreting output under different demand to achieve cognitive load minimization.

## **The relationship between English proficiency and academic success of international students: Why is a standardised language proficiency test an inconsistent predictor?**

*Ruolin Hu & Danijela Trenkic*

*Location: BS M 149*

Proficiency in the language of instruction is essential for achievement in every academic subject (August & Shanahan, 2006). In English-medium higher education, individual differences in English are predictive of international students' attainment (Trenkic & Warmington, 2018). Yet IELTS – a standardised test of English widely used for university entrance – appears an inconsistent predictor of academic success (Feast, 2002; Dooley & Oliver, 2002; Woodrow, 2006). We report two studies which explored reasons behind this inconsistency.

Study 1 investigated whether IELTS-preparation programmes boost IELTS scores beyond candidates' actual levels of proficiency using a pretest-posttest design with two groups (IELTS-prep  $n=45$ , Control  $n=44$ ) and two tests of English (IELTS and Oxford Online Placement Test, OOPT). No pretest-posttest gain was observed for the control participants on either IELTS or OOPT. By contrast, there was a significant gain in the IELTS-prep group, but only on IELTS scores; OOPT remained unchanged. The results indicate that dedicated preparation programmes could raise IELTS scores without improving the underlying constructs that IELTS is testing.

Study 2 explored whether English proficiency of international students may be negatively associated with IELTS-preparation practices and repeated test-taking. In a group of 153 Chinese students at a UK university, those who met the entry requirements without attending IELTS-preparation programmes had significantly higher English proficiency (measured by C-test and Duolingo English Test) than students who underwent such preparation. Furthermore, those who met the requirements on fewer IELTS attempts had higher proficiency than those who needed more attempts to achieve the same score. Overall, the findings confirm that IELTS scores can be boosted beyond one's actual proficiency level by attending dedicated test-preparation courses and to a lesser extent by taking the test repeatedly.

Keywords: English proficiency, international students, academic attainment

## **The acquisition of lexical tones by Mandarin-English bilinguals: A longitudinal study**

*Rui Qi Choo, Marilyn Vihman & Tamar Keren-Portnoy*

*Location: CCIS 1 140*

Exposure to two languages of sharply contrasting phonological structures is a particular challenge for the bilingual child. Mandarin, unlike English, distinguishes words through the use of lexical tones (Tone 1: high level, 2: rising, 3: falling-rising, 4: high falling, 0: neutral or reduced). Here we report the development of tone over the first six months of word production in two children living in the UK and simultaneously exposed to Mandarin and English. The children were video-recorded in monthly half-hour sessions from 20 months on, when they were each producing over 20 words. Based on transcription, monosyllabic and disyllabic word forms were identified to establish proportion of use

of each tone and tone combination. A Mandarin speaker has also identified tones in the children's English word production; we will test reliability through a perception experiment (Mandarin and English listeners). Analyses revealed individual differences between the children and different amounts of tone use by language and word length. For monosyllabic forms, Tones 1, 2 and 4 were produced significantly more than Tone 3 in both languages, consistent with previous reports (e.g., Li & Thompson, 1977; Wong, 2012; Zhu, 2002). For disyllabic forms the most frequent Mandarin child word combination was T1-0 (with only one out of 90 tokens matching a T1-0 target). Both children produced this combination even more in English than in Mandarin, however. The overuse of T1-0 in Mandarin seemingly reflects the typical trochaic 'high-low' pattern of English words, consistent with Mok and Lee's (2018) report that some 2-year-old Cantonese-English bilinguals recorded in Hong Kong adopt the English trochaic stress pattern in their Cantonese productions. Our data provides evidence of bidirectional cross-linguistic influence: Exposure to English leads to overuse of tones corresponding to the typical English pitch pattern, while exposure to Chinese leads to apparent tonal implementation of English stress.

Keywords: phonological development; bilingual; lexical tone

## High lexical selection demands when switching into L1, but not L2

*Asma Assanee, Linda Wheeldon & Andrea Krott*

*Location: CCIS L2 190*

When bilingual speakers switch between their languages, they rely on their language control system. It has previously been found that switching from second (L2) into first language (L1), but not from L1 into L2, relies particularly heavily on brain areas associated with response selection (Branzi et al., 2016). This finding predicts that only switching into L1, not into L2, is demanding in terms of lexical selection and should therefore interact with lexical competition.

We tested this hypothesis by manipulating lexical selection difficulties (i.e. low versus high lexical competition) and the direction of the switch (i.e. switching into L1 versus into L2). We manipulated lexical competition by asking participants to repeatedly name small sets of pictures from the same semantic category (homogeneous picture blocks) or from different semantic categories (heterogeneous picture blocks). It is known that naming pictures in a homogeneous block leads to slower responses than naming pictures in a heterogeneous block due to higher lexical competition (e.g., Damian et al., 2001; Belke et al., 2005). 46 Arabic[L1]-English[L2] bilinguals were asked to name pictures in homogenous and heterogeneous blocks, while repeatedly switching between their languages.

As predicted, participants slowed down in homogeneous blocks compared to heterogeneous blocks. Importantly, the homogeneity effect was stronger when switching into L1 compared to switching into L2. Thus, lexical selection in L1 was affected by high lexical competition, while switching into L2 was not. Furthermore, we found that participants' homogeneity effects (homogeneous – heterogeneous blocks) correlated with their inhibition ability, measured by a Flanker task, as well as with their L2 proficiency. Thus, both better response selection abilities and higher L2 proficiency improves lexical competition resolution when switching into L1. These findings are consistent with Branzi et al.'s (2016) findings that switching into L1 relies heavily on brain areas associated with response selection.

## L2 influence on L1 subject realization in advanced late Chinese-English bilinguals

*Ying Liu, Ruying Qi & Bruno Di Biase*

*Location: CCIS 1 430*

The research in progress reported here investigates the influence of the second language (L2) on the use of first language (L1) in late bilinguals within an L1-dominant environment. Cook's (2003) multi-competence theory claims that L1 of a bilingual is not the same as that of a monolingual due to possible changes induced by L2 learning. Most research under this framework focuses on bilinguals residing in an L2 environment. The current study, however, aims to shed light on advanced Chinese L1 learners of English L2 who live in a Chinese-dominant environment. Particularly, it seeks to gain insights into how English L2 would affect the use of Chinese L1 in late bilinguals through the window of subject realisation, an area where Chinese and English exhibit critical typological contrasts, i.e., Chinese flexibly allows both overt and null arguments, whereas subjects are obligatorily expressed in English (Huang, 1984). It is then hypothesized that advanced learners regularly using English as L2 might increase the rate of overt subjects realised in bilinguals' Chinese L1 even within the L1-dominant environment. To test this hypothesis, L1 Chinese advanced users of English L2 (n=16) were recruited to undertake a series of online speech production tasks in Chinese. A control group of near-monolingual Chinese speakers (n=6) was also recruited to perform the same tasks. Preliminary analysis based on the data currently available shows that the rate of overt subjects produced by the bilingual group (65.95%) was over 15% higher than that of the control group (50.35%). Such findings lend initial support to the hypothesis. It is expected that inferential statistical analysis of all data (part of which is still to be collected and processed) will generate more robust findings to cast a clearer light on the hypothesis.

Keywords: L2 influence on L1; L1-dominant environment; subject realisation;

## **Theme Session Talk**

### **From local to global: Mapping out the evolution and transformation of university immersion students**

*Jérémie Séror, Alysse Weinberg & Thierry Simonet*

*Location: Campus St. Jean*

Language portraits have emerged as an innovative way of helping students reflect on their identities and visually represent the role and position of the various languages present in their linguistic repertoires (Castellotti & Moore, 2009; Lemaire, 2013; Gohard-Radenkovic, 2016) helping to produce a richer and more complete description of the human social and linguistic processes that affect their lives (Molinié, 2009). The paper will report on the analysis of language portraits produced by university immersion students at two distinct moments: the start of their program of study as well as at the midpoint of their studies. Students were given full licence to use their imagination to represent visually experiences of language learning in a tertiary context as well as the presence of the various languages that existed in their lives. Subsequent informal interviews with the students helped explore the meanings and representations associated to various elements found in the drawings produced by students as well as their sense of the evolution of these elements over the course of the two years separating each language portrait. Drawing on a qualitative analysis of the interviews and the language portraits (Bemporad & Vorger, 2014), findings highlight the evolution and transformation of these bilingual learners as they pursue their studies in various disciplinary programs and are confronted with literacy experiences that help produce distinctive understandings and ideologies of the way in which languages mediate their language learning, their disciplinary socialization and their vision of their future selves as multilingual citizens. Conclusions focus on the

students' movement in their early years of study in universities from a vision of languages which is focused on local, family-based relationships to a wider, more encompassing vision which expands to both national and global circles of influence within which their various languages are situated, reimagined, and ranked.

## Theme Session Chair

### **Multilayered language resources in content learning: A look at CBI and CLIL contexts**

*Juliet Langman & Tarja Nikula*

*Location: CCIS L2 190*

Recent years have witnessed a surge of interest towards the intersection between multilingualism and education (e.g. May 2014, Conteh & Meier 2014, Avermaet et al 2018). Two strands in this research are content and language integrated learning (CLIL) and content-based instruction (CBI). Both represent initiatives to teach content through additional/second language but with different rationale and background for bilingual provision. CLIL primarily is studied in European contexts and focuses on mainstream students, with the aim of increasing their language repertoires and enhance L2 skills. CBI is most often associated with research in the United States begins with a focus on language minority learners' access to content when they are still learning English. Both traditions have a strong focus on the role of language in learning, and more recently on explicit language preparation for content area teachers who will teach in a classroom-based multilingual context.

Fuelled both by increasingly (linguistically) diverse contexts and growing awareness of the need to move away from deficit views related to bi- and multilingualism, CBI and CLIL approaches to K-12 language teaching have emerged as ways to incorporate an understanding of language awareness, social equity, and learning development. Along with changing views of what constitutes 'language' (e.g including different varieties and registers) what counts as multilingualism has also changed. As a result, research into the role of language in education in contexts of CLIL and CBI provide particularly rich contexts for comparative work on the nature of language as a tool for learning. In this connection, examinations of the relative proficiencies of teachers and learners, in everyday and academic registers of language pertinent to content becomes of interest.

This theme session focuses on the role of language awareness in content learning, examined both from a conceptual view of what language aware teachers need to know in the classroom as well as data from classrooms in which teachers practice content-based pedagogy. Of particular focus in the papers in the session is the distribution of disciplinary knowledge, expressed through a range of educational settings that employ a bilingual approach.

Discussion within each paper, as well as comparison of CBI and CLIL contexts on the part of the discussant will allow for a synthesis of how teaching and learning context may foster multilingualism.

Keywords: multilingual learners; teacher language awareness; secondary content learners

## Theme Session Chair

### **Bilingualism and Biculturalism: Unique perspectives and shared insights on the relation between language use and ethnolinguistic identities**

*Kimberly Noels*

*Location: CCIS L1 140*

The idea that bilingualism and bicultural identity are linked in complex ways has existed since the early years of bilingualism research, and since then many theories regarding this relation have been forwarded from many disciplines. The purpose of the present symposium is to advance discussion on

this important topic by bringing together some contemporary theory and research from psychology and (applied) linguistics. In her discussion of power, identity and language, Bonny Norton will discuss how socio-structural factors constrain language learners' investment and imagined futures in language, and how digital technologies, particularly digital storybooks, can enhance possibilities for linguistic capital. Kimi Kondo-Brown discusses the identity experiences of Japanese heritage learners and the challenges of maintaining Japanese outside of Japan. Yim, MacIntyre, & Clément use an idiodynamic approach to examine how language anxiety, assessed through physiological measures, varies during language use, and how ethnolinguistic group identification moderate affects anxiety dynamics. In two studies, Noels, Doucerain, Dawson, & Sheane examine the situated nature of language use and ethnic identity, through an examination how linguistic and identity shift depending upon the social situation, and the implications of such variations for language and identity change across immigrant generations. Each of the presenters highlights the unique theoretical contributions of their research to the understanding of the relation between bilingualism and biculturalism, and also conclude with a discussion of the shared insights of these diverse perspectives.

Keywords: biculturality; identity; language learning

### Theme Session Chair

## Acquisition d'une langue minoritaire dans un contexte linguistique majoritaire: cas de troubles et de développement typique?

*Chantal Mayer-Crittenden*

*Location: Campus St. Jean*

On retrouve deux types d'écoles canadiennes dont l'enseignement est véhiculé en français : les écoles d'immersion et les écoles de langue française. Les écoles d'immersion, conçues pour les anglophones qui désirent apprendre le français, diffèrent considérablement des écoles de langue française. Il va sans dire que le contexte linguistique, les attentes, les pratiques pédagogiques, le contexte social, la dynamique des classes, les enseignants et les élèves varient considérablement entre ces deux programmes. Dans les programmes d'immersion, le choix du français comme langue de communication vise l'apprentissage de cette langue, tandis que dans les programmes de langue française, ce choix linguistique répond à des besoins d'apprentissage et de maintien de la langue française. En Ontario, les enfants ont le droit de fréquenter des écoles de langue minoritaire même si leur langue première est l'anglais. Au cours des dernières années, de plus en plus d'enfants anglo-dominants sont inscrits dans des écoles de langue française. Ces enfants, qui ont l'anglais comme langue dominante, apprennent le français, langue minoritaire, dans une école de langue française tout en habitant dans une communauté anglophone.

Près de 7 % de la population générale, soit deux enfants par salle de classe, sont atteints du trouble du développement du langage (TDL). Ce trouble développemental est caractérisé par des difficultés avec la compréhension, l'expression ou l'usage du langage qui ne peuvent être expliquées par une autre cause apparente telle qu'une perte d'audition, un retard mental, un trouble émotionnel ou un autre syndrome. L'identification des TDL chez les enfants monolingues peut être une tâche difficile en soi. Par conséquent, l'évaluation des enfants bilingues comporte un double défi. Chez les bilingues, la cause des retards du langage peut être attribuée aux TDL, qui se présente dans les deux langues, ou elle peut être attribuée à une difficulté à apprendre certaines structures de la langue seconde, sans occasionner des difficultés dans la langue dominante. Les tests standardisés dépendent typiquement des connaissances langagières, donc, les enfants bilingues peuvent être à un désavantage s'ils ont moins d'expérience et de connaissances de la langue de passation du test.

Il est donc préférable d'opter pour la création de tests de langue française ainsi que pour la normalisation de ces derniers dans la région à l'étude. Cependant, très peu d'études ont porté sur la normalisation d'outils en contexte linguistique minoritaire. Il est fortement déconseillé et contre les meilleures pratiques en orthophonie d'utiliser une traduction française des tests anglophones pour des évaluations en orthophonie et de faire la comparaison des compétences linguistiques du français canadien avec le français européen, car cela peut mener à une sur ou une sous-estimation des compétences linguistiques des gens évalués. Les études qui ont été effectuées à jour ont été menées auprès des enfants de la maternelle, du jardin, de la première année et de la troisième année. Ce symposium portera sur les diverses études effectuées afin de mieux identifier les enfants à risque qui apprennent le français, langue minoritaire, dans une école de langue française et ce, dans un contexte majoritairement anglophone.

Keywords: langue minoritaire; acquisition d'une langue seconde; trouble du développement du langage

## Sentence Repetition Performance in a Minority French-speaking Context

Maureen Scheidnes

Location: BS M 141

Variation in language exposure creates challenges for identifying language impairment in bilingual children. In research on a French sentence repetition (SR) task (LITMUS-SR-French) with bilinguals in France, some typically developing bilinguals with less exposure to French scored below a proposed cut-off of 60% identical repetition (Almeida et al., 2017). Thus, more work is needed to better understand how children with limited French exposure should be expected to perform on this task. This paper addresses this question by comparing LITMUS-SR-French performance in two groups of English-French bilinguals living in English-speaking Canada: (1) French-English bilinguals attending a francophone school (Bi-FS) and (2) sequential bilinguals (L1 English) acquiring French as an L2 in early total immersion (Bi-IMRS). The Bi-FS children (N = 12, mean age = 7;0) have more exposure to French at school and at home compared to the Bi-IMRS children (N = 33, mean age = 6;10), who are exposed to French at school only. Both groups are exposed less to French than bilinguals in France. The LITMUS-SR-French includes 30 sentences (6 relative and 6 complement clauses, 6 root wh-questions, 6 monoclausal sentences with past tense and 6 monoclausal sentences with present tense). Results revealed that the Bi-FS group had higher identical repetition scores (M = 41%) than the Bi-IMRS group (M = 31%), but the difference was not significant ( $p = .23$ ). Applying the 60% cut-off, only 4/12 Bi-FS children and 0/33 Bi-IMRS children scored within the typical range. These results suggest that lower identical repetition scores can be expected in children in a minority language context. Qualitative analyses will be proposed to evaluate the strengths and weaknesses of children with limited French exposure on this task.

Keywords: Sentence repetition, French immersion, minority language

## Adaptive Memory: Examining Depth of Processing across a Bilingual's Languages

Stephanie Kazanas, Rachel Fernandes & Jeanette Altarriba

Location: BS M 145

The current study extends recent efforts at the intersection between cognitive and evolutionary psychology. Previous research on depth of processing has shown a memory benefit for words processed in a deep, meaningful way ( Craik & Lockhart, 1972). More recent investigations have shown a particular memory benefit for words processed according to their survival-relevance, perhaps the most meaningful encoding strategy tested to date. An original study conducted by Nairne, Thompson, and Pandeirada (2007) found that word recall largely benefited from an ancestral context that primed participants to think deeply about the survival-relevance of a list of concrete, neutral words. Engaging this 'deeper processing' may lead to better memory if the human memory system is particularly tuned toward remembering survival-relevant materials (Kazanas & Altarriba, 2015; Nairne & Pandeirada, 2016). While these topics have largely been studied in English, or in some cases, in other languages, no study has explored these topics with a bilingual population tested in both of their languages. In this study, we directly compared memory performance across shallow and deep levels of processing, and our Spanish-English bilinguals' two languages, in an effort to compare this depth of processing account across dominant and non-dominant languages (e.g., Ayçiçeği-Dinn & Caldwell-Harris, 2009). Depth of processing was investigated with a more shallow rating task (rating words for their pleasantness) and a deep, scenario-based rating task (rating words for their survival-relevance). These data are compared against monolingual data: the typical sample gathered in this area of research. We hypothesized that deeper processing, collected from bilingual participants in the survival condition

using their dominant language, will better match the monolingual sample than those participants using their nondominant language. Our results speak to the on-going effort to understand word processing differences across bilinguals' dominant and non-dominant languages.

Keywords: Bilingualism; Survival Processing; Bilingual Memory

## **English as an additional language learners' comprehension monitoring during reading: an eye-tracking study**

*Annina Hessel, Victoria Murphy & Kate Nation*

*Location: BS M 149*

Every fifth UK primary school student is a minority language learner of English as an additional language (EAL) (NALDIC, 2013). EAL learners often lag behind monolinguals in reading comprehension (Murphy, 2018). One explanation for this is that EAL learners may fail to notice or reanalyse inconsistencies within a text, that is, they may struggle with comprehension monitoring. To date, however, no study has directly investigated comprehension monitoring as EAL learners read text containing semantically inconsistent words.

We thus conducted an eye-tracking experiment to investigate how EAL learners and monolinguals monitor their comprehension, and how this is associated with their vocabulary knowledge. Children read short texts containing semantically implausible words that were inconsistent with the story, e.g. a kitten that barks. Their reading was compared to matched plausible words, e.g. a puppy who barks. Sixty-four 9–10-year-old monolingual and EAL children participated in the experiment and completed a standardised vocabulary measure.

Based on previous research (Connor et al., 2015), we predicted that children with larger vocabularies (in both groups) would adapt their rereading more optimally to re-analyse inconsistencies than children with smaller vocabularies, as evidenced in the eye movement record. If EAL learners were less skilful in their monitoring, this would show in less optimal adaptations than monolinguals.

As expected, for both language groups, children with larger vocabularies reread implausible words more often and for longer, indicating re-analysis. Within the EAL group, children with smaller vocabularies spent longer fixating implausible words initially, possibly because lexical access relied more on the predictability of upcoming words for these children.

Our findings indicate that EAL learners and monolinguals do not differ in their comprehension monitoring overall, but that individual differences in vocabulary serve to moderate comprehension monitoring. This underlines the importance of vocabulary instruction to support reading comprehension in both EAL and monolingual learners.

Keywords: comprehension monitoring; English as an additional language (EAL); eye-tracking

## **Crosslinguistic Transfer of Case Cues in Anticipating Non-Canonical Word Orders**

*Irina Sekerina, Antje Saueremann, Natalia Mitrofanova, Natalia Gagarina & Marit Westergaard*

*Location: CCIS 1 140*

This study investigates the processing of word order (SVO vs. OVS) in both languages of heritage

Russian-German bilingual children living in Berlin in Russian-speaking families. Russian and German both allow non-canonical word orders, but frequency and transparency of case cues on the arguments (NOM vs. ACC) are different. While German children do not anticipate OVS word order from ACC on the object and assign OVS sentences an incorrect SVO parse until 7 (Schipke et al., 2012; Sauermann & Höhle, 2016, but cf. Özge et al., 2016), Russian children do so early (Sekerina & Mitrofanova, 2017). Russian–German bilingual children present an interesting test case of crosslinguistic influence in processing of word orders: Is there facilitation (Russian affecting German) or interference (German affecting Russian)?

Heritage Russian-German 3-to-6-year-old children (N=35) were compared to age-matched Russian (N=66) and German (N=31) monolingual controls. All 3 groups participated in a Visual World eye-tracking study that employed a 2x2 design, with Word Order (OVS vs. SVO) crossed with Task (3 single referents vs. 2 pictures side-by-side). In the response-based 3-Ref task, children verbally accepted/rejected a picture; in the 2-Pic task, they selected the correct picture by pointing. The bilingual children participated in both Russian and German versions.

In Russian, the bilingual children overall performed slightly worse (87.5%) than the monolinguals (93.3%), but they did not differ in accuracy from their monolingual peers in German (82.4% vs. 83.9%), with the same pattern emerging for the OVS sentences. Thus, the accuracy results point to crosslinguistic transfer: The structural case cues from a more case-salient language (i.e., heritage Russian) increased the anticipatory power of the case cues in German and facilitated processing of the non-canonical word orders in that language.

GERMAN      RUSSIAN

Monolingual   Bilingual      Monolingual   Bilingual

SVO   85.03   84.9   95      91.5

OVS   82.76   79.99   91.5      83.5

Keywords: heritage language; children; case and word order

## Theme Session Talk

### Conceptualizing Identity via Teacher language awareness in Content-Based Contexts

*Kristin Lindahl*

*Location: CCIS L2 190*

Teacher Language Awareness (TLA) connects what teachers know about language to what they do in the classroom relative to three identities they may occupy: as Users of language who communicate in socially-driven and context-specific ways, as Analysts of language who understand the ways in which language functions as a system, and ultimately, as Teachers of language who implement pedagogical activities that facilitate learning (Andrews & Lin, 2017; Edge, 1998; Lindahl, 2016). TLA is highly influential in the pedagogical decision-making process, and is developed in various ways across contexts.

Investigation into content-based instruction (CBI)/ content-language integrated learning (CLIL) bilingual contexts reveals a complex knowledge base required of educators (Morgan, 2018; Troyan

et al., 2017). Those with more developed TLA may be effective in focusing on language forms at appropriate points in their lessons, providing comprehensible input, being aware of learners' potential difficulties; and engaging with language in general (Andrews & McNeil, 2007). In contrast, teachers with less developed TLA may struggle to balance language demands, find composition of objectives difficult, and be less willing to engage with and reflect upon language (Andrews, 2007; Regalla, 2012). As such, examining TLA in terms of overlapping domains is important in content-based contexts (Andrews & Lin, 2017; Lindahl, 2016), as it accounts for procedural and declarative knowledge about language, as well as the pedagogical content knowledge (PCK) required to teach language via content.

However, the present conceptual paper seeks to extend TLA in content-based settings beyond previously-named "domains" or "knowledge bases" into an identity framework, considering that teachers in actuality may be navigating TLA identities that shape how they conceptualize language and content. Using an identity framework over a static, compartmentalized knowledge-bases approach allows questioning of the ways in which content-based educators deploy language-aware identities across languages and disciplines.

## Effects of Testing Language and Validity of Parental Assessment

*Zahraa Attar, Elma Blom & Emmanuelle Le Pichon Vortsman*

*Location: CCIS 1 430*

The increasing influx of refugees in the Netherlands presents teachers with an ongoing challenge to assign refugee students to grades that correspond to their cognitive abilities. Students with migrant backgrounds are underrepresented in scientific tracks of education and at risk of being underestimated (Fraine & McDade, 2009; OECD, 2013). Low test results can stem from lack of knowledge of the material being tested. However, it can also be a result of hidden potential due to low language proficiency.

The present study investigates to what extent the language factor affects the performance of Syrian refugee students in non-language subjects. To this end, their mathematics performance is assessed in the new school language (Dutch) and in the school language of the home country (Arabic). In addition, the study explores whether parents can be involved in the assessment process by examining the validity of the judgements of their children's mathematics ability.

For the study, 32 Syrian students (aged 9-15) living in the Netherlands were tested using a within-subject design: each student's abilities were tested in an Arabic and a Dutch version of a mathematical test. There was one month between the two versions. The numbers and visualizations were manipulated between the two versions to avoid any learning effects. The test order was counter-balanced. Parents completed a questionnaire in which they assessed their children's level in mathematics.

The results of a linear mixed effect model with random intercepts per participant showed that the students performed significantly better on the Arabic test than on the Dutch test. Parental assessment of students' mathematics ability correlated significantly with the mathematics scores, on both versions of the tests. Implications of these results for schools will be discussed alongside some prerequisites to the implementation of mathematical assessments for these students.

Keywords: Refugee students; school language; assessment

## A Questionnaire Based Study of Family Language Policy in Swedish-English Bilingual Families

*Tim Roberts*

*Location: CCIS 1 440*

This study draws on data from a questionnaire which was distributed nationwide in Sweden in 2018. The informants were parents in families in which one parent is a native English speaker and one parent is a native Swedish speaker. The questionnaire, completed by over 300 informants, was an online questionnaire consisting of twenty questions. Five of these questions related to language policies in and outside of the home, namely, the language(s) the informant uses outside of the home, the language(s) the informant uses with the other parent, the language(s) the informant uses with their children, the language(s) the other parent uses with their children, and the language(s) the children use together (if applicable). In this study, the responses to these five questions form outcome variables, while the responses to the other questions form predictor variables. Data were analysed using inferential statistics.

The predictor variables I use are grounded in current Family Language Policy research which suggests that economic, political, socio-cultural, and linguistic factors influence language use amongst family members (Curdt-Christiansen, 2009:355). In this study, I discuss correlations between language policies and factors such as the father versus the mother as the minority language parent, rural versus urban contexts, parental education level, parental employment status, current relationship status between parents, the ages of children in a family, and the number of children in a family. I also discuss the extent to which the Swedish societal context in particular may mediate the findings presented, and whether these findings might be able to help us understand Family Language Policy more generally.

Keywords: Family Language Policy; bilingual families; Sweden

### Theme Session Talk

## Identity, Investment, and Digital Storybooks for a Multilingual Future

*Bonny Norton*

*Location: CCIS L1 140*

The world has changed since I published my early work on identity, investment, and language learning in the mid 1990s. Because of advancements in digital technology, there are new relations of power at micro and macro levels, and digital literacy has become essential in “claiming the right to speak.” As language learners navigate these changing times, they need to negotiate new identities, investments, and imagined futures (Norton, 2013). Working with Ron Darvin, I have responded to new linguistic landscapes by developing an expanded model of investment that integrates identity, ideology, and linguistic capital in a comprehensive framework (Darvin & Norton, 2015). In this presentation, I will argue that while there are structures that may limit a language learner’s investment, the model seeks to illustrate how learners can draw on language and literacy practices that enhance possibility. Drawing on my recent research on digital storybooks in both wealthy and poorly resourced global communities, I will discuss the ways in which digital storybooks can harness the linguistic capital of young learners and their parents in homes, schools, and communities in the interests of a more equitable multilingual future (Stranger-Johannessen & Norton, 2017; Stanger-Johannessen, Doherty & Norton, 2018).

## Early Heritage and Second Language Learning in an Immersion Preschool Context

*Sunny Park-Johnson & Carolina Bararera-Tobón*

*Location: CCIS L1 160*

There is overwhelming evidence that bilingualism is beneficial for academic, neurological, and socioemotional development in all learners (e.g., Garcia, 2013). However, in the U.S. the vast majority of second language (L2) education takes place late in a student's academic trajectory, usually secondary school, with relatively few schools that offer immersive L2 learning during early childhood. This paper presents unique data from a Spanish immersion preschool that is attended by two groups of students: heritage language learners (HLLs) who speak Spanish at home and second language learners (L2ers) of Spanish who speak English as a first language. The research questions are as follows: (1) what language choices do children make when the language of the school and dominant language differ? (2) what factors predict language choice and use? Fifty-seven children (41 HLLs, 16 L2ers) ages 2 to 7 were recruited for the study. Data was collected through 12 months of observation and a story elicitation task. Findings revealed that during interactions with their peers, children overwhelmingly used English with each other (97%); in contrast, when interacting with teachers, up to half of the children used Spanish to communicate, indicating students' keen awareness of this distinction. Secondly, while the HLLs group used more Spanish than the L2 group during the elicitation task, multiple linear regression revealed that language dominance ( $p = .012$ ) and amount of Spanish exposure ( $p = .019$ ) significantly predicted amount of Spanish use, whereas group was not significant ( $p = .151$ ). The results suggest that while HLLs and L2ers may differ in language choice and use, non-demographic factors such as dominance and exposure to Spanish serve as better predictors of Spanish use for these young learners. Implications for early and consistent L2 exposure through immersion or dual-language educational contexts will be discussed.

Keywords: heritage language; language acquisition; early childhood

### Theme Session Talk

## Le développement d'une langue seconde chez des enfants qui ont un trouble déficitaire d'attention avec hyperactivité avec ou sans trouble du langage

*Stéphanie Frenette, Gabrielle Dupuis & Véronique Leblanc*

*Location: Campus St. Jean*

Le trouble déficitaire d'attention avec hyperactivité (TDAH) est un trouble psychiatrique commun chez les enfants. Plusieurs enfants ont également un trouble du développement du langage (TDL). Puisque le TDAH a comme symptôme une attention compromise, le processus d'apprentissage peut être affecté, contribuant à des difficultés scolaires et possiblement à une acquisition moindre d'une langue seconde (L2). Étant donné le manque d'information à ce sujet, cette étude avait comme objectif de mesurer les compétences linguistiques des enfants ayant un TDAH dans leur L2, et ce, dans un contexte linguistique minoritaire. Huit enfants bilingues anglo-dominants ayant un TDAH et 13 enfants bilingues à développement typique (DT) ont participé. Puisque le TDAH coexiste souvent avec le TDL, l'étude a inclus un troisième groupe d'enfants, soit les enfants qui ont un TDAH et un TDL ( $n = 5$ ). Tous les enfants fréquentaient des écoles de langue française, mais avaient l'anglais comme langue dominante. Selon les résultats préliminaires, les enfants à DT performaient mieux dans les deux langues et les enfants à troubles concomitants (TC) avaient une performance générale appauvrie dans les deux langues. L'écart entre les compétences dans les deux langues était plus grand chez les enfants à TC : leur performance dans la L1 étant semblable à celle des enfants TDAH. Pour les enfants TDAH, cet écart était plus petit : leur performance dans la L2 étant semblable à celle des enfants à

DT. Somme toute, les enfants ayant un TDAH ont une compétence linguistique moindre dans leur L2 comparativement aux enfants bilingues à DT, surtout lorsqu'ils ont aussi un TDL.

## Language immersion at the tertiary level. An option of Irish Gaelic?

*Sheila Scott*

*Location: BS M 141*

Language immersion programs have shown themselves to be viable options for minority languages in different contexts. In Canada, French Immersion has been available for over a generation at the primary and secondary levels. At the University of Ottawa, our Immersion program offers students the opportunity to continue developing their French language skills in a variety of disciplines at the post-secondary level. I believe that the model that we have developed here at the University of Ottawa, Canada's only bilingual university, could be applied to other countries where an official minority language is offered in an immersion context at the primary and secondary level, but not yet at the tertiary level. Universities should be exploring together the possibility of offering this type of program to students who are keen to continue developing their language skills so as to become future bilingual employees in their respective fields. In my presentation, I describe how and why this could be a viable option for Irish Gaelic, a minority language which would benefit from developing a professional workforce with greater fluency in the Irish language.

Keywords: immersion tertiary level

## Are aptitude and working memory the same thing?

*Vivienne Rogers, Amelia Cobner & Tesni Galvin*

*Location: BS M 145*

Recent years have seen a resurgence in studies investigating the role of aptitude in learning a second language (Wen et al 2017). Most models of aptitude and aptitude tests suggest there are different components that make up language learning aptitude (Carroll & Sapon 1959; Meara, 2005; Linck et al, 2013). Wen (2016) suggests that these different components of aptitude relate to different components of working memory (WM) and the two should be "reconfigured.. to identify under what conditions the effects from both sides complement or overlap each other" (Wen 2016 p.144)."

This study seeks to address this question in relation to our continued validation work with the LLAMA aptitude tests (Meara, 2005). Previous validation work on the LLAMA aptitude tests has investigated various individual differences including age, L1 script/background, role of L2 instruction, gender, education level. We have only found significant effect of prior L2 instruction on two subcomponents on the LLAMA tests (B: vocabulary & F: grammatical inferencing). In this follow-up study, we will investigate how working memory relates to LLAMA aptitude scores. We will also address several other limitations to our previous work (level of L2, age effects in older monolingual and bilingual groups).

The four subcomponents of the LLAMA tests, three WM measures and a background questionnaire were administered to 127 participants. The WM measures include an auditory digits backwards task, a visual storage task and attention tasks.

A Principal Components Analysis initially shows two components: one with the LLAMA tests and the other with the WM tests. A forced factor of three or four components also show that the LLAMA aptitude tests always are weighted on different factors than the working memory tests. This suggests that while WM may be a component of aptitude, the two over-arching constructs are not interchangeable.

