Bilingualism in the Hispanic and Lusophone World (BHL)

Florida State University, January 27-29, 2017
Welcome
Welcome to the second international Bilingualism in the Hispanic and Lusophone world (BHL) conference, hosted at Florida State University. The conference will be held from January 27th – January 29th, 2017. The BHL is a biannual international conference, initiated by Antje Muntendam (Florida State University) and M. Carmen Parafita Couto (Leiden University). The first BHL conference was held 14-16 January 2015 at Leiden University in the Netherlands. An edited volume with selected papers from the conference will appear in the Hispanic and Lusophone Linguistics Series by John Benjamins. We hope this second BHL conference provides opportunities to present and discuss new ideas and research directions in matters related to bilingualism in the Spanish and Portuguese-speaking world.

The goal of the conference is to bring together researchers working on different aspects of bilingualism in the Hispanic and Lusophone world. Hence, the BHL is dedicated to research in any area related to bilingualism, including theoretical linguistics, sociolinguistics, language contact, second language and bilingual acquisition, heritage languages, communication, education, and psycholinguistics. By bringing together researchers from different perspectives we are able to share new insights regarding methodology and get a better understanding of bilingualism.

This conference has been sponsored by the College of Arts and Sciences (Florida State University), the FSU Office of Research (Florida State University), the Winthrop-King Institute for contemporary French and Francophone studies (Florida State University), The Graduate School, (Florida State University), The W. Russell and Eugenia Morcom Chair (Florida State University), the Department of Modern Languages and Linguistics (Florida State University), and the School of Communication (Florida State University).

Acknowledgements
We would like to acknowledge the scientific committee members who offered their time and expertise to review the abstracts. In addition, we would like to thank José Manuel García del Río (Leiden University) for creating the conference logo, and our volunteers for their assistance before and during the conference. Finally, we would like to acknowledge the organizations and institutions that have sponsored this event. We are thankful to them for their support, which has undoubtedly made this conference possible.
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Michael Leeser (Florida State University)
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Lara Reglero (Florida State University)
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Elena Vogel
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Elena Valenzuela
Janet Van Hell
Julio Villa García
Álvaro Villegas
**PROGRAM**

Friday January 27\(^{th}\), 2017  
(William Johnston Building, Room G0040)

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<td>10:45-11:15 am</td>
<td>Sherez Mohamed (Florida State University)</td>
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<td><em>Language contact in Puerto Rico: The rise of the glottal stop as a variant of /s/</em></td>
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<td><em>Licensing adpositions in Media Lengua: Quichua or Spanish?</em></td>
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<td>Juana Liceras (University of Ottawa), Raquel Fernández-Fuertes (University of Valladolid), &amp; Rachel Klassen (University of Ottawa)</td>
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<td><em>Linguistic theory and code-switching data: Feature matching restrictions... and beyond</em></td>
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<td>Cristina Mostacero Pinilla</td>
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<td>Chair: Peggy Sharpe</td>
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<td><em>The processing of scalar implicatures with some and algunos in L2 learners</em></td>
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<td>2:15-2:45 pm</td>
<td>Sara Ann Mason (University of Illinois at Urbana-Champaign)</td>
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<td><em>Input segmentation and the acquisition of grammatical gender in Spanish</em></td>
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<td>Alan Parma (Florida State University)</td>
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<td><em>Assessing the permeability of cognate systems in Portuguese-Spanish bilingual communities: A variationist approach</em></td>
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### Saturday January 28th, 2017
(William Johnston Building, Room 2004)

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<td>8:30-9:30 am</td>
<td><strong>Plenary 3</strong> Teresa Bajo (University of Granada) Chair: Gretchen Sunderman</td>
<td>Language activation and control in Spanish/English bilinguals and L2 learners</td>
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<td>9:30-10:00 am</td>
<td><strong>Session 3</strong> Chair: Antje Muntendam</td>
<td>Anne Lauren Beatty-Martinez &amp; Giulia Dussias (Pennsylvania State University)</td>
<td>Bilingual experience modulates comprehension of codeswitched language: It’s not about switching a palabra (word)</td>
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<td>10:00-10:30 am</td>
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<td>Daniel Olson (Purdue University)</td>
<td>Listening in two languages: Temporal costs in auditory comprehension of code-switched speech</td>
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<td>10:30-11:00 am</td>
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<td>Vanessa Elias, Sean McKinnon, &amp; Angel Milla Muñoz (Indiana University)</td>
<td>The effects of lexical stress and distance from the codeswitching site on Spanish heritage speaker vowel production</td>
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<td>11:00-11:30 am</td>
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<td>11:30-12:00 pm</td>
<td><strong>Session 4</strong> Chair: Carla Wood</td>
<td>Christine Shea (University of Iowa)</td>
<td>Factors mediating language dominance in the phonetics of Spanish heritage speaker productions</td>
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<td>Ji Young Kim (University of California, Los Angeles)</td>
<td>Similar outcome due to different reasons? A comparison between heritage speakers and L2 learners in the production of Spanish lexical stress</td>
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<td>Steven Alcorn &amp; Rajka Smiljanic (University of Texas at Austin)</td>
<td>The role of L2 phonetic experience in L1 phonological restructuring in Portuguese-English bilinguals</td>
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<td>2:30-3:00 pm</td>
<td><strong>Session 5</strong> Chair: Arielle Borovsky</td>
<td>Stephanie DeAnda (San Diego State University &amp; University of California San Diego), Kristi Hendrickson (University of Iowa), Diane Poulin-Dubois (Concordia University), Pascal Zesiger (University of Geneva), &amp; Margaret Friend (San Diego State University)</td>
<td>Lexical access and vocabulary size in monolingual and bilingual toddlers</td>
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<td>3:00-3:30 pm</td>
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<td>Emma Ticio (Syracuse University)</td>
<td>Noun-movement, economy and the acquisition of word order in child Spanish DPs</td>
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3:30-4:00 pm: Maria José Ezeizabarrena & Iñaki García Fernández (University of the Basque Country)  
*Consistency across ways of measuring the Mean Length of Utterance in early Basque: Short and long versions of the Basque CDI*