Keywords: aptitude; working memory; testing

## Theme Session Talk

### Academic and everyday languaging in CLIL

*Tarja Nikula*

*Location: CCIS L2 190*

Recent research on content and language integrated learning (CLIL) has focused attention to how the role of language in content learning should be conceptualized and described to benefit those teaching and learning through L2 (e.g. Llinares, Morton & Whittaker 2012; Meyer et al 2015; Nikula et al. 2016). This research has highlighted the importance of subject-specific or academic literacies when evaluating the success of CLIL.

The notion of cognitive discourse functions (CDFs) by Dalton-Puffer (2013, 2016) offers a fruitful angle towards subject-specificity in language use as it calls attention to different school subjects drawing differently on the same set of basic cognitive functions (such as explaining, defining, and describing). There is growing demand for research to explore how CDFs are realized in classrooms and how participants draw on different language resources when journeying towards discipline-specific literacies. Moreover, the interplay of everyday and academic language use in this is worth exploring, as indicated by Nikula (2017) on negotiations around of a core concept in CLIL physics.

This paper will ask what happens around academic/subject-specific language and literacies, conceptualized as subject-specific concepts and forms of knowledge construction (drawing on the notion of CDFs), when Finnish lower secondary students learn history through English. The data includes whole-class instruction towards a historical essay, students' group work sessions to prepare for the task, their background reading and notes in notebooks, as well as students' essays and teacher's feedback in the form of comments. This data set allows a multi-layered angle to whether aspects of subject-specific expression and knowledge formation are explicitly taught and discussed, how they show in materials and students' own productions. Special attention will be paid to the role of L1 and L2 as well as everyday and academic registers in these processes.

### Assessing the validity of the Dutch Cross-linguistic Lexical Task (CLT)

*Elise van Wonderen & Sharon Unsworth*

*Location: CCIS 1 430*

One of the challenges when assessing bilingual children's language development is how to compare proficiency across their two languages (e.g., Peña, 2007). The Cross-linguistic Lexical Task (CLT, Haman et al., 2015) was designed to tackle this issue: target words are selected using language-specific values for phonological and morphological complexity (their complexity index; CI) and subjective age of acquisition (AoA). This study presents the newly developed Dutch-CLT and asks i) how it compares with other measures of bilingual children's proficiency, and ii) to what extent the CI and AoA predict CLT scores.

**METHOD** Participants were 32 Dutch-Spanish bilingual children (aged 3–9) plus monolingual peers (data collection underway). Tasks completed in both languages were: the production sub-task of the CLT, the CELF-4 Word Structure subtest, and a sentence repetition task (CELF-2/4 plus LITMUS; Marinis & Armon-Lotem, 2015).

RESULTS CLT scores correlated highly with scores on Word Structure (Dutch:  $r=.66$ ; Spanish:  $r=.83$ ) and the Sentence Repetition task (Dutch:  $r=.63$ ; Spanish:  $r=.74$ ; all  $ps<.001$ ). Data were also analyzed using a generalized mixed effects model in a Bayesian framework. CLT scores were predicted by age, Word Class, and AoA in both languages, with scores decreasing more readily with AoA for Dutch. CI was not a significant predictor, but scores on words with a lower CI decreased more readily with increasing AoA.

CONCLUSION The CLT is comparable to other proficiency measures, and given how easy it is to administer and score, it is for certain purposes preferable to available alternatives. In line with recent findings for Polish-Norwegian bilinguals (Hansen et al., 2017), AoA was found to predict children's scores but CI was not, calling into question the necessity to incorporate this factor into the task's design. Data from monolinguals will allow us to determine whether the Dutch and Spanish CLTs are nevertheless equally complex.

Keywords: bilingual children; cross-linguistic lexical task; Spanish-Dutch bilinguals

## Childhood bilingualism

*Eric Andong Ambendu*

*Location: CCIS 1 440*

In the world today, bilingualism has given us multiple identities just by the languages we speak. It has become a very important tool use geographically to relate in the society. The world is fast changing as many people finds it even necessary to be multilingual, which has and brings a lot of advantages and benefits. It will therefore be our obligation to teach our children to become bilingual and multicultural at early stage, understanding cultural values and heritage. So that they will not find any difficulty in communication with the society they find themselves. By so doing as Africans, our kids shall be better in communication with the rest of the world, having new perspective to see the world differently from monolingual children as they grow. -They stand better chances to easily blend educationally with people of different languages, identities and culture. Making them bicultural and code-switching, adapting in multiple personalities and in new environments.-They shall be favoured with good positions at workplaces by being multilingual. With opportunities and open doors to feel welcomed in any social and cultural gathering. -They shall become valuable to problem solving and decision making towards peace, to the development of their nation (Africa). With a wide knowledge in linguistic and translation.

## Theme Session Talk

### Heritage language and identity development of bilingual children crossing Japan's national borders

*Kimi Kondo-Brown*

*Location: CCIS L1 140*

When children with immigrant parents start socializing in the dominant language of the host country, the children's first-learned non-dominant languages – their heritage languages - may gradually become secondary to the dominant language. In my paper, a heritage language (HL) speaker is someone who has acquired competence in a non-dominant language as his/her first language (L1) mainly through socialization at home but may not have achieved full-control over it due to a switch to the dominant language (Montrul, 2008; Polinsky, 2008). A large body of research on bilingualism and biliteracy, L1 maintenance and attrition, and language socialization suggests that HL development is a very

complex, dynamic, and cumulative process influenced by a mix of micro-psychological and macro-sociological factors (Kondo, 1998; Kondo-Brown, 2006). Thus, in order to examine HL development, HL speakers' language contacts and use as well as associated social-psychological factors must be examined in the multiple contexts of learning at home, in school, and in the community, as well as in connections to society, which I call a "multi-faceted approach" to HL development (Kondo-Brown, 2015). In this approach, HL speakers are viewed as having complex and dynamic socio-cultural identities, which should be understood with reference to their socio-cultural memberships. Second, in the multi-faceted approach, HL speakers' acculturation processes within an immigrant group are considered highly complex and variable.

As globalization and interdependence in the international community progress, a growing number of long-term residents and immigrants are crossing Japan's national borders in both directions, i.e., migrating to and emigrating from Japan. Today, research concerning HL education for children crossing Japan's national borders has received considerable attention in Japan and elsewhere, especially in North America (e.g., Kondo-Brown, Sakamoto, & Nishikawa, in press). Drawing on the "multi-faceted approach" to HL development, my presentation will discuss findings from previous HL research for bilingual children who are moving beyond Japan's national borders, revealing that HL development is powerfully connected to their complex and dynamic socio-cultural identities. It will also provide an overview of recent socio-cultural and educational research concerning HL use and development for bilingual children crossing Japan's national borders, especially in relation to their complex and dynamic identity development.

## **Exploring student identity through metaphor: Extending the model of investment**

*Wendy Bokhorst-Heng & Kelle Keating-Marshall*

*Location: CCIS L1 160*

In New Brunswick (NB) – Canada's only officially bilingual province – French as a Second Language education is mandated in all Anglophone schools, and one-way French immersion (FI) education is mandated where resources and conditions allow. Multiple studies systematically review the FI program from a variety of perspectives. However, few have focused on the development of learner bilingual identity within FI. Yet, as Norton's (2013), Kramsch's (2009), and Pavlenko and Lantolf's (2000) research demonstrates, the development and transformation of learner identity is a central component of language learning. Our discussion draws from our larger study investigating Grade 8 students' attitudes and experiences in FI. Thirty-one FI students from four schools were involved in the study, each school participating in two 1.5-hour multi-modal focus group sessions. One of the activities in these focus groups required students to construct metaphors that described their views concerning learning and speaking/writing in French. These metaphors form the basis of our discussion here. We regard these metaphors as a form of narrative, and thus interpretive of experience and intimately connected to identity. Our analysis of these metaphors thus employs Leggo's (2008) three dynamics of narrative analysis: story, interpretation and discourse. In order to more deeply develop the theoretical, and pedagogical, significance of these metaphors, we position our analysis within Darwin and Norton's (2015) Model of Investment, a Venn diagram intersecting identity, capital and ideology within a framework of learner investment. Finally, we consider how metaphor can be a "vehicle for reflection and consciousness raising" (de Guerrero & Villamil 2002) in the language learning classroom, taking up Fisher's (2017) call for more research on how metaphor might be used to shape beliefs to improve language learning outcomes – and extending the pedagogical significance of Darwin and Norton's model of investment within the FI context.

Keywords: Metaphor, Immersion education; Language identity

## Theme Session Talk

### Impact de l'exposition linguistique bilingue sur l'acquisition du vocabulaire dans un contexte francophone minoritaire

*Katie Gervias & Anabelle Bouchard*

*Location: Campus St. Jean*

Le vocabulaire est à la base de plusieurs stratégies d'apprentissages chez les enfants d'âge scolaire. Qu'en est-il des enfants qui sont instruits dans leur langue seconde et qui apprennent pour la première fois la langue d'enseignement dans une école de langue française ? L'objet de cette étude était d'examiner l'acquisition du vocabulaire et l'exposition à deux langues chez des enfants bilingues en situation linguistique minoritaire francophone. Les données utilisées proviennent d'une étude longitudinale. Soixante enfants à développement typique âgés de cinq et six ans ont participé à l'étude. Ces participants ont été divisés en deux groupes : enfants franco-dominants (FD) et enfants anglo-dominants (AD) selon leur dominance langagière. Tous les participants ont été soumis à des tests mesurant le vocabulaire réceptif et expressif, et ce, en français et en anglais. Les scores obtenus ont été comparés à des normes monolingues publiées. Les résultats ont montré que les enfants AD atteignaient la norme monolingue anglophone sur les tests de vocabulaire réceptif et expressif. Les enfants FD n'arrivaient pas à atteindre la norme monolingue franco-ontarienne sur les tests de vocabulaire réceptif, ni la norme monolingue publiée sur le test de vocabulaire expressif. Il semble que lorsque la langue dominante de l'enfant est une langue minoritaire, le vocabulaire dans cette langue est moindre. Au contraire, lorsque la langue dominante de l'enfant est une langue majoritaire, il semble que le vocabulaire dans cette langue soit plus grand parce qu'il y est plus exposé.v

## Mind the gap. Developing lexical abilities in a minority L2 by English-speaking children in Gaelic-medium immersion education

*Vicky Chondrogianni, Morna Butcher, Maria Garraffa*

*Location: BS M 141*

Studies have documented that bilinguals exhibit a large discrepancy between receptive and expressive vocabulary skills, known as the 'receptive-expressive gap', which goes beyond the normal asymmetry between the two modalities (Gibson et al., 2014). This gap has been documented in the L1 of school-age immigrant children in L2 mainstream education (Gibson et al., 2012), although results are mixed (Keller et al., 2015). Given that studies do not always assess both languages and have not considered the relationship between this gap and lexical class, we addressed the following questions: (1) what is the nature of the receptive-expressive gap for children in immersion education across both languages, and (2) how can performance on verbs and nouns inform us about children's emergent lexical skills related to this gap.

In the first study of its kind, 51 6- to 7-year-old English-Gaelic bilingual children attending Gaelic-medium immersion primary schools (Primary 2&3) in Scotland were tested on the Crosslinguistic receptive and expressive Lexical Tasks (Haman et al., 2015) targeting nouns and verbs in Gaelic and English. Accuracy and (language-specific) error types were considered.

Children performed better on their dominant L1 (English) than the immersion L2 (Gaelic) and on nouns than verbs across tasks and languages (Haman et al., 2017). The expressive-receptive gap was larger in the L2 than the L1 and narrowed with age for the L1 but not for the L2, confirming previous studies that reduced input exacerbates the gap size (Gibson et al. 2012, 2014; Keller et al., 2015), which requires more time than one year of immersion education to narrow. The L2 expressive-receptive gap was reduced when responses specific to verbs in the Gaelic naming task, e.g. blending (L1 root+L2 inflection/derivation), were considered target-like. This study offers new insight into how lexical abilities develop in emerging bilingual children across the two modalities.

Keywords: child bilingualism; lexical development; immersion education

## The Impact of Learning Two Foreign Languages on the Development of Language Aptitude and Working Memory

*Ting Huang, Hanneke Loerts & Rasmus Steinkrauss*

*Location: BS M 145*

An increasing number of adults learn more than one foreign language simultaneously. While the cognitive benefits of being bilingual have been studied extensively [1], [2], [3], [11], there is little knowledge about possible cognitive benefits of learning multiple languages in adulthood. Language aptitude (LA) and working memory (WM) are argued to be among the most crucial cognitive abilities in predicting language learning outcomes [4]. Being traditionally considered relatively stable [4], the two are recently advocated to be changeable under certain circumstances [5], [8], [9], [10]. Regarding their relation, it is increasingly argued that WM is an integral part of LA [7], [13]. The present study, therefore, explores the following questions: (1) is there a difference in the development of LA and WM between learners of one versus two foreign languages; (2) what is the relation between LA and WM? To answer these questions, the present study tested 79 Chinese adult learners in terms of their LA and WM using the LLAMA test [6] and the Operation Span task [12] respectively. Participants are

beginning or advanced university students majoring in English or English & Japanese/Russian, and data were collected twice with an interval of one academic year. The results suggest that learning two foreign languages simultaneously improves some aspects of LA and WM, especially for the beginning learners of the second foreign language, which may point to a third language learning effect. Regarding the relationship between LA and WM, the LA and WM scores show a significant positive relationship ( $r=0.26$ ,  $p<0.05$  (two-tailed)) for the first testing point but not the second one. The implications of these findings are discussed.

Keywords: language aptitude, working memory, multilingualism

## **Bilingual Lexical Access in spoken word recognition: Differences between adults and children**

*Christina Schelletter*

*Location: BS M 149*

Previous research on lexical access in spoken word recognition has shown that bilingual adults activate both their lexical systems simultaneously during tasks where they had to choose between lexical items that were phonologically similar (Marian and Spivey 2003, Blumenfeld and Marian 2007). In particular, the competition affected their lexical access both within as well as across languages (Marian, Blumenfeld and Boukrina 2008) but varied according to neighbourhood density, task demand and language proficiency.

In the present study, lexical access in spoken word recognition is investigated for a group of 13 bilingual German-English adults and 13 bilingual school-age children. In order to assess children's lexical knowledge in both languages, they were first asked to name individual pictures and their reaction time as well as accuracy were measured (Task 1).

All subjects were then given a visual world paradigm (Task 2) where they were presented with 32 arrays of four pictures and a spoken word for each language. The target words overlapped in phonological form with another item either within the target language (English: cloud-clown, German: Kirsche-Kirche, cherry-church) or across both languages (English: mower-Mauer, wall, German: Schal-shell, scarf). Subjects were asked to click on the picture corresponding to the word and their eye fixations were tracked using a mobile eye tracker (SMI Red 250).

The results for Task 1 show that the bilingual children had higher accuracy scores in the German setting, suggesting that this was their more dominant language. The results of the visual world paradigm show that both, adults and children were affected by within-language phonological similarity in both languages. The children were affected more by cross-language similarity and the effect was again stronger for low density items. The results show that the effects previously found for adults also apply to bilingual children and the particular language combination studied

Keywords: Lexical Access, Neighbourhood Density, eye tracking

## **Crosslinguistic influence in simultaneous bilingual children: new insights from online and offline techniques**

*Chantal van Dijk, Sharon Unsworth & Ton Dijkstra*

*Location: CCIS 1 140*

Ample evidence exists that cross-linguistic influence (CLI) occurs in young bilingual children (e.g., Serratrice, 2013). However, very few studies have addressed this issue in language comprehension (e.g., Argyri & Sorace, 2007), and hardly any study exists considering CLI during language processing (online). This is problematic, because online studies with adult second language learners have shown that subtle effects of CLI during processing are not always picked up on offline (e.g., Hopp, 2010). Hence, to come to a comprehensive theory about CLI in bilingual children, online data is essential. Therefore, this study combines online and offline techniques to investigate sentence processing in bilingual children.

English-Dutch (n=40) and German-Dutch (n=42) simultaneous bilingual children and Dutch monolingual children (n=70) between 5 and 9 years of age participated. A self-paced listening (e.g., Ferreira et al., 1996) and an acceptability judgement task measured online and offline CLI. In both tasks, children were presented with Dutch passive and adverb-initial sentences that had systematic overlap in word order with English (V-PP: *de-leeuw-wordtgekust-door-de-beer/the-lion-is-kissed-by-the-bear*; V3: *\*vandaag-de-slang-zingt-een-lied/today-the-snake-sings-a-song*) and German (PP-V: *de-leeuw-wordt-door-de-beer-gekust/der-Löwe-wird-vom-Bären-gekusst*; V2: *vandaagzingt-de-slang-een-lied/heute-singt-die-Schlange-ein-Lied*). We predicted that CLI should be visible online – through differences in reaction times between the bilingual groups – but not necessarily offline.

No evidence of CLI was found offline: grammaticality judgements of the structures were similar between groups. Online, however, the bilingual children differed from each other: English-Dutch children processed V-PP sentences faster than PP-V sentences. Younger German-Dutch children did so too, but at an earlier moment during parsing. In contrast, older German-Dutch children were faster in the PP-V condition compared to the V-PP condition. Furthermore, the less proficient children were in Dutch compared to the other language, the stronger the CLI. These results show that even when CLI is not visible offline, bilingual children's languages interact during sentence processing at the syntactic level.

Keywords: Crosslinguistic influence; simultaneous bilingual children; online

## Theme Session Talk

### Drawing ELs into Secondary Science: Examining content-based talk through functional language awareness

*Juliet Langman & Holly Hansen Thomas*

*Location: CCIS L2 190*

Recent research in content-based instruction (CBI) focuses on moving language learners beyond access to active participation in classroom interaction and content learning. Sociocultural perspectives further suggest that learning can best be understood through focused analyses of language and interaction embedded in a layered socio-cultural context that starts with the classroom and extends to the cultural communities learners inhabit. The requirements for sophisticated use of language linked to discipline-specific content area learning are particularly demanding at the secondary level, given the increased demand for activities that involve explanations and justifications of arguments. Yet, focused attention on language as a tool for teaching and learning is often absent from secondary teachers' preparation.

One approach to examining how language is used as a tool for learning is the functional language awareness, an approach which begins with analyzing functions of language employed during content

area teaching and learning, and extending to an awareness of how language features are used differentially to accomplish these functions (Hansen-Thomas & Langman, forthcoming). Teacher language awareness (TLA) coupled with functional language awareness, can therefore be a fruitful tool to help teachers become aware of how language impacts learning in the classroom, by making explicit connections between the aims of a given activity in a lesson, the language functions, such as defining, describing, and explaining, connected to the lesson and the language features required to participate in that activity.

This paper provides a discourse analysis of data from two secondary science classrooms to explore how teachers orient to language learners in their classroom through the explicit outline of linkages between oral and written texts. Classroom interaction, coupled with textbook, teacher, and student-produced written materials form the data for an analysis of how teachers help learners uncover the language tools needed to develop and express knowledge in science.

## What does the CELF-IV Sentence Structure test really index in bilinguals?

*Cecile de Cat*

*Location: CCIS 1 430*

The CELF-IV Sentence Structure test (SST) aims to “measure the acquisition of grammatical (structural) rules at the sentence level”. Although not designed for bilingual populations, it is frequently used to assess their English proficiency.

We sought to disentangle the effect of language exposure, cognitive factors and socio-economic status (SES) on bilingual children’s performance in the SST. 174 children (5 to 7 years old, including 87 bilinguals with a broad range of exposure to English and 28 different home languages) were tested for English proficiency (SST; sentence repetition; lexical knowledge and discourse pragmatics: DELV), memory (Digit Span tasks) and cognitive flexibility (Dimensional Change Card Sort: DCCS). SES and exposure to English were estimated based on parental questionnaires.

Bilingual children’s language exposure was a significant predictor in all proficiency tests except the SST, in spite of lower performance as a group. The SST scores were predicted by DCCS and memory (both in bilinguals and monolinguals).

We carried out an item analysis with two additional predictors: Structural Complexity (wh-movement, subordination, passives) and Cognitive Complexity (evaluating the relative timing of events, counterfactuals, and aspectual distinctions). Including these factors significantly improved the fit of the mixed-effect model. Monolinguals made more errors with counterfactuals and event ordering, compared with less cognitively demanding items. Unexpectedly, the only effect of structural complexity in monolinguals was facilitation with relative clauses. Compared with monolinguals, bilinguals did not perform differently with respect to cognitive complexity but they performed significantly worse with respect to structural complexity (an effect entirely driven by relative clauses and passives). Yet structural complexity was not predictive within bilinguals.

The SST appears to index reasoning abilities more than mastery of structural complexity. The cause of bilinguals’ lower performance requires more scrutiny.

Keywords: cognitive confound; language proficiency assessment; language exposure

## Is 10 better than 1: How do bilingual and monolingual children accommodate to speaker variability during word-learning?

*Kimberly Crespo & Margarita Kaushanskaya*

*Location: CCIS 1 440*

Bilingual children tend to experience more variability in their environment, and it is possible that this experience may shape children's ability to accommodate to variability in the input. There is mixed evidence on whether speaker variability promotes word learning. Furthermore, the effects of speaker variability have never been examined in the context of a cross-situational word-learning task where learners build associations between words and objects trial-by-trial. The goal of the current study was to investigate the effect of speaker variability on cross-situational word-learning in monolingual and bilingual children.

Thirty-six monolingual and 26 bilingual 4-7 year-old children were recruited. Children learned 6 novel object-label pairings in a single-speaker condition, and 6 novel pairings in a multiple-speaker condition in a cross-situational word-learning eye-tracking paradigm. In the single-speaker condition, one speaker produced all target words. In the multiple-speaker condition, children were exposed to ten different speakers. A different novel speaker produced novel words at testing.

Growth curve analysis was used to analyze the target gaze data. Overall, children learned object-referent pairings above chance in the single speaker ( $M_{\text{proportion correct}} = .61$ ,  $SD = .15$ ), and multiple speaker ( $M_{\text{proportion correct}} = .63$ ,  $SD = .14$ ) conditions. Bilingual children were less accurate and slower to recognize object-referent pairings at test than monolingual children.

The results suggest that children can learn words from multiple speakers in a cross-situational word-learning paradigm. However, bilingualism did not influence children's ability to accommodate to multiple speakers; instead, bilingual children were less efficient at learning novel words in general, across both conditions. This may be due to the English-like nature of the novel words, and bilinguals' relatively weaker English language skills.

Future analyses will examine individual differences in relation to children's language ability, working memory, and attention. Future studies will manipulate novel words (e.g., Spanish-like vs. English-like) and speaker background (e.g., native vs. non-native speakers).

Keywords: speaker variability; word learning; school-aged children

### Theme Session Talk

## The Next Frontier: Combining physiology and self-reports in studying intergroup identity and L2 anxiety

*Odilia Yim, Peter MacIntyre & Richard Clément*

*Location: CCIS L1 140*

Second language (L2) communication is affected by motivational and contextual variables such as emotions and intergroup relations (MacIntyre, Clément, Dörnyei, & Noels, 1998). A key component of the motivational process, L2 confidence, has been shown to directly affect L2 communicative behaviour on a moment-by-moment basis, as evidenced by studies using an idiodynamic approach (MacIntyre, 2012). It is unclear, however, how intergroup variables such as the salience of the group

membership of the speaker (e.g., intragroup versus intergroup) can impact this relationship. The present study investigated how individuals' subjective emotions, specifically anxiety, fluctuate when they use their L2 in comparison to physiological measures (such as heart rate variability and skin conductance) as a function of L2 confidence. A second research question examined intergroup effects, specifically how minimizing or enhancing the group membership distance between the speaker and interlocutor can influence the existing relationship between L2 speakers' emotions and L2 confidence.

Participants were English-dominant individuals who learned French as a L2 and who demonstrated a high or low French L2 confidence. They were assigned to one of two conditions in which they reflected on their ingroup identity (Canadian or Ethnic) and were told that they will be presenting to a group of Canadian French teachers-in-training, creating low and high group distance, respectively. Preliminary results showed that there were group differences in anxiety ratings across L2 confidence and ingroup identity conditions, in conjunction with comparable physiological measures. Subjective perceptions of L2 anxiety were further influenced by group membership effects as a function of L2 confidence, suggesting moment-to-moment L2 anxiety was affected by social factors, namely identification. Pedagogical implications for L2 learning and communication are discussed.

## **Educators' language ideologies and target language varieties for the next generation**

*Noel Ó Murchada & Colin Flynn*

*Location: CCIS L1 160*

Teachers are rightly recognised as influential sociolinguistic agents who evaluate linguistic variation as a matter of course throughout their professional lives. Their work in the classroom can shape the linguistic practices and ideologies of students they teach. Teachers are in a position of authority where they can perpetuate or challenge established hierarchies of language variation. It is thus appropriate to investigate how educators regard different ways of using language and to establish the target language varieties that they might promote for the next generation. This is particularly appropriate in the case of minority languages, like Irish, where education may be the primary source of contact with the minority language and its associated ideologies.

This paper reports findings from a quantitative study of teacher perceptions of variation in Irish. Like many other minority languages, new forms of variation are developing in the spoken Irish of younger people in the traditional Irish-speaking communities and among new speakers outside the traditional communities who often develop proficiency through schooling. This study used an experimental design to investigate how traditional and new speaker varieties of Irish are regarded by teachers. Participants completed an online speaker evaluation experiment in which they listened to speech samples representing the three main traditional varieties of Irish as well as a sample representing the post-traditional variety of Irish common among many new speakers. The experiment included a 'covert' phase, where participants had not been told that the experiment was about perceptions of language variation and in which they were asked to evaluate the various speakers. It also featured an 'overt' phase, completed after participants were told that the study was about linguistic variation and where they were asked to evaluate the different language varieties. The results reveal the complex nature of teachers' engagement with linguistic variation in modern spoken Irish.

Keywords: Language ideologies, teachers, minority languages

## **Theme Session Talk**

**Répétition de non-mots: identification des enfants qui ont un trouble du**

## développement du langage en contexte linguistique minoritaire

*Sara Dubreuil-Piché & Chantal Mayer-Crittenden*

*Location: Campus St. Jean*

Les études montrent que la répétition de non-mots (RNM) est un outil utile lors de l'évaluation des enfants bilingues, car elle est moins influencée par l'expérience et les connaissances linguistiques. Le but de cette étude était de déterminer si le test britannique de RNM créé par Chiat (2015), intégrant deux tests quasi universels et un test spécifique au langage, pourrait être adapté pour repérer les troubles du développement du langage (TDL) auprès des enfants qui apprennent le français comme langue seconde. Cette étude a également examiné les différences entre les deux groupes au cours des trois tâches afin de déterminer les effets de niveaux de syllabes et de bilinguisme variables. L'étude a été effectuée auprès de 91 enfants de 5 à 6 ans apprenant le français en contexte minoritaire et résidant dans le Nord de l'Ontario. Des enfants bilingues à développement typique (DT) ( $n = 74$ ) ainsi que des enfants bilingues qui avaient un TLD ( $n = 17$ ) ont participé. Les participants ont complété la tâche de RNM franco-canadienne adaptée. Les non-mots ont été présentés sur une tablette électronique à l'aide d'une présentation créée par Polišenská & Kapalkova (2014). Les enfants bilingues à DT étaient généralement plus performants que les enfants bilingues qui avaient un TLD dans les trois versions de la RNM. Les effets négatifs du bilinguisme pour le groupe à DT ne se sont produits que sur la tâche quasi universelle à prosodie spécifique à la langue lorsque le pourcentage d'éléments entiers a été employé pour la correction. Cette étude montre que la tâche de RNM est un outil prometteur pour l'identification des TDL chez les enfants bilingues franco-dominants et anglo-dominants. En outre, les enfants bilingues à DT obtiennent généralement des scores élevés de RNM malgré des niveaux d'exposition au langage variables.

## Translanguaging as a Reflection of Translocality in a Transformative Society: A Case Study from a Latvian-Estonian Twin-Town

*Sanita Lazdiņa & Heiko Marten*

*Location: BS M 141*

This paper discusses language use in Valka-Valga, a twin-town on the border of Latvia and Estonia which throughout most of its history was united under its German name Walk. Today, the towns are separated by the border, but have recently initiated cooperation under the heading One city, two states.

The following are the core questions of our study:

- How are political and societal transformations reflected in contemporary language practices and to which degree do different eras shape the linguistic environment?
- How do locals apply translanguaging – i.e. the transition between languages in a speech situation to create meaning in ways that do not recognize language boundaries (Blackledge & Creese 2010)?
- How do narratives by locals represent translocality – i.e. how do they reflect life spaces and social interaction across political and linguistic borders?

Our paper consists of two parts: First, we discuss Linguistic Landscape research which identified a palimpsest structure in which different political periods are indexed by the presence of Estonian, Latvian, Russian, German and English.

Second, ethnographic fieldwork has added perspectives on the interaction between language use and social life. We analyze translanguaging processes which involve elements of Latvian, Russian, English and Estonian. These observations were supplemented by interviews which occasionally transformed into narratives (cf. Gimenez 2010). Two critical events within these narratives were identified – incidents that reveal a change of world-view by the story teller (Webster & Mertova 2007): the 1991 re-establishment of Latvian and Estonian independence and the 2007 removal of border control after joining the Schengen zone.

In sum, Valga-Valka-Walk is an example of a translocal post-Soviet environment in which a new generation of language users creates a polyphony of multilingual and translanguaging practices. These practices reflect previous layers of power and are shaped by critical incidents revealed through locals' narratives.

Keywords: translanguaging; translocality; Baltic states

## Gender assignment in Spanish L3: how do language acquisition and use shape the multilingual lexicon?

*Hugues Lacroix*

*Location: BS M 145*

Unlike Basque, Romance languages like French and Spanish display noun gender agreement (i.e. are gendered languages). This study focused on gender agreement accuracy within the determiner phrase (e.g. una nariz roja 'a-FEM nose-FEM red-FEM') at the initial stages of Spanish acquisition as a

third language (L3) in bilingual French/Basque children. Our goals were (1) to investigate the effect of variables usually related to gender agreement accuracy in L2/L3 research, including morphophonology, default gender and the analogical criterion (i.e. the extent to which the gender of a noun in L1 influences that of its L2/L3 equivalent) and (2) to explore cross-linguistic influence through factors known to impact L3 acquisition (e.g. language proficiency/use, typology/proximity and order/context of acquisition).

We tested 53 French/Basque bilingual children (age: 10-11) who had received less than 30 hours of Spanish training. Subjects took part in a written picture description task that included 24 images depicting inanimate nouns. Although all subjects already mastered French and Basque before the study, the order, age and context of acquisition of those languages varied. These variables were therefore accounted for in the analyses, along with other variables related to language use.

Consistent with previous research, subjects' higher error rates with the feminine suggest that masculine is used as the default gender. Results also show that the effect of morphophonology was stronger in subjects who acquired French in a formal context but who do not use it at home. Conversely, the analogical criterion seems to have a stronger effect in subjects who acquired French in a natural context and use it on a daily basis. These results indicate that multiple factors interact in shaping the way cross-linguistic influence occurs at the various levels of representation in the multilingual lexicon.

Keywords: grammatical gender; L3 Spanish

## **Exploring the lexical abilities and language exposure patterns of Arabic-Swedish TD & LI bilingual children (4-7) in Sweden**

*Linnéa Öberg, Rima Haddad & Ute Bohnacker*

*Location: BS M 149*

Non-word repetition tasks as a screening tool for Language Impairment in Arabic–Swedish speaking bilinguals (4–7)

Bilingualism is steadily increasing in Sweden, and Arabic is one of the most widely spoken languages. Despite this, the language characteristics of bilingual children are still largely unknown. At the same time, there is great confusion about what should be considered 'typical' bilingual language development relative to Language Impairment (LI).

Non-Word Repetition (NWR) requires the child to repeat a series of phonological nonsense forms. NWR is a potentially reliable method of screening for LI in bilinguals with limited exposure to one language, since performance on NWR tasks is less dependent on language proficiency than other language tasks such as sentence repetition and vocabulary. At the same time, some evidence suggests that children are better at repeating non-words that share the phonological rules of real words in their language. Therefore, comparisons between languages regarding which types of non-word test items do best identify LI is needed.

We will present some work in progress regarding different sets of NWR tasks in Arabic–Swedish speaking bilinguals age 4–7 years ( $n \approx 100$ ) with typical language development as well as a smaller group of children with LI ( $n \approx 10$ ). Four different sets of non-words are being used, varying in item length, segmental complexity, and word stress patterns. The tasks include a language specific Swedish task,

as well as Swedish and Arabic versions of the quasi-universal NWR tasks developed within COST Action 0408.

Preliminary results from 67 children with typical language development shows that there is an effect of age for all tasks. Furthermore, preliminary analyses suggest that there is no effect of age of onset or daily language exposure on the children's performance on the Swedish language specific task. Further analyses aim to investigate if the different tasks can reliably differentiate children with LI from those with typical language development.

## **Learning words in two languages: cross-language transfer of abstract mental verbs and easily imaginable verbs**

*Karolina Mieszkowska, Joanna Kolak, Ewa Haman, Agnieszka Otwinowska-Kasztelanic & Marta Bialecka-Pikul*

*Location: CCIS 1 140*

Children growing up bilingually are exposed to two languages; hence, the amount of exposure to each language is generally smaller than the amount of language exposure that a monolingual child receives. This may lead to a smaller lexicon in one or both of a bilingual child's languages (Bialystok et al., 2010). Language exposure patterns affected by certain environmental factors, socio-economic status and age effects, further impact the development of a bilingual child's lexical ability. Not taking these factors into consideration might lead to falsely diagnosing the child with Language Impairment (LI). Children who do have LI, however, have often shown a slower rate of vocabulary growth and an overall delay in their language development. Moreover, the LI children's lexicon is believed to be less diverse than that of same-age peers (Leonard & Deevy, 2004).

Since the language characteristics of bilingual children in Sweden have not been fully explored, our aim is to analyse data from a large group of Arabic-Swedish bilingual children in order to identify what typical language development looks like and tease apart the lexical characteristics of bilingualism from language impairment.

We will present first results from our joint PhD research on the lexical knowledge of TD and LI Arabic-Swedish speaking children (4-7) in Sweden ( $n \approx 100$ ,  $n \approx 10$  respectively). The LITMUS Cross-linguistic Lexical Tasks (CLT) (Haman et al., 2015) is used to measure lexical ability. CLT is a picture-based vocabulary task that assesses the bilingual child's comprehension and production of nouns and verbs, allowing a comparison between lexical abilities in both of their languages. Furthermore, we investigate language exposure patterns and age effects in children's lexical performance using background information from parental questionnaires. Preliminary results show that speaking Arabic at home will significantly boost the TD children's lexical knowledge in Arabic while not decreasing their lexical knowledge in Swedish.

Keywords: Lexical knowledge; exposure patterns; Cross-linguistic Lexical Tasks.

## **Speech Assessment in Bilingual Children: Relationship between Perceptual Judgments of Accent/Comprehensibility and Formal Test Measures**

*Stephanie Limacher & Karen Pollack*

*Location: CCIS 1 430*

There is a paucity of research examining how the presence of an accent may affect speech-language

pathologists' (SLP) assessments of bilingual children. This present study used the following questions as the framework for our research: 1) how do bilingual and monolingual children's scores compare on standardized tests of articulation (GFTA-3) and nonword repetition (NWR), and SLP's perceptual ratings of accentedness and comprehensibility? 2) do perceptual ratings of accentedness and comprehensibility correlate with scores from the NWR and GFTA-3?

The present study assessed 34 children, 17 bilingual and 17 monolingual, using parent report, the GFTA-3, the NWR subtest from the CTOPP-2, and a sentence imitation task. Ten SLPs were presented with audio recordings of sentences produced by the children and asked to rate them for accentedness and comprehensibility. The bilingual group's GFTA-3 scores were lower than the monolingual group's scores but there was no significant difference between the groups on NWR scores. The SLPs' perceptual ratings of accentedness were higher for the bilingual group than for the monolingual group, but there were no significant group differences for the comprehensibility ratings. The comprehensibility ratings were positively correlated with the accentedness ratings, indicating that speech with more of an accent was perceived as harder to understand. The comprehensibility ratings were also negatively correlated with the NWR subtest, indicating that the harder the children were to understand overall, the more likely they were to score lower on the NWR task. There was no correlation between GFTA-3 scores and SLP perceptual ratings. Though the accentedness ratings were indeed higher for the bilingual group as one would expect, the presence of accent ratings in the monolingual group and the overall correlation between accentedness and comprehensibility ratings suggests that accent may be playing a role in the SLPs' perception of how easy the child is to understand.

Keywords: Assessment; Accent; Children

## **Young learners' paths to biliteracy and their teachers' feedback**

*Jutta Rymarczyk*

*Location: CCIS 1 440*

German primary school teachers are usually not trained to support primary school students' simultaneous literacy acquisition in German and English, neither in the EFL classroom nor in bilingual modules with English as the language of instruction. Their diagnosis of L2-spelling competences is often reduced to feedback which does not distinguish between errors of arbitrary origin and transfer from the children's L1. Thus, transfer which provides proof of the learners' phonemic awareness and their general knowledge of phoneme-grapheme-correspondences cannot be used to assess their developmental level.

Our study investigates teacher feedback on third graders' L2-spelling skills in their first foreign language (English) to prevent misjudgements about the stages children are at in their literacy acquisition process.

By analysing the corrections and evaluations of written learner texts, we assess whether teachers base their evaluations only on what does not correspond to the orthographic norm of English (= deficit perspective), or whether they also take into account what learners transfer from their L1-literacy acquisition process (= achievement perspective). Furthermore, we use questionnaires to explore what teachers know about the English literacy acquisition process and their attitudes towards spelling as the content of their lessons.

Initial results show that only few teachers identify instances of transfer such as phonographic

interferences explicitly and, consequently, are not able to differentiate between children who might have writing difficulties and those whose spelling relies on insights into the features of an alphabetic system.

Should these results persist, one implication for practice is the designing of modules for teacher training imparting knowledge about how languages with a rather shallow orthography (German) and a deep orthography (English) interact in the development of biliteracy. A further implication would be to educate teacher trainees about how learners' phonographic interferences can be used as stepping stones in the students' individual learning processes.

Keywords: biliteracy; spelling competence; teacher feedback

## Theme Session Talk

### Language and identity variations across situations: implications for acculturation

*Kimberly Noels, Marina Doucerain, Kate Dawson & Clarisse Sheane*

*Location: CCIS L1 140*

Identity negotiation takes place across normatively defined social situations that vary in the extent to which they afford opportunities intercultural contact: public situations, such as being at school or the local community, are likely to involve members of other ethnolinguistic groups compared to private situations, such as being with friends or family. Accordingly, acculturative pressures on language and identity should be less evident in private than in public domains. To examine this claim, 243 young adults from immigrant families completed assessments Canadian and heritage ethnic identity across four situational domains, including family friends, school/work and community domains, as well as measures of English and heritage language use across the same situations. In a second testing session, these same participants completed a diary detailing up to ten episodes from their daily lives over five days during the previous week, including their language use and their feelings of Canadian and heritage ethnic identity. We used multi-level modeling to predict situated (questionnaire data) or momentary (diary data) cultural affiliation while taking into account the hierarchical nature of the data (situational domains or momentary episodes nested within person). The results showed that, across both assessment techniques, participants identified more strongly with members of their heritage ethnic group than the Canadian group in the family domain, but the converse was true in the school/work and community domains. Consistent with expectation, language use showed a similar pattern as identity across the situational domains, such that heritage language norms were strongest in the family domain while English language norms were stronger in the relatively public domains. These results underscore the importance of a situated perspective on language and identity, as global measures of identity and language use would fail to capture the clear situational differences in patterns of identity and language norms and use.

### Les crèches immersives en breton : une influence sur le choix de scolarisation des familles?

*Stephanie Le Pelleter*

*Location: CCIS L1 160*

Depuis 1998 et la première expérience d'introduction du breton dans une crèche de Landerneau (Finistère), la langue a pris petit à petit une place grandissante dans le paysage de la petite enfance en Bretagne historique. D'un souhait de promotion d'une filière bilingue locale, elle est devenue une compétence professionnelle à part entière.

Si le breton, comme les autres langues régionales de France, souffre d'un contexte législatif peu favorable au niveau national, des initiatives politiques et privées à l'échelle de la Bretagne ont permis depuis 20 ans, de développer un nouveau terrain d'actions. De quatre crèches utilisant le breton à différents degrés en 2007, nous sommes passés, en 2017, à 57.

A cela s'ajoute, en parallèle, la création d'une première crèche immersive en 2011 à Vannes (Morbihan), puis à d'autres lieux en Bretagne historique (Saint-Herblain près de Nantes en 2017, d'autres projets en cours à Rennes et Brest...). Depuis 2012 et les premiers départs des enfants vers l'école, on peut commencer à observer un effet relatif des deux premiers exemples de crèches immersives sur le choix de scolarisation des enfants par leurs familles.

Face à un terrain d'étude très récent, il n'est pas simple d'avoir un recul suffisant pour donner une vision précise de l'influence des crèches immersives sur les choix de scolarisation des parents, mais nous pouvons cependant y porter un premier regard.

Il s'agira tout d'abord d'étudier les possibilités de scolarisation en langue bretonne des communes environnantes la crèche, mais également d'étudier des témoignages de parents et de professionnels des crèches concernées afin de comprendre si l'inscription en crèche bretonnante peut avoir un impact sur les choix de scolarisation des familles.

Keywords: petite enfance; langue bretonne; scolarisation

## Theme Session Talk

### **Test de la répétition de phrases : Marqueur de trouble du développement du langage en contexte linguistique minoritaire**

*Jenna Lachance & Chantal Mayer-Crittenden*

*Location: Campus St. Jean*

L'évaluation du langage chez les enfants bilingues est une tâche exigeante pour les orthophonistes puisque les enfants en apprentissage d'une langue seconde présentent souvent des traits semblables à ceux qui ont un trouble du développement du langage (TDL). Les études montrent que la répétition de phrases est un outil orthophonique efficace lors de l'évaluation d'enfants bilingues. Les enfants bilingues ayant un TDL, soit 7 % de la population ou 2 élèves par salle de classe, performant typiquement moins bien sur les tâches de répétition de phrases que leurs contreparties à développement typique (DT).

L'objectif de cette étude était d'examiner l'influence de l'exposition aux langues des enfants sur les tâches de répétition de phrases (français et anglais) et de voir l'efficacité de ces tâches dans l'identification d'un TDL chez les enfants bilingues d'âge scolaire en contexte linguistique minoritaire apprenant une langue minoritaire comme langue première ou seconde.

Des tâches de répétition de phrases en anglais et en français ont été utilisées lors de cette étude. Les participants bilingues, soit franco-dominants (n = 32), soit anglo-dominants (n = 42), ont été soumis à la tâche de répétition de phrases en français et en anglais.

Les résultats montrent que les participants ayant un TDL ont moins bien performé sur les tâches de répétition de phrases dans les deux langues comparativement à leurs contreparties à DT. De plus, les

participants franco-dominants performaient mieux sur la tâche en français et les participants anglo-dominants performaient mieux sur la tâche en anglais. Cela confirme que l'exposition à la langue a un impact sur la performance à cette tâche et que cet outil s'avère une mesure importante pour le repérage des enfants bilingues qui ont un TDL afin de leur fournir les services dont ils ont de besoin.

## Thursday Poster Abstracts

### **(Th-1) Referent re-introduction in bilingual narratives: Is it more vulnerable to cross-linguistic influence?**

*Satomi Mishina-Mori, Yuki Nakano & Yuri Jody Yujobo*

Having features of both referent introduction and maintenance, selecting appropriate forms for re-introduction in narratives involves varying levels of factors such as the distance from the prior mention, the ambiguity of the referent as well as the pragmatic predictability of the referent; exhibiting slower development compared with referent maintenance among children. Studies on bilingual language development show that cross-linguistic influence (CLI) is more likely to occur when pragmatics are involved in the use of syntactic structures. If referent re-introduction requires integration of more non-linguistic information than maintenance, we may expect more interaction between the two languages. We test this hypothesis using Japanese-English simultaneous bilinguals' Japanese narratives, as Japanese referential form is considered to be vulnerable to influence from English, and further conduct qualitative analysis of the referential choice in question.

Twelve 10-year-old simultaneous bilinguals as well as eight monolingual peers told narratives using the wordless picture book *Frog, Where are you?* (Mayer 1969) in Japanese. Linguistic devices children used to re-introduce and maintain the topic are compared with those of their monolingual peers to detect any cross-language effects.

Analyses reveal that bilinguals used significantly more noun phrases than monolingual peers for referent re-introduction, but not for maintenance. Further analysis of the re-introduction context shows that both bilinguals and monolinguals are sensitive to the distance from the prior mention, but bilinguals used far more noun phrases than monolingual children even after one to two intervening clauses, and that they tend to disambiguate characters whereas monolinguals leave it to the listener to infer. The results indicate that CLI occurs only in the re-introduction context, suggesting that contexts in which the selection of form requires processing of varying levels of information is more vulnerable to influence.

Keywords: simultaneous bilinguals; narratives, cross-linguistic influence

### **(Th-2) Informal Translation and Decision Making Strategies: Examining Effects of Variability in Language Brokering Experience on the Iowa Gambling Task**

*Belem López, Mayra Chantal Ramirez & Salvatore Callesano*

Language brokering is a language contact phenomenon whereby bilingual children must translate and interpret for their parents between their heritage language and the local majority language. Research on the long-term cognitive effects of brokering suggests that the experience may impact conceptual representation and semantic access across language boundaries (López & Vaid, 2018a; 2018b; López, Vaid, Tosun, & Rao, 2017). Research also shows sociolinguistic effects, namely that prior brokering experience promotes heritage language maintenance in the Mexican-American community (McQuillan & Tse, 1995). However, this field of research has yet to explore how brokering may affect specific cognitive domains. Decision making as a cognitive domain is defined as the ability to select

an option over various alternatives, while considering the respective risks and benefits (Buelow & Suhr, 2009). During informal translation experiences, language brokers are tasked with engaging in specific decision making strategies involving cost/benefit considerations. Furthermore, language brokers may translate in a variety of contexts including medical, legal and financial situations wherein they must make careful decisions about their interpretations and translations for such sensitive content (Shannon, 1990). The current study examined decision making abilities in Spanish-English bilinguals with varying histories of brokering experience using the Iowa Gambling Task (Toplak, Sorge, Benoit, West, & Stanovich, 2010), which simulates real life decision making and risk assessment. Participants were presented with advantageous and disadvantageous decks of cards on a computer screen using E-prime software and were instructed to choose one of the decks, resulting in either a gain or loss of money. Deck choice, monetary difference, and reaction time were measured as indicators of risk-taking. Mixed-effects linear regressions were conducted to analyze the effects of participants' brokering experiences on their level of risk taking in the experimental task. Findings are discussed in how variability in language brokering experience may affect decision making strategies.

Keywords: language brokering; bilingualism; decision making

### **(Th-3) Quality of Engagement in Spanish-Speaking Parent-Child Dyads During Free Play**

*Anele Villanueva, Allyson Masters, Diane Poulin-Dubois, Pascal Zesiger & Margaret Friend*

The quantity and quality of parent language input, which varies across cultures, predicts child vocabulary acquisition (Hirsh-Pasek et al., 2015; Tamis-LeMonda et al., 2014; Weisleder & Fernald, 2013). Children who hear Spanish in the home in the US are also exposed to English through the majority language culture. Based on an analysis of language transcripts, Masters, et al., 2018 found that Spanish-speaking parent-child dyads used less rich communicative engagement than English-speaking dyads and level of engagement predicted child vocabulary. Of interest are the demographic influences on parent-child engagement. In particular, the role of the amount of parent-reported input in Spanish and children's exposure to Spanish relative to English. Further, analyzing speech alone may attenuate estimates of parent-child engagement in Spanish relative to English, particularly if Spanish speakers use gesture to augment speech to their young children.

In a sample of 49 Spanish-dominant parent-child dyads there was no significant effect of parent-reported input, children's relative exposure to Spanish and English, nor any other demographic predictor of parent-child engagement. However, two engagement styles, Symbol Infused (joint engagement using symbols that describe an object, process, or function) and Fluent and Connected (smooth turn-taking meaningfully connected within and across speakers), was associated with vocabulary size ( $r(46) = .552, p < .001$   $p(46) = .502, p < .001$ , respectively). In a subset of children ( $n = 11$ ) we tested whether parent-child engagement in Spanish may be attenuated by failing to take into account communicative gesture. These preliminary data suggest this may be the case. Indeed studies suggest that early use of gestures supports parent-child engagement in younger children (Rowe & Goldin-Meadow, 2009). Of interest then is whether it has a similar function in older dual language learners. In preparation for ISB, we will complete gesture coding for the full Spanish-dominant sample to clarify the role of gesture in supporting parent-child engagement.

Keywords: dual-language; parent-child; vocabulary

## **(Th-4) The influence of bilingualism on the development of pronoun comprehension**

*Kurt Hablado, Derek Phung, Cass Foursha-Stevenson, Elena Nicoladis & Kaley Dallaire*

Although pronouns are common in everyday speech, children have a notoriously difficult time acquiring pronouns (e.g. her likes that). Parental report indicates that third person pronouns are not consistently produced until about 30-months-of-age. There is little research on pronoun comprehension and bilingual children's acquisition of pronouns, although pronouns are known to be challenging for adult L2 learners. Children who are learning a language with grammatical gender have been shown to associate grammatical gender with natural gender. This may have an impact on the comprehension of pronouns as grammatical gender may highlight pronominal distinctions.

In the current study, monolingual English-speaking children (1-5 years) and bilingual children learning English and another language (3-5 years) were tested on their comprehension of pronouns. Some of the bilingual children were learning a language with grammatical gender (e.g. French, Spanish), while others were not (e.g. Chinese, Tagalog).

The children were asked to select one of two objects (e.g., a ball, a female doll, a male doll) in reference to a pronoun ("Which one is it/he/she?"). All children performed well on the comprehension of 'it'. However, children did not demonstrate consistent comprehension of 'he' and 'she' until three years of age ( $F(5,197) = 5.42, p < .001$ ). This differed across language groups ( $F(2,197) = 4.70, p = .010$ ). In particular, bilingual children who are learning a language with grammatical gender, performed better than monolingual children ( $t(150) = -2.75, p = .057$ ) and bilingual children who are learning a language without grammatical gender ( $t(99) = -3.22, p = .003$ ).

These findings indicate that grammatical associations made in one language can impact pronominal comprehension in another non-gendered language. Pronouns are difficult for children to acquire and comprehension takes longer than expected based on input frequency. Nevertheless, exposure to another language with grammatical gender can enhance this acquisition.

Keywords: comprehension; pronouns; grammatical gender

## **(Th-5) Production of speech disfluencies in English-French bilingual adults**

*Elizabeth Morin-Lessard, Annie Gilbert, Irina Pivneva, Debra Titone & Krista Byers-Heinlein*

Background. Speakers unintentionally produce various speech disfluencies as they talk, including filled pauses ("uhs"), word repetitions ("the the..."), and silent pauses (Corley & Stuart, 2008). Research with monolingual adults suggests that disfluencies can vary in type and frequency based on a speaker's age or the difficulty of a topic (Bortfeld et al., 2001), and that they reflect a difficulty in language planning or production (Fox Tree & Clark, 1997).

How does bilingualism affect disfluency production? Bilinguals often switch back-and-forth between their languages (Poplack, 1979), which is thought to be cognitively demanding, and could result in greater production difficulties than speaking in only one language. Moreover, the frequent switching between languages could result in bilinguals not only producing disfluencies in English ("uh") and French ("euh"), but also disfluencies for which the language is inconsistent with the language of the sentence (e.g. "The euh... dog!").

**Dataset & Procedure.** This research leverages the natural productions in English and French of bilingual English-French adults from an existing dataset of 2592 speech samples recorded during a naming task involving code-switching (unrelated to the present report). Transcription of speech data was done in the Praat software (Boersma & Weenink, 2005), and disfluencies were coded according to their type (e.g. filled pause, repetition) and language (English or French). A script yielded data on the distribution and acoustic properties of disfluencies (e.g. length, intensity).

**Results & Discussion.** Bilinguals produced several disfluencies in both English and French. Some participants also produced disfluencies inconsistent with the language of the sentence (42% of all disfluencies in English or French), particularly when English-dominant bilinguals produced sentences in French. Language-inconsistent disfluencies were particularly likely immediately prior to a code-switched word, revealing the timecourse of language activation. These results are important in informing us of the role of bilingualism in natural, disfluent speech.

**Keywords:** Bilingual adults, speech disfluencies, production

## **(Th-6) Language switching using picture symbols: An investigation of Spanish-English bilingual children with and without language impairments**

*Marika King, MaryAnn Romski & Rose Sevcik*

**Introduction:** Children with severe speech and language impairments are unable to use their natural speech to communicate and may rely on Augmentative and Alternative Communication (AAC) to convey messages. Despite the availability of bilingual AAC devices that allow the user to communicate in more than one language and alternate between languages, little research has addressed assessment and intervention concerns for bilingual children who use AAC. This study investigated the ability of bilingual (Spanish-English) 4 to 6-year-old children with and without language impairments to discriminate between languages using a bilingual AAC app during a cued language switching task. We asked: 1) which predictors including cognitive skills, language skills, and language dominance predicted bilingual children's performance on a cued language switching task using Spanish-English AAC device? and 2) What group differences are there across bilingual children with and without disabilities on the cued language switching task?

**Method:** Data were collected for 45 bilingual children aged 4;0 – 6;11. Participants completed standardized assessments to evaluate cognitive skills and language skills and completed an experimental cued language switching task using an AAC iPad app.

**Results:** Preliminary data analysis indicated that language ability significantly predicted performance on the language switching task and children with language impairments demonstrated significantly lower performance on the experimental language switching task compared to their peers without language impairment. Further analysis indicated no significant differences between groups on additional measures including nonverbal IQ, language dominance, and frequency of parent code-switching.

**Discussion:** Results from this study suggest that language ability may be an important factor in predicting children's ability to discriminate between languages using a bilingual AAC device. This study paves the way for further assessment and intervention studies to investigate how best to support bilingual children with language impairments and developmental disabilities who may benefit from AAC.

Keywords: Bilingual Language Development, Language Switching, Language Impairment

## **(Th-7) Shifting accents: The effect of experimenter race and accent on bilinguals' speech production**

*Emily Shiu & Katherine White*

The degree to which a bilingual's two languages are activated changes across contexts, but the cues that trigger these changes are not well understood. In addition to bottom-up information (i.e., language of the discourse), other sources of information may increase the activation of a particular language, such as knowledge about the language previously used by an individual or the race of an unfamiliar interlocutor (Woumans et al., 2015; Molnar et al., 2015; Zhang et al., 2013). For example, Chinese-English bilinguals experienced slower speech rates in English when talking to a simulated Chinese-race (vs. Caucasian) interlocutor, suggesting interference from Chinese language activation (Zhang et al., 2013).

We ask whether activation of a non-target language increases as a result of more subtle cues, such as the race and accent of a live experimenter, and whether this activation can be observed at the level of an individual's accent. Late and early Chinese (L1)-English (L2) bilinguals completed an English picture-naming task in front of a live experimenter. The experimenter's race (Caucasian, Chinese) and accent (Native English, early-ESL, late-ESL) were manipulated. VOT measurements of word-initial stops were analyzed as a measure of accent. Half of the critical stimuli had labels beginning with stops in both English and Chinese; the other half began with stops in English only. Preliminary results (n=33) suggest no effect of experimenter race/accent for early bilinguals. However, late bilinguals produce voiceless-initial words with longer VOTs (consistent with the VOT profile of Chinese) with a Chinese-race/accent experimenter. This holds for words whose Chinese equivalents are not stop-initial, suggesting that the effect is due to a general increase in Chinese activation (and not to activation of specific words with shared onsets). This study will have both theoretical implications for our understanding of bilingual language activation and practical implications for the use of live experimenters.

Keywords: language activation; accent; contextual cues

## **(Th-8) Canadian Picture Books only for English Learning?**

*Yina Liu*

The purpose of this qualitative case study was to theoretically conceptualize the ways that a set of contemporary Canadian picture books might assist young immigrants who are learning Canadian culture as well as language. Previous research has conceived picture books as important tools for immigrants, who are English learners, to acquire English proficiency. Other roles of picture books are highlighted and examined, indirectly supporting globalization through recommended resources that might serve other children in this paper.

The case study research, grounded in social constructivism, incorporates insights from a theoretical framework that involves critical literacy, reader response, and notions of

Radical Change, as well as a conceptual framework that connects globalization and picture book resources. To better grasp the ways that picture books can assist young immigrants to integrate into Canadian society socially and culturally, I first investigated patterns and themes in the recollections of challenges that adult participants discussed from their earlier transition time. Utilizing Berg's practice for content analysis, with some of the categories for exploration emerging from the interview data, I examined whether or not these patterns and themes as well as other pre-determined themes relating to Canadian images and content appear in a set of picture books. This closed set was derived from the Summer 2016 reading list recommended by the Society of Children's Book Writers and Illustrators. In this way I am offering a model of how particular books might assist young immigrants during a transition to Canada. This research aimed to offer implications that will support picture books utilizers, including children, educators, researchers, and writers, regarding a wide and practical use of picture books for young newcomers to Canada.

Keywords: Immigrant Children, Canadian Picture Books, Culture learning

### **(Th-9) Assessment and leveling of communicative competence in ESOL**

*Luz Mary Mora D*

The ministry of education of Colombia has implemented national standardized test, which must be carried out during the primary, secondary and undergraduate education. Some of these tests are a requirement to get the high school and the undergraduate diplomas. The main purpose of the testing is to measure what learners have learned during the schooling years. Indeed, in order to be accepted in public universities the students should achieve excellent grades in general subjects such as mathematics, reading comprehension and production in Spanish, and English as the foreign language of the general curricula. The SABER 11, a test equivalent to the ACT Plus Writing of the American College board, is the official test for students who aimed to enroll in any program in any public or private university. At Fundación Universitaria Unipanamericana, following our mission of providing inclusive education (socioeconomic strata 1, 2, and 3), the general curricula offers the students with low scores in the test SABER 11 the opportunity to attend free courses to help them to develop the skills reported low in the test.

At the time the study was conducted, the courses were given on campus and online by qualified teachers in both Spanish and English. The intervention involved the transversal key competences such as Mathematics, reading and writing in Spanish and English EGP. The methodology focused on implementing innovative teaching practices for making the students familiar with structures of the English language taught at school levels as a part of general micro curricula. (Hutchinson & Waters, 1987). It also covered topics such as parts of the speech, grammar and sentence structures, tenses and conjugation, vocabulary and word formation, essentials of punctuation and phonetics. The ELT teachers adopted an informal style of instruction allowing the students to use both Spanish and English during the sessions, following the flexibility in the classroom as suggested by Jordan, 1997. In addition, the material included workshops and online work to encourage

the student's participation for the attainment of the learning/teaching objectives, according to the four skills of the competence: reading, writing, listening and speaking. After implementing the courses on a prospective cohort of over a thousand students during two and a half years, the findings have proven the courses to be an effective and meaningful teaching practice for the EFL learner while assuring the access to education and official continuity of the studies in the University.

Key words: inclusive education, teaching practices, EFL, Assessment by competences, communicative competence framework.

## **(Th-10) Leisure Reading in two languages: Reading habits and reading preferences of bilingual children in Singapore**

*Baoqi Sun*

Do bilingual children who enjoy reading books in one of their languages also enjoy reading books in the another language? What are their reading habits and preferences in their two languages by age and by gender? Are there any cross-linguistic connections? Drawing on survey data from 1665 children (Grade 3 – 6) in two government primary schools in Singapore, this study focuses on reading habits and preferences of two groups of bilingual children - English-Chinese bilingual children and English-Malay bilingual children. Across grade levels, similar patterns were found for children's evolving reading habits and preferences in English as well as in Chinese/Malay, though more children reported they enjoyed reading English books more. Results also showed less than often portrayed gender differences in children's English reading habits and preferences. Interestingly, reading enjoyment in English was significantly correlated with children's reading duration/frequency in Chinese/Malay, but not with reading enjoyment in Chinese/Malay. Implications for classroom applications and the need to promote reading in two languages are discussed.

Keywords: Leisure reading, Singapore, Bilingual

## **(Th-11) The challenge of multilingualism on assessment: Development of assessment tools in different language versions**

*Lea Angela Pradilla*

The Philippines is a multilingual country that started implementing a nationwide mother tongue-based multilingual education (MTB-MLE) program starting in 2012 as part of its K to 12 curricular reform. The MTB-MLE program calls for the use of the child's mother tongue (MT) as the medium of instruction (MOI) in class and consequently, the language of assessment among kindergarten to grade 3 students. With 187 languages spoken in the entire Philippine archipelago, only 19 MTs were chosen to be used as official MOI in schools. This has posed as a challenge to the Philippines Department of Education in assessing students' learning outcomes. This paper discusses the language adaptation process of developing literacy and numeracy assessment tools in four language versions for kindergarten to grade 3 students in public elementary schools in the Philippines. In the process of test development, it is critical that the language versions of the tests take into account the regional language varieties and the appropriateness of the terms used without compromising the original intent of the assessment tool. The language adaptation process which involves translation, harmonization, contextualization, piloting and reviewing of test items ensures that the items continue to fulfill its purpose of measuring the intended construct or skill thus, decreasing the error that can be attributed to the language of the

test. Finding equivalence in the terms used in different MTs and contextualizing the test items are critical in assessing what students know and can do. The language adaptation process means going beyond translation – developmental, cultural and linguistic factors must be considered in developing an inclusive assessment tool.

Keywords: multilingual education; assessment; language adaptation

### **(Th-12) Do Cantonese-English bilinguals construe motion events differently from monolingual controls? Language production data from an eye-tracking study**

*Derek Chan, Kevin Tai & Adam Naroden*

This study examined motion events construal in Cantonese-English bilinguals relative to monolingual controls. Considering Cantonese as an equipollently-framed language and its rich aspectual contrast, it is predicted that a reduced usage or the absence of path verbs will be compensated for by an elevated use of imperfective and/or progressive markings, similar to another equipollently-framed language Tunisian Arabic in which directed motion in spatial terms is conveyed via temporal aspect of progression. The complex interaction between spatial and temporal terms is known as demetaphorization (von Stutterheim, Bouhaous, & Carroll, 2017).

In an elicited language production task, participants described “what is happening” during the viewing of 20 video clips (another 20 fillers) of motion events varying in short and long trajectories. The bilingual group participants (n=21) reported in English, whereas monolingual participants reported in Cantonese (n=21) or English (n=20). All utterances were recorded, transcribed, coded and analyzed. Tobii TX300 Eye Tracker collected eye gaze data from all participants.

Two interesting findings emerged. First, coding results showed that Cantonese-English bilinguals used fewer manner verbs but more deictic verbs (varied across short and long trajectory events), relative to monolinguals. Interestingly, the quantitative use of progressive markings for bilinguals fell between both monolingual control groups. Also, the average speech onset latencies (SOT) in the language production task fell between both monolingual control groups in which native Cantonese participants yielded the shortest SOT, whereas native English participants took the longest. Pending a full statistical analysis on eye movement data, the language production task provides novel psycholinguistic data to explore how bilinguals recruit grammaticalized temporal categories (i.e. progressive aspect) and spatial categories in profiling motion events, given the constraints of typological contrast and L1-bias. This study sheds light on questions related to bilingual’s conceptual differences in motion event encoding (Flecken et al., 2015) and L2 ultimate attainment.

Keywords: Motion event, bilingualism, L1 effect

### **(Th-13) The effects of age and bilingualism on aptitude and working memory**

*Vivienne Rogers, Tesni Galvin & Amelia Cobner*

Recent research claims that working memory (WM) and language learning aptitude may be interchangeable constructs (Wen & Skehan, 2011; Miyake and Friedman, 1998) as working memory plays a key role in the language learning process (Wen, 2015). However, several factors influence individual differences in WM such as age and bilingualism. Age-related declines in cognitive performance due to WM changes have been extensively researched. However, bilingualism may

enhance some WM functions (Bialystok et al, 2004) or even improve later life cognition (Bak et al, 2014). Yet very little research has explored the effect older age and bilingualism might have on language learning aptitude.

The present study investigates the effects of bilingualism and aging on WM and aptitude.

56 participants took part in a 2\*2 design based on age and bilingualism. The younger groups were aged 18-25 and the older groups were 50+. Bilinguals were self-reported with two languages prior to age 5. Participants completed Meara's (2005) LLAMA aptitude tests and three WM tests: Trail Making Tests parts A & B, an auditory digit-span backwards test and a visual spatial test.

Comparing both factors (age and bilinguals), the data was coded into 4 groups (n=14 per group). The older bilinguals significantly outperformed the older monolinguals in 3/4 aptitude tests whereas there were no differences between the younger groups. For working memory, the only significant differences were on the TMT part A measure of attention. Here, the older monolinguals performed significantly worse than the two younger groups but there was no difference between the older bilinguals and any other group.

The overall findings suggest three general conclusions. Firstly, that working memory is not interchangeable with aptitude. Secondly, and that bilingualism affects aptitude but regardless of age and thirdly, that bilingualism mitigates some of the effects of aging in some measures of attention.

Keywords: aptitude; working memory; age

## **(Th-14) L2 production of Spanish vowels by Shipibo-Spanish bilinguals**

*Paloma Pinillos Chavez*

In this study, I investigated the linguistic contact between Spanish and Shipibo in the bilingual community of Cantagallo (Peru). The main objective is to study the influence of vowel duration patterns of Shipibo on the vowel duration on the Cantagallo speakers' Spanish.

The study of vowel duration is of interest because Shipibo includes short vowels /i/, /i:/ /ʊ/ and /a/ and their respective long counterparts /i:/, /i:/ /ʊ:/ and /a:/ (Elías-Ulloa 2006), a phonological feature that is not present in the Spanish vowel inventory. Shipibo long vowels start from the notion of the minimum word constraint (Elías-Ulloa 2006). Thus, lexical words with minimal size result in a long vowel. In addition, the paradigms of the nominal monosyllabic roots will keep the long vowel in all their paradigms.

Based on this phonological constraint, I measured and compared the Spanish vowel duration of two groups: bilingual native speakers of Shipibo and Spanish speakers of Lima (control group). For the experiment, the participants produced Spanish monosyllables and their corresponding paradigms. The results indicate that there is a significant difference in vowel duration between bilingual speakers and the control group ( $p < .0001$ ). In addition, the results show that not all bilinguals have the same influence of Shipibo duration patterns in their Spanish and that this is related with their proficiency of Shipibo or Spanish.

Keywords: Key words: bilingualism, Shipibo, Spanish, phonology, vowel, duration

## **(Th-15) L2 immersion and L2 speaking enhance cognitive control among Chinese-English bilinguals**

*Zhilong Xie, Shuya Zhou & Xue Ruan*

The issue of bilingual advantage has been a controversy in recent literature. Some studies find positive evidence while others do not. We believe the inconsistency is a result of a combination of the complexities of bilingualism and the multiple dimensions of cognitive control. The current study intends to investigate whether L2 immersion and L2 speaking could have impact on cognitive control among unbalanced Chinese-English bilinguals, with relevant variables controlled, e.g., SES, L2 proficiency, IQ, age, AoA etc. Three groups of bilinguals were compared with the administration of a flanker task and a WCST, which were used to measure inhibition, conflict monitoring and mental set shifting. Group 1 (control group) were Chinese undergraduate students who majored in English Language Education. Group 2 (L2 immersion) were Chinese undergraduate students who majored in a mix of specialties but studied in New York with L2 immersion experience for 1.3 years. Group 3 (L2 speaking) were Chinese undergraduate students who majored in English and had English speaking training for 2.8 years. Data analyses showed that both L2 immersion group and L2 speaking group performed significantly faster than control group in all three conditions of the flanker task, whereas no differences among the three groups in the WCST performance. The result indicates that L2 immersion experience, as L2 public speaking training, contributes significantly to cognitive control differences in conflict monitoring. We propose that bilingual advantage exists, but further study needs to sort out how specific bilingual experience/type moderates cognitive control in different dimensions.

## **(Th-16) Is there an L2-related working memory advantage? Unravelling the effects of culture and task complexity.**

*Xu Mengling, Richard Allen & Cecile De Cat*

This study addresses two conundrums in the debate as to whether second language experience confers an advantage in executive functions (EF) (Valian 2015), and in particular in working memory (WM).