4:00-4:30 pm: Coffee break

4:30-5:30 pm: Poster session 2

5:30-6:30 pm: **Plenary 4**: Virginia Mueller Gathercole (Florida International University)  
Chair: M. Carmen Parafita Couto  
*Bilingualism, semantics, and words: Complex determinants of crosslinguistic influence*

6:45 pm: Conference dinner

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**Sunday January 29th, 2017**  
*(William Johnston Building, Room 2004)*

8:30-9:30 am: **Plenary 5**: Luis López (University of Illinois at Chicago)  
Chair: Lara Reglero  
*Code-switching and linguistic theory*

9:30-10:00 am: Coffee break

10:00-10:30 am: Hans Stadthagen-González (University of Southern Mississippi) & M Carmen Parafita Couto (Leiden University)  
*El libro or the libro? Insights on theories of code-switching from acceptability judgments*

10:30-11:00 am: Osmer Balam (Indiana University)  
*Mixed DPs and linguistic hybridity in bi/multilingual speech*

11:00-11:30 am: Alicia Assini (University of Texas at Austin)  
*“Not everyone knows these words?”: A study of Spanish borrowings in New Mexico English*

11:30-12:00 pm: Rosa Guzzardo Tamargo (University of Puerto Rico), Jessica Vélez Avilés (University of Puerto Rico), Verónica Loureiro-Rodríguez (University of Manitoba), Elif Acar (University of Manitoba)  
*Language attitudes of Puerto Rican bilingual youth*

12:00-1:30 pm: Lunch

1:30-2:30 pm: **Plenary 6**: Gretchen Sunderman (Florida State University)  
Chair: Michael Leeser  
*Understanding bilingual lexical processing*

2:30-2:45 pm: Conference closing
Poster session 1

Lane Blackmer, Nivia Escobar-Salazar, Carlos Galindo, & Sindy Chapa (Florida State University): Comparing Spanish-dominant and English-dominant Hispanics’ social media usage

Mary Hahn & Jennifer Robinson (University of Georgia): Problems at the syntax/pragmatics interface related to the perception of negated suggestions among learners of L2 Spanish

Tammy Hertel (Lynchburg College) & Hilary Barnes (College of Charleston): Kaqchikel in San Marcos La Laguna, Guatemala: Language maintenance or language shift?

Rachel Klassen (University of Ottawa): Gender concord in Spanish-German code-switched DPs: The case of neuter

Cristina Isabel Maymi (University of Puerto Rico, Rio Piedras): Syntactic ambiguity resolution in code-switched discourse

Oihane Muxika-Loitzate (Ohio State University): The impact of degree of bilingualism on the Basque sibilant Merger

Lori Nevin (University of Florida): Pragmatic and morphosyntactic constraints on the acquisition of gustar

Ana Oliveira-Beuses, Jorge Valdés Kroff, & Lise Abrams (University of Florida): Un-Strooping the Stroop effect: Can bilinguals reduce Stroop interference through other-language mediation?

Cristian Padure (Inalco), Stefano De Pascale (Catholic University Leuven) & Evangelia Adamou (French National Center for Scientific Research): From complexification to simplification: Copula choice among Romani-Spanish bilinguals in Mexico

Pablo Requena (University of Montana) & Grant Berry (Pennsylvania State University): A bilingual benefit in processing variation: Evidence for shared morphosyntactic representations

Estrella Rodríguez, Kristina Bustamante, Carla Wood, & Gretchen Sunderman (Florida State University): L1 maintenance in young Spanish heritage speakers: The role of delayed L2 English exposure

Itxaso Rodríguez-Ordóñez (Southern Illinois University Carbondale): How is syntax borrowed? Evidence from Basque DOM

Carla Wood, Lisa Fitton, Yaacov Petscher, Estrella Rodriguez, Gretchen Sunderman, & Taehyeong Lim (Florida State University): Young Spanish-English heritage speakers and e-book instruction effect through L1 activation
Poster session 2

Ana Anderson (University of Minnesota): Verbs in contact: Acceptability and use of imperfect subjunctive forms in Galician Spanish

Salvatore Callesano (University of Texas at Austin): Dale, bro! Perceptions of the lexicon in Miami English

Christopher Dean & Jorge Valdés Kroff (University of Florida): Cross-linguistic orthographic effects in late bilinguals of Spanish and English

Clariebelle Gabas, Claire Wofford & Carla Wood (Florida State University): Growth in oral narrative retells for Spanish-English speaking children

Michael Johns (Pennsylvania State University), Jorge Valdés-Kroff (University of Florida), & Giuli Dussias (Pennsylvania State University): Mixing things up: How blocking and mixing affect the processing of codeswitched sentences

Sara Ann Mason (University of Illinois at Urbana-Champaign): Morphological processing in native, early and late bilingual Spanish speakers

Sean McKinnon (Indiana University): A sociophonetic analysis of Spanish voiceless stop aspiration in monolingual and bilingual (Spanish, Spanish-Kaqchikel) Guatemalan speech