I. Many studies found no consistent correlation between bilingualism and EF in young adults (Kousaie et-al 2014), sometimes in contrast with younger or older groups (Bialystok et-al 2014). Could this be in part due to insufficiently demanding tasks?

II. How can the effect of second language experience be disentangled from the effect of culture? Chinese participants outperform peers from other cultures on WM tasks (Demetriou et-al 2005) but this advantage might be limited to tasks that are numerically based rather than visual (Hedden et-al 2002) or of low complexity (Ellefson et-al 2017).

We recruited 29 English learners of Chinese (EC group; 19 female, mean age = 25) and 28 Chinese learners of English (CE group; 19 female, mean age = 26) at a university in England. L2 proficiency was assessed with LexTale (for English) or Easy.Mandarin (for Mandarin). L2 experience was estimated based on a questionnaire. Participants performed four different WM tasks varying in complexity (low/high) and modality (verbal/visuo-spatial):

- Forward Digit span (FDT): low, verbal

- Backward Digit span (BDT): high, verbal
- Corsi Block Tapping (CBT): low, visuo-spatial
- Odd-one-Out (OoOT): high, visuo-spatial

Linear mixed effect models reveal

- a significant advantage for the CE group in the BDT only, in line with studies observing a Chinese advantage in numerically based tasks;
- a significant correlation between L2 proficiency and accuracy in the most complex visuo-spatial task only (OoOT), but no group advantage in that task;
- no significant impact of either group or proficiency in the non-complex tasks.

Second language experience correlates with a WM advantage that can be reliably identified in sufficiently complex, visuo-spatial tasks.

Keywords: working memory; task complexity; modality

## **(Th-18) The realization of nuclear and prenuclear accents in Mandarin learners of English**

*Hui-Yu Chien & Janice Fon*

Although prosody is an important element in successful speech communication, its acquisition is an area that has received relatively little mention in language learning research. However, our previous studies have shown that even for very early Mandarin-English bilinguals, who had impressionistically reached a near-native level of competence, the realization of their prosody is still different from their native counterparts (Chen & Fon 2008). This study thus intends to investigate how advanced English learners, who are relatively fluent yet outright nonnative, realize English prosody. In particular, we are interested in their realization of nuclear and prenuclear accents, and how they compare with their near-native early-bilingual counterparts. Two groups of speakers were planned for this study. The first will include 22 advanced Mandarin learners of English (hereafter L2), while the second will include 22 native American English speakers as a control. All speakers will read 21 English monosyllabic stimuli embedded in a declarative carrier and the Mandarin learners will also read an additional list of 21 sentences embedding phonotactically-matched Mandarin stimuli. Using the ToBI labeling framework (Beckman & Ayers, 1997), our preliminary results of 43 speakers have shown that the L2 learners have higher maximum F0 values for prenuclear accents and possibly a wider pitch range than the English native speakers. This might have to do with the preferred pitch range in their native language, as Mandarin Chinese has been found to have a wider pitch range than English in previous research (Chen, 2005; Eady, 1982; Keating & Kuo 2012). It might also have something to do with the L2 learning itself, as different pitch range is also found in other combinations of L2 learners (Busà & Urbani, 2011; Ullakonoja, 2007; Urbani, 2003; Zimmerer et al., 2014). This will await further analyses.

Keywords: prosody, pitch range, L2 acquisition

## **(Th-19) Similect, translanguaging and teaching English as an international language: the case of a Hong Kong's university**

*Alfred Tsang*

The 21st Century has witnessed the emergence of research into English as an International Language (e.g. Jenkins 2000, McKay 2002, Seidlhofer 2011, Matsuda 2017) and English as a Lingua Franca (e.g. Baker 2009, Dewey 2012, Jenkins 2015), advancing notions as traditionally perceived in ELT and World Englishes (WE). Among reconceptualization, one critical idea is 'similect' as proposed by Mauranen (2012), which refers to an English lect shared by the speakers of the same non-English L1. Instead of perceiving non-native English as L2 varieties, Maurenen argues that similects, being second-order contact, 'arise in parallel interaction' and 'remain forever first-generation hybrids'. Accordingly, Japanese English similect exists albeit without a fixed speech community.

On the other hand, translanguaging advocates challenge the 'one-language-at-a-time monolingual ideologies' (Li 2018) and bilingual or multilingual learners possess a linguistic repertoire of two or more languages in acquiring L2 (Garcia and Li 2014). As such, translanguaging can serve as a pedagogy where teacher, as a co-learner, can leverage students' existing resources in order to maximize their learning effectiveness (Garcia 2009).

The current study aims to explore the theoretical underpinning of similect and translanguaging by presenting a case study of a high-ranking university in Hong Kong. I am going to examine the translanguaging practice of an ESL instructor when teaching EAP knowledge (e.g. writing review articles) in two classes, a class of local Hong Kong undergraduates of social science vis-à-vis another of mainland Chinese postgraduates of humanities. Where the successful strategy applied by the teacher entails the computation of linguacultural proximity between interactants, I suggest that Highest Common Factor (a mathematic concept) can be used for further conceptualizing similect in addition to the accommodation theory proposed by Jenkins (2000, 2014).

Keywords: translanguaging; English as a lingua franca; English for academic purposes

## **(Th-20) French vowel production by preschool bilingual children: The impact of language pair and linguistic dominance on the organising vocalic system.**

*Marie Philippart de Foy, Véronique Delvaux, Kathy Huet, Morgane Monnier, Myriam Piccaluga & Bernard Harmegnies*

Our research aims at studying phonological and phonetic development in bilingual toddlers exposed to three different language pairs: French-Italian, French-Arabic and French-Mandarin. The objective is to assess the evolution of the children's speech production skills in French, the language common to all our participants, with a cross-linguistic and ecological approach. We speculate that both the language pair and the linguistic dominance could have a specific impact – such as cross-linguistic influences (Fabiano-Smith & Goldstein, 2010) – on the acquisition of (supra-)segmental features and in this study, we focus on vowel production and gradual organisation of the French vocalic system. Our experimental protocol involves different tools in order to longitudinally collect complementary data, during four sessions held at regular four-months intervals, from 18 bilinguals initially aged between 21 and 35 months and exposed to one the pre-cited language pairs. Self-reported data were gathered via parental questionnaires allowing us to characterise the linguistic profile and assess both lexical-morphosyntactic development and speech intelligibility in both languages for each participant.

Concurrently, speech productions in French were collected via a self-developed word-naming task which items were selected on the basis of specific criteria and organised in a particular presentation order, by increasing age of acquisition and gradual phonological complexity. Vowels involved in the collected French words are being subjected to acoustic analyses and more precisely, to analyses of the first two formant frequencies. The evolution of the vocalic system's organisation is being examined through the use of quantification indices, such as the PHI index (Huet & Harmegnies, 2000) which generates a dispersion measure of the formant values in the vocalic space. More specifically, an increasing PHI index would indicate an increasing organisation of the system; i.e., gradual vowel differentiation and categorisation. Results will be discussed considering both each participant's specific language pair and linguistic profile.

Keywords: Bilingualism; development; speech production

### **(Th-21) Spanish grammatical gender interference in Papiamentu**

*Jorge Valdes Kroff, Frederieke Rooijackers & M Carmen Parafita Couto*

We examine the effects of Spanish grammatical gender in Papiamentu, a W Romance-lexified creole language spoken on Curacao (50 miles from Venezuela). Papiamentu and Spanish are highly cognate. However, Papiamentu lacks grammatical gender assignment and agreement. The aim of this study is to determine whether Spanish-like gender agreement causes interference in Papiamentu speakers who are also exposed to Spanish. The study takes inspiration from Lipski (2015), who tested the acceptability of Spanish-like gender agreement in another Spanish-lexified creole language, Palenquero.

Two experiments were performed. Experiment 1 was a picture naming task where participants named 40 objects in Papiamentu. In Experiment 2, participants listened to 82 Papiamentu sentences, of which 40 contained a Spanish gender-agreeing element on the Determiner, Adjective, or Determiner + Adjective. Participants performed an acceptability task and were asked to repeat each sentence.

In the first phase (completed), experimental data from Experiment 2 are presented for two groups of Papiamentu-Spanish speakers in Curacao. The first group (N=22) learned Papiamentu at a young age, speak Papiamentu at home, and are exposed to Spanish (L1 Papiamentu). In the second group (N=6), participants were born in a Spanish-speaking country but learned Papiamentu in primary school (Spanish HS). For both groups, agreement element was significant such that Adjectives induced the greatest errors (13% for L1 Papiamentu, 10% for Spanish HS) and Determiner + Adjective induced the least errors (4% for L1 Papiamentu, 7% for Spanish HS). The second phase (ongoing) will collect data from Papiamentu speakers born in Curacao but currently residing in The Netherlands. We will discuss how ongoing exposure to Spanish (Curacao v The Netherlands) modulates interference on functional morphology not present in Papiamentu, the dominant language.

Keywords: creole; gender; cognate

### **(Th-22) Learning words that look the same across languages: Examining the translation-ambiguity disadvantage in naïve Dutch learners**

*Gabriela Terrazas, Akeena Lofters & Natasha Tokowicz*

Second language (L2) learners often encounter words that have two or more translations across

languages, also referred to as translation-ambiguous words. These words are particularly difficult to process, and thus are remembered more slowly and less accurately than words with only one translation (also known as translation-unambiguous words; e.g., Eddington & Tokowicz, 2013; Tokowicz & Kroll, 2007). Such difficulty has also been reported for cognate words (words that share both form and meaning; e.g., Boada, Sánchez-Casas, Gavilán, García-Albea, & Tokowicz, 2013). Previous research has investigated different training methods attempting to reduce this translation-ambiguity disadvantage for early L2 learners. Degani & Tokowicz (2014) found that presenting multiple translations consecutively in the same session improves retention of translation-ambiguous words compared to training translations in separate sessions. The present study investigates the translation-ambiguity effect of cognates in early adult L2 learners. Native English speakers were introduced to Dutch translation-ambiguous and translation-unambiguous words that vary in their cognate status (non-cognates, close cognates, and identical cognates). Each English-Dutch word pair was presented on the screen along with its corresponding pronunciation of the Dutch word. Translation-ambiguous words were trained consecutively, this is, each English translation was presented one at a time during the same session (Degani & Tokowicz, 2014). Participants were asked to complete a production test in both directions of translation (English-Dutch, Dutch-English). Results suggest that, in contrast to previous research (e.g., Degani & Tokowicz, 2010), English translations that are more similar in meaning were remembered more accurately in the English-Dutch translation task than words with less meaning similarity. This finding is consistent with Bracken, Degani, Eddington & Tokowicz's (2017) conclusion that the mapping between the meaning and L2 label is what determines difficulty in L2 vocabulary learning. The results also suggest a larger cognate effect for translation-ambiguous than translation-unambiguous words.

Keywords: Second-language; translation-ambiguity; cognates

### **(Th-23) The effects of bilingualism on pupils in Irish-medium schools with a low socio-economic status: Performance and challenges**

*Karen Ní Chlochasaigh, Pádraig Ó Duibhir & Gerry Shiel*

No more than French immersion in Canada during the early years (Genesee 1976; Hart & Lapkin 1988), Irish-medium immersion schools (IMS) were traditionally deemed as an advantage enjoyed principally by middle-class families (Ó Riagáin & Ó Gliasáin, 1979). It has since, however, become increasingly more available to a diverse body of students throughout Ireland, not least by those from low socio-economic (SE) backgrounds. Thirteen Irish-medium primary schools situated in designated areas of disadvantage throughout the Republic of Ireland are part of the DEIS (Delivering Equality of Opportunity in Schools) action plan for educational inclusion.

A recent study carried out by the Institute of Education, DCU and the Educational Research Centre, investigated the achievement rates of students in DEIS IMS in comparison to their peers in English-medium schools. Standardised tests in English Reading and Mathematics were administered to a population sample of 523 grade 3 and 6 students across all schools. Scores of low SE students in IMS were compared to national DEIS scores (Kavanagh et al, 2015), allowing for comparisons in achievements to be made but also for the identification of the benefits of bilingualism and the challenges met by DEIS IMS. Mean scores were calculated for each school and recognised schools with the lowest scores and largest concentrations of students with learning difficulties. The paper aims to present quantitative data on the performance and learning difficulties of pupils in DEIS IMS based on test scores and discuss implications for diversity in immersion education. It will argue that immersion education is attainable to all students regardless of their background, ability or

socio-economic composition and therefore could be accessible to an even greater volume of future generations, given that specific linguistic, economic and special education needs are considered and that appropriate language and learning supports and approaches to assessment are implemented.

Keywords: Diversity in Immersion; Irish-medium Education; Low-socioeconomic status

### **(Th-24) Technology and its transformational role in language maintenance development: the case of Ukrainian language education in Albert**

*Olenka Bilash & Alla Nedashkivska*

The Ukrainian Language Education Centre (ULEC) at the University of Alberta was established in the late 1970s. ULEC was designed to insure that families and individuals had access to Ukrainian language education and quality current resource development in the diaspora. Since then it has collaborated with community organizations to develop learning resources, establish a portal, facilitate an international exam for high school students, conduct research studies, create an online professional development community of practice, and respond to community requests across the country and diasporas abroad. In recent years none of this would be possible without technology. This paper draws upon Sandmann's (2008) framework of the purpose-process-product of engaged scholarship to analyze how technology has become integrated, accepted and resisted within this pan-Canadian and international network, the mandate of which includes language maintenance and development of Ukrainian as a heritage language.

Current practices of ULEC and its partners are studied through the prism of the engaged scholarship framework (Boyer, 1996; Barker, 2004; Sandmann 2008, 2009). Community engagement is understood as "collaboration between institutions of higher education and their larger communities (local, regional, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity". (Carnegie Foundation, n.d.) Specifically, the focus is on how technology impacts and transforms practices of collaboration with communities in the production of knowledge and what are the next steps within this network to secure heritage language maintenance and development.

### **(Th-25) The Production and Perception of French Voiceless Plosives by English Learners of French with Varying French Experience**

*Paige Yi*

This study probes the sound systems of English learners of French in both of their production and perceptual modalities, through the lens of studying how well they produce and perceive the voice timing of the French plosives, using a group of balanced French- English bilinguals as the baseline control. Since the phonetic realization of the voiceless stops /p, t, k/ varies from French to English, voice onset time (VOT) values of the plosives were used in this study to best capture the phonetic differences among plosives between the two languages.

Overall, the results of the study indicate that: (1) possessing a "good" pronunciation of the non-native French /p, t, k/ phones by L1 English speakers does seem to also necessitate having an accurate perceptual judgment of them, but not vice versa; (2) L2 learning experience or L2 proficiency appears to play a significant role in positively modulating the ways in which L2 speakers produce foreign phonetic categories related to French voiceless plosives, whereas it seems to only minimally affect

the L2 perceptual domain; (3) L2 learners not only pay close attention to the social information provided during the perception task regarding the linguistic proficiency of the speaker, but most of their perception accuracy of the French /p, t, k/ plosives were also negatively impacted by the manipulated perceptual priming of the speaker's language proficiency background.

A detailed analysis of the learners' performance data concerning both modalities reveals that the acquisition of the non-native phones with respect to production and perception are in fact, not mastered in parallel. This study casts light on the question of whether the accuracy of producing non-native sounds is determined by that of perceiving them in the process of L2 sound acquisition; and how social information of speakers can shape our perceptual systems as listeners.

Keywords: L2 speech perception, production, social cues, VOT

## **(Th-26) Efficient data collection with hard-to-recruit populations: Transparent data peeking for bilingualism researchers**

*Esther Schott, Mijke Rhemtulla & Krista Byers-Heinlein*

Bilingualism researchers are often interested in special populations, such as bilinguals who speak a specific language pair, or bilinguals who began acquiring their languages at a specific age. These populations are often hard to recruit, which increases pressure for researchers to use their participants in an efficient way. One strategy that researchers sometimes use to optimize efficiency is data peeking (or "optional stopping"), that is, doing a preliminary analysis of collected data. This preliminary analysis might be a formal significance test or informal eyeballing of the collected data. Data peeking helps researchers decide whether to abandon or tweak a study, decide that a sample is complete, or decide to continue adding data points. Unfortunately, data peeking can have negative consequences such as increased rates of false positives (wrongly concluding that an effect is present when it is not, see also Simmons, Nelson, & Simonsohn, 2011). We argue that, with simple corrections, the benefits of data peeking can be harnessed to use participants more efficiently. We review two corrections that can be transparently reported: one can be applied at the beginning of a study to lay out a plan for data peeking (Lakens, 2014), and a second can be applied after data collection has already started (Sagarin, Ambler, & Lee, 2014). These corrections are easy to implement in the current framework of bilingualism research. Transparently reporting data peeking is beneficial in two ways: It encourages an honest debate on best practices in experimental research, and it helps the reader to evaluate the research practices that resulted in the report they are reading. Implementing these simple corrections can increase the replicability of bilingualism research.

Keywords: sample size; data peeking; rate of false positives

# Friday Talk Abstracts

## Invited Theme Session Organizer

### Bilingual infant brains

*Thierry Nazzi, Laboratoire Psychologie de la Perception (UMR8242), CNRS- Université Paris Descartes, Paris, France*

*Location: CCIS 1 140*

The majority of the world population is bilingual, and many infants are growing up acquiring two languages at the same time. This situation calls for an understanding of the specificities of language acquisition in bilingual infants. While research in the past decades have allowed for advancements in our understanding of early language acquisition in monolingual infants, and of brain activity and development in relation to language acquisition, there is still little research investigating how the brain of simultaneous bilingual infants is processing language, and how this compares to monolingual infants. The present symposium will present 4 studies, using either NIRS or ERPs, exploring these issues during the first two years of life, investigating resting- state activity, attention, phonological and semantic processing.

## Theme Session Chair

### The Role of Input and Input Delimiting Factors in Heritage Language Outcomes

*Khadij Garibi*

*Location: CCIS L2 190*

Arrested development (i.e. incomplete acquisition) and/or attrition used to be considered as the sole main causes of differential development in heritage language acquisition (Montru, 2008). Although not mutually exclusive to the previous views, recent accounts highlight environmental/experiential reasons for heritage language differences from monolinguals and especially from each other. Some have emphasized that attrited input heritage speakers are exposed to from their parents may be an additional primary source of differences in heritage language outcomes (Sorace, 2004; Pascual y Cabo & Rothman, 2012). In this panel, we aim to investigate the dynamic nature of input in heritage language development from different angles by focusing on intra-generational and/or inter-generational data in heritage language.

Striving to fill a gap in research on heritage language developmental trajectories, Rothman et al. introduce a new hypothesis entitled the Experience-to-Outcomes Hypothesis (EOH). This model aims to provide a framework for explaining the non-random nature of heritage language knowledge correlated to individual experiences with access to and engagement with inputs. Through data from young (mean age=12.7; n=24) and adult heritage speakers (mean age=26.9; n=20) of Turkish in Germany, they try to show if their proposed hypothesis could predict where along the continuum of outcomes, heritage speakers will stand. Their study supports the EOH by uncovering the non-random nature of heritage language variation.

Flores and Rinke focus on data from two generations of immigrants namely first generation immigrants as well as young heritage speakers of European Portuguese in Germany. By exploring subject and object omissions, which has commonly been investigated in the context of heritage language development, they try to demonstrate the difference between the two mentioned populations

of bilinguals. They argue that their finding, the extended use of null objects and the overuse of overt subjects (esp. 1st and 2nd person) by heritage bilinguals, resembles a language-internal diachronic evolution, which may be caused by reduced input in the heritage language.

Gharibi discusses her project, the first study designed specifically to reveal the influence of attrited parental input in their very own children's heritage language development. This study will show to what degree arrested development and/or attrition are the sources of differences in heritage language competence. The participants include thirty 6-12 years old simultaneous Persian-English bilinguals with their parents in the UK. The data, which is currently being collected, comprise free speech samples and some tasks on different aspects of Persian including light verb constructions, passives and conditionals. To explore the intragenerational attrition of Persian, a control group of monolingual Persian speakers in Iran matched with parents will also be recruited.

Schmid, as the discussant of the session, will make more connections between the three papers. She will evaluate if the proposed EOH hypothesis supports the other two studies and will elaborate if attrited input leads to a diachronic change across generations. Schmid will help us connect the dots between heritage language development and first language attrition research and will lead us to implications and practicality of our findings in the area of heritage language research.

Keywords: Heritage Language Development, First Language Attrition and Arrested Development, Attrited Input

### **Invited Theme Session Panel Organizer**

#### **Multilingualism in the Expanding Circle: English as an Additional Language**

*Suzanne K. Hilgendorf, Simon Fraser University.*

*Discussant: Joel Heng-Hartse, Simon Fraser University*

*Location: CCIS 1 430*

This panel explores increasing English use in recent decades within established speech communities of Kachru's (1990) Expanding Circle (EC). This growing range and depth is illustrated in the domains of advertising and transnational media within the contexts of France, Morocco, and Germany. The presentations focus on the social reality of English use, which often contradicts articulated language attitudes and identities. The findings question the contemporary validity of Kachru's (1990) original categorization of English as a Foreign Language in the EC. The language's growing uses indicate instead a de facto Additional Language that is used as part of local multilingual repertoires.

### **Theme Session Chair**

#### **Heritage Language Learning in Children**

*Silvina Montrul*

*Location: CCIS 1 440*

To date, the vast majority of research on the linguistic abilities of heritage speakers (early bilinguals whose one of their languages is a sociopolitical minority language) has focused on young adults whose heritage language is no longer developing. These adults began their journey as bilingual children acquiring the heritage language with the majority language simultaneously since birth or sequentially, as a second language. In contrast to monolingual native speakers and relatively balanced

and fluent bilinguals, the ultimate grammatical attainment of the heritage language by early adulthood is often significantly different from that of both their immigrant parents and native speakers in the home country. Heritage speakers, like all speakers, are born with the ability to learn one or more languages fully and indeed retain native ability in selected grammatical areas of their native heritage language, but several environmental factors during later childhood and adolescence, especially reduced input and quality of the input, affect their linguistic development. If longitudinal studies from early childhood to adulthood are not always feasible, linking research on the structural development of bilingual pre-school children with research on young adult heritage speakers adds a much needed perspective to understand their linguistic journey from initial state to the end state of their language development. The purpose of this colloquium is to look more closely at the later childhood period, when bilingual language children are at school, and to examine heritage language development in children who receive linguistic support in the heritage language and those who do not. To gain a broader understanding of the complexity and variability of bilingual development during childhood, we specifically invited studies of bilingual children speaking different heritage languages in different bilingual situations, where the minority languages have different sociopolitical status in the territory they occupy with the other language.

## Multilingualism Matters: Findings from Swiss Primary Schools

*Adrian Lundberg*

*Location: BS M 141*

The present study provides qualitative insights into the multilingual sociolinguistic reality in the Swiss educational arena by introducing Q-methodology to explore the ways primary school teachers in Switzerland understand the concept of multilingualism. Particular understandings can lead to misinterpretations of language policy documents, where individual multilingualism is understood as a repertoire of linguistic abilities which is continuously accessed, varied, and developed (Lüdi & Py, 2009).

Q was used to identify the currently predominant viewpoints and explicate them in a systematic, holistic and qualitatively-rich fashion (Watts & Stenner, 2012). Lo Bianco (2015) describes Q as a valuable research method in the field of language policy and planning to explore and define 'the nature and complexity of communication problems' by mapping out the field of arguments, positions, and the underlying discourses in debate about multilingualism.

Teachers from three primary schools (n= 67) participated in the rank-ordering process of 39 statements on the understanding of multilingualism and 32 statements on pedagogical suggestions with multilingual students. With the support of the dedicated computer package PQMethod (Schmolck, 2014), factors were extracted and qualitatively interpreted.

Results indicate a large consensus on the understanding of multilingualism and a wide variety of suggested pedagogical action. Implications of the findings for a successful implementation of multilingual educational language policy are discussed.

Keywords: multilingualism; teachers' beliefs; Switzerland

## Beyond Structure: Investigating neurochemical bases for bilingualism-induced neural plasticity

*Vincent DeLuca, Sergio Migeuel Pereira Soares, Christok Pliastikas, Jaosn Rothman & Ellen Bialystok*

*Location: BS M 145*

An understudied area in the neuroscience of bilingualism relates to the neurobiological and neurochemical processes that underlie degree of brain adaptation to specific (bilingual) language experiences. The concentrations of certain metabolites, such as choline and creatine, have been found to relate to the degree of plasticity in regions of the brain (Chiu et al., 2014). In consideration of the literature that documents bilingual neuroanatomical adaptations (see Pliastikas, 2019,) it is fair to expect metabolite differences as well. To date, however, virtually no studies have examined effects of bilingualism on metabolite concentrations. Weekes et al. (2018) stands out as the only study to use Magnetic Resonance Spectroscopy (MRS)—a method that collects metabolite concentration during MRI scanning—to probe the correlation of metabolite levels over bilingualism. This was done, however, for the anterior cingulate cortex (ACC) and in older (ageing) bilinguals. We employ MRS to identify potential neurochemical basis for bilingual-induced brain adaptations in the left caudate nucleus (LCN). The LCN is an area of the brain implicated in both the language processing and control networks that shows effects of potential amelioration from bilingualism (Abutalebi & Green, 2016). We specifically assess whether metabolite concentrations are a) distinct between monolinguals and bilinguals, b), if so, predicted by the specific language use factors within the bilingual experience (e.g.

extent of bilingual language use), and c) whether there is a modularity connection to adaptations seen in the MRI scanning. 56 participants (28 bilingual and 28 monolingual) were scanned. Participants also completed a language background questionnaire (LSBQ, Luk & Bialystok, 2013) from which we derive regressors of experience. Preliminary results show correlations between length of bilingual language use and concentrations of specific metabolites, specifically glutamine and glutamate, indicating a modulatory role of language experience on neurochemical concentrations.

Keywords: MRS; Bilingualism; Language experience

## **Bicultural but monolingual: cultural heritage as sustaining embers of language loss**

*Vanessa Chua & Bee Chin Ng*

*Location: BS M 149*

The Peranakan Chinese are a bicultural ethnicity – results of marriages between Chinese-speaking traders with indigenous Malay-speaking women in fifteenth century Southeast Asia (SEA). Past attempts studied the Peranakan Chinese population in terms of its cultural practices across SEA, and technical breakdowns of the Peranakan Malay language. While there are clear cultural and linguistic features that distinguish Peranakan Chinese from their two source cultures, these distinctions are presently not often apparent or visible. Peranakan Chinese assimilate seamlessly into mainstream Chinese culture in SEA, resulting not only in accelerating language loss but rapid cultural shifts. This article discusses the definition of being Peranakan Chinese in Singapore, explores aspects of the cultural practices and examines Peranakan identity in a situation where the language vitality is low. From a broader perspective, the paper investigates how ethnicity can be differentiated beyond its visible and physical attributes. Using an ethnographic approach, interviews were conducted with 40 Peranakan Chinese and Non-Peranakan Singaporeans, from three age groups (15-30, 20-55 and 55-70). The questions revolved around the issue of cultural identity and its connection to language use. The results of the study indicate a strong association between material forms, such as Peranakan food, with the culture and the Peranakan philosophy and way of life as intangible forms that were subconsciously strong indicators of their identity. While language accentuates cultural links (especially for the older speakers), many younger Peranakans still identify strongly with Peranakan identity despite not speaking the language. Non-Peranakans rely mainly on material forms and connections when making ethnic category assignments though they often were unable to distinguish Peranakans. The findings discuss the role of cultural identity in the context of language obsolescence and how bilingualism and biculturalism can inoculate a community from rapid cultural shift in the next generation.

Keywords: Peranakan Chinese, Singapore, Ethnicity

## **Theme Session Talk**

### **What does near-infrared spectroscopy tell us about the resting-state functional connectivity of 4-month-old monolingual and bilingual infants?**

*Monika Molnar, Borja Blanco & César Caballero-Gaudes*

*Location: CCIS 1 140*

Both monolingual and bilingual children reach the developmental milestones of language acquisition at the same pace. Acquiring two languages simultaneously poses no serious challenge to the developing human mind despite the fact that bilingual first language acquisition requires the computation of two

sets of linguistic regularities simultaneously, and that bilinguals receive reduced exposure to each of their languages, as compared to their monolingual peers. What contributes to the success of bilingual infants? Recent studies suggest that certain cognitive and neural mechanisms are involved to different degrees during monolingual vs. bilingual acquisition, especially when spoken language processing is considered.

Here, we addressed the question whether bilingual vs. monolingual environments affect neural development beyond spoken language processing. In a series of studies, using near-infrared spectroscopy (NIRS), we measured the resting-state functional connectivity (RSFC) in 4-month-old awake ( $n=64$ ) and sleeping ( $n=99$ ) infants from monolingual and bilingual backgrounds. Measuring RSFC requires no task or stimuli, and it informs us about the presence of inter- and intra-hemispheric functional neural connections. Overall, our findings suggest that inter-hemispheric RSFC differs between monolingual and bilingual infants when the data is collected from awake infants. However, quality in our RS NIRS data can be greatly deteriorated when collected from awake infants, due to noise associated with even small movements during the NIRS recordings. For this reason, we also measured RSFC in asleep infants when noise due to movements are minimized. No clear difference between the RSFC of monolingual and bilingual infants were observed in this condition. Further, the results (i.e., the type of RSFC present in groups) also varied depending on the data preprocessing technique (e.g., standard preprocessing vs. prewhitening). Considering these points, the development of RSFC in monolingual and bilingual infants will be discussed.

## Theme Session Talk

### Transnational Media and English Use in the Expanding Circle

*Suzanne K. Hilgendorf*

*Location: CCIS 1 430*

Since the moving picture was invented in the late 1800s, media industries focused on this artistic form commonly have operated on a transnational scale. By the end of World War I, Inner Circle Hollywood became the world's leading producer distributing to foreign markets, a position it maintains to this day (Hilgendorf 2013). In the transnational cinema industry, issues concerning language use first arose in the late 1920s with the advent of talking pictures. By the early 1930s, subtitling and voice-over synchronization, i.e. dubbing, emerged as the most popular means for linguistically accommodating the important export market. Although subtitling and dubbing have remained standard practice now for over 80 years, the L1 of Hollywood, English, nevertheless has gained uses within the domain. In the Expanding Circle context of Germany, for example, the titles of (Inner Circle) films fall along a continuum of language use ranging between the two monolingual poles of German and English (Hilgendorf 2013).

These linguistic practices of cinema extended to the subsequent transnational media of television and now video streaming on demand (VSoD) services, such as Netflix, which reach a broader spectrum of Expanding Circle speech communities. These later industries afford access to larger quantities of programming, on a more frequent basis, and now even enable individual viewers to choose preferred language(s) for audio tracks and subtitling. Anecdotes speak to the popularity in particular of viewing original English language programming. For example, two teenagers in Madrid attribute their high English proficiency to watching the US television program *Friends*, while an Italian teenager studying in Canada credits her fluency to the British series *Downton Abbey*. In toto, these various media-based linguistic practices indicate a growing range and depth of English use within Expanding Circle contexts, and, consequently, the language's shift from a Foreign to an Additional Language of use.

## Theme Session Talk

### Dominance Effects on Object Pronominalization in 2L1 and cL2 Acquisition

Adriana Soto-Corominas

Location: CCIS 1 440

It is commonly accepted that simultaneous bilingual language acquisition constitutes a case of 2L1 acquisition (De Houwer, 2005; Meisel, 2009). However, some recent studies cast doubts on this assumption, underscoring instead the importance of input quantity and quality (Perpiñán, 2017; Thomas et al., 2014). This study investigates the acquisition, by Catalan-Spanish bilingual children, of three direct object clitics in Catalan, *ho*, *l*, and *en*, whose counterparts in Spanish show only partial overlap: *lo*, *lo*, and  $\emptyset$ , respectively. In Catalan, clitic *ho* pronominalizes strong [+neuter] pronominals such as *això* 'this' or *allò* 'that', (1), whereas *l* pronominalizes [+masculine] singular accusative objects, (2). Partitive *en* pronominalizes [-definite] direct objects that appear quantified in the discourse (3).

(1) Veig això. Ho veig.  
see.1SG.SUBJ this.NEUT ho see.1SG.SUBJ  
'I see this. I see it.'

(2) Veig aquest objecte. El veig.  
see.1SG.SUBJ this thing.MASC I see.1SG.SUBJ  
'I see this thing. I see it.'

(3) Veig 5 objectes. Només en veig 5.  
see.1SG.SUBJ 5 things only en see.1SG.SUBJ 5  
'I see 5 things. I only see 5.'

In Spanish, strong [+neuter] pronominals such as *esto* 'this' or *eso* 'that', (4), are pronominalized with *lo*, the same clitic used for [+masculine] singular accusative objects, (5). Spanish elides quantified [-definite] accusative objects without the need (or possibility) of using a clitic, as in (6).

(4) Veo esto. Lo veo.  
see.1SG.SUBJ this.NEUT lo see.1SG.SUBJ  
'I see this. I see it.'

(5) Veo este objeto. Lo veo.  
see.1SG.SUBJ this thing.MASC lo see.1SG.SUBJ  
'I see this thing. I see it.'

(6) Veo 5 objetos. Solo veo 5  $\emptyset$ .  
see.1SG.SUBJ 5 things only see.1SG.SUBJ 5  
'I see 5 things. I only see 5.'

While the acquisition of *l* and *en* have been previously investigated in Catalan, showing that these clitics are fully acquired by the age of 5 (Gavarró et al., 2011; Varlokosta, 2016), the effects of bilingualism on their acquisition have not yet been taken into consideration. This study presents the results of the acquisition of these three Catalan clitics by bilingual Catalan-Spanish children (N=296) aged 4-8 who were classified by language dominance into Catalan-Dominant (CD), Balanced Bilingual

(BB), and Spanish-Dominant (SD). Importantly, BBs are 2L1 acquirers of Catalan and Spanish while SDs are cL2 acquirers of Catalan.

Using an oral production task (Fig. 1), the three clitics were elicited (7). Results show clear differences by language dominance. The CD group has acquired the three clitics by age 4. Despite acquiring *l* by age 4, the BB group shows quantitative differences with respect to the CD group, acquiring *ho* by age 6 and also showing ample optionality with respect to partitive *en* by age 8. Finally, the SD group cannot be said to have fully acquired any of the three clitics by age 8, and while they are part of their grammar, they display ample optionality. Cross-linguistic influence from Spanish is observed in the shape of higher rates of omission of partitive *en* and in *l*-for-*ho* clitic exchanges in the BB and SD groups.