Alexandra Morales Reyes (University of Puerto Rico at Mayagüez), Begoña Arechabaleta (University of Illinois at Urbana-Champaign), & Claudia Crespo (Pontificia Universidad Católica del Perú): Are lions green?: Child L2 learners’ interpretation of English generics and definite determiners

Anabela Rato (University of Toronto) & Cristina Flores (University of Minho): Global accent in the Portuguese speech of heritage returnees

Ana Rivera, Lise Abrams, & Lori Altmann (University of Florida): Competing conflict leads to bilingual disadvantage: Performance on an explicit and implicit Simon task

Silvia Sollai (Florida State University): Asas da Florestania: Languages and cultures at play in the forest-based citizenship literacy program in Brazil

Brechje van Osch, Suzanne Aalberse, Aafke Hulk, & Petra Sleeman (University of Amsterdam): Subject position in Spanish as a heritage language: Interface vulnerability and cross-linguistic influence

Elena Vogel (Florida State University): L1 and L2 processing of lexical and grammatical aspect in Spanish

Delaney Wilson, Marianne Nadeu, & Janet van Hell (Pennsylvania State University): How Spanish-English bilinguals produce code-switched sentences: An acoustic analysis
ABSTRACTS PLENARIES

Language activation and control in Spanish/English bilinguals and L2 learners

Teresa Bajo (University of Granada)

Proactive and reactive attentional processes have been proposed as candidate mechanisms for language control in bilingual language selection (Braver, 2012; Morales, Yudes, Gómez-Ariza & Bajo, 2015). In fact, the bilingual’s superiority in some cognitive tasks has been associated to the use of language control mechanisms that act to prevent interference from the unintended language (e.g. Bialystok, Craik & Luk, 2012). In the present investigation, we provide data suggesting that in many situations language control is achieved by means of inhibitory mechanisms (reactive control) that suppress activation of the non-target language, but that there also situations where control is achieved by using proactive strategies for language selection. By using procedures that permit to assess both activation and inhibition of the non-intended language (negative priming with interlingual homographs, repeated naming and recall, etc.), we provide data indicating that inhibitory/proactive effects are not always evident and that their presence depends on the activation of the non-intended language and on the bilinguals’ language experience. Thus, in agreement with recent proposals (Green & Abutalebi, 2013) our data suggests that factors such as L2 fluency, immersion in L2 and training in translation influence the processes involved in language selection, and that these differences in language control also generalize to the type of executive functions that are enhanced by the bilingual experience. Finally, we also provide evidence that individual differences in proactivity modulate high-order processes during L1 and L2 language processing.

References


Assessing the permeability of cognate systems in Portuguese-Spanish bilingual communities: A variationist approach

Ana M. Carvalho (University of Arizona)

Whereas Spanish continues to be regarded as a pro-drop language, there is broad consensus that Brazilian Portuguese has undergone a diachronic change toward overt pronoun expression over the last century (Duarte 1993, 1995; among others). One indication that Brazilian Portuguese is well on its way to leaving its status as a pro-drop language is the increasing tendency for pronoun expression with inanimate referents (Duarte, 1995, p. 45). In Spanish, on the other hand, inanimate referents are categorically expected to trigger pronoun omission. This contrast between Spanish and Portuguese gives rise to a ‘conflict site’; that is, a functional, structural, or quantitative difference that emerges in the comparison of the variable grammars of two languages (Poplack & Meechan, 1998, p. 132).

In this presentation, I capitalize on this difference in order to explore the permeability of Portuguese and Spanish variable grammars in situations of prolonged contact between these languages in the bilingual communities of northern Uruguay. First, I discuss the contributions made by variationist sociolinguistics to the study of languages in contact in general, and to the definition of Uruguayan Portuguese in particular. Then, I turn to the examination of 3rd p.sg. subject pronoun expression in bilingual varieties of Portuguese and Spanish.

Based on sociolinguistic interviews in both languages in Rivera, on the Uruguayan-Brazilian border, I subject both data sets to variationist analysis following the premises of comparative sociolinguistics (Tagliamonte 2013). Crosslinguistic comparisons of the overall frequency of pronoun expression, of the magnitude of the animacy effect, and of the degree of animacy across the Portuguese and Spanish varieties spoken by the same bilinguals show that even though the languages present parallel variability, they have not merged into a single variable system, as evidenced by the greater tendency to express pronouns in Uruguayan Portuguese than in border Uruguayan Spanish among most of the speakers.

In sum, these results add to previous variationist studies of these border dialects that detected strong continuities between these bilingual varieties and their monolingual counterparts (Carvalho 2003, 2004, 2006, 2010; Castañeda 2016; Pacheco 2017; Waltermire 2008) thus countering the idea that a new language (the so-called “Portuñol”) has emerged. In addition, this presentation pinpoints the analytical challenges that arise in assessing the effects of language contact when the languages under examination are cognate systems and as such present abundant pre-contact similarities.