The present study proves that the acquisition of the three clitics varies greatly depending on language dominance, showing that simultaneous (BB) and early sequential bilinguals (SD) display a different grammar from that of Catalan-dominant children (CD). As a result, this study contributes to the debate on early bilingualism by assigning a critical role to input quantity and quality while downplaying the role of age of onset of acquisition.

(7) Q: Jo no he trencat el gerro però el gosset sí...  
'I haven't broken the vase but the doggy...'

Target: Que l'ha trencat.  
That I have.3SG.SUBJ broken  
'...has broken it.'

## Language contact and language shift: Aspects of grammatical change in heritage languages

*Claudia Maria Riehl*

*Location: CCIS L1 140*

Studies on grammatical change in heritages languages have become of particular interest in recent years. This especially holds for German enclave settings world-wide (e.g. Putnam 2011, Lenz 2016). To date, however, there is no comprehensive approach to explain the complex development within these bilingual communities which are moving towards language shift.

The proposed paper presents an integrative approach that combines both intergenerational (e.g. Boas 2009, Riehl 2013) and cross-linguistic (e.g. Rosenberg 2016, Yager et al. 2015) studies on German heritage language. It is based on a study that includes German-English in South-Australia, German-Russian in Russia (Volga-Region) and German-Portuguese in Brazil (Santa Catarina). In each constellation semi-structured interviews and translation tasks are taken from 30 speakers of two generations in order to illustrate processes of language change in apparent time in typological different settings.

The focus of the paper will be on the reduction of case marking, a typical phenomenon observed in language shift constellations (Thomason 2001). The study reveals that the reduction of case marking in the noun-phrase follows an identical path in all settings despite the typological difference of the contact language. It will be argued that this is due to a general simplification process of L1 that takes typically place in bilingual communities where L2 becomes dominant. Interestingly, the pronominal system undergoes a different restructuring process in all three communities. This cannot be traced

back neither to the variety of origin nor to the contact language and must be interpreted as an individual process in the respective contact settings.

Additionally, to explain individual differences between speakers, the paper will also discuss extralinguistic factors such as attitudes and access to literacy. In doing so it aims to convey a more complex view on language development in heritage language settings in general.

Keywords: language contact; grammatical change; German heritage language

## A Systematic Literature Review of Studies on Family Language Policy: Populations in Focus

*Tim Roberts & Andrea Schalley*

*Location: BS M 141*

Which populations appear in studies in the field of Family Language Policy? How diverse are they, and on what socio- and psycholinguistic ‘dimensions’ do they differ? Are studies capturing the whole gamut of diversity, or are specific populations underrepresented?

Our study draws on a systematic quantitative literature review. Our data come from studies framed as ‘Family Language Policy’, indexed in scholarly databases such as Scopus and Web of Science, and published up to the end of 2018. We use this data to explore which populations are the focus of inquiry in Family Language Policy research. We identify and systematise relevant variation dimensions along which populations in such studies differ, and highlight ‘gaps’ in the selection of populations. For instance, the selection process is usually not based on any formal measures of bilingual language proficiency, but on self-reports by family members. Studies also tend to focus on the ongoing development of bilingualism in children and are less often concerned with the ‘product’ of the bilingual development, the bilingual teenager or adult. Similarly, there appears to be a gender bias in that many studies overwhelmingly or exclusively include mothers as the participating parent in their studies, while fathers tend to be underrepresented. We further observe a restricting focus towards settings in which English is a majority language, Northern Hemisphere contexts, and on families with high socio-economic status.

We will discuss these and further dimensions in-depth, and present a model that facilitates reflection on the existing research and supports future researchers in their systematic selection of and reporting on study populations.

Keywords: Family Language Policy; systematic quantitative literature review

## No Effect of Linguistic Distance on Executive Control in Singapore and Edinburgh Bilinguals

*Seok Hui Ooi, Antonella Sorace & Thomas Bak*

*Location: BS M 145*

Research on the effects of bilingualism on non-linguistic control has suggested that bilinguals showed enhance executive control (Bialystok, Craik, Klein, & Viswanathan, 2004; Bialystok, Poarch, Luo, & Craik, 2014; Costa, Hernández, Costa-Faidella, & Sebastián-Gallés, 2009; Prior & Macwhinney, 2010). Other studies, however, have argued that this finding may not be robust (Antón, Fernández García, Carreiras, & Duñabeitia, 2016; Morton & Harper, 2007; Paap, Johnson, & Sawi, 2014), and that monolingual-bilingual differences may emerge only in specific tasks, or be confounded with group characteristics. This current study was aimed at investigating whether bilinguals speaking languages that were related (i.e. more similar) or distant (i.e. less similar) performed differently on two tasks of attentional control – the Attention Network Task (ANT; Fan, McCandliss, Sommer, Raz, & Posner, 2002) and the Elevator Task [Test of Everyday Attention; Robertson, Nimmo-Smith, Ward, & Ridgeway, 1994).

Participants were 132 English-speaking bilinguals from Edinburgh and Singapore. In the Edinburgh group, there were 31 similar bilinguals (English + French, Spanish, German, or Italian) and 31 distant

bilinguals (English + Mandarin or Japanese). In the Singapore group, there were 32 similar bilinguals (English + Malay) and 38 distant bilinguals (English + Mandarin). Reaction time data on the ANT and accuracy rates on the Elevator Task were analysed respective with a 2 (Singapore vs. Edinburgh)  $\times$  2 (Similar vs. Distant) ANOVA. Our results found that Singapore bilinguals performed better than Edinburgh bilinguals on the conflict resolution index on the ANT, suggesting group differences in bilinguals across different linguistic environments (discussed in detail in Ooi, Goh, Sorace & Bak, 2018). However, no differences between similar and distant bilinguals were found on either task. Our results therefore found no evidence for a role of linguistic distance on attentional control amongst bilinguals.

Keywords: executive control, linguistic distance

## **The role of mother in heritage language maintenance: the case of Lithuanian diaspora**

*Meilutė Ramonienė*

*Location: BS M 149*

This paper analyses the role of mother in heritage language maintenance in Lithuanian diaspora. Lithuania (population of about 3 million) stands out among the other members of the European Union as a country of intense emigration and belongs to the nations that have recorded the highest emigration rates in relation to their population. According to Department of Statistics, more than half a million people left the country since the independence in 1990. The new wave of emigration has contributed to the Lithuanian diaspora in many countries worldwide where Lithuanian communities of various sizes existed since WWI and WWII. The linguistic behaviour, the maintenance of the heritage language of the Lithuanian communities belonging to different emigration waves and different generations in various countries was known to be rather diverse.

The data that forms the basis of this paper was drawn from two large and complementary research projects funded to investigate the linguistic behaviour, the maintenance of the heritage language and the links to the Lithuanian identity of the Lithuanian communities abroad. The paper explores the data of both quantitative surveys and qualitative in-depth interviews. The sample of two surveys had in total 2610 respondents of different generations and emigration waves. The in-depth interviews with emigrants have been conducted face-to-face or via skype. The paper will consider the issues of language choice by different emigration waves, and the role of mother in heritage language maintenance.

Keywords: heritage language maintenance; Lithuanian diaspora

## **Theme Session Talk**

### **Bilingualism alters attentional processes in the brain as early as 6-months**

*Maria Arredondo, Richard Aslin & Janet Werker*

*Location: CCIS 1 140*

Bilingual infants differentiate their languages, track the features of each, and keep these representations separate. Thus, some suggest that a bilingual environment should heighten and improve attentional control (i.e., the ability to focus selectively and cast out unnecessary information), given the increased demand of these mechanisms for supporting language management. Several studies report that bilingualism is associated with changes in brain structure and function. In particular, bilingual children (Arredondo et al., 2017) and adults (Garbin et al., 2010) show greater engagement of the left frontal “language” regions during a non-verbal visuo-spatial attention task,

whereas monolinguals engage right frontal regions. Little is known about the developmental course of these differences and whether early bilingual experience impacts infants' cognitive and brain organization. Using functional near-infrared spectroscopy, we measured brain activity in monolingual- and bilingual-learning 6-month-old infants during a version of the Infant Orienting with Attention task (Ross-Sheehy et al., 2015). The infants also completed a second task where they had to track a bilingual "Elmo" moving across a screen and anticipate its location depending on two spoken languages. Preliminary results replicate prior findings by revealing bilingual infants activate left frontal "language" regions for non-verbal attentional control, to a greater extent than monolingual-raised babies. The talk will also discuss these results' in relation to infants' performance in the second task which assessed their language discrimination abilities, as well as to their daily amount of dual-language experiences. Taken together, these results begin to indicate how the brain supports dual-language acquisition and how language experience can alter the neural organization underlying broader, non-linguistic cognitive functions.

### Theme Session Talk

#### Linguistic Landscapes in a Multilingual Maghreb: An Analysis of Casablanca's English Shop Signs

*Bouchra Kachoub*

*Location: CCIS 1 430*

The metropolitan city of Casablanca in the African country of Morocco is home to a historically trilingual speech community (Abbassi, 1977; Youssi, 1995; Alalou, 2006; Marley, 2005; Daniel & Ball, 2010). In this northwestern part of the continent, the languages of Arabic, Tamazight, and French have been an established part of the local linguistic repertoire for over a century. In recent decades, however, this relatively stable trilingualism has been changing, as English has been gaining increasing functional range and societal depth of use across various domains and within the community (Sadiqi, 1991; Ennaji, 2005; Buckner, 2011).

The present macrosociolinguistic study explores this emerging quadrilingualism within Casablanca, as it is reflected in signage making up the city's contemporary linguistic landscape. In this linguistically diverse urban population of over 3 million inhabitants, there are no restrictions on local business owners regarding language choice for their shop names. As a result, the city's landscape displays shop signs in a variety of local and foreign languages, including English, that are intriguing and worth investigating. This qualitative study looks at a sample of English shop signs collected in different business districts in Casablanca during the summer and fall of 2018. It first explores the extent to which English appears in shop signs and, second, examines the functions of the language for particular types of businesses. The analysis thus illuminates in part the changing role of English within this Moroccan city located in Kachru's (1990) Expanding Circle. Whereas Kachru (1988, 1990) originally categorized English as a Foreign Language within the third sphere of his Three Circles model, this study provides further evidence of how English has been gaining space in Expanding Circle contexts as an Additional Language (Hilgendorf, 2005, 2007) of use.

### Theme Session Talk

#### Early-L2 bilinguals may catch up with age-matched L1 children in language development, thanks to the school system

*Maria Jose Ezeizabarrena & Itziar Idiazabal*

*Location: CCIS 1 440*

Differences in terms of age, consistency, homogeneity and age in the grammatical development of early bilinguals (L1 vs. L2; simultaneous vs. successive bilinguals, weak vs. strong bilinguals) have been generally attributed to the age of acquisition and to the different amount and kind of exposure to the language as well (Meisel 2007, Montrul 2008). Moreover, quantitative and qualitative differences are found between very early L2 acquisition between 3-4 and early L2, at ages 6-7 (Meisel 2010). Basque is a minority language without adult monolingual adult speakers, spoken in the Basque Country, a region located at the French and the Spanish sides of the Atlantic Pyrenean Mountains. It has the co-official language status with Spanish in the Spanish area (CAV and parts of Navarra) which has not in the French Basque Country, but nevertheless it is the predominant school language in many schools in both areas. Many children growing up in the Basque Country acquire Basque either as (2) L1, in the family, and/or as L2, through kindergartens and schools located in areas where Basque is frequently heard but also where it is rarely spoken outside school. The current paper discusses the relevance of input (in formal and informal contexts) in early L2, putting together data of apparently contradictory studies from early Spanish-Basque bilingual primary school children. Some of these studies found differences between the L1 and the early L2 groups in case marking (Ezeizabarrena 2013), whereas no differences were found in the production of verbal morphology (Ezeizabarrena et al. 2012), the comprehension of quantifiers (Barberan, in press) and in narratives (Manterola et al. 2013).

## Case and word order in heritage Greek children

*Vicky Chondrogianni & Richard Schwartz*

*Location: CCIS L1 140*

The acquisition of case-marking is challenging for heritage speakers acquiring typologically different languages with most studies focusing on production in heritage adults (e.g. Montrul, 2016) and fewer studies investigating the interaction between word order and case-marking in sentence comprehension in heritage children (e.g. Kim, O'Grady & Schwartz, 2017).

The present study investigated the (extra-)linguistic (e.g. case ambiguity, proficiency and (early) use of the heritage language) factors that affect heritage children's ability to produce case and integrate word order and case-marking cues in sentence comprehension when the dominant language (English) offers evidence for word order cues but the heritage language (Greek) uses case-marking cues. Thirty-two 6- to 12-year old Greek heritage-English dominant bilingual children from New York and thirty age-matched Greek-speaking children residing in Greece were administered a case elicitation task and a sentence-picture judgment task depicting simple transitive actions with canonical (S.NOM-V.O.ACC) and non-canonical (O.ACC-V-S.NOM) conditions with masculine nouns that unambiguously mark nominative/accusative case in Greek, and conditions where one of the arguments carried ambiguous case-marking cues with neuter noun.

The Greek monolingual children performed (almost) at ceiling across tasks. Heritage children exhibited syncretic errors in production conflating gender and case errors in the masculine and feminine and substituting target forms with a default form. In the comprehension task, they exhibited ceiling performance on the canonical conditions, where the word orders in their dominant language (English) and their heritage language (Greek) overlap, whereas group performance on the non-canonical conditions was at chance. This performance was modulated by the ambiguity of the case-marking cue and by children's early (0-5 years) exposure to Greek. Given that individual variation exhibited a binomial distribution between children using either English (word order) or Greek (case-marking) parsing strategies, these results raise important implications regarding the nature and the factors that

shape heritage grammars.

Keywords: heritage children; case; word order

## **Translation as Translingual Writing Practice in English as an Additional Language**

*Ingrid Rodrick Beiler & Joke Dewilde*

*Location: CCIS L1 160*

Translation can activate students' linguistic repertoires and build metalinguistic awareness, particularly in linguistically diverse classrooms (Cummins, 2008; Wilson & González Davies, 2017). However, little research directly examines students' translation practices during writing. The current study investigates multilingual students' translation practices during English writing instruction, interpreting these in a translingual perspective (Canagarajah, 2013).

The study is a linguistic ethnography (Copland & Creese, 2015) based on three months of participant observation in two lower secondary reception classes for recent immigrants (participants = 2 teachers, 22 students) at an urban school in Norway. Data include field notes, classroom video- and audio-recordings, recordings of students' computer screens, student texts, and language portraits, which formed the basis for stimulated-recall interviews.

Findings indicate complex use of translation across students' writing processes. Students use translation to generate words, verify their usages, understand texts, and sustain multilingual repertoires. They apply a variety of linguistic and mediational strategies, involving multiple steps across several languages or tools. Students nonetheless display conflicted ideologies, describing translation as a resource but also aiming to work monolingually. Applying a translingual lens to these practices breaks down the strict dichotomy between translation and monolingual writing processes by recognizing the interconnectedness of semiotic resources across modalities, media, and monolingual-multilingual features (see Canagarajah, 2013).

Keywords: writing; translation; English

## Attitudes and Perceptions of Teachers and Students towards Multilingualism

*Michal Tannenbaum, Amir Michalovich & Elana Shohamy*

*Location: BS M 141*

A prerequisite for an engaged approach to language policy is to promote critical dialogue with social actors from different groups in society so that they will equitably inform policies that are bound to affect their lives (Davis, 2014). This is particularly crucial for contexts of nations that are characterized by continuous immigration, and minority groups whose L1 is different from the official dominant language. The context of the current research is the development of a new multilingual policy for Israel's education system. In an effort to follow an engaged approach, we examined the attitudes and perceptions of students and teachers, Israeli born and immigrants, from both the Arab and Jewish sectors, regarding multiple dimensions of multilingual education. The mixed-methods study, utilizing questionnaires (1594 students, 498 teachers) and 12 focus groups, shows that the more expansive the linguistic repertoire of participants, such as the number of languages they were exposed to at home, languages they know beyond a basic level, or number of L1s, the more positive their attitudes were towards learning multiple languages (LML) as well as towards translanguaging (TL). Overall, teachers' attitudes were more positive towards LML and TL than those of students, and attitudes of Jews were more positive towards LML and TL than those of Arabs. Jewish immigrants' attitudes towards LML were more positive than those of Jews born in Israel. As focus group data show, these differences between groups are grounded in debates concerning the maintenance and survival of language, culture, and national identity. The results of the study will inform future dialogue with diverse social actors for co-construction of the new policy, in an effort to promote transformative education and societal equity.

Keywords: language policy; multilingual education

## Second Language Proficiency and Executive Functions in Children Enrolled in English as a Second Language Programs

*Serena McDiarmid & Heather Henderson*

*Location: BS M 145*

Much research has compared the executive functions (EFs) of bilinguals and monolinguals. However, new research is moving beyond simple monolingual-bilingual comparisons by examining how variation in bilingual experience impacts EFs. For example, balanced bilingualism has been associated with stronger cognitive flexibility in young adults (Yow & Li, 2015).

We examine whether second language (L2) proficiency impacts EFs in a novel population of 7- to 12-year-old primarily refugee children ( $n = 42$ ) who are native Arabic-speakers enrolled in English as a Second Language (ESL) programs in Ontario schools. Specially-trained ESL teachers provided data on children's holistic oral L2 proficiency using a standard Ontario Ministry of Education (2015) tool. Using these data, children were classified as low or moderate L2 proficiency.

We compared EF performance of the age-matched ability groups on the flanker and dimensional card change sort tasks (DCCS) from the NIH Toolbox (Bauer & Zelazo, 2014). The NIH Toolbox norms and standardizes flanker and DCCS scores, and scores account for accuracy and reaction time (RT; NIH Toolbox, 2012). Comparisons of age-corrected flanker and DCCS scores between children with low and moderate L2 proficiency revealed comparable scores on the flanker task ( $p = .224$ ) but a trend towards

stronger performance by the moderate L2 proficiency group on the DCCS task ( $p=.062$ ). Further comparisons of DCCS performance revealed no accuracy difference between groups ( $p=.182$ ) but a faster overall RT in the moderate L2 proficiency group ( $p=.033$ ). This improved RT was more marked in switch trials, which require cognitive flexibility ( $p=.031$ ), compared to stay trials, which do not ( $p=.060$ ).

These results suggest that greater L2 proficiency is associated with stronger cognitive flexibility but not inhibition for children in ESL programs. Future research directions include longitudinal studies exploring individual differences in L2 learning and EF development. Implications for ESL teachers will be discussed.

Keywords: Executive functions; children; second language learners

## **Adoptive parents' attitudes towards bilingualism and their effects**

*Jogilè Teresa Ramonaitè*

*Location: BS M 149*

In the context of international adoption from Eastern Europe there is a high percentage of children adopted at a school age, therefore, they already possess an L1 and become bilingual after the adoption. Adoption is a very specific situation where psychological aspects have an extremely strong influence on the behavior of the child in general and also specifically on the linguistic behavior. Given the traumatizing experience of the child in the past he or she is likely to associate that experience with everything else in this "old" environment when comparing it to the "new" life after the adoption. These new speakers of a language acquired only after adoption typically become native or almost native.

The adoptive parents play an extremely important role in the new lives of their children and therefore their attitudes towards bilingualism of their children, i.e. maintaining or improving their original mother-tongue, are an important factor to consider. This paper draws on data from a sociolinguistic survey of Italian families ( $n=74$ , children in families= $117$ ) who have adopted children from Lithuania. The families were asked to elaborate on their view on languages as well as attitudes towards Lithuanian. This data is then compared to the situation of acquisition of Italian and decline (or not) of Lithuanian. The study reveals the positive and the negative effects adoptive parents' attitudes have for the bilingualism of the children.

Keywords: international adoption; language attitudes;

## **Theme Session Talk**

### **Relation between Quality and Quantity of Language Input and Brain Responses in Spanish-English Bilingual Infants.**

*Adrián García-Sierra & Nairán Ramírez-Esparza*

*Location: CCIS 1 140*

Language development in bilingual children has been mostly investigated as a function of the quantity of language input, but less is known regarding the quality of language input. In this talk, we present two studies where quantity and quality of language input is assessed in Spanish-English bilingual infants ( $N = 19$ ; 11-and14-months old). Language development was evaluated by means of a brain response (i.e., pMMRs) that has been proposed to reflect increased attention for perceptual routines that are not yet fully learned. In the first study, the quantity of language input was calculated with digital recorders

that the bilingual infants wore during 4 days. The results demonstrated that quantity of language input was associated with the pMMR for their native speech sounds (i.e., Spanish, English). Precisely, the pMMR amplitude positively correlated with amount of language input, which suggested that the amount of language input helps establishing the perceptual routines for speech perception. In the second study, quality of language input was calculated in the form of vowel space area (VSA) while caregivers read to their infants using infant directed speech in Spanish at home. Caregivers' VSAs in adult directed speech (ADS) were also calculated while reading to another adult in the lab. Results demonstrated that after controlling for socioeconomic status, amount of language input, and age, there was a strong relation between caregivers' VSA in IDS and pMMRs for the Spanish contrast. The results showed, no significant correlation between caregivers' VSA in IDS and pMMRs for the English contrast, and no significant correlations were found between caregivers' VSA in ADS and infants' pMMRs to both speech contrasts. Implications on the relevance that quantity and quality of speech has over early speech discrimination abilities in bilingual infants are discussed.

## Theme Session Talk

### Marketing Discourses and World Englishes: A Comparison of France and Quebec

*Elizabeth Martin*

*Location: CCIS 1 430*

Bi/multilingual discourses in advertising have been the subject of intense research over the past thirty years. Many of those investigating this phenomenon have noted the predominant role of English in advertising across cultures, highlighting various facets of bilingual creativity and the impact of globalization on communication and marketing. Within the context of the world Englishes (WE) paradigm, the bulk of this research has been conducted in Outer and Expanding Circle countries (e.g., India, Pakistan, Russia, Korea, Taiwan, France). The present study further explores these themes by comparing the use of English in French-language advertising aimed at audiences in France (an Expanding Circle country) and Quebec (located in the Inner Circle), a Canadian province where Francophones account for 81% of the population.

A comparative analysis of 385 advertisements reveals that French-speaking consumers in Europe have a far greater exposure to English than their French Canadian counterparts, calling into question the traditional ENL/ESL/EFL distinction between Inner Circle, Outer Circle and Expanding Circle countries. Whereas nearly one-fifth of the advertisements collected in France feature monolingual English slogans, these are virtually nonexistent in Quebec advertising. Bilingual slogans and brand taglines are more prevalent in the European data as well. Furthermore, advertisements in France are nearly twice as likely to contain assimilated English borrowings as compared to those in Quebec. Phenomena primarily seen in Quebec advertisements, on the other hand, include translated brands, calques, and verbal/visual indexing of target market.

This study provides additional evidence of the increasing currency of English in Expanding Circle countries while demonstrating how the degree of adherence to language policy is closely linked to language attitudes and other socio-cultural variables. Although both Quebec and France have a long-standing tradition of language planning in favor of French, advertising practices differ quite significantly due to their respective socio-historical and communicative contexts.

## Theme Session Talk

### Parental Input Effects in heritage contexts

*Evangelia Daskalaki, Vicky Chondrogianni, Elma Blom, Froso Argyri & Johanne Paradis*

*Location: CCIS 1 440*

In this paper, we will present two studies investigating the role of parental input quantity and parental input quality on the acquisition of Greek as a heritage language in North America (Daskalaki, Chondrogianni, Blom, Argyri, and Paradis, 2018; Daskalaki, Blom, Chondrogianni, and Paradis, in submission). Focusing on subject use (a phenomenon that has been shown to be challenging for populations learning Greek under the influence of English), we tested four groups of Greek speakers: monolingual children, heritage children, and the parental interlocutors of each one of those groups. All four groups, completed a language environment questionnaire and an elicited production task, designed to elicit subject realization and placement in contexts where null or postverbal subjects are preferred in the monolingual variety. Results gave rise to two main conclusions: First, the parental input received by heritage children is qualitatively different from the parental input received by monolingual children, in that it contains a higher rate of preverbal subjects in contexts where monolinguals would prefer postverbal subjects. Second, both quantitative and qualitative aspects of the parental input may affect the outcome of heritage language acquisition, in that children producing a higher rate of preverbal subjects had parents whose Greek input was not only quantitatively reduced, but also richer in preverbal subjects. Overall, these findings highlight the advantage of operationalizing heritage input as a complex construct comprising both quantitative aspects (such as the daily amount of exposure) and qualitative aspects (such as the degree of convergence with the monolingual variety in the form and use of specific structures) and invite us to consider the possibility that the divergent patterns often observed in the language of heritage speakers are due in part to the heterogeneity of the input they are exposed to.

## **Grammatical proficiency in adolescent heritage speakers: Does age of onset of bilingualism matter?**

*Brehmer Bernhard*

*Location: CCIS L1 140*

One fundamental criticism of research on heritage languages concerns the fact that most studies do not distinguish between different types of bilingual acquisition in heritage speakers (HS). Meisel (2013), among others, criticizes that the age of onset of the acquisition (AoA) of the two languages by HS is often not consistently controlled for in heritage linguistics. The failure to distinguish between simultaneous and (early) successive bilingual acquisition could indeed be a factor that accounts for the vast amount of interindividual variation in heritage language proficiency that most studies observe. Studies that carefully distinguished between simultaneous and successive HS showed inconclusive results: In some instances AoA turned out to be a relevant factor in favor of successive bilinguals who performed better than simultaneous bilingual HS (Montrul 2002), in other studies there was no statistical difference between the two types of HS (Montrul & Sánchez-Walker 2013).

In the current study we systematically distinguish between adolescent HS of Russian and Polish who grew up simultaneously with their heritage and majority language (in our case German) (Polish group: n=12; Russian group: n=7) and heritage speakers whose first extensive exposure to the majority language occurred when they entered kindergarten or primary school (Polish group: n=10, Russian group: n=19). We investigate grammatical proficiency in the heritage language (and also German) by means of a cloze test which targeted nominal and verbal inflection. Furthermore, additional data on case marking were gathered in a picture story description task. All participants belong to the same age group (age at testing: 11-14 years, mean age: 12,6 for both groups).

The results cannot confirm a statistically significant difference between the two groups of HS, neither for the scores in the heritage language, nor for German, despite considerable inter-individual variation. Possible explanations for this outcome will be discussed in the talk.

Keywords: heritage linguistics; age of onset; grammatical proficiency

## **Southern multilingualisms, translanguaging and transknowledging**

*Kathleen Heugh*

*Location: CCIS L1 160*

Despite 15 years of considerable attention to diversity, accompanied by awakening interest in 'multilingualism as the new linguistic dispensation' (Aronin & Singleton 2008), 'the multilingual turn' (May 2013), and 'translanguaging' (e.g. García 2009, García & Wei 2014, Wei 2017) there seems to be a gap in mainstream debates. This has to do with a focus on language rather than a focus on language together with an exchange and translation of knowledge. The gap signals an implicit assumption that either epistemic knowledge embedded in one language and community is easily translatable to another, or that there is only one epistemic system of value, that of the mainstream. The substance and processes of multilingualism and translanguaging (albeit in different vocabularies), have been matters of animated debate for 150 years in Africa and South Asia (Agnihotri, 2014). Embedded in these debates is a recognition of the role of translating different systems of knowledge, belief and being in bi-/multilingual education.

I argue that much contemporary literature that invokes notions of linguistic fluidity, i.e. translanguaging, needs to be read with caution, and that: a) the current lens inadvertently displaces the role of knowledge production and translation; and b) claims of social justice arising from translanguaging pedagogies in the absence of transknowledging require more careful contextualisation and substantiation. On the basis of my participation in several large-scale studies in Africa (e.g. Heugh 2012), and smaller-scale studies in an institution of higher education in Australia (e.g. Heugh, Li and Song, 2017), I suggest that we need a clearer understanding of two-way translation and knowledge exchange (transknowledging), how these are best facilitated in bi-/multilingual education, and how pedagogies that balance transknowledging and both horizontal and vertical dimensions of translanguaging (Heugh 2018) are fundamental to equitable and socially just education.

Keywords: multilingualism; translanguaging; transknowledging

## Sensitivity to morphophonological gender cues in heritage Russian

*Yulia Rodina, Natalia Mitrofanova, Tanja Kupisch, Olga Urek & Marit Westergaard*

*Location: BS M 145*

The paper investigates what mechanisms child heritage speakers of Russian use to predict gender, asking whether they develop a system of formal gender assignment rules. The participants are 60 German-Russian bilinguals (mean age=6;2), 54 Norwegian-Russian bilinguals (mean age=6;9), and 87 Russian monolingual controls (mean age=5;2). Russian makes a masculine-feminine-neuter distinction with a masculine default. Most nouns exhibit transparent gender cues, but certain noun classes are opaque/ambiguous.

Grammatical gender is shown to be problematic for bilingual speakers, especially in cases where gender assignment is opaque (Polinsky 2008; Schwartz et al. 2015; Rodina and Westergaard 2017). Previous findings differ with respect to the kind of errors children make: restructuring to a two-gender system (masculine-feminine, Polinsky 2008) or defaulting to masculine (Rodina and Westergaard 2017). Furthermore, it is not clear to what extent children are sensitive to gender cues or whether certain agreement patterns are simply memorized. To investigate this, we elicited gender agreement with both existing and nonce words and tested both transparent and opaque gender cues.

The results show that all groups rely on morphophonological cues to assign gender to real and nonce nouns. The accuracy is higher on real than nonce words, which may be attributed to lexical retrieval being more efficient than computation. However, heritage speakers do not rely more on lexical knowledge than monolinguals, as the magnitude of difference in accuracy between real and nonce tasks is the same for all groups. The most common and robust error pattern for all bilinguals involves overgeneralization to masculine (especially affecting neuter and opaque nouns). Defaulting to masculine is substantially more pronounced in the Norwegian-Russian than in the German-Russian group. We suggest that this difference can be attributed to differences in exposure (kindergarten start at age 1 in Norway and age 3 in Germany) and/or cross-linguistic effects from the majority language.

Keywords: gender; heritage; Russian

## Culture and Conversation: A comparison of mother-child discourse in the US and Thailand

*Sirada Rochanavibhata, Julia Borland & Viorica Marian*

*Location: BS M 149*

Children typically acquire language from social partners (Vygotsky, 1978). The language input that children receive is highly variable (Hoff, 2006). One of the factors that contributes to such variability is cultural background (e.g., Wang, 2001). The present study compared conversations in American and Thai mother-preschooler dyads, specifically how mother-child narrative styles differ across cultures and how maternal and child patterns of discourse are related.

Participants were 21 English monolingual dyads living in the US and 21 Thai monolingual dyads living in Thailand. Children were 4-year-old preschoolers. Dyads were video-recorded while completing a prompted reminiscing task. Mothers elicited autobiographical memories from their children using word prompts. Recordings were transcribed using CHAT (MacWhinney, 2000) and coded for specific language measures (inter-rater reliability  $\kappa=.93$ ).

Data were analyzed using t-tests to compare the two groups' mean frequency of each language measure. Results revealed differences in conversation styles between the American and Thai groups ( $p < .05$ ). American mothers spoke more than Thai mothers. Similarly, American children spoke more than their Thai peers. Thai mothers discussed behavioral expectations and used action directives more than American mothers, whereas American mothers gave more affirmations and evaluative feedback than Thai mothers. Furthermore, significant positive correlations ( $p < .05$ ) were observed between maternal and child narrative length, discussion of behavioral expectations, and use of affirmations and evaluative feedback.

These findings suggest that mother-child conversation styles reflect culture-specific socialization goals. By interacting with more competent social partners, children start to internalize pragmatic rules and apply them appropriately. Because language and culture are closely intertwined, the question remains whether the two groups of mother-child dyads show distinct conversation styles as a result of the language they speak or of the different cultural influences. Future directions will examine how cultural identification and language proficiency moderate the relationship between language of conversation and discourse styles in bilinguals.

Keywords: cross-cultural; mother-child interactions; language development

## Theme Session Talk

### Early language experience and lexical form acquisition: an event-related potential (ERP) study in bilingual toddlers

*Pia Rämä & Oytun Aygun*

*Location: CCIS 1 140*

Infant brains react to word meaning and familiarity. Brain responses are enhanced for words that are already familiar to an infant (Mills, Coffey- Corina, Neville, 1997). In an ERP study in 24-month-old monolinguals, we demonstrated that repetitive exposure to previously unknown words during the course of the experiment modulates brain activity (Aygun & Rämä, 2018). A positive response around 200ms after word onset decreased its amplitude with repetition. In contrast to evidence obtained earlier in monolingual adults (Kimppa, Kujala, Leminen, Vainio, & Shtyrov, 2015), a similar modulation was also observed for non-native-like words in monolingual toddlers, suggesting a higher plasticity in their developing brains. However, modulation was not observed for familiar words, suggesting that it might represent a neural correlate of lexical learning. Here, we further investigated how bilingual experience affects neural correlates of word learning. Bilingual toddlers of 24 months of age (learning French as a dominant language alongside another non-dominant language, e.g., English, German, Spanish) were exposed to familiar, native (French) and non-native unfamiliar words during the experiment. The ERPs were averaged according to the word type and exposure time (initial and late part of the experiment). The results showed no neural modulation for unfamiliar native and non-native words during the course of the experiment, while, in contrast to monolingual toddlers, neuronal modulation was observed for familiar words in bilingual toddlers. Our results suggest that bilingual language exposure during early childhood may affect the strength of lexical representations even in their dominant language, and word learning mechanisms might differ from those of monolingual toddlers.

## Theme Session Talk

### Multilingualism in the Expanding Circle: English as an Additional Language

*Suzanne K. Hilgendorf, Simon Fraser University.*

*Discussant: Joel Heng-Hartse, Simon Fraser University*

*Location: CCIS 1 430*

This panel explores increasing English use in recent decades within established speech communities of Kachru's (1990) Expanding Circle (EC). This growing range and depth is illustrated in the domains of advertising and transnational media within the contexts of France, Morocco, and Germany. The presentations focus on the social reality of English use, which often contradicts articulated language attitudes and identities. The findings question the contemporary validity of Kachru's (1990) original categorization of English as a Foreign Language in the EC. The language's growing uses indicate instead a de facto Additional Language that is used as part of local multilingual repertoires.