References

Carvalho, A.M. (2004). I speak like the guys on TV: palatalization and the urbanization of Uruguayan Portuguese. Language variation and change, 16(02),127-151.
I assume that the faculty of language is a single cognitive faculty of the human mind. A human language, as it lives in a specific human mind, is a growth of this faculty. I claim that this is not different in bilingual minds: a single linguistic competence grows out of the faculty of language. There are no two grammatical systems. There are no two lexicons or two narrow-language PFs. Bilinguals have two systems of exteriorization that link the linguistic competence to the performance modules. I base these conclusions on code-switching evidence, most of it well known to practitioners but not yet fully mined. I implement my analyses within a framework that incorporates Minimalist assumptions together with a realizational model of morphology such as has been put forth in Distributed Morphology.
This talk will address the nature of semantic and lexical knowledge in bilinguals, with special attention to words and categories that differ across the bilingual's two languages. A variety of studies that examine bilingual speakers' knowledge and use of their two languages will be considered together, in order to gauge the impacts of exposure, language balance, the status of cognates, the relative opacity of the mapping of meaning, and the interaction of the speaker's two languages and of language with cognition on acquisition and processing. The studies will include work on the acquisition of words in Portuguese-English toddlers, the use of cognates and false cognates in Spanish L1-English L2 adults, and semantic categorization in Portuguese-English adults and Spanish-English adults. With regard to cognates, research suggests that cognates may enjoy a special status in the acquisition and knowledge of lexical items in bilingual children and adults (Bosch & Ramon-Casas, 2014; Fabian Freire, 2016; Fabian Freire & Gathercole, 2016; Kelley & Kohnert, 2010; Méndez Pérez, Peña, & Bedore, 2012; Schelletter, 2002; Stadthagen-González, Gathercole, Pérez-Tattam, & Yavaş, 2013), allowing for better performance on cognates than on non-cognates. However, the ultimate performance on cognates may be influenced in significant ways by language balance and by semantic complexity and exposure. In a recent study of Spanish L1-English L2 adults' translations from Spanish to English (Canizares, 2016), we found that a complex interaction of factors led to the use and mis-use of false cognates in the translations. Significant contributory factors involved the semantic complexity/polysemy of the word in the L1, the frequency of the L1 word, the frequency of the L2 (false) cognate, and the frequency of the L2 (correct) non-cognate. With regard to semantic interaction between a bilingual's two languages, several recent studies indicate that a variety of factors influence performance: language balance, origin home language [i.e., the language(s) spoken in the home when adults were children], word class (classical categories [i.e., in which the meaning can be expressed in terms of necessary and sufficient conditions] vs. homophones vs. radial categories), and semantic width. In a series of studies involving forced-choice picture tasks (Gathercole, Stadthagen-González, Pérez-Tattam, & Yavaş, in press), reaction times (McLeod, 2015), and eye-tracking (deCubas, 2016), we have found a special status for classical categories over homophones and radials, in that there is greater influence across the languages in the former over the latter two types. In addition, that influence is more apparent in the minority language than in the majority language, especially as observed in bilinguals with lower levels of early input in the given language. The data together suggest a complex picture of the roles of a variety of factors on acquisition and processing of semantics, including a complex interaction of semantics and cognition. Implications for testing and assessment will be discussed.

References


Population genetics (DNA) in conversation with historical linguistics: Opportunities and challenges

Armin Schwegler (University of California Irvine)

This talk offers an example of how population geneticists and linguists have collaborated lately in an attempt to reconstruct the sub-Saharan origins of Latin America's Black (and mulatto) populations. Part 1 of the talk will provide a general overview of how this interdisciplinary collaboration has borne fruit in the past five years, and what techniques have been applied to advance the research. Part 2 then examines some of these results close up to illustrate some of the difficulties and challenges that such collaboration produces.
Learning a second language (L2) necessarily entails building a new lexicon in that language. But how do L2 learners accomplish this feat given that they begin with a well-developed lexicon in their first language (L1)? Kroll and Stewart’s (1994) Revised Hierarchical Model (RHM), a well-known developmental model of the lexicon, posits that beginning second language (L2) learners initially rely on lexical links and are not able to directly access concepts in their L2 (i.e. conceptually mediate). There has been much debate in the literature with respect to the predictions of the RHM, (e.g. Brysbaert & Duyck, 2010; Kroll, Van Hell, Tokowicz, & Green, 2010), especially with respect to the notion of conceptual mediation (e.g. Altarriba & Mathis, 1997; La Heij, Hooglander, Kerling & Van der Velden, 1996). In the present study, we present data from two production experiments that have investigated conceptual mediation. The first experiment uses the Deese-Roediger-McDermott (DRM) false memory paradigm (Deese, 1959; Roediger & McDermott, 1995) to test L2 semantic associative links. The second experiment investigates the nature of learners’ errors as they named pictures in the L2 under blocked and mixed presentation. The results of the combined studies suggest 1) that conceptual mediation is related to more skilled performance, but comes at a cost to the L1 and 2) that control of spoken production may be affected by proficiency as well as individual differences in the ability to allocate cognitive resources. Implications and applications of the RHM for learning L2 vocabulary are presented.

References


ABSTRACTS

The role of L2 experience in L1 phonological restructuring in Brazilian Portuguese-English bilinguals

Steven Alcorn and Rajka Smiljanic (University of Texas at Austin)

Most studies on the impact of the second language (L2) on the first language (L1) in the area of bilingual phonology have focused on segmental aspects of speech, primarily voice onset time (VOT) (e.g. Flege, 1987; Sancier & Fowler, 1997; Chang, 2012). Nevertheless, recent work has explored bilingual phonotactics and the effects that sound patterns in one language of a bilingual have on the sounds of the other language(s). For example, in the perception of illegal #sC clusters in Spanish, knowledge of English attenuates the effect of phonotactic repair in both speech perception (Carlson et al., 2016) and comprehension (Freeman et al., 2016). The current study furthers this line of work by testing the perception of epenthetic vowels in Brazilian Portuguese (BP) by adult Portuguese-English bilinguals. Syllable-final consonants are phonotactically illegal in BP. When they occur, such as in loan words from English or late borrowings from Latin, they are repaired with an epenthetic /i/, as in the word “objeto” (object) pronounced [o.bi.ʒɛ.tu]. This repair occurs in both perception and production. Previous work has found that native speakers of BP will report hearing an epenthetic /i/ after an illegal consonant, even when no vowel is acoustically present in the recording (Parlato-Oliveira et al., 2010). On the other hand, English has no restrictions against syllable-final consonants, which tend to be unreleased in casual speech. The primary objective of this study is to test whether knowledge and use of English by BP/English bilinguals affects their perception of consonant clusters that are illegal in their native BP. The hypothesis is that the bilinguals will perform better on an identification task than native monolingual BP speakers, but worse than native English speakers.

A female native speaker of BP and English recorded 128 disyllabic BP non-words with a VC(i)CV structure. In half of the non-words an epenthetic [i] was present after the first consonant, and the length of the vowel was fixed at eight pitch periods (36-40 ms). The other half of the non-words were recorded with no vowel between the two consonants. Subjects completed an identification task in which they listened to the non-words and chose the orthographic representation that best matched the auditory stimuli. For example, for the auditory stimulus pronounced [ebda], subjects chose between the orthographic representations <ebda> and <ebida>. If BP speakers “hear” an illusory vowel to repair the illegal consonant, they will be more likely to choose the orthographic form containing the letter <i> than the form without it.

Native English speakers (n=15) and L1 BP/L2 English late bilinguals living in the United States (n=13) and Brazil (n=14) completed the identification task. Preliminary results show that the native English controls outperform both groups of BP speakers on identification, while no significant difference in identification accuracy was found between bilinguals in the US and Brazil. However, correlation analyses performed on the bilinguals’ perception results and language background questionnaire responses revealed that self-reported English proficiency and number of years of experience with English predicted higher accuracy (for proficiency, r=.53, p<.05; for experience, r=.51, p<.05). Data collection for monolingual BP speakers using the current experimental design is underway and the results will provide enhanced validity for the comparisons among listener groups made above.

References

Verbs in contact: Acceptability and use of imperfect subjunctive forms in Galician Spanish

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The verb forms ending in –ra and –se in modern Spanish both correspond to the imperfect subjunctive, though the –ra form, historically developed from Latin’s simple pluperfect indicative, predominates throughout the Spanish-speaking world. Indeed, Rojo (1996) documents that the –se form is nearly obsolete in the majority of American nations. However, Kempas (2011) records rates of use in Spain ranging from 11% to 44%. The highest rate is found in Galicia, where contact with the regional language may provide a conservative influence, as Galician has retained the simple pluperfect indicative usage of the –ra form and thus maintains –se as the only normative imperfect subjunctive form.

In addition to regional differences, several studies have reported social factors such as gender, age, and education as significantly conditioning form choice (i.e. Lavandera, 1975; Navarro, 1990). However, some recent studies, notably Rojo & Vázquez Rozas (2014) and Kempas (2011), have indicated that individual idiosyncrasies may outweigh social factors in conditioning form choice. While not denying a role for social factors, both studies indicated that each social group contained individuals who categorically employed the form disfavored by their cohort, thus indicating a need for both group and individual analyses of these forms.

The need for a study comparing acceptability and production of the forms in question is suggested by the individual idiosyncrasies just mentioned: although individuals tend to prefer use of one form over the other, it is not clear if or how this may affect their attitudes toward the other form, and how any relationship between production and acceptability may correlate with social and linguistic factors. The present study begins to fill this gap by considering the effects of age, gender and primary language, as well as linguistic factors, on both the acceptability and choice of –se or –ra in the protasis of conditional statements in Galician Spanish.

To accomplish this, 29 speakers completed an acceptability rating task of 24 conditional statements with varying combinations of verb forms in the protasis and apodosis. They were asked to correct those statements that they rejected as incorrect and unused in their own speech, and their produced corrections are compared to their acceptance or rejection of forms in the models.

Preliminary results indicate that acceptance of the two forms appears to be relatively equal, with both –ra and –se favoring acceptance of a protasis (factor weights of 0.748 and 0.717, respectively). However, social factors and in particular primary language may play a role in the production of the forms in question: speakers who use primarily Galician tend to favor the production of imperfect subjunctive forms in –ra, while primarily Castilian speakers tend to favor production of forms in –se. Finally, individual
idiosyncrasies do appear to affect the production (but not the acceptance) of these verb forms, in line with results from Kempas (2011) and Rojo & Vázquez Rozas (2014). Thus future studies should continue to examine individual effects, as well as possible discrepancies between participants’ acceptance of forms versus their production of the same.

References


“Not everyone knows these words?”: A study of Spanish borrowings in New Mexico English

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In 2012, Lynette the Burqueña, a comedic character, played by New Mexican native Lauren Poole of Blackout Theatre, created two YouTube videos, “Shit Burqueños (New Mexicans) Say,” that went viral on social media. In the two-part series Lynette performed English newmexicanisms along with several Spanish borrowings. The positive public reaction to these videos within the state is an acknowledgement that this
character’s inclusion of Spanish borrowings is considered by many to be representative of themselves as New Mexicans. The history and presence of the Spanish language and culture in New Mexico is deeply embedded in this region, and as of 2012, 47% of New Mexicans self-identified as Hispanic/Latino (Pew Hispanic Center, 2012). However, while researchers have analyzed New Mexico’s regional varieties of Spanish and even considered the effects on Spanish from English contact (Bills, 1997; Bills and Vigil, 2008), to date there are no studies that have considered the possible effects of Spanish on English in the region. While contact effects are typically fewer for the dominant language, which would be English in this study, the large Spanish-speaking community and length of contact between these two languages and cultures make New Mexico a unique context.