## **Theme Session Talk**

### **Temporary Stage of Low Grammaticality in Dual Language Learners: Language proficiency Shift vs. Language Impairment**

*Amy Castilla-Earls*

*Location: CCIS 1 440*

This retrospective study examines the impact of the Spanish to English shift on the grammaticality of dual language learners. This is a longitudinal study examining the language growth in Spanish and English of a group of 1030 dual language learners over a period of five years. The results of this study revealed a pattern of percentage of grammatical utterances (PGU) acceleration in English and PGU deceleration in Spanish. Patterns of deceleration in Spanish PGU were evident in both English-only and Spanish-instruction programs, but the deceleration was slower in Spanish instruction programs. There is evidence of a period of time (around 8 years of age) in which both Spanish and English PGU seems to be below normal limits for clinical studies. Clinicians and researchers should be aware of this temporary stage in which dual language learners show low Spanish and English PGU, and avoid over-identifying these children as language impaired. This study was funded by the National Institute of Deafness and Other Communication Disorders (Grants: 1K23DC015835-01 and 1R15DC013670-01A1)

### **Simplification of Grammatical Constructions in Heritage Russian and Russian as a Second Language: Divergence or Delay?**

*Galina Dobrova & Natalia Ringblom*

*Location: CCIS L1 140*

This presentation will take a closer look at linked linguistic units (also known as gestalt constructions) produced by young Heritage Speakers (HS) when naming a word in a vocabulary test. The main research question is whether a child HS's lexical development and grammatical competence in their HL is qualitatively different from those of monolingual Russian-speaking children and if this is the case, what accounts for these differences.

A total of 40 children took part in the experiment: 10 simultaneous Russian-Swedish bilingual children and 10 successive Russian-Swedish bilinguals who lived in Sweden, 10 children who moved to Russia and acquired Russian as a second language, and 10 monolingual Russian children living in Russia (as a control group). All the children were tested with the Russian version of Cross-Linguistic Tasks (CLT; Nenonen, Gagarina 2016). The results showed that some strategies were common for all the children, for example, applying a ready-made construction for a particular word without dividing it into separate

words. The constructions seem to be present wholes in the children's mental lexicon. The error pattern in all the groups of children seemed to be similar; yet, the acquisition of some structures appeared to be delayed in Russian Heritage Language (HL) children. Gestalt constructions are common for all the children, but in bilingual children the effects of cross-linguistic influence (CLI) were also noticed. Based on a closer look at gestalt constructions, we argue that 'atypical' construction does not necessarily need to be disordered, since the two languages of the HL child develop in contact with each other, where especially the stronger (i.e. the societal language) influences the weaker one. However, a pattern of much delayed acquisition can later lead to divergent development in the weaker language of HS.

Keywords: Heritage learners, Russian, Swedish

## **L1 grammatical gender variation in bilingual lexical access: Novel findings from L1 Flemish-L2 Spanish speakers**

*Rachel Klassen, Lieve Vangehuchten & Almudena Basanta y Romero-Valdespino*

*Location: CCIS L1 160*

Previous bilingual lexical access research has shown that the representation of grammatical gender is integrated between the L1 and L2 (i.e., Paolieri et al. 2010). Though there is evidence that this holds even for asymmetric gender systems (i.e., Spanish-German), little is known about the effect of L1 gender variation on the bilingual lexicon. Only one previous study has examined this, finding no impact of L1 Flemish gender on L2 gender assignment with German-Dutch cognates (Vanhove 2017).

To address this gap, 206 L1 Flemish-L2 Spanish (intermediate) speakers completed an online Spanish gender decision task in which they selected a definite article (elM, laF) for 60 inanimate nouns matched for written and oral frequency. Stimuli were manipulated according to the gender in the L1 and L2 such that masculine or feminine Spanish nouns were either common or neuter in Dutch but masculine, feminine, common or neuter in Flemish.

Results (<https://imgur.com/4lNFzJl>) showed a main effect of L1-L2 gender in both accuracy and reaction times ( $p < .001$ ). Interestingly, though accuracy did not differ significantly between common and masculine ( $p = .225$ ) or common and feminine nouns ( $p = .346$ ), responses were significantly slower with masculine ( $p < .001$ ) and feminine ( $p = .002$ ) nouns than common ones. Following Klassen (2016), this is attributable to the asymmetries between the L1 and L2: while Dutch and Spanish are completely asymmetric, Flemish and Spanish both display masculine and feminine. This overlap does not affect accuracy in L2 gender assignment, but reaction times reveal a different underlying representation. Masculine and feminine have a shared representation between the L1 and the L2 that creates increased cross-linguistic competition, slowing the response as compared to common nouns which have no equivalent in the L2.

These novel findings offer a fresh perspective on the representation of grammatical gender in the bilingual lexicon and invite further L1 gender variation research.

Keywords: grammatical gender; bilingual lexicon; psycholinguistics

## Theme Session Chair

# Developmental trajectories of language and literacy skills in primary school bilinguals in England

*Ludovica Serratrice*

*Location: BS M 145*

Like many other English-speaking countries, the UK is becoming an ever more linguistically diverse society. In England alone in January 2018 21.2% of children entering primary school were classified as having English as an Additional Language (EAL), an increase of 0.6% since January 2017. The makeup of the EAL primary school population in England is also very linguistically heterogeneous with a wide variety of different languages represented in any one classroom, and no provision for bilingual programs in state schools. English is the only medium of instruction, and it is the language in which children's language and literacy outcomes are formally assessed.

Evidence that English proficiency is a strong predictor of academic success in this population is now increasingly being recognised. It is therefore imperative to know more about what, in turn, predicts EAL children's language and literacy proficiency, not only in terms of concurrent relationships at a given time point, but from a longitudinal perspective. Developmental trajectories inform our understanding of long-term outcomes, and they are important from a pedagogical point of view in setting expectations of progression over time.

There is still a dearth of longitudinal studies of language and literacy outcomes in EAL children that reflect the situation in the UK context, and the specific linguistic heterogeneity of the primary school population. A number of predictive models for listening and reading comprehension in monolingual children have been proposed in the recent years; it is however unclear whether these models can be applied to a bilingual population, which is characterised by specific language strengths and weaknesses, especially in a the heterogeneous UK environment, where children's linguistic and social background tends to be much more varied than in other countries, such as the US.

In this theme session we will report the findings of three recent UK-based longitudinal studies that address different aspects of the language and literacy development of EAL learners in the early years of primary school. Study 1 focuses on predictors of listening comprehension in the second year of formal education and finds a strong predictive role for vocabulary – specifically vocabulary depth – and morphosyntax on the understanding of local and global inferences in oral texts. Study 2 turns its attention to EAL learners' relative strength: word decoding skills in the first two years of primary schools and tracks growth over time showing different gradients for EAL learners and monolingual peers. Study 3 follows the trajectory of linguistic and cognitive skills in the transition from pre-school to the third year of primary schools and confirms a pattern in which EAL learners' profile shows strengths in code-related skills, memory, and literacy skills, but weaknesses in oral language.

Theoretical and pedagogical implications of the findings in the three papers will be brought together in the general discussion of developmental trajectories of language and literacy outcomes in EAL learners.

Keywords: longitudinal trajectories; listening comprehension, literacy development

## Bilingual Early Literacy Intervention in French Immersion

*Claire Sullivan & Gloria Ramirez*

*Location: BS M 141*

The purpose of this research was to identify effective instruments in detecting vulnerable French Immersion students as well as effective interventions that facilitate literacy development in at risk students. 51 French Immersion Kindergarten students from a single-track French Immersion school in a small city in the interior of BC participated in the study. After initial screening, seven students were identified as being at risk of a reading disability based on their below average performance on English (their first language) vocabulary, phonological awareness, and letter sound recognition. These students received focused instruction over a period of four months, 30 minutes, three times per week in the areas of phonics and vocabulary. The first half of the intervention was in English and the second half in French. Post-treatment test performance indicated that students who participated in the intervention made significant gains in English letter recognition and their performance on French letter recognition was equal to their English performance, which suggests cross-linguistic transfer. It is possible that by way of cross language transfer, an improvement in their English language skills advanced their ability to learn French. More importantly, whereas the difference in performance between the control and the intervention group at pre-test was significant, the difference between both groups at post-test was not longer statistically significant. In other words, the children who were initially behind caught up with the rest of their peers after the intervention. The discussion will focus on the importance of bilingual early literacy intervention in French immersion.

Keywords: French Immersion; at-risk learners; bilingual early literacy intervention

### Theme Session Talk

## Listening comprehension in children learning English as an additional language (EAL): The role of vocabulary and grammar on local and global inferences

*Alessandra Valentini & Ludovica Serratrice*

*Location: BS M 145*

Aim: The aim of this study was to investigate the contribution of memory, attention, lexical and grammatical skills, and non-verbal inferencing to EAL learners' ability to make local and global inferences from oral texts.

Methods: 94 EAL learners with 26 different home languages were recruited in English schools (mean age 5;8). Children were assessed twice over the school year. At T1 we assessed their listening comprehension, memory skills, vocabulary breadth and depth, morpho-syntax, comprehension monitoring and non-verbal inferencing skills. Cumulative amount of English input was measured through a parental questionnaire at T1. A similar testing procedure was followed at T2. The listening comprehension task included three short stories with two literal questions, three questions on local inferences and three on global inferences.

Results: At both time points accuracy was significantly greater for text-connecting local inferences than for global inferences requiring reliance on world knowledge. Global and local inferences accuracy at T2 was predicted by vocabulary depth and morpho-syntax at T1. When listening comprehension at T1 was entered as a mediator in the model, morpho-syntax at T1 still directly predicted a significant amount of variance in listening comprehension at T2, as well as an indirect effect through listening

comprehension at T1. English input did not directly predict listening comprehension, at either times, but explained a significant amount of variance in vocabulary depth and morpho-syntax.

Conclusions: Bilingual children find it easier to solve local than global inferences, as has been previously found for monolinguals. The results further confirm the importance of both vocabulary and grammar for listening comprehension, and suggest that vocabulary depth might be a better predictor of inferencing than breadth. Even when controlling for listening comprehension at T1, morpho-syntax continued to predict listening comprehension six months later, while cumulative English input only influenced comprehension indirectly via vocabulary and morpho-syntax.

## **Weakness, strength, and purity: National identities and language ideologies in Kazakhstan and Mongolia**

*Kara Fleming*

*Location: BS M 149*

This talk will examine how ideologies around keeping languages “pure” and safeguarding them from threats are connected to nationalist identity projects in two contexts, Kazakhstan and Mongolia. Despite their distinct histories and present-day realities, in both contexts a seemingly paradoxical set of discourses can be found in policy and media: the idea that the national language (Kazakh / Mongolian) is strong and self-confident, and simultaneously weak and in need of protection. Various actors frame these discourses within particular scales of reference in order to make certain claims about language - for instance, in positioning certain linguistic or political “threats” as “nation-internal” or “nation-external”; in casting the nation against powerful neighbors, particularly China and Russia; or in drawing boundaries within the nation itself, for instance by disparaging “unacceptable” forms of multilingual practice. Though both nations have real and painful histories of conflict and control, the fact that similar discourses have been described regarding some of the most widely spoken languages in the world, such as English and French (Schmidt 2007, Moise 2007), suggests that the situation is not necessarily a simple matter of a group of people reclaiming linguistic rights, and that the invocation of linguistic threat cannot be uncritically accepted. Drawing on interviews and policy analysis, this talk argues that linguistic threat can be used as a way to justify policies which are ultimately more about nationalist consolidation than linguistic emancipation.

Keywords: nationalism; language ideologies; threatened languages

## **Majority Language Classes Aid Development of the Heritage Language: Examining Causal Relationships Between Bilingual Writing**

*Nicole Marx & Torsten Steinhoff*

*Location: CCIS 1 140*

With increasingly tight class schedules, time-consuming aspects of language teaching and learning such as writing are often neglected. This is especially true for heritage language (HL) classes in Germany, and the development of writing literacy, especially regarding textual and genre aspects, receives little class time. However, since such knowledge may be similar across languages, pedagogy which opens the possibility of cross-linguistic transfer may benefit all languages of a learner (interdependence hypothesis, Cummins 2010).

The present intervention study focused on the development of specific genre aspects in descriptive texts in the majority language and investigated whether these could be transferred to writing in a HL.

Participants were 91 Grade 6 students in Germany who attended Turkish HL classes. The intervention took place solely in German classes. Students were assigned to one of four intervention settings based on specific types of linguistic input. They composed descriptive texts in German in a pre-task, four weekly intervention tasks, and two follow-up tasks, and in the same weeks in Turkish in a control condition. A possible interdependence of writing knowledge was investigated by studying changes in writing quality in both languages.

The resulting 1218 written texts were analysed according to three measures: (1) text length, (2) an analytic rating of text quality, and (3) a holistic rating based on the NAEP assessments. Results were analysed using repeated-measures ANOVAs. Results showed, first, significant interlingual associations on all measures of text quality. Second, differential intra- and interlingual intervention effects were apparent, with students in certain intervention groups being able to use their newly acquired knowledge in German and transfer it effectively into their HL. Thus, it appears that genre knowledge can transfer between languages. This opens possibilities for cooperation between language classes regarding students' literacy development in both majority and heritage languages.

### **(Ir)rational decision-making and loss aversion in L2 reasoning**

*Zoe Schlueter, Chris Cummins & Antonella Sorace*

*Location: CCIS L2 190*

Recent research suggests that people are less prone to irrational decision-making in their L2. We explore this in a study investigating loss aversion bias in native Chinese and Italian speakers and do not replicate the finding that L2 users' decision-making is "more rational" than that of L1 speakers.

Our study used two distinct versions of the classic paradigm by Kahneman and Tversky (a disease and an economic scenario). Participants were presented with a situation and had to choose between a safe and a risky option with equal expected value. Options were either framed in terms of gain or loss. In previous research, L1 speakers showed a loss aversion bias reflected in a higher proportion of safe choices in the gain compared to the loss frame (framing effect), but this effect was reduced in L2 speakers. This has been argued to be due to the lower emotional weight associated with the L2. However, the optimal choice depends on how the number terms in the materials are interpreted, so it could be due to subtle differences in native and non-native interpretations associated with proficiency.

We found a significant framing effect for both the Chinese and Italian group, suggesting that high proficiency L2 speakers behave similar to L1 speakers in respect to loss aversion. While we did not replicate the lack of framing effect from previous studies, there was a numerical trend towards a stronger framing effect for L2 speakers who attached more emotional weight to their L2. Interestingly, the Chinese group showed a framing effect only in the economic but not the disease scenario. We suggest that this is due to the materials: the economic scenario used much larger numbers than the disease scenario (hundreds vs. hundred-thousands). Future research will explore how this might have induced different interpretations of the number terms.

Keywords: pragmatics; reasoning; number

### **Immigrant parents' rich ways to nurture their children's language repertoires: two longitudinal ethnographic case studies in Iceland**

*Renata Emilsson Peskova & Kriselle Lou Suson Jónsdóttir*

*Location: CCIS 1 430*

Parents raising bilingual children tend to use different language patterns within the family (Slavkov, 2016). Researchers in the past who explored the development of their own children's language and literacy development revealed the language use at home as an integral factor for successful bilingual development (Dewaele, 2000; Hoffmann, 1985; Leopold, 1939-1949). To nurture this development, parents need to be equipped with the skills and resources to actively promote language use, and to overcome conflicts that may arise (Kopeliovich, 2013; Curdt-Christiansen, 2009). However, in the country where immigration is relatively new, active parents also need to create structures favourable to plurilingual children outside of their homes.

This paper documents and analyzes immigrant parents' ten year long plurilingual practice with their children, and opportunities they created for them inside and outside of home to promote their language repertoires; it further documents the parents' values and language competencies. The language repertoire is here understood as a sum of all language skills of an individual that changes with time and is dynamically employed according to the situation (Council of Europe, 2007). Data were derived from a ten-year long collection of parental diaries, audio- and video recordings as well as reflective essays created to reminisce on the past years. Thematic analysis (Braun, Clarke and Terry, 2015) was applied to analyze the reflexive essays.

The findings show that parents can actively create favourable circumstances both inside (familial discourse) and outside the home (the societal discourse: NGO, collaboration with governmental institutions).

The research is valuable because it is the first ethnography in Iceland to follow the development of children's language repertoires but also it gives insights into how parent supplement missing structures and help create circumstances favourable to plurilingual children.

Keywords: language repertoire; active parents; longitudinal ethnographic case study

## Theme Session Talk

### Mapping out the development of subjunctive mood in child heritage bilinguals

*Silvia Pérez Cortés*

*Location: CCIS 1 440*

Previous research on adult heritage speakers (HS) of Spanish has shown that this group of bilinguals exhibits considerable rates of erosion and non-target like uses of subjunctive morphology in a wide range of constructions (Giancaspro, 2017; Martínez Mira, 2006; Pascual y Cabo, Lingwall & Rothman, 2012; Pérez-Cortés, 2016; Silva-Corvalán, 2014; inter alia). While lexically-selected complements appear to favor the emergence of subjunctive forms, constructions featuring mood alternations based on semantic/pragmatic grounds manifest the highest percentages of morphological optionality (Montrul, 2007, 2009, 2011, Iverson et al. 2008). Despite the breadth of research involving adult populations, very little is known about how child bilinguals acquire mood. Thus, establishing a baseline is crucial to understand the performance of heritage bilinguals across time and the variables that might play a role on the maintenance or loss of subjunctive.

With this goal in mind, the present investigation analyzes the development of obligatory and variable subjunctive mood selection in a group of 28 child heritage speakers of Spanish (6 four year-olds (4;3-4;11), 8 five year-olds (5;0-5;10), 6 six year-olds (6;2-6;11) and 8 seven year-olds (7;1-7;10). As part of

the study, all groups were administered a proficiency test, which consisted on a modified version of the Bilingual English-Spanish Assessment (BESA; Peña et al. 2014), and a sentence completion activity modeled after Requena et al. (2017). The experimental task featured four different contexts with varying levels of semantic complexity: desideratives (1), reported commands (2), temporal clauses headed by *cuando* (3), and constructions conveying uncertainty (4). While the first constructions fall under the category of deontic predicates, acquired rather early (3;0-4;0) by monolingual populations (Blake, 1983), the remaining two are examples of epistemic and epistemological structures, which are mastered later, around ages 6;0-9;0 (Sánchez-Naranjo & Pérez-Leroux, 2010).

Results show that, like their adult counterparts, child HS of Spanish exhibited generalized low rates of subjunctive use. When present, the selection of these forms was modulated by the interaction of three factors: the propositional modality of the construction (i.e. deontic > epistemic > epistemological), the age of the children, and their level of proficiency in the heritage language; but, interestingly, not by the obligatoriness of the selection (lexically-selected subjunctive vs. semantically/pragmatically motivated). Among the linguistic alternatives adopted, children favored the use of imperative and indicative forms over subjunctive, although infinitives in English and Spanish as well as periphrases of obligation were also considered at lower levels of proficiency. This presentation will also discuss the implications of these findings for theories of heritage language maintenance and loss, as well as several considerations for future research on this topic.

## Difficulty of L2 tone acquisition as revealed by the incidental learning of tone-segment mappings

*Ricky KW Chan*

*Location: CCIS L1 140*

The past few decades has witnessed a considerable increase in learners of Mandarin and Cantonese as an L2 alongside the promotion of cultural and linguistic diversity. Cantonese and Mandarin employ contrastive pitch patterns (lexical tones) to distinguish word meaning. Most previous research on L2 tone acquisition has focused on explicit processes such as L2 tone discrimination/identification, and whether learners tonal background and prior musical training may facilitate L2 tone perception. However, the ability to identify/discriminate different L2 tones does not entail the ability to form abstract tone categories at the word level, and using tone categories as lexical cues.

For learners whose native language is non-tonal, a long-term difficulty in learning novel tones may concern repurposing pitch patterns from intonation cues to the formation of tone categories at the word level. This hypothesis was tested with an experiment on the incidental learning of tone-segment mappings (constraints by segmental composition on the possible tone a given word can carry) (e.g. words beginning with an aspirated stop (e.g. /p h /, /t h / or /k h /) carry a rising tone). The learning of these mappings hinges on the encoding of pitch patterns as abstract tone categories at the word level.

80 subjects (20 Cantonese musicians, 20 Cantonese non-musicians, 20 English musicians, and 20 English non-musicians) participated in the study. Results show that while the four subject groups performed similarly well in tone discrimination, Cantonese speakers learnt the target tone-segment mappings but English speakers did not, regardless of their musical background. These reveal that English learners failed to form tone categories at the word level, potentially because they perceptually assimilated the pitch patterns in the learning targets to intonation categories in English (rise and fall). Prior musical training did not facilitate the formation of lexical tone categories, providing evidence for the separation between music and speech.

Keywords:

Second language acquisition, L2 tone learning, tone-segment connections, incidental learning, music and speech

## La perception des voyelles nasales du français québécois par des locuteurs du portugais brésilien

*Nadia Nacif C. Neves*

*Location: CCIS L1 160*

Cette communication porte sur la perception des voyelles nasales (VN) du français québécois (FQ) par des apprenants débutants, locuteurs natifs du portugais brésilien (PB). Les VN en PB sont très fermées, fermées ou ouvertes (/ĩ, ĩ, õ, õ, õ, õ/) tandis qu'en FQ, celles-ci sont plutôt fermées ou ouvertes (/õ, õ, õ, õ, õ, õ/). Ainsi, la différence principale réside dans le degré de fermeture articulaire des VN. Selon les prédictions du modèle Second Language Linguistic Perception Model (Escudero, 2005), la perception des voyelles est plus coûteuse lorsque les catégories L2 sont assimilées à des catégories L1 multiples. De plus, la difficulté perceptuelle relative des voyelles peut être prédite à travers une analyse acoustique. En nous appuyant sur les valeurs formantiques des VN, nous proposons les hypothèses suivantes : (i) la VN /ĩ/ du FQ ayant presque les mêmes valeurs que la VN /õ/ du PB, ne sera pas difficile à discriminer (cf. Trudel, 2013), (ii) la VN /ĩ/ sera la plus facilement discriminée suivie de /õ/, puisque les VN [ĩ] du PB et du FQ se chevauchent à l'opposé des VN [ã] du FQ et [ẽ] du PB, (iii) en PB, vu qu'il n'existe aucune VN correspondant au [õ] du FQ, l'assimilation de cette VN sera la plus difficile. Dix locuteurs natifs du FQ (groupe témoin) et du PB, tous âgés de 25 à 30 ans, ont participé à l'étude. À partir d'une tâche de production induite ciblée, nous avons d'abord comparé la production de l'ensemble des VN chez les locuteurs natifs pour évaluer la similitude des systèmes vocaliques et pour prédire les difficultés d'apprentissage éventuelles. Ensuite, à l'aide d'une tâche de discrimination « XAB », nous avons vérifié la difficulté perceptuelle des VN. Nous avons constaté un taux d'exactitude supérieur avec les VN [ĩ] et [õ] vis-à-vis de [ã] et [õ].

Keywords: Acquisition des langues secondes; influences translinguistiques; voyelles nasales

## "I don't want to speak half-half Chinese" - The language and literacy practices of an English-Chinese bilingual Child in Western Canada

*Miao Sun*

*Location: BS M 141*

It is widely recognized that in a rapidly globalizing world, bilingualism and bi-literacy become important assets. Despite the fact that bilingual programs in Chinese have been in existence in Canada for more than 30 years, very little research has been done on how these bilingual programs function or how effective they are in developing bilingualism and biliteracy (Wu & Bilash, 2000; Sun, 2016). There is reason to believe that the current research on other bilingual programs such as Spanish bilingual education in the US or French immersion in Canada may not be generalized to English-Chinese bilingual students due to the distinct contextual differences. Research suggests multiple paths to bilingualism and the systematic documentation of the complex nature of bilingual classrooms is essential in second language research. Therefore many researchers (Tucker & Dubiner, 2008; Lewis, Jones & Baker 2012) have called for classroom-based, process-oriented research of bilingual students' language and literacy practices. To achieve a more thorough understanding of the English-Chinese bilingual students' language and literacy practices in sociocultural contexts, this research was designed as a classroom-based, process-oriented ethnographic case study in a public bilingual school in Western Canada. The participants were three Grade 5 English-Chinese bilingual students. For this presentation, I will focus on the language and literacy practice of one mixed-marriage English-Chinese bilingual child. The ethnographic data were collected for a whole academic year at school, in students' homes, and at community events through participant observation; fieldnotes from observations; semistructured interviews and open-ended conversations with children, teachers, the principal, and parents; audio- and videotaped student-student and student-teacher interactions; and literacy-artifact collection and analysis. The main themes identified as significant factors that support the bilingual student's successful language and literacy development and positive identities as language learners include dialogue between languages, dialogue among peers, and dialogue across places.

Keywords: English-Chinese bilingual program, language and literacy practices, ethnographic case study

### **Theme Session Talk**

## **The growth of early word reading and spelling in monolingual children and children learning English as an additional language**

*Claudine Bowyer-Crane, Silke Fricke, Blanca Schaefer & Charles Hulme*

*Location: BS M 145*

Children who are learning to read in English as an additional language (EAL) have weak English oral language skills and while their skills improve over time, they do not reach the same level as monolingual peers. In contrast, EAL learners have relatively strong word reading and phonological skills. What is less well established is the developmental trajectory of these early reading skills over the first few years of schooling, and similarly, the development of spelling ability in this population.

Methods: We present a secondary analysis of data collected as part of a larger project evaluating oral language intervention for children learning EAL that included 80 monolingual English speakers and 80 children learning EAL with 18 different home languages. All children attended UK primary schools and the data presented here was collected when children were aged approximately 4 years, and at

3 subsequent test points over an 18-month period. Performance was compared across groups on measures of word reading and spelling, and growth curve modelling examined the developmental trajectory of these skills in the two groups.

Results: Group differences revealed the EAL group had stronger word reading skills than the monolinguals at all time points, and stronger spelling skills at times 2, 3 and 4. Growth curve models revealed a steeper slope indicating greater growth in word reading for the EAL children, but no difference in the growth of spelling skills across the two groups.

Conclusions: Children learning EAL are at risk of later reading comprehension difficulties. However, they show particular strengths in word reading and spelling, and a greater rate of growth in word reading ability compared to monolingual peers. These findings are discussed with reference to current models of reading and spelling development.

## **Ethnolinguistic diversity: Unfinished business at the heart of the Iranian nation state**

*Rahim Surkhi*

*Location: BS M 149*

This Paper deals with a critical analysis of some recent public and scholarly debates on the question of ethnolinguistic diversity and nationalist discourses in Iran from the perspective of a critical theory in language policy (Tollesfon, J.W. 2006 & 2013; Johnson, D. 2013) and a critical discourse analysis, as a method (Fairclough, 1995a, 1995b, 2010 & 2012). Although Iran is seen as a Persian nation, ethnic minorities constitute near half of the country's population. Therefore, ethnic mobilization has been a challenge for the establishment of the modern Iranian nation-state. Despite Iran being a multilingual country, Farsi is the only officially recognized language for administrative correspondence and public schooling. This has led to repeated debates focused on minority language rights and language ideologies. In addition, the ethnolinguistic vitality, identity, and debates on minority nationalism have become a matter of public discourse in social and political contexts over the past decade. Considering these problems and language solutions, during the Islamic government (1979 – 2018 present) decisionmakers regarded "a restriction – oriented policies on the use of minority languages in official education and administrations. However, considering recent political developments in Syria, Iraq, and Turkey, it is becoming extremely difficult to ignore the existence of ethnolinguistic diversity in Iran. This presentation will emphasize the social and political processes that shape nationalist discourses in both ethnic nationalism and postcolonial language movements within the field of academic research and policy-making in Iran. Drawing on a corpus of Iranian newspaper articles and published research, the analysis shows how language issues, territorial matters, national minority movements are reflected in public local discourses and the impact this has on the mobilization of minorities struggling for autonomy and the legitimacy of their languages

Keywords: Key words: Iranian nation state, multilingual discourses, minority nationalism, language revitalization, language policy

## **The Impact of a Bilingual School Program on Generational Heritage Language Loss**

*June Cheung & Karen Pollock*

*Location: CCIS 1 140*

For many immigrant families, the ability to use a heritage language changes with each passing generation. Fishman (1966) proposed a three-generational model where the first-generation uses the

heritage language fluently, the second-generation has incomplete mastery, and the third-generation is unable to use said language. For some households, language classes are viewed as a means to bolster heritage language maintenance for the later generations. However, as each program differs in content and delivery method, the effects of these classes must be evaluated on a case-by-case basis.

One such program is the Mandarin-English bilingual program administered through the Edmonton Public School Board, a publicly funded two-way bilingual program that spans K to Grade 12. While the majority of students are ethnically Chinese, Mandarin is not necessarily the heritage language of its students, as dialects such as Cantonese and Taishanese are also common. In order to determine the effects of the Mandarin-English bilingual program on heritage language proficiency, tests of listening, speaking, reading, and writing were administered to 29 second- and third-generation participants in their respective heritage language. Half of the participants had attended the Mandarin-English bilingual program, while the remainder had not. Language exposure questionnaires and semi-structured interviews were also completed in order to investigate the attitudes of participants (and their parents) towards their heritage language.

The trends within the data indicate that the Mandarin-English bilingual program serves to bolster literacy in the heritage language, as those who attended the program outperformed their counterparts in both the second- and third-generation. However, differences in oral language (e.g., listening and speaking) were primarily observed within the third-generation, suggesting that the program has larger positive impacts for later generations of Chinese-Canadian immigrants.

Fishman, J. (1966). *Language loyalty in the United States*. The Hague: Mouton de Gruyter.

Keywords: heritage language; language education; language maintenance

## **Cognitive Control Facilitates Attentional Disengagement during L2 Comprehension**

*Dalia Garcia, Christian Navarro-Torres & Judith Kroll*

*Location: CCIS L2 190*

Bilinguals learn to resolve conflict between their two languages (Kroll et al., 2008) and that skill has been hypothesized to have consequences for cognitive functioning (Bialystok, 2017). Yet, this research has largely focused on the long-term cognitive consequences of bilingualism without understanding how cognitive resources enable the use of language in real time. The present study examines how cognitive control engagement affects L2 comprehension of syntactically ambiguous sentences, compared to monolingual speakers of that language. We tested 30 L2 English speakers and 29 English monolinguals using a cross-task adaptation paradigm that interleaves a Stroop task and a sentence comprehension task on a trial-by-trial basis (Hsu & Novick, 2016). On Stroop trials, participants indicated the ink color of words that were either incongruent (“blue” in red font) or congruent (“blue” in blue font). Stroop trials were followed by a visual-world paradigm sequence in which participants carried out spoken instructions that were either ambiguous (Put the frog on the napkin onto the box) or unambiguous (Put the frog that’s on the napkin onto the box). Following Hsu and Novick, cognitive control engagement during incongruent Stroop trials should facilitate the processing of momentarily ambiguous sentences (i.e., increased correct-goal fixations and decreased incorrect-goal fixations). Since successful L2 processing might require greater effort than monolingual language processing, we also hypothesized that bilinguals would show greater comprehension costs but also greater benefits from cognitive control recruitment. For ambiguous instructions, there was an increase in correct-goal fixations and a decrease in incorrect-goal fixations for both groups when preceded by incongruent

Stroop trials relative to congruent Stroop trials, replicating previous work. Additionally, bilinguals showed greater overall comprehension costs, likely reflecting L2 status. However, the reduction of incorrect-goal fixations emerged earlier and was greater for bilinguals than monolinguals, suggesting that bilinguals were more efficient at disengaging from incorrect-goal interpretations.

Keywords: bilingualism; language processing; adaptive control hypothesis

## **"Buongiorno ragazzi avrei bisogno di aiuto..." Language use among recent Italian migrants in Germany**

*Matthias Wolny*

*Location: CCIS 1 430*

The city of Karlsruhe, in Southwest Germany, has been a destination for Italian labor migrants since the 1950s. Today the Italian community of Karlsruhe is composed both by the original 'Gastarbeiter' (including following generations) and by newcomers arriving in the city as a consequence of the economic crisis in Italy in recent years. Over the years, the community has built an extensive infrastructure consisting of supermarkets, service facilities ranging from barber shops to lawyers and meeting points like bars and restaurants. Given the range of this infrastructure, the Italian language (including regional varieties) and semiotic items referring to Italy (like the 'tricolore') are very present in the cityscape of Karlsruhe. This research focuses on the newcomers in the Italian community of Karlsruhe and their interaction with both the 'traditional' Italian migrants and the authorities.

In a first step, this research offers a qualitative analysis of the linguistic landscape of the Italian-speaking service infrastructure and professionals in a densely populated inner-city district, the so-called 'Südstadt', traditionally very popular among different migrant populations. Similarly, the information provided in Italian by the city authorities to newcomers will be analyzed.

In a second step, the analysis considers the use of Italian in online resources for supporting the newcomers. Hereby, the focus lies on public Facebook groups set up by members of the Italian community in order to collect information about a plethora of topics ranging from where to buy typical Italian goods to Italian-speaking physicians and from the promotion of concerts to job searches and offers. This data will be elaborated through the methodological framework of digital ethnography.

This combination of data sources will show how the use of Italian is essential to the internal organisation of the community – especially regarding inclusion of newcomers in need of jobs, housing and everyday life support.

Keywords: migration; language use; social integration

## **The Impact of Literacy on the Comprehension of Verbal Passives in School-age Spanish Heritage Speakers**

*Andrew Armstrong & Silvina Montrul*

*Location: CCIS 1 440*

We investigate literacy as one possible factor that influences language development in 9- 10 year old Spanish heritage speakers, and how this leads to the end state linguistic competence reached by adults. Our Literacy Enhancement Hypothesis states that learning to read and write strengthens

morphological representations, which aids processing by improving the parser's ability to monitor and integrate morphosyntactic features. This presents potential consequences for L1 processing in many HSs who develop literacy skills in L2 English, which is morphologically less complex than Spanish. For theoretical approaches that view a close interaction between acquisition and processing, this variation in home and school input could have a severe impact on first language development. Thus, we ask (i) how the language of literacy for Spanish HSs influences their ability to use linguistic cues while processing complex syntactic structures in Spanish, and (ii) if they show any similarities or differences when compared to low and high literate L1 Spanish-speaking adults. The experiments in this study manipulate word order, gender morphology, and plausibility to investigate how literacy affects the comprehension of passives. Experiment 1 uses an off-line picture-matching task testing comprehension of verbal passives in Spanish while Experiment 2 uses eye tracking to test if HSs in bilingual schools and high literate adults are more effective than HSs in English-only schools and low literate adults at using morphosyntactic gender cues to anticipate the theme of (im)plausible sentences. This provides psycholinguistic data that allow us to consider specific features of linguistic knowledge that may cause heritage speakers (and low-literates) to have trouble while parsing complex sentences. These experiments have the potential to inform us about how literacy influences the cognitive resources different types of comprehenders use to parse complex syntactic structures in Spanish. Data collection is ongoing and we expect to have preliminary results by the time of the conference. Not only will the results inform our understanding of how passives are acquired in heritage Spanish, we will also see in what ways this interacts with processing.