The main objective of this study is to assess how the variables of age, gender, ethnicity, and generational ties to New Mexico affect participants’ knowledge and usage of thirty-seven Spanish borrowings in English, such as mitotero and órale, for example. The Spanish borrowings were determined based on personal observation and a questionnaire from a pilot study conducted in December 2015. This study followed a similar methodology and design to Benor’s (2010, 2011) linguistic surveys where she analyzed the use of Hebrew, Yiddish, and Aramaic borrowings in what she describes as the Jewish American English Repertoire. Additionally, this study implements Benor’s (2010) application of the term borrowing for all non-English words, discourse markers, and interjections. While sociolinguistic interviews and ethnographic observation are considered the gold standard, surveys are excellent for lexical studies as it allows to control the lexicon, and a number of studies have collected fruitful data from large-scale surveys (e.g. Dubois and Melançon, 1997; Chambers, 1998; Dubois and Horvath, 1999; Boberg, 2005). The study was conducted via a large-scale online survey in Qualtrics and shared with contacts within the state for further dissemination. This allowed for data to be collected from a large number of people and from a diverse sampling of residents from across the state. The survey collected basic demographic information of participants, along with questions to assess generational ties to New Mexico. For the thirty-seven borrowings, participants were asked if they recognized and/or used the word and then if they indicated that they used it, with whom. The options for with whom included categories to try and assess if speakers would only use these borrowings with speakers they knew to be bilingual or if they would use them with a known non-bilingual but someone from New Mexico. The survey was open for a one-month period and participants from all regions of the state took part (N=202). The age of participants spanned from 18 to over 75, with the majority of participants ranging between 25-45 years of age. Descriptive and inferential statistics were then conducted using Qualtrics and R. Results showed significant findings, which suggest that generational ties to New Mexico, age, and self-identified ethnicity may in fact affect a speaker’s overall recognition and usage of the Spanish borrowings in English, regardless of their exposure to Spanish. Additional analyses showed that individually different borrowings have unique patterns of usage and recognition, demonstrating that some Spanish borrowings have become more embedded in New Mexico English than others.

Mixed DPs and linguistic hybridity in bi/multilingual speech

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It is well attested that nouns often constitute the majority of other-language items in bilingual discourse (Gardner-Chloros, 2009: 31; Jake, Myers-Scotton and Gross 2002: 72; Muysken 2000; Myers-Scotton & Jake 2013; Parafita Couto et al. 2014; Pfaff, 1979). Therefore, mixed nominal constructions, as ‘un social worker’ in (1), have been widely investigated in studies of code-switching (CS), broadly defined here as the seamless alternation between two or more languages. In the present paper, I examine two aspects of monolingual and bilingual determiner phrases (henceforth DPs): namely, (i) the openness of semantic domains and (ii) gender assignment. While the former is a semantic feature and the latter a lexical one, together their examination contributes to our understanding of contact outcomes in Spanish/English CS.
To date, several studies have examined the openness of semantic domains and/or gender assignment patterns in contact Spanish varieties in the U.S. (for New Mexican Spanish: Clegg & Waltermire 2009, Aaron 2014; Clegg 2010; for Southern Arizona Spanish: DuBord 2004; for New York Spanish: Otheguy & Lapidus 2003; for Miami Spanish: Valdés Kroff 2016), but no previous study has examined these phenomena in Northern Belize, a multilingual context where Spanish/English/Kriol CS is not only accepted but embraced by its speakers (Balam 2013, 2015, 2016). Endeavoring to fill this gap in the contact Spanish literature, I examined oral production data, collected via sociolinguistic interviews, from 62 native bi/multilingual consultants from Orange Walk, Northern Belize.

Results revealed both similarities and differences vis-à-vis previous findings. The quantitative analysis of 14,865 tokens revealed that unlike data from New Mexico (Clegg 2010; Aaron 2014), semantic domains which favored English-origin nouns included abstract concepts, work/money-related terms, and linguistics/language terms. In relation to gender assignment, the analysis of 5,740 overtly gender-marked monolingual DPs revealed that canonical assignment patterns were maintained (i.e., 52% masculine-marked; 48% feminine-marked). In the examination of 3,587 mixed DPs, an overwhelming preference for the masculine gender was attested, in line with previous work on Spanish/English CS. In contrast to previous findings (Clegg 2006; Clegg & Waltermire 2009; DuBord 2004), however, biological gender was not found to be deterministic in bilingual DPs. Masculine-marked mixed DPs comprised 99.6% of the data. Crucially, all English-origin nouns, including those that were biologically feminine (n = 50) as in (2), were systematically assigned the masculine gender.

I discuss salient findings in relation to Northern Belize’s unique, sociolinguistic milieu and argue that whereas some patterns can be attributed to linguistic factors, other patterns reflect the sociocultural status of CS in Belize, offering support to the influential role of social factors in contact outcomes (Winford 2013; Thomason 2008). The present findings support the view that CS induces convergence as a way to maximize communicative efficiency in bilingual speech (Bullock & Toribio 2004; Montes-Alcalá & Lapidus Shin 2011), and they are in line with work that advocates for the inclusion of hybridity as a normal dimension of bi/multilingual speech (García 2009; Palmer and Martínez 2013).

Examples

(1) ¿Y tu mamá? Ella es un social worker, una trabajadora social...
   ‘And your mother? She’s a social worker, a social worker…’ (Otheguy & Lapidus 2003: 216)

(2) Yo crecí con puro boys, yo era el único girl….yo era la más chica
   ‘I grew up with boys only, I was the only girl…I was the youngest.’ (PA21, female)

References


Bilingual experience modulates comprehension of codeswitched language:

It’s not about switching a palabra (word)

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Exposure-based models of language processing posit that sensitivity to distributional patterns in production can constrain the comprehension system. Codeswitching provides a unique opportunity to elucidate this relationship because codeswitching emerges in some bilingual communities but not in others. This study examines the extent to which individuals’ production choices can predict comprehension difficulty in codeswitching and non-codeswitching bilingual populations. We recruited 22 Spanish-English codeswitchers in the US and 22 non-codeswitchers in Spain who were highly proficient in both languages. We focus on the production and comprehension of mixed noun phrases (mixed NPs, e.g., elM forkM). Evidence from naturalistic corpora suggests that bilinguals exhibit an overall preference for the masculine determiner (el), regardless of the noun’s gender in Spanish. In contrast, switches involving the feminine determiner (la) occur less frequently and are restricted to English nouns that are feminine in Spanish. To illustrate, el-codeswitches such as (elM forkM) and (elM spoonF) are extremely common. To a lesser extent, la-codeswitches involving feminine nouns (laF spoonF) have also been attested in bilingual speech, while those involving masculine nouns (*laF forkM) have not. We predicted that electrophysiological responses would reflect this asymmetry in codeswitchers but not in non-codeswitchers. Production was examined in a corpus of unscripted, task-oriented dialogues between two bilingual speakers; comprehension was examined in sentential contexts using event-related potentials where we compared different types of switches (gender congruent switch vs gender incongruent switch) and effects of switching (switch vs non-switch). The same participants completed the production and comprehension experiments.

Results for production show that proportions of noun phrase types (i.e., Spanish, English, or mixed) differed across groups: Codeswitchers produced more mixed NPs than non-codeswitchers and these switches robustly reflected the aforementioned gender asymmetry (Fig. 1). In the ERP study, the two
groups of bilinguals differed in their processing of codeswitched sentences. While non-codeswitchers were insensitive to the congruency and gender of switched target nouns (Fig. 2a, 2c), codeswitchers demonstrated an asymmetry in how they process different types of switches. Specifically, codeswitchers exhibited an N400 effect to masculine targets in incongruent noun phrases, suggesting greater difficulty in lexical integration (Fig. 2b, 2d). Furthermore, we found that only non-codeswitchers displayed an early positivity (P2) for switch vs no-switch comparisons (Fig. 3a, 3c). Importantly, codeswitchers did not exhibit switch costs in conditions of the sort found in their own utterances during the production study (Fig. 3b, 3d). This is evidenced in the lack of the P2 component in masculine congruent and feminine congruent and incongruent switching conditions. To safeguard against potential language effects in the switch vs no-switch comparisons, we conducted a control experiment in which we compared electrophysiological responses to unilingual translation-equivalent sentences in English and Spanish using the same participants. Because no differences were found due to lexical characteristics of the target words in the control study, we suggest that the P2 switching effect in non-codeswitchers reflects detection of a language change during early monitoring stages of language processing.\(^4\)

Overall, the current study further provides evidence that individuals are highly sensitive to the constraints of their language experience, and sheds light on how production and comprehension processes are tightly linked. Our findings demonstrate how switching costs largely depend not only on the type of codeswitch but also the bilingual’s language experience.

**Figure 1.** Number of unilingual and mixed NPs in codeswitchers and non-codeswitchers in the Map Task Corpus. Participants produced 10,144 NPs. Non-codeswitchers produced on average <1% mixed NPs. Codeswitchers produced on average 11% mixed NPs.

**Figure 2.** ERPs for congruent and incongruent masculine switches. Left: ERP scalp topography illustrating the difference in N400 effect size between Non-codeswitchers (a) and codeswitchers (b) from 300-500ms. Difference waves were calculated by subtracting congruent target switch amplitudes from incongruent target switch amplitudes. Right: ERP waveforms for non-codeswitchers (c) and codeswitchers (d) from the Cz electrode for congruent (black) and incongruent (red) masculine switches.

**Figure 3.** ERPs for switch and no-switch masculine congruent nouns. Left: ERP scalp topography showing the distribution of P2 switch effect in non-codeswitchers (a) and codeswitchers (b) from 200-400ms. Difference waves were calculated by subtracting no-switch noun amplitudes from switch noun
Comparing Spanish-dominant and English-dominant Hispanics’ social media usage

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The way the new generations of Hispanics in the US communicate about products and services has to do with their use of new technology and their preference on information sharing in English or Spanish. This investigation aims at comparing the use of language and technology on social media across Hispanic groups. Particularly, this study will explore differences between Spanish- and English-dominant consumers in the US. For the purpose of this investigation, a national online panel survey will be used. Measurements of acculturation, language preference, social media platforms, social media consumption, and intention to behave are included in the questionnaire. Using a random sample of members of the Research Now marketing panel, a total sample of 300 will be collected. Overall, the results of this study will be used to assist marketers on developing language-relevant campaigns that aim to market the Hispanic audiences in the new world of social media.