## Theme Session Talk

### Empirically Establishing Cognateness: Translation Elicitation of Norwegian Words by English Monolinguals

*Iris Strangmann, Pernille Hansen & Katarina Antolovic*

*Location: CCIS L1 140*

Cognates are pairs of words that overlap in form and meaning between languages. Cognates are interesting because they provide insight into how bilinguals store words of different languages. Because of their overlap, cognates are likely to have a shared representation between languages (e.g., de Groot and Nas, 1991). Bilinguals produce and recognize cognates faster than non-cognates (e.g., Costa et al., 2005; Gollan et al., 2007)

Although cognates are central to bilingual lexicon studies, there is no consensus on how to define cognate status. Previously, scholars have predominantly made use of their own intuitions, typically using a categorical division between cognates, non-cognates, and false friends (i.e., words that overlap in form, but not in meaning). However, more objective and scalar measures may be more suitable for identifying cognate effects (Kohnert et al. 2004) as words can overlap to different degrees. The degree of form overlap has been shown to influence priming effects such that the reaction time decreases as overlap increases (Duñabeitia et al., 2010).

This study explores a new and objective way to identify cognates using a scalar approach, rather than a categorical divide. Additionally, we separate phonological form overlap from orthographic form overlap by presenting the words auditorily and visually. We make use of a procedure known as translation elicitation, where monolinguals guess the translation equivalents for words from an unknown language (Friel & Kennison, 2001). Monolingual translations are valuable in establishing cognateness as monolinguals are not influenced by cross-linguistic knowledge, and their inability to access the meaning of a presented word results in reliance on the form alone to make a judgement

regarding meaning. This method is complemented by semantic similarity judgments by Norwegian-English bilinguals. Taken together, this study provides a powerful tool in empirically establishing cognates, which is essential for studies examining the bilingual lexicon.

Keywords: Cognates; Translation-elicitation; Monolinguals

## **Examining the dual language input to bilingual infants in a naturalistic context**

*Adriel John Orena, Krista Byers-Heinlein & Linda Polka*

*Location: CCIS L1 160*

Bilingual children's language outcomes depend, in part, on the child's exposure to each language – typically assessed by researchers via parent reports. However, little is known about the consistency of this language exposure in a naturalistic context. Here, we examined the quantitative nature of dual language input to bilingual infants using a more ecologically-valid method. We recruited 21 French-English families with a young infant from Montréal, Canada. The infants wore an audio recorder across three full days at 10-months of age ( $n=21$ ), and on another day at 18-months of age ( $n=15$ ). In-depth analyses of this naturalistic audio corpus revealed several unique findings about the bilingual input. First, most caregivers used only one language when interacting with their 10-month-old infant, and they were consistent in their proportion of language use across the different days. Second, infants' overall exposure to each language can vary widely on different days, indicating that language exposure is speaker- and context-dependent. Finally, infants were exposed to overheard speech 1.66 times more than speech directed towards the infant, and infants' exposure to each language can vary widely between these two contexts. Ongoing analyses is directed towards examining how aspects of the bilingual input might change or stay the same between 10- and 18-months of age. These findings have implications on how we conceptualize the dual language input to bilingual infants, and they motivate new questions about how the bilingual input might affect different facets of bilingual acquisition.

Keywords: Bilingual input; Infants; Naturalistic observation

## Exploring the Importance of the Vocabulary for English as an Additional Language Learners' Reading Comprehension

Gavin Brooks & Jon Clenton

Location: BS M 141

One source of pressure on schooling worldwide relates to dramatic increases seen in English as an Additional Language (EAL) learners being educated in a language (English) that is not their first (Murphy, 2014). EAL learners in UK schools, for instance, increased from 7.6% in 1997 to 16.2% in 2013 (Strand, Malmberg, & Hall, 2015). Given such increases, it is essential that these students' academic needs are met (Hawkins, 2005).

One of the areas where EAL students have been shown to struggle academically is with reading comprehension (Murphy & Unthiah, 2015). This exploratory study is an attempt to better understand this issue by examining four factors that have been shown to influence reading comprehension: vocabulary knowledge (Gillet et al. 2016), word decoding skills (Droop & Verhoeven, 2003), reading fluency (Geva & Zadhe, 2006), and general linguistic ability (Trakulphadetkrai et al. 2017). The participants were 31 learners from an international school in Japan. Seventeen of the learners were English as an Additional Language (EAL) learners, and 14 were learners with English as their first language (FLE).

For this study, we measured students' vocabulary knowledge (VLT); word decoding skills (SWRT); reading fluency; overall academic proficiency (C-test); and reading comprehension (YARC). A Rasch analysis and Cronbach's alpha were used to examine the construct validity of each assessment and person and item reliability. A multiple regression analysis was then used to examine the extent to which assessments best predicted variances in reading comprehension. This analysis showed that both vocabulary ( $r=0.001$ ) and reading fluency ( $r=0.004$ ) were statistically significant predictors of reading comprehension. However, when EAL students were examined independent of their L1 counterparts only the VLT remained as a statistically significant predictor ( $r=0.018$ ). These results highlight the importance of vocabulary for EAL learners and the potential of using vocabulary assessment for both pedagogical and research purposes.

Keywords: English as an additional language; vocabulary acquisition; reading comprehension

### Theme Session Talk

## Early cognitive, linguistic, and literacy skills in children learning English as an Additional Language: patterns of development and prediction

Dea Nilsen, Silke Fricke & Meesha Warmington

Location: BS M 145

Recent years have seen growing numbers of children in the UK attending educational settings where the language of instruction is different from their home language. These children are referred to as having English as an Additional Language (EAL), and longitudinal research examining the early cognitive and linguistic skills of these children has been limited. While research with monolingual samples has established the importance of these early language and pre-literacy skills for children's later literacy development, less is known about how these skills develop and predict later literacy in children learning EAL.

**Methods:** This study considered the development of oral language, phonological awareness (PA), letter-sound knowledge (LSK), rapid automatized naming (RAN), and verbal memory in children learning EAL (N=96) with 21 different home languages, across 4 time points from pre-school (3;7 years) until their third year of formal education (6;9 years). Once children reached school age, EAL children's literacy skills were also compared to those of their monolingual peers, and the pre-school and early school age predictors of literacy skills were compared across the two groups.

**Results:** EAL children's linguistic and cognitive skills developed rapidly during preschool and into early education. However, in line with previous research, comparisons of EAL children's skills to those of their monolingual peers showed an uneven profile, with areas of strength in code-related skills (PA, LSK, RAN), memory, and literacy skills, and weaknesses in oral language. There was some evidence that the predictors of literacy skills differed across groups.

**Conclusions:** EAL children showed strong development of early code-related skills, memory, and early literacy, but their more limited English oral language skills put them at risk of later reading comprehension weaknesses. Further research is needed to consider whether oral language plays a more prominent role in predicting literacy skills in EAL children.

## **Neoliberal smokescreens: Ideologies of state and script change in Kazakhstan**

*Kara Fleming, Juldyz Smagulova*

*Location: BS M 149*

After many years of debate and many proposals on the subject, Kazakhstan is moving forward with plans to change the script in which the Kazakh language is written from Cyrillic to Latin. In this talk, we examine the ideological justifications given for this script change and how they have developed over time - from an initial framing of Latinization as purely a matter of convenience and potential economic benefits, to one which is much more openly politicized and tied to nationalizing state projects. However, we also question to what extent this really represents a change, and suggest this is merely an unveiling of previously suppressed elements of the same discourse. Our argument draws on content analysis of a corpus taken from newspaper articles, blog posts, and reader comments on those articles/posts from both the Kazakh and Russian language media in Kazakhstan, as well as official speeches and policy documents. This analysis makes clear that there is not necessarily a sharp division between ideologies of language as a decontextualized market resource and as an ethno-nationalist emblem. In this case they are mutually reinforcing - the "language as commodity" discourse serves to hide the nationalization elements inherent to this policy. This work suggests that despite processes of commodification in late modernity, the nation-state apparatus is not necessarily weakening - just finding new ways to justify itself.

**Keywords:** script change; national identity; language ideology

## **Language pedagogical resources for newly arrived students in Swedish primary and upper secondary classes**

*Christina Hedman & Ulrika Magnusson*

*Location: CCIS 1 140*

A pluralistic language policy is implemented in the Swedish education system via two school subjects: Mother Tongue (MT) and Swedish as a Second Language (SSL). In addition, newly arrived students are entitled to study guidance in their first language. Based on fieldwork in both a primary and an

upper secondary school over a period of more than a year, we present our explorations of the agency of three teachers in relation to the affordances and constraints created by the above-mentioned language policy design (Ball et al., 2011). First, through interviews and fieldnotes from classroom observations, we analyze two primary school teachers' collaboration in accommodating for students' linguistic repertoires in spite of the restrictions built into the system. For example, they offered a student MT education in Arabic and study guidance in Spanish, despite the legislation stating that a student has the right to instruction in one "mother tongue" only. Secondly, also through classroom observations and interviews, our investigation reveals an upper secondary school SSL teacher taking advantage of the same system when she bases her teaching on the SSL curriculum's overarching, but briefly formulated goal to contribute to the strengthening of the students' multilingualism. This was manifested through the teacher's explicit valorization of the students' multilingualism and systematic use of their flexible language practices as resources for learning. The empowering and resourceful teacher stance was found to be particularly important, as study guidance was not provided in this school and few students attended MT classes. The ways in which the teachers addressed some flaws in the system and acted as "agents of policy" (Ball et al., 2011, p. 613), thus, enabled them to better accommodate for students' linguistic repertoires and local language ecologies (see Hornberger, 2002).

Keywords: mother tongue instruction; second language teaching; teacher agency

## **Sentence Repetition and Processing Costs: Evidence from Russian-German bilingual Kindergarteners**

*Elizabeth Stadtmiller, Katrin Lindner & Hesch Maria*

*Location: CCIS L2 190*

As early as 30 years ago, Newport (1990) and Elman (1993) argued that young children's limited processing capacity is the basis for successful language learning because it allows children to perceive selected components from input, such as salient items at the end of sentences, and ignore the rest as "background noise." Limited capacity can be observed, for instance, in linguistic trade-offs (e.g. more morphological errors in more complex sentences), which indicate high processing costs (Weismer & Evans, 2002; Charest & Johnston, 2011).

Our study aims to examine processing costs in language-specific sentence repetition tasks (SRTs) in bilingual children. This paper compares SRTs, vocabulary and language comprehension measures in Russian and German and correlates them to n-back and forward memory tasks. Data from 53 typically developing Russian-German children (aged 5;0-5;6) was analyzed in order to answer the following questions: How do error patterns in the SRTs, with regard to omission, substitution and addition, compare cross-linguistically? What are the relationships among the results of the SRTs, language skills and memory measurement tasks?

First analyses reveal a positive correlation between the identical repetition score in the SRTs in both languages and the n-back task, more so in German than in Russian (German  $r = 0.4$ , Russian  $r = 0.2$ ). Identical repetition scores tend to be higher in Russian (Mean in German = 12 of 32, in Russian = 18 of 32). Qualitative analyses reveal fewer omissions and substitutions in the Russian SRT than in the German SRT (3.4% vs. 7.6% omitted and 4.3% vs. 7.6% substituted items). The paper explains this data within the framework of limited processing capacity.

Thus, this paper will contribute to a better understanding of the intricate relationship between language and memory in bilingual children.

Keywords: bilingualism, sentence repetition, limited processing capacity

## **Multilingualism, multiculturalism and implications for health and wellbeing**

*Ozge Ozturk, Julija Vaitonyte & Lisa-Maria Müller*

*Location: CCIS 1 430*

In this paper we examine the relation between multilingualism, multiculturalism and individuals' intolerance of uncertainty, a tendency to react negatively to uncertain situations and events, a characteristic that is predominantly associated with generalized anxiety disorder (Dugas, Buhr, & Ladouceur, 2004).

We hypothesize that multicultural and multilingual experiences, such as living in a foreign country, provide individuals with multiple opportunities to practice tolerating uncertainty and enhance their ability to do so. We investigate whether a number of distinct variables measuring multilingualism and multiculturalism, such as the experience of having to function in a foreign language and culture for a certain length of time, makes people more tolerant of ambiguity and therefore, less anxious. Previous studies (although mostly limited by a small number of participants) suggest that this might be the case (Bakalis & Joiner, 2004; Kinginger, 2008).

We conducted an online survey study, measuring multiple variables of multilingualism, multiculturalism and generalised anxiety. To date we collected data from over 300 participants around the world.

Preliminary results show that individuals' intolerance of uncertainty score, which is also indicative of their levels of generalized anxiety, may be predicted based on the number of foreign languages they learnt and their level of self-identified multiculturalism, suggesting that the more languages one learns and the more multilingual one identifies herself, the lower their levels of generalised anxiety will be.

This finding is important as it has critical implications for individuals' health and wellbeing.

Keywords: multilingualism; uncertainty; anxiety

## **The Fiuman dialect between language maintenance and shift**

*Maša Plešković, Branka Drljača Margić & Tihana Kraš*

*Location: CCIS 1 440*

In the context of language contact between two (or more) speech communities of unequal status, language maintenance or language shift are expected. Language maintenance refers to the continuous use of a minority language, while language shift refers to abandoning it in favour of the majority one (Pauwels, 2016). The present study aims to determine whether Fiuman, the indigenous minority Romance language spoken in the Croatian city of Rijeka and its surroundings, is going through the process of language shift.

Two hundred and forty-nine Fiuman speakers of different ages (age range: 14-89) completed a questionnaire investigating their language biography and self-assessed language proficiency in Fiuman as well as their (a) use of Fiuman in different domains, (b) attitudes towards Fiuman and motivation for knowing it, and (c) contribution to language maintenance. The questionnaire was offered in Italian and Croatian.

The findings show that Fiuman speakers rate their competence in Fiuman very highly and feel a very strong emotional attachment to their collective identity. They report a high rate of intergenerational transmission and are aware of its importance. They lack instrumental motivation and are motivated primarily by integrative reasons for knowing Fiuman. They use Fiuman exclusively in private domains and consider it less sophisticated and modern than standard Italian. Interestingly, they write in it more nowadays than they did in the past due to text messaging and social networks. The results point towards a tendency to maintain Fiuman and transmit it to new generations, which is a prerequisite for language maintenance, but also to a highly restricted use of Fiuman in public domains, which may be a sign of gradual language shift. The importance of modern technologies and the new media for language maintenance is also revealed by the study.

Keywords: Fiuman; language maintenance; language shift

## **Bilingual Writing: Comparing Revision Processes in the L2 and the Language of Study**

*Marie Christin Reichert*

*Location: CCIS L1 140*

Although linguistic and cognitive factors are purported to have differential effects in L1 vs. L2 writing, L2 learners' writing is seldom addressed from a bilingual perspective. L2 writing is generally compared to that of L1 speakers in research, and L2 writing instruction often neglects previous writing experience in the L1. A bilingual perspective may, however, not only contribute to the better scientific understanding of L2 writing and instruction, it could also provide insights into the interlingual connection of bilinguals' writing proficiency and related cognitive skills. This may be especially pertinent to process aspects of writing, which are often seen as cognitive, rather than language-related.

The present study focuses on writing processes in the L2 German and the language of study English and investigates the relationship of revision processes in both languages. Specifically, it is of interest how writing processes are related in both languages of bilingual writers, and whether these depend on the cognitive demand required by the writing task or the type of revision carried out. Participants were ca. 20 advanced students of German Studies at an English-speaking university. Students wrote both a simple text on everyday life as well as an academic text in both languages in a first and a revised version. Data was gathered on online revisions undertaken while composing these drafts. Keystroke logging was used to digitally document writing processes and generate a protocol of revisions.

Revisions in both languages are compared in terms of 1) their quantity and 2) the types of revisions, classified regarding action, orientation, text level and position. The interlingual relationship is determined for both text types, and both stages of the writing process to analyse the influence of different writing tasks on the interlingual connection of writing processes.

Keywords: bilingual students; L2 writing; writing processes

## **Crossing language domains in new bilingual genres: A look at Mayan Tzotzil children play**

*Lourdes de León*

*Location: CCIS L1 160*

The Mexican census reports a marked national trend towards bilingualism in Spanish and Indigenous languages, (to date around 90 per cent). However, this generalized notion of “bilingualism” ignores the complexities and nuances of dual language practices.

Very little is currently known about the everyday life of bilingual communities and even less about the nature of Indigenous bilingual language acquisition and socialization. Study of the language practices of the younger generation offers a window into the ongoing processes of language contact and bilingualism in Indigenous Mexico.

The present study documents the everyday bilingual practices of children at play using Tzotzil Mayan and Spanish. It examines how the children whose first language is Tzotzil staged bilingual scenarios through the use of parallel bilingual constructions (e.g., bilingual alignments, bilingual adjacency pairs, recycled bilingual discourse templates) in several domains of activity (e.g., broadcasting news, earthquake event, farewells, birthday parties, and commercial advertisements). Overall, the children consistently staged scenarios where they used and performed bilingually equivalent structures in the same domains of activity, challenging conventional associations between language and activity domains. I argue that micro-interactional processes in the bilingual playful interactions afford bilingual competences, repertoires, and new genres both in Mayan Tzotzil and Spanish.

The research is rooted in over three decades of linguistic and anthropological investigation in the Mayan Tzotzil community of Zinacantán, Chiapas, México. It is framed within language socialization and peer talk-in-interaction studies (Goodwin & Kyratzis, 2012). The data set consists of fifty hours of videotaped natural interaction of two unrelated sibling-kin groups.

Keywords: language play; Mayan bilingualism; Tzotzil/Spanish

## Focus marking of English additive particles in Cantonese-English simultaneous bilingual children: the case of also

*Yuqi Wu, Stephen Matthews & Virginia Yip*

*Location: BS M 141*

The Mexican census reports a marked national trend towards bilingualism in Spanish and Indigenous languages, (to date around 90 per cent). However, this generalized notion of “bilingualism” ignores the complexities and nuances of dual language practices.

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Keywords: language play; Mayan bilingualism; Tzotzil/Spanish

## Introducing a novel tool capturing parents’ perceived social value of bilingualism

*Sarah Surrain & Gigi Luk*

*Location: BS M 149*

For bilingual children, exposure alone does not guarantee acquisition (Hoff, 2017). Theoretical models have long posited that parental attitudes towards early bilingualism are an important factor in the degree to which children acquire the languages they hear (De Houwer, 1999, 2015; Hamers & Blanc, 1982; Pearson, 2007). However, these models have not been tested empirically as no instrument exists for measuring the degree to which parents value their child’s bilingual development. The current study is a first step towards developing and validating such an instrument. We examine the psychometric properties of the Perceptions of Value of Bilingualism (PoB+) scale among three samples of parents: 74 parents of children under three who took an online survey through Qualtrics Panels; 212 parents of children under seven who took an online survey through Amazon Mechanical Turk; and 424 parents of elementary school children from a rural district in the southeastern U.S. with a rapidly growing Spanish-speaking population. The eight-item PoB+ scale was developed as part of a larger study on attitudes towards bilingualism. Parents of young children were a subset of the full online samples of adults. Item Response Theory was used to identify a set of items that discriminate well between

parents with more and less positive attitudes. Factor analysis results suggest that the PoB+ scale measures a unidimensional construct in both English- and Spanish-speaking parents. In the online samples, PoB+ scores predicted parents' engagement in home language practices supporting the minority language. In the school-district based sample, parents with higher PoB+ scores were more likely to apply for a local dual language program. Our findings suggest that the PoB+ reliably assesses parental attitudes towards the value of bilingualism for their child and may be predictive of parents' language choices at home and school.

Keywords: Language attitudes; Scale development; Parent beliefs

## **"To feel intellectually attacked". A critical sociolinguistic study of language assessment in upper secondary school in Norway**

*Irmelin Kjelaas*

*Location: CCIS 1 140*

This paper explores newly arrived immigrant students' perceptions of the language assessment practice in an upper secondary school in Norway. Based on an ethnographic study in two so-called introduction classes (with 14 students, four teachers and two school counsellors), the paper examines how the students perceive the language assessment practice and how teachers and school counsellors interpret the students' reactions.

The analysis demonstrates that the students feel devalued and stigmatised by the assessment practice, describing it as an "intellectual attack". They also fear what the consequences of the assessment might be, and they describe the test situation as stressful. The teachers and counsellors, however, highlight the students' lack of understanding as the main reason for their negative perceptions. The problem, in their view, is the students, not the assessment.

These findings are discussed in a critical sociolinguistic framework (Spolsky, 2014; Shohamy, 2011, 2001), especially Shohamy's perspectives on 'user-oriented testing' where language assessment is not viewed as "isolated and neutral events but rather embedded in educational, social, political and economic contexts" (2001:xvi). The paper discusses 1) the consequences of language assessment for the individual student, both in terms of her self-esteem, motivation for school and sense of belonging in the school community, 2) what underlying linguistic and pedagogical ideologies seem to be in play, and 3) implications for future research and assessment practice.

Keywords: Language assessment; critical sociolinguistics; user-oriented testing

## **Priming and Persistence in Bilinguals: What codeswitching tells us about the time course of lexical priming in sentential contexts**

*Michael Johns, Laura Rodrigo & Aliza Winneg*

*Location: CCIS L2 190*

Though much work has investigated lexical priming in bilinguals, few studies have examined priming within sentential contexts or the persistence of priming. Here, we exploit codeswitching to examine (1) within- and across-language lexical priming during sentence processing, and (2) the persistence of priming across time. Thirty-six highly proficient Spanish-English bilinguals living in Puerto Rico read sentences containing nouns in three conditions: Spanish sentences with Spanish unilingual primes

(El novio compró un regalo para su ....); codeswitched sentences containing English translations equivalents of the Spanish primes (El novio compró un gift for his...); and Spanish sentences with Spanish control words (El novio compró un obsequio para su...). Sentences were followed by yes/no comprehension questions that always repeated the Spanish prime (¿Compró un regalo para su...?). To examine the persistence of priming, sentence-question pairs were presented in two contexts: No-Delay (the question immediately followed the sentence); or Math-Delay (the question was preceded by a simple math equation; e.g.  $4+5=9$ ).

Linear mixed-effects models examined first fixation, gaze, and total duration on the target noun in the comprehension question. At early stages of processing (first fixation duration), priming of the target word, indexed by reduced durations compared to the control condition, was strongest in the unilingual No-Delay condition, while codeswitched items only exhibited priming in the Math-Delay condition. At later stages of processing, (gaze and total duration), priming in the unilingual and codeswitched items was of equal magnitude in both the No-Delay and Math-Delay conditions, with larger priming effects overall in the Math-Delay condition. These results suggest that effects of between-language priming are not evident at earlier stages of processing but become stronger at later stages of processing. Likewise, the cumulative effects of priming in sentential contexts are not strongest immediately after encountering the prime, but after some amount of further processing takes place.

Keywords: priming; codeswitching; eye-tracking

## Through the lens of the chronotope: Mobility, identity, and meaning-making in narratives of transmigration

*Agnes Bolonyai*

*Location: CCIS 1 430*

“What to do? How to act? Who to be? These are focal questions for everyone living in circumstances of late modernity” (Giddens 1991:70), an increasingly complex time-space characterized by tensions between mobility and moorings, fluidity and fixity, continuity and disjuncture. Transnational movement of people and semiotic resources has resulted in restructuring our social worlds and unsettling the ‘natural’ order of fixed linkages of language, place, and identity, and presupposable patterns of indexicality. By living in a place they do not “come from” and speaking with a foreign accent that doesn’t belong where they “are at”, transmigrants disrupt normative structures of belonging. Their foreign accent, a diacritic of perceived difference, gives them away as being “not from here” and generates interrogation into their otherness: ‘Where are you (really) from?’ (WAYF). These mundane rituals not only mobilize circulating migrant ‘figures of personhood’, but also position migrant ‘voices’ as indexical objects admissible for dissection and socio-moral evaluation. In this paper, I adopt a chronotopic approach (Bakhtin 1981, Agha 2005, Woolard 2013, Blommaert & De Fina 2017) to argue that WAYF encounters can be understood as Deleuzean ‘screams’ that reveal when ‘moralized behavioral scripts’ (Blommaert 2018) of presupposed sociocultural chronotopes are transgressed, challenged, or ‘punctuated’ (Deleuze 2003). I draw on a corpus of 70 hours of recorded conversational interviews with 50 first- and second generational Hungarian-Americans of their migration experience in the U.S. I use discourse analysis to demonstrate how WAYF-inquiries, and the chronotopic clashes they make visible, mobilize particular sociocultural models of identity migrants rely on to make sense of their marginalized selves vis-à-vis dominant others. It is argued that while chronotopes “colored by emotions and values” (Bakhtin 1981) organize affective subjectivities and scales/modes of belonging along distinct, culturally-grounded normative scripts they also become important sites for meaning-making and new forms of transmigrant identity.

Keywords: migrant narrative; mobility; chronotope

## **Linguistic Repertoire and Language Education Policy: Narratives of Lived Experience by Primary School Students in Luxembourg**

*Sarah Muller*

*Location: CCIS 1 440*

The Luxembourgish education system can be described as Janus-faced: on one hand, in Europe it is often portrayed as a model multilingual education system. On the other hand, the OECD has remarked that some of its structures and processes, such as grade repetition or early student tracking, are linked to low equity indicators. In primary schools more specifically, the multilingual language regime is rigid and favours students with a Germanic-language (i.e. Luxembourgish) background. This is problematic given the ever increasing diversity of student populations: in 2016/17, 46% of primary school students did not have Luxembourgish citizenship and 64% indicated to have a first language other than Luxembourgish. With these numbers continuously rising due to immigration, it is important to analyse how students, who do not speak Luxembourgish in the home, experience this German-dominant education system.

This research explores Luxembourgish primary school students' reported lived experiences with language education policies and educational practices, and analyses how these link to wider understandings of their linguistics repertoires. Data collection and fieldwork were carried out between November 2017 and June 2018 in a primary school in Luxembourg City with 34 primary school students aged between ten and thirteen years. The multimodal, exploratory approach was based on in-depth qualitative interviews, which were further contextualised by classroom observations. Data was analysed thematically and was influenced by a language ideological perspective, aiming to shed light on how participants engage with, and are influenced by, the ideologies underlying education policies and structures. Exploring how young people negotiate language policies and educational practices, and how this may link to wider understandings of their linguistic repertoire, this paper contributes to broader research on experiences of language policy in multilingual settings by young people with a migration background.

Keywords: Lived experience; language education policy; linguistic repertoire

## **The effects of translation ambiguity in bilingual language production and recognition: The role of context**

*Natasha Tokowicz, Tamar Degani, Alba Tuninetti & Leida Tolentino*

*Location: CCIS L1 140*

Translation ambiguity occurs when a word has more than one translation across languages (review in Tokowicz, 2014). Relatively proficient bilinguals show a translation-ambiguity disadvantage in translation production (Tokowicz & Kroll, 2007) and recognition (Eddington & Tokowicz, 2013; see also Boada et al., 2013, for proficient bilinguals). Here, we examine the extent to which biasing sentence contexts (average Cloze probability=.75) can eliminate this disadvantage in both translation recognition and production tasks for 38 moderately proficient English-Spanish bilinguals. In the production task, bilinguals translated an English target (200 ms) followed by a 500 ms SOA, then by a Spanish distractor (100 ms); distractors were (1) the translation, (2) semantically related to

the translation/s, or (3) completely unrelated to the translation/s (see Miller & Kroll, 2002). The recognition task was the same except that instead of seeing a target and a distractor, an English word was presented (200ms), followed by a 500ms SOA, then a Spanish word (500ms), and the task was to answer whether the two words were translations of each other (see Talamas et al., 1999). In the context conditions of both tasks, the two words were preceded by a biasing sentence context. Participants completed 256 trials. In the production task, the translation-ambiguity disadvantage remained in reaction time. In accuracy, a significant translation-ambiguity disadvantage remained, and there was a significant interaction such that related trials were responded to more accurately than unrelated trials, but only in the ambiguous condition. In the recognition task, the effect of translation ambiguity was eliminated, and the effect of relatedness was reversed such that related trials were responded to significantly more slowly and less accurately. We found no effects of context in either task. These results reveal the importance of task in ambiguous language processing, and the difficulties bilinguals face when encountering translation-ambiguous words.

Keywords: translation ambiguity; context; recognition

## **The "grandmother effect" on the acquisition of Zapotec in bilingual Spanish/Zapotec families in Mitla, Oaxaca, Mexico**

*Eder Santiago García*

*Location: CCIS L1 160*

Zapotec is a Mexican Indigenous language involving one of the most advanced language shifts in Mexico. The national census reports that the Zapotec town of Mitla, Oaxaca has approximately 65 per cent of monolingual Spanish speakers, and 35 per cent of Zapotec/Spanish bilinguals.

The research reported here analyzes the mechanisms that favor the linguistic intergenerational transmission of Zapotec in four bilingual families in this community. In particular, the study focuses on the grandmother/grandchild socialization niches and their effects in the production and/or comprehension of Zapotec in contexts of language shift (Hill 1998).

Family 1 shows a grandmother's Zapotec monolingual socialization of two siblings ages 4; 10 and 10 (who get Spanish input from their mother). In Families 2 and 3 we recorded Spanish and Zapotec input of two girls ages 6;9 and 7; and finally, in Family 4 we document Spanish direct input and Zapotec indirect input of a child age 2;4. The multimodal analysis of the interactions between grandmothers and grandchildren reveals the effect of this kinship socialization niche in the production and comprehension of Zapotec by the children in the study.

This research is framed within language socialization studies and is based on 30 hours of video- and audio-recordings of spontaneous interactions in semi-longitudinal research based on three periods of fieldwork in Mitla.

Keywords: grandmother effect, bilingualism, Zapotec

## Friday Poster Abstracts

### **(F-1) Irrealis (mood) in French: Obligation, hypotheticality, and the (uncertain) future among heritage speakers in the Saint John Valley, Maine**

*Carly Bahler*

The Saint John Valley (SJV) is the region along the international border between northern Maine and northwestern New Brunswick (NB), Canada. The US side is home to a francophone community, which, due to relative geographic isolation and its proximity to francophone Canada, has been able to persist as a relatively hermetic enclave (Maher 1985) of heritage speakers of French surrounded by English (cf. Montrul 2015).

The French on the US side of the SJV is the product of contact between three linguistic codes: the Acadian French of Edmundston, NB; the French of Quebec; and English. However, French on the US side is a steeply declining variety that is quantitatively distinct from its parent varieties just minutes away, as older fluent speakers are dying without (fully) transmitting French to younger generations, who are increasingly English-dominant. That is, French on the US side has been undergoing language death via shift to English, especially over the past fifty years.

In addition to the contact scenario outlined above, the historical lack of institutional support for French on the US side and the decreased contact with the varieties across the border since September 11, 2001 mean that French on US side is also qualitatively distinct from its parent varieties. Furthermore, the gradual shift to English has produced an age-graded proficiency continuum (Dorian 1977), with speakers of different generations varying in fluency, grammatical mastery, and overall functional capacity in French.

I discuss morphosyntactic evidence for this continuum in my data, specifically with regard to the use and expression of irrealis mood (future, conditional, subjunctive) among US heritage speakers of various age groups. If the French on the US side of the SJV is dying, how is this manifested structurally in the speech of the remaining speakers? Is it “dying with its morphological boots on” (Doran 1978)?

Keywords: language death; heritage speakers

### **(F-2) The emergence and development of metalinguistic awareness in Bilingual Primary Education in the Netherlands.**

*Jan Willem Chevalking, Roeland van Hout & Sharon Unsworth*

Background: Bilingual Primary Education (BPE) programmes have shown foreign language learning benefits for pupils when compared to less intensive foreign language learning programmes (Lindholm-Leary & Genesee, 2014). Advantages for metalinguistic awareness have also been found in, for example, German BPE in France (Reder et al., 2013). This study examines whether these advantages are also found in English immersion in the Netherlands. More specifically, this longitudinal study explores pupils' emerging metalinguistic awareness in newly established BPE-schools, comparing them to pupils following early English as a Foreign Language (early-EFL) instruction. If, when and how does metalinguistic awareness emerge and are there advantages for BPE pupils?

Method: 154 BPE pupils ( $\pm 9$  hrs. English/week) and 83 early-EFL pupils ( $\pm 1$  hr. English/week) were tested at 4;1 yrs. and at 6;3 yrs. of age using standardised Dutch and English vocabulary tests (PPVT-III-NL, PPVT-4, EVT-2), phonological awareness tasks (CELF-4-NL), morphological awareness tasks (CELF-4-NL) and syntactic awareness tasks (Taaltests voor Kinderen, 1983).

Results: Preliminary results show that whilst BPE-pupils scored significantly higher on English vocabulary than their EFL-peers, on metalinguistic awareness there were no significant differences between the two groups at either test moment. This latter finding contrasts with previous findings (Reder et al., 2013) where differences at the group level were found. While pupils do improve over time in our study, within-group variation appears to be greater than between-group variation. We explore child-internal (non-verbal intelligence, phonological short-term memory, age) and -external (out-of-school exposure, parental level of education) factors which may account for these differences on the individual level as well as on the between-school level. Multi-level analyses were applied to account for the sources of variation and the factors that may explain children's emerging skills in metalinguistic awareness and their development over time.