References


Dale, bro! Perceptions of the lexicon in Miami English

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While it is surprising given the county’s high levels of multilingualism and multiculturalism, sociolinguistic research in Miami-Dade is relatively young. Perceptual research in Miami is one area currently being conducted by language scholars, yet most of this work deals with broad perceptions of language in terms of English and Spanish (e.g. Alfaraz 2002, 2014) Additionally, Carter and Lynch (2014) investigated the perceptions and attitudes towards Spanish and English, broadly speaking, by way of a matched-guise study, which illustrated how the cognitive representations of language can have material social outcomes. With regard to production, Mullen (2015) and López (2015) have begun to document the lexical and phonetic properties of Miami English, respectively. The cohort of the aforementioned studies illustrates how Miami English is used by both Hispanic/Latin@s and non-Hispanic/Latin@s and that English in Miami is subject to social introspection. Yet, no research has specifically targeted perceptions towards features of Miami English.

The primary goal of the current research is examine how a specific feature of Miami English – the lexicon – is cognitively represented in terms of emotional affect by members of different social communities within the city. The lexicon was chosen as the focus of this perception study because research in folk linguistics has found that the lexicon is often the subject of prominent social introspection (Preston 2002, 2010; Garret 2010; Tucker and Lambert 1975; inter alia). The current paper focuses on four examples of the Miami English lexicon: bro, dale, refi, and the Adjective Phrase [super + adjective]. The study was designed and implemented using the online software, Qualtrics. Participants (N = 24) read input enhanced fictional dialogues between hypothetical speakers and responded to questions that overtly asked about traits of the speakers based on their use of the words. The personality traits in question in this study are: Trustworthy, Intelligent, Self-confident Kind, Friendly, Outgoing, and Physically Attractive, following Tucker and Lambert (1975). All participants currently live in Miami and range in age from 18 to 35. In addition to the perception questions based on fictional visual dialogues, participants also responded to a Heat Map question in which they were asked to identify where in Miami-Dade county speakers who commonly use bro, dale, refi, and super are most likely to live.

Cross-tabulations with Chi-square tests were conducted based on two of the independent variables: heritage language and ethnicity (e.g. Hispanic/Latin@ vs. non-Hispanic/Latin@). The aggregate analysis suggests that Miami speakers who use these words are likely to have warmth characteristics (e.g. outgoing), yet are less likely to be competent (e.g. intelligent), which follows the Stereotype Content Model (Fiske, Glick, and Xu 2002; Fiske, Cuddy, and Glick 2007) as well as other perceptual work in Miami (Carter and Lynch 2014, Callesano 2015). Results also point to differences in perception based on ethnicity of the participant. For the heat mapping task, the neighborhoods of Hialeah and Little Havana stand out as the likely residences of Miami English users. Neither Miami Beach nor Key Biscayne, which are two of the neighborhoods in Miami-Dade County with the highest household annual incomes (U.S. Census 2010), received any perceptual link to the use of Miami English. This suggests a community-based division where Miami English may be indexing membership to lower socioeconomic classes.
Cross-linguistic orthographic effects in late bilinguals of Spanish and English

Christopher Dean and Jorge Valdés-Kroff (University of Florida)

The last 25 years of research on the psycholinguistics of bilingualism has converged on the finding that lexical access is non-selective, i.e., the non-target language never fully “shuts off” (e.g., Green & Abutalebi, 2013, Kroll et al., 2006). In the auditory domain, studies on the interaction of phonology and orthography have shown that lexical items with similar phonology across languages are co-activated and compete for selection (Spivey & Marian, 1999). Likewise, distinct orthographic mappings result in interference in acquisition (Escudero et al., 2014). However, these studies have focused primarily on cross-linguistic overlap (e.g. *poule* ‘hen’ v. pool in French-English bilinguals; Chambers & Cooke, 2009). In this study, we examine whether asymmetric cross-linguistic orthographic/phonological representations are co-active in spoken word recognition in 2 groups of late bilinguals.

Using the visual world paradigm (Tanenhaus et al., 1995), 20 English-Spanish (Eng-Span) and 7 Spanish-English late bilinguals (Span-Eng) took part in an image-selection task in which they heard audio stimuli and selected a target image while their eye movements were recorded, along with reaction time (RT) and accuracy. Two distinct sets of critical stimuli were used: *b-v* (e.g., *banco-vaca*) and *j-h* (e.g., *jaguar-hada*) trials. In *b-v* trials, Spanish /b/ maps to two orthographic representations, b and v, while each grapheme corresponds to two phonemes in English, /b/ and /v/. We predicted that the Span-Eng group would display lexical competition on these trials while Eng-Span speakers would not due to English orthographic representations. In the *j-h* trials, we predicted that the Eng-Span group would display evidence of competition due to English h /h/ while the Span-Eng group would not as the task is in Spanish. Critical trials are illustrated in Figure 1.

Subject recruitment is ongoing (we will have N = 24 for both groups); however, preliminary analysis of accuracy suggests that the Eng-Span group performs slightly worse on *j-h* trials than *b-v* trials, in line with our predictions ($F(1,19)$=3.29, $p < .09$; see Fig 2). In addition, the RT analysis revealed a Group x Distractor interaction ($F(1,25)$=13.94, $p < .005$), such that the Span-Eng group shows a competitor effect for *b-v* trials as anticipated, while the Eng-Span group shows a reverse effect for both trial types (see Fig 3). Subsequent analysis of eye-tracking data from target noun onset through 1200 ms post noun-onset also revealed a Group x Distractor interaction ($F(1,23)$=7.77, $p < 0.05$, see Fig 4). We subsequently split the time region into early (300 - 599ms post noun-onset) and late (600 - 900ms post noun-onset) regions. Analysis of the early region revealed no significant results (all ps > .13), possibly due to lack of statistical power. Likewise, analysis of the late region yielded no significant effects for the Eng-