Keywords: metalinguistic awareness; bilingual primary education

### **(F-3) Word Learning in Bilingual 6th Graders Receiving English-Only Instruction; Learning rate differences from monolingual peers.**

*Samuel McGee, Maria Adelaida Restrepo, Shelley Gray, Mary Alt, Tiffany Hogan, Trudy Kuo, Shara Brinkley & Nelson Cowan*

Purpose: Word learning is a crucial process in children's development. Bilingual children acquire two language systems. Word learning studies with adults show a bilingual advantage but equivocal results with elementary children. It is possible that middle school children have enough bilingual experience to show the bilingual advantage. We investigated 6th grade Spanish/English-speaking children who received English-only instruction since preschool. We hypothesized that the bilingual children would show an increased rate of word learning compared to monolingual peers. Specifically, we examine number of correct word-referent pairings and number of phonemes correct in naming, and the effect of word length.

Method: 6th graders (monolinguals  $N = 18$ ; bilinguals  $N = 12$ ) with typical development took part in two computer-based word learning tasks. The computer presented novel words using English-phonology as "names" for referents. Children's ability to link the word-referent pairs and produce the names was measured across four blocks. We used repeated measures ANCOVAs to examine group differences, with digit span and nonword repetition as the covariates.

Results: Results for correct word-referent matching indicate a significant learning block by group interaction. Bilinguals scored lower than monolinguals in blocks two and three, but did not differ in blocks one and four. Results for naming found a group by block interaction. Bilingual children scored below monolingual children in blocks two and three, and did not differ in blocks one and four. Word length analyses indicate a group by word type interaction. In naming, bilinguals scored below monolinguals in the four-syllable words and did not differ in two-syllable words.

Discussion: These findings suggest that compared to monolinguals, learning rates are more affected in bilinguals, although the final scores are the same. Further, bilinguals did not show a bilingual

advantage and had difficulty naming longer words when compared to monolinguals.

Keywords: Bilingual; Word Learning

#### **(F-4) Effect of language immersion on bilingual language production in the two languages**

*Manuel Pulido-Azpiróz, Andrea Takahesu Tabori, Laura Rodrigo, Rhonda McClain, Alba García Alonso, Paola Dussias & Judith Kroll*

Bilinguals activate both languages even when speaking in one language alone. The consequences of this dual activation have been assessed by comparing words that have phonological overlap across languages (cognates) with words that do not (noncognates). In some studies, bilinguals were facilitated by phonological overlap across languages, with faster times to begin producing cognates relative to non-cognates (Hoshino & Kroll, 2008; Van Hell & Dijkstra, 2002). Other studies show an inhibitory pattern for cognates (Kroll et al., 2002; Muscalu & Smiley, 2018). One way to adjudicate between these accounts is to examine bilingual language control in varied language contexts (Green & Abutalebi, 2013).

Two groups of native English speakers named words in Spanish, their second language (L2), and in English (L1). One group was studying abroad in Spain (n= 22), while the other studied Spanish in the classroom in the US (n=22). Each participant produced 30 tokens with /k/ onsets (50% noncognates, 50% non-identical cognates). Voice Onset Times (VOTs) and word durations were analyzed. English VOTs are longer than Spanish VOTs for voiceless stops. If English co-activation influences production in Spanish, VOTs for Spanish cognates should be longer than for non-cognates. If Spanish co-activation influences production in English, VOTs for English cognates should be shorter than for non-cognates. If learners are facilitated by cognates, they should be faster to produce cognates than non-cognates.

Preliminary analyses show that immersed learners experienced facilitation for cognates in their L1, with shorter durations for cognates compared to non-cognates, and a trend towards shorter VOTs. However, in the L2, cognates had longer word durations than non-cognates, suggesting interference. This pattern of results suggests more rapid lexical access for cognates, but interference during production (Muscalu & Smiley, 2018). Results reveal a complex association between facilitation and interference in learners in different learning environments.

Keywords: language production; immersion; second language learning

#### **(F-5) Differences in the Emotional Depths of First and Second Languages in Bilinguals**

*Kai Huang & Elena Nicoladis*

People are more willing to kill in thought experiments when using their second language. Bilingual speakers often experience greater depth of emotion in one language over the other. Studies have found that the first language is usually more emotional than the second. However, in many of these studies, participants were more proficient in their first language, suggesting possible confounding effects of proficiency and first language. We have hypothesized that proficiency might be a better predictor of emotionality, because proficiency reflects more experiences with emotions in that language. The goal of the present research is to determine whether first language or proficiency is more important in

evoking the emotionality of a language.

English-French and French-English bilinguals were presented with positive, negative, and taboo words in each language while their skin conductance was measured through the galvanic skin response (GSR). Half of the participants received the words visually, and half received the words aurally. Participants in the receptive task only saw or heard the words, while participants in the expressive task repeated the words out loud after seeing or hearing them. Afterwards, participants rated each word on a 1-7 scale indicating how emotional they found each word. We anticipate that proficiency will be a better predictor of increased skin conductance in response to emotionally arousing stimuli in a language. These results would suggest that recent experience or depth of experience plays a greater role than childhood experience in predicting how much emotion is elicited by words. Future studies can explore exactly how proficiency is related to greater emotional arousal.

Keywords: galvanic skin response; emotion; psychophysiology;

### **(F-6) Input matters more than starting age in long-term language outcomes in a foreign language learning context**

*Beck Huang, Alison Bailey Yung-Hsiang Shawn Chang & Yangting Wang*

Although there is robust evidence for the “earlier-is-better” hypothesis for language outcomes in naturalistic immersion context (e.g., DeKeyser, 2000), research on age effect in foreign language (FL) learning contexts is limited, and the results are mixed (Author, 2016). Compared to naturalistic immersion contexts where input is substantial and consists of more target-like forms, input in FL contexts is relatively limited in both quantity and variety. Given the critical role of input in language acquisition (Flege, 2009) and the input differences between naturalistic immersion and FL contexts, it is likely that learners’ language outcomes would be better in naturalistic contexts than in FL contexts despite similar ages of initial instruction. Furthermore, input may weigh more than age in FL learning contexts.

The current study examined the effects of age of initial instruction and input on long-term language outcomes in a FL learning context. Participants included 260 adolescents in Taiwan (Mean age = 14) who learned English at varying ages and with varying amount and types of input. We measured input through participants’ self-report of their language exposure/use from preschool to the time they completed the survey. Language measures included four speaking tests (two monologue and two interactive tests) as well as participants’ final grades for the English language content area in school. Regression analyses showed that participants’ current frequency and variety of out-of-school contact with English significantly predicted their performances across all four speaking tests, and amount of formal instruction in elementary school also predicted their interactive speaking test scores. For the English content-area grades, the only significant predictor is the frequency of out-of-school contact with English in kindergarten. Age of initial instruction was not a significant predictor for any of the five language measures. We concluded that input matters more than age of initial instruction in FL learning contexts.

Keywords: age effect; input; early language instruction

### **(F-7) Non-word repetition tasks as a screening tool for Language Impairment in Arabic-Swedish speaking bilinguals (4-7)**

*Linnéa Öberg, Rima Haddad & Ute Bohnacker*

Bilingualism is steadily increasing in Sweden, and Arabic is one of the most widely spoken languages. Despite this, the language characteristics of bilingual children are still largely unknown. At the same time, there is great confusion about what should be considered 'typical' bilingual language development relative to Language Impairment (LI).

Non-Word Repetition (NWR) requires the child to repeat a series of phonological nonsense forms. NWR is a potentially reliable method of screening for LI in bilinguals with limited exposure to one language, since performance on NWR tasks is less dependent on language proficiency than other language tasks such as sentence repetition and vocabulary. At the same time, some evidence suggests that children are better at repeating non-words that share the phonological rules of real words in their language. Therefore, comparisons between languages regarding which types of non-word test items do best identify LI is needed.

We will present some work in progress regarding different sets of NWR tasks in Arabic–Swedish speaking bilinguals age 4–7 years ( $n \approx 100$ ) with typical language development as well as a smaller group of children with LI ( $n \approx 10$ ). Four different sets of non-words are being used, varying in item length, segmental complexity, and word stress patterns. The tasks include a language specific Swedish task, as well as Swedish and Arabic versions of the quasi-universal NWR tasks developed within COST Action 0408.

Preliminary results from 67 children with typical language development shows that there is an effect of age for all tasks. Furthermore, preliminary analyses suggest that there is no effect of age of onset or daily language exposure on the children's performance on the Swedish language specific task. Further analyses aim to investigate if the different tasks can reliably identify children with LI from those with typical language development.

Keywords: Non-word repetition; Language Impairment; Arabic-Swedish bilinguals

## **(F-8) The same but different: The intonational contours of Spanish-K'ichee' bilinguals**

*Brandon Baird*

Previous cross-linguistic comparisons of bilingual intonation have shown a tendency for bilinguals to speak one language at a higher pitch than the other (Chen, et al., 2001; Mennen, et al. 2012; Rietveld, et al., 1999; Scharff–Rethfeldt, et al., 2008; Schwab & Goldman, 2016), though this is not always the case (Ordin & Mennen, 2009; Schwab & Goldman, 2016). However, these studies have primarily focused on the pitch of contours and have not analyzed other variables such as the shape of the contours and the language dominance of the bilinguals. The present study analyzes the intonational contours of both languages of Spanish-K'ichee' (Mayan) bilinguals in terms of F0, the location of the (L)ow and (H)igh tones, and the language dominance of the bilinguals.

24 simultaneous Spanish-K'ichee' bilinguals participated in a production task that consisted of hearing phrases from a native speaker and using these phrases to answer the broad focus-eliciting question what happened? posed to them by a different native speaker. In order to control the elicitations and to include participants of various literacy levels, the stimuli were presented to the participants via video (cf. Guion, 2003). Furthermore, the tokens from both languages were syntactically and phonologically parallel in order to make the cross-linguistic comparisons viable.

The results do not demonstrate any between-language differences for the alignment of the L and H tones, meaning that these bilinguals demonstrate the same intonational pattern in both languages. However, they do exhibit language-specific pitch spans. This latter finding is correlated with language dominance: K'ichee'-dominant bilinguals tend to speak K'ichee' with a higher pitch whereas the opposite is true for Spanish-dominant bilinguals. Accordingly, the data in this study demonstrate the effect that language dominance may have in cross-linguistic comparisons of bilinguals' intonational contours, although not all aspects of the contours will necessarily be different.

Keywords: intonation; pitch spans; language dominance

### **(F-9) Word-learning in monolingual and bilingual children: The influence of eye-gaze.**

*Ishanti Gangopadhyay & Margarita Kaushanskaya*

Prior research suggests that children exploit social-pragmatic cues, like eye-gaze, during language learning. However, these studies have almost exclusively focused on monolingual children, and it is possible that social-pragmatic cues could differentially influence learning in bilingual children. Therefore, the present study examined the impact of eye-gaze on novel word-learning in monolingual and bilingual children.

English monolingual (n=23; MAge=4.98) and simultaneous Spanish-English bilingual (n=24; MAge=5.22) children were tested. An eye-tracking visual-world paradigm was used. During teaching, two novel objects were presented on the screen, and a speaker labeled one of the objects. Teaching occurred in two conditions: Consistent, where the speaker always looked at the object while labeling it, and Inconsistent, where the speaker only looked at the object the first time while labeling it, but not the second time. Retention was tested by asking children to select between two novel objects when hearing a novel word.

Proportion of looks to target was analyzed as a function of Group and Condition, with socio-economic status as a covariate. Analyses of teaching trials revealed that bilingual children looked significantly more to target than monolingual children, especially in the inconsistent condition. However, analyses of testing trials revealed that monolingual children showed more robust retention of novel words than bilingual children. There was no effect of Condition, nor an interaction between Condition and Group.

These results indicate that compared to monolingual children, bilingual children were more successful at mapping the novel word to its object immediately upon exposure to the eye-gaze cue, but less successful at recognizing the novel word during testing. We conclude that bilingualism shapes children's attention to social-pragmatic cues during word-learning, and that different performance indices yield distinct insights into bilingual effects on word-learning. Future analyses will incorporate latency and time-course analyses to examine more nuanced effects of eye-gaze on word-learning.

Keywords: Bilingualism; word-learning; eye-gaze

### **(F-10) Child Bi- and Multilingualism in the Home in Canada: Rates and language pairs**

*Esther Schott, Lena Kremin & Krista Byers-Heinlein*

Early bilingualism changes the course of development, but there is a paucity of population-level studies

of the proportion of children who grow up hearing two or more languages at home (Genesee, 2006). This project analyzed data from a publicly available dataset, the Canadian National Household Survey (Statistics Canada, 2013). This dataset includes age, language use in the home, and geographic location for 887,012 individuals living in Canada in 2011. We focused on children aged 0-6 ( $N = 70,766$ ), as the dataset does not include information on language use in school, which plays an increasingly important role for older children. Our goal in this project was to understand the proportion of children who grow up bi- or multilingual, the language pairs they are learning, and how patterns of early bilingualism vary with geography. Our results showed that, across Canada, 15.6 % of children under 6 years of age use two or more languages in their home. This number is higher in major metropolitan areas such as Toronto (26.2%), Montreal (23.2%), Vancouver (23.1%), and Calgary (17.7%). Since the dataset did not include information on children's language use in school or daycare, these numbers represent a conservative estimate of childhood bilingualism. The specific language pairs of bilingual children vary between provinces: British Columbia, Alberta and Ontario all have a large population of bilinguals using English together with either French, Punjabi, or a Chinese language. Quebec has a large population using French together with either English, Arabic, or Spanish. These calculations will be updated with the 2016 census data, which is due to be released in early 2019. Information about how many children grow up in bilingual households can be useful for researchers studying child bilingualism to plan research agendas, as well as for policy makers and advocacy groups.

Keywords: childhood bilingualism; prevalence; Canada

## **(F-11) Immersion in Dual-Language Programs Does Not Impede Children's Native Language Acquisition**

*Anne Neveu, Ishanti Gangopadhyay, Susan Ellis Weismer & Margarita Kaushanskaya*

Dual-Language Immersion (DLI) programs allow Native English Speakers (NES) and English Language Learners (ELL) to acquire language and literacy skills in two languages. The benefits of DLI (vs. English-only classrooms) for ELLs' acquisition of English language skills have been well-documented. The question asked in the present study was: What is the effect of DLI on English language skills in NES? Consistent with psycholinguistics literature, it was possible that exposure to L2 Spanish would interfere with processing of L1 English, especially in the lexical domain. Conversely, consistent with education/literacy research, it was possible that exposure to Spanish would facilitate processing of English.

Thirty-three monolingual children attending English-only classrooms ( $M_{Age} = 9.17$ ,  $SD = 1.03$ ) and 33 Spanish-English bilingual children attending DLI classrooms ( $M_{Age} = 9.27$ ,  $SD = 0.94$ ) were tested twice, one year apart. The groups matched in age, gender, non-verbal IQ, and SES. All children were administered standardized and processing-based measures of English vocabulary and morphosyntax. Results revealed that all children performed better on all measures in Year 2. The only significant interaction between group and time was observed for the RTs on the lexical processing (the lexical-decision) task: bilinguals were slower than monolinguals in Year 1 but both groups were equally efficient in Year 2.

These results indicate that DLI programs have minimal impact on NES' native-language skills, at least in the age-range tested. While efficiency of lexical access in English may have slowed through exposure to Spanish, this effect was transient, and disappeared within a single year. The findings should reassure parents, educators, and policy-makers: intense classroom exposure to a second language does not hinder development of children's native language. Future research will need to

assess children who are both younger and older than the children tested here, to confirm whether language development of children in DLI classrooms follows a non-linear pattern.

Keywords: Dual-Language, Acquisition, Children

## **(F-12) Learning to code-switch: Is priming of code-switching site affected by word order?**

*Laura Rodrigo, Jessica Velez Aviles, Rosa Guzzardo Tamargo & Paola Dussias*

Intrasentential code-switches tend to occur more often when languages overlap in word order (Kootstra, van Hell & Dijkstra, 2010). However, even when particular structures have identical word order in the two languages, some syntactic sites participate in code-switching more than others, resulting in particular distributional patterns (Guzzardo Tamargo, Valdes Kroff & Dussias, 2017). How do code-switching bilinguals learn these distributions, and how do factors that are known to influence code-switching (e.g., word order) impact learning? We explore these questions through two structural priming experiments. In Experiment 1, we ask whether priming facilitates the production of code-switches at particular syntactic sites when word order does not vary. Spanish-English bilinguals (N=43) who were habitual code-switchers, were asked to describe pictures to a confederate after listening to transitive sentences containing code-switches either at the auxiliary verb “to be” (“el niño is eating”/ the boy...) or at the ensuing gerund (“el niño está eating”/ the boy is...). Results showed priming of the code-switch site: participants produced code-switched sentences where the locus of the code-switch mirrored the code-switch site that they had just heard. Experiment 2 explores the role of word order in priming a code-switch site. Indirect interrogative sentences (e.g., “In this picture we don’t know which - apple the boy is eating”) were used. Spanish allows for variation in word order, with the possibility of OVS and OSV after the interrogative ‘which’, while English is strictly OSV. Our questions are (1) Will bilinguals align to their conversational partners in word order in addition to code-switch site?, and (2) Will sentences differing in word order between the two languages block priming of the code-switch site? Data on Experiment 2 are currently being collected. Together, the results will help understand the factors involved in the learning and production of code-switches.

Keywords: Code-switching; structural priming; implicit learning

## **(F-14) Linguistic parameters of the Mandarin Chinese speech of monolingual and bi/multilingual children**

*Veronika Makarova & Qin Xiang*

This paper compares the development of Mandarin Chinese speech among monolingual children in China and their bi/multilingual peers in Saskatchewan, Canada.

Out of over 200 immigrant languages currently spoken as a mother tongue in Canada, Mandarin Chinese has the second highest number of speakers (Winzer and Mazurek, 2000; Statistics Canada, 2012). The significance of the studies of child bi/multilingualism is gaining more acknowledgement, since these studies address the issues of maintaining the “linguistic equilibrium” in immigrant families and in Canadian society in general (e.g., Nicoladis, DaCosta & Foursha-Stevenson, 2016; Armstrong, 2015). The discussions of bi/multilingualism in minority (immigrant or heritage) language settings often focus on “resource constraints,” i.e., whether children can adequately develop their heritage language skills in immigrant settings (e.g., Caldas & Caron-Caldas, 2008; Scontras, Fucks & Polinsky,

2015). So far, very few detailed studies of Chinese-as-a-heritage language development by children are available in Canadian context (e.g., Fangfang, 2017), and none – in Saskatchewan (Wason-Ellam, 2001).

This paper reports the results of an experimental study comparing the linguistic parameters in the samples produced by 60 bi/multilingual children speaking Mandarin Chinese-as-a-heritage-language in Canada (HS) and of 60 monolingual children (MS) in China. The participants come from two age groups: 5 to 7 and 10 to 12 years old. The speech samples were prompted with a set of pictures (e.g., Gagarina, 2014; Squires et al., 2014). The narratives were recorded, manually transcribed and analyzed to extract proficiency parameters (such as total vocabulary, numbers of words by lexical category, number of errors, etc.) that were subjected to t-tests for cross-group comparison.

The results show significant differences across the two groups in 20 speech parameters that are indicative of the higher fluency and complexity and lower errors rate in the MS than in HS speech. The difference increases with the participants' age.

Keywords: heritage language learning by children; bilingualism/multilingualism; Chinese as a heritage language

### **(F-15) New generation of Irish and Swedish speakers through one-way immersion programmes: Immersion students' views on their present and future bi- and multilingualism**

*Sanna Pakarinen*

In Irish immersion in the Republic of Ireland and in Swedish immersion in Finland, majority language speakers (English and Finnish respectively) begin to acquire a second language (L2) usually when enrolled in kindergarten. Both programmes commence with 100% instruction through the L2 and continue with a high level of exposure of L2 until the students are approximately sixteen years of age. (Björklund & Mård-Miettinen, 2011; Ó Duibhir, 2018.) Even foreign languages are part of both programmes, although a multilingual orientation is more characteristics of Swedish immersion.

The aim of this presentation is to examine how 11–15-year-old immersion students perceive their own bi- and multilingualism and how they reflect on past and future changes regarding their bi- and multilingualism. The data comprise drawings by and interviews with twelve students, and the analysis is based on a discourse analytical reading of the data. Four main discourses of bi- and multilingualism were identified: emerging, limited, functional, and extensive. However, the status of the L2 seems to differ in students' present identifications and in the predictions of their future identification in both Ireland and Finland. Furthermore, own bilingualism is more often related to societal bilingualism in Ireland than in Finland. Overall, the immersion students in this study show a positive attitude to the L2 and to foreign languages.

Keywords: Irish immersion in Ireland; Multilingualism; Swedish immersion in Finland

### **(F-16) Exploring cross-lexical interference in speakers of Spanish and Mapuzungun: A pilot study**

*María José Vicencio, Orieta Aguilar & Alexia Guerra*

Our research studies cross-linguistic lexical activation in adult Spanish-Mapuzungun bilinguals from the south of Chile. This study seeks to provide further data to support or contradict the Nonselective theory for lexical access. Our aim is to determine if there is cross-linguistic lexical activation in these specific bilinguals. Additionally, we expect to individually analyze the results to identify the sociolinguistic factors that elicit or inhibit this phenomenon.

Cross-linguistic lexical activation refers to the influence one language has over the other in the bilingual (or multilingual) mind (Jarvis, 2009). There are two main theories that intend to explain how bilinguals access lexical information, these are Selective and Nonselective. Although there is a large amount of research supporting the Nonselective theory, we can observe that aboriginal languages are underexplored in the field. Therefore, exploring cross-linguistic lexical activation between Spanish and Mapuzungun arises as an interesting subject for novel research.

The participants of our study are tested through a phoneme monitoring task, adapted from Colomé (2001) and Moon and Jiang (2011). During the experiment, where Spanish is the target language, bilinguals have to decide whether a particular phoneme belongs to the Spanish name of the object represented in a picture shown after the phoneme. Information gathered from a language background questionnaire is used to identify potential sociolinguistic elements influencing each bilingual's performance.

Our results reveal activation of Mapuzungun labels when monitoring phonemes belonging to the target language of the task. Furthermore, frequency of language use, age and age of onset appear as agents affecting cross-linguistic lexical activation. Our findings are in line with previous research and evidence that these participants experience cross-linguistic lexical activation, which supports the Nonselective theory (Colomé, 2001; Hoshino & Kroll, 2008; Kroll & Dijkstra, 2010; Marian & Spivey, 2003; Moon & Jiang, 2011; Schwartz & Kroll, 2006).

Keywords: cross-linguistics; lexical activation; bilingualism

## **(F-17) Bilingual speakers' awareness of language varieties they teach and speak**

*Angela George*

North American language and culture assistants are sought after to assist English language teachers in Spain in order to increase the English language level of learners in Spain. These assistants who are typically first language speakers of English possess varying levels of awareness towards the positioning of both English and Spanish in the world in terms of L1 and L2 varieties of each language and the role each language plays as a global and international language. This (lack of) knowledge transfers into the classroom to varying degrees. This is not uncommon, as teachers often are unprepared to teach diverse varieties of English in the classroom, yet scholars support the instruction of diverse varieties to prepare students for a global world (Matsuda, 2018). Teachers of all levels (beginning, intermediate, advanced) must make students aware of their choice of dialect in the classroom, in order to develop the students' critical knowledge of various factors (cultural, political, social context) affecting the choice (Del Valle, 2014). In the current study, case studies reveal the impact of awareness towards beliefs about teaching and speaking different varieties of English by seven English language teaching assistants in Spain. The study consists of both survey and interview data in Spanish and English. The results of each case study include the role of proficiency level,

previous pedagogical training and experience speaking a stigmatized variety of English or Spanish. The results confirm little awareness of English or Spanish as a world, global, or international language, but rather a large emphasis on American and British English. This study has implications for the future, in particular about utilizing awareness-raising materials that inform on different global forms of English and their functions as suggested by (Dogancay-Aktuna & Hardman, 2017).

Keywords: second language acquisition; awareness; World Englishes

## **(F-18) Knowledge of lexical categories of heritage speakers of Russian and Polish in Germany: A longitudinal perspective**

*Vladimir Arifulin & Dominika Steinbach*

In their overview on the relevance of heritage languages for theoretical linguistics Benmamoun, Montrul and Polinsky (2013: 148) report on findings which show that heritage speaker's accuracy in a lexical decision task was higher with verbs than with nouns, thus indicating that "the basic noun-verb distinction seems to be retained even by speakers whose knowledge of a given language is not fully developed".

In the current study we investigate the knowledge of basic lexical categories by heritage speakers of two Slavic languages (Russian and Polish) from a longitudinal perspective. For this purpose the lexical proficiency of 19 Russian and 16 Polish heritage speakers in Germany was tested over a time span of four years (2014, 2015, 2017 and 2018). Data were collected by using a vocabulary translation task. In the first part of the test, participants had to translate 50 German items into their heritage language. The second part consisted of 50 words in the heritage language that the teenagers had to translate into German. Item selection was guided by four considerations: (i) frequency (distinction between high and low frequency items); (ii) semantic domains/registers, (iii) word class and (iv) comparability of items for Russian and Polish (i.e. preference was given for items which had direct equivalents of a comparative frequency and register profile in the other language).

The results show that (1) knowledge of the basic lexical categories increases with age for both groups on the group level; (2) verbs achieve higher correctness scores than nouns which is in line with the universality of the noun-verb distinction; (3) progression is slower and starts from a lower level for the Russian group. In a second step, we will explore the effect of frequency and register of the lexical items on the performance of the two groups in the task.

Keywords: heritage language; lexical proficiency; longitudinal study

## **(F-19) Foreign language training in seniors to prevent old-age disorders**

*Saskia Nijmeijer, Merel Keijzer & Marie-Jose van Tol*

Bilinguals constantly need to mentally juggle several languages, which is said to carry over from the language to the general cognitive domain (Grant, Dennis, & Li, 2014). This effect is often manifested as better cognitive flexibility (Kroll & Bialystok, 2013), a skill needed to separate two languages in one mind (Bice & Kroll, 2015). More than learning other new skills, learning a new language interferes with earlier acquired language skills; it impacts first language processing and storage (cf. Li, Legault, & Litcofsky, 2014). Because of this, foreign language training is expected to boost cognitive flexibility beyond other cognitive training programs. Despite many observational studies into bilingual

advantages, experimental studies introducing bilingual experiences later in life remain scarce. The primary objective of this study is to determine whether a bilingual experience affects cognitive flexibility and its neural underpinnings in 189 elderly speakers (65+) with subjective, but not objective, cognitive decline which may or may not be accompanied by mood disorders. We assess the role of foreign language training as compared to a music training and social intervention. In this paper, we present the outcomes of the first cohorts of participants. For three to six months, they practised their new language or music skills for 45 minutes a day, 5 days a week at home, and participated in classes every fortnight. We assessed cognitive flexibility by means of a color-shape switching task and WCST and simultaneously measured brain activity using combined fNIRS/EEG methods. Apart from an increase in behavioral cognitive flexibility we expected increased power in the theta band network measured through EEG and less hypo-activity in the lateral and medial PFC during switching measured through fNIRS. If effective, foreign language learning could contribute to increased cognitive reserve in seniors, slow down cognitive aging and reduce vulnerability for cognitive and mood disorders.

Keywords: old-age disorders, foreign language therapy, cognitive flexibility

## **(F-20) Examining Task Related Effects on the Manifestation of Morphological and Lexical Errors in French Speaking Children with Developmental Language Disorders**

*Selçuk Güven, Elin Thordardottir, Eve-Julie Rioux*

### Introduction

There is growing concern about the effects of task related factors on the production of grammatical errors in children with developmental language disorders(DLD). In a previous study with school-age children with DLD, Thordardottir (2008) showed that manifestation of grammatical morphology is differently affected by the different contexts in English than the Icelandic.

French is rich morphologically and we hypothesized that due to the increasing processing load, in a more demanding context(e.g. story retell) some vulnerabilities in the aspect of grammatical morphology may be seen as reported for Icelandic which has an complex inflectional system. The purpose of this study is whether or how two different language sampling contexts influence the production of morphological and lexical errors in French speaking bilingual children with DLD. We will report the qualitative and quantitative findings.

### Method

Participants of this study were 29 preschool French-English speaking bilingual children with DLD. Their age ranged from 4;3 to 5;9(M=5;1). All children were recruited and tested in Montreal.

Language samples were collected in two different contexts: story retell task and conversation based language sample. For the story retell task, a wordless picture book was used. In the study, the main interest was on the overall accuracy rate of grammatical morphology and lexical errors within each of contexts. We matched the total number of utterances for each context and coded the errors accordingly(M=18.2, SD=6.5).We grouped morphemes as person and tense. Moreover, lexical errors and errors in noun, adjective and pronouns were analyzed.

### Results

We found significant difference in the production of tense morpheme errors (Wilcoxon  $z = 1.59$ ,  $p = .05$ , Hedges'  $g = 0.54$ ) and noun+adjective+pronoun errors (Wilcoxon  $z = 1.62$ ,  $p = .05$ ,  $g = 0.36$ ) in more demanding context (story-retell) than the spontaneous language sample. However, the difference between the comparisons person morphemes and lexical errors were not significant.

Keywords: Developmental language disorders; grammatical morphology; assessment

## **(F-22) The interrelationship between the notions of compound, coordinate and subordinate bilingualism in the process of bilingual writing in Chinese and English of 6 students in Hong Kong Polytechnic University**

*Wing Sat Chan*

This paper reports some data based observations on the individual characteristics of and the interactions between the notions of compound, coordinate, and subordinate (Weinreich, 1953), while being activated in the processes of bilingual writing in Chinese and English by 6 students in HK Polytechnic University.

By employing the technique of think-aloud protocol (Emig, 1971; Eriksson, K and Simon, 1984), the data of how the students think in their processes of writing is attained. The data is segmented in terms of identifiable pauses in the students' utterances (Matsuhashi, 1981), and coded in the coding system proposed by Perl (1981).

There are three major findings in the study. (1) Students tend to use their L1 for general cognitive processes, and use L2 for editing. (2) They differ from each other in choices of word, sentence processing, text structure and essay length, but are similar in the pattern of using L1 and L2 in the process of writing, irrespective of different specialties of training received from different faculties. (3) As the data indicates, the 3 notions of bilingualism work either simultaneously or consecutively by every bilingual writer in their real time writing. It seems that the notions could be more adequate to be interpreted as types of relation between sign and content of the two languages, than being extended to represent different types of individual bilingualism or methods of acquiring and learning in bilingual education.

Keywords: sign in language contact; bilingual writing; thinking protocol

## **(F-23) Identifying language impairment in monolingual and bilingual Turkish-speaking children with/ without developmental language disorders and hearing impairment**

*Nebiye Hilal San, Solveig Chilla, Pelin Pistav-Akmese & Cornelia Hamann*

Children with hearing impairment (HI) and developmental language disorder (DLD) show syndrome-specific deficits in grammatical morphology and syntax (Leonard, 2014; Ruigendijk&Friedmann, 2017; Marinis&van der Lely, 2007). Complex syntactic structures, such as syntactic movement and embedding are cross-linguistically shown to be problematic for children with DLD and are part of several sentence repetition tasks (Jakubowicz&Tuller, 2008; Hamann&Abed-Ibrahim, 2017). DLD markers can furthermore overlap with the interlanguage features of bilinguals in their L1 and/or L2 (e.g. Paradis et al., 2004). Monolingual DLD and HI children acquiring Turkish as L1 as well as bilingual children acquiring a heritage variety of their L1 that underwent language contact phenomena, i.e. "Immigrant Turkish" (IT, Boeschoten, 1990) show similar error patterns or problems with subordinate

clauses (Piştav-Akmeşe&Acarlar, 2016; Herkenrath , 2014; Chilla&Şan, 2017).

This study focuses on the applicability of a standardized Turkish test (TELD:3-T, Topbaş&Güven, 2011) for the assessment of morphosyntactic abilities of Turkish-speaking children in monolingual and bilingual contexts, with a focus on sentence-repetition. We compare the performance of 43 bilingual children (9 with DLD) from Germany and France to that of 51 monolingual Turkish-speaking children in Turkey (16 with HI and 35 typically developing (TD) aged 5;3-8;0 yrs. on TELD:3-T (Topbaş & Güven, 2011) performance.

Discriminant analysis showed that 7/9 bilingual-DLD-children were classified as having DLD, whereas only 23/34 of the bilingual typically developing children were correctly grouped as BI-TD. In the monolingual data, all of the 16 HI and the 35 TD children were correctly classified as such. In sum, 55.9% of the original cases were correctly classified. Our data reveal that bilinguals with TD and DLD as well as monolinguals with HI struggle with complex syntactic structures. Moreover, DLD and HI show not only syndrome-specific error patterns but also a qualitative and quantitative overlap with IT children in the morphosyntactic domain.

Keywords: Language impairment; Bilingualism; Immigrant Turkish

## **(F-24) What's language got to do with identity? Investigating the relationship between language and identity of adult heritage language learners**

*Sumanthra Govender*

There is an “assumed and or attributed relationship between one’s sense of self and a means of communication which might be known as a language” (Block, 2009, p. 40). Indeed, there is a belief that an individual needs to “know” a language in order to “be” a member or “claim” membership of that particular ethno-cultural group. For heritage language (HL) speakers’, their ethno-linguistic identities are realized through the language(s) they use and how and with whom they use language. However, there are many heritage language learners (HLLs) who claim their ethnic identity without knowing their HL. For various reasons while growing up, they never fully learned the language, but they might decide to do so as an adult. In this case, adult HLLs rarely have an opportunity to learn the language in the cultural community. Consequently, they turn to private or university language classes in which the target learners are not the HLLs. Are these classes meeting the needs of the heritage language learner? This qualitative study investigates the link between ethnic identity affiliation and language knowledge through the use of an interview narrative methodology and autobiographical writing. Drawing upon socio-cultural and post-structural perspectives about identity formation and language socialisation (Duff, 2007; 2010; Norton, 2000, 2013; Vygotsky 1978; Watson-Gegeo, 2004), the purpose of this presentation is to share and garner different perspectives about the language identity conundrum many visible minority heritage speakers face. How important is language to ethnic identity and what are the learners’ perceptions about their heritage language learning experiences? As today’s language classroom become more linguistically, ethnically, racially diverse, investigations into the language / identity relationship will help educators and policy-makers handle novel ethno-cultural and linguistic learning situations and foster curricula that reflects the multiplicity of identity and ethnicity of students.

Keywords: identity; heritage language learners

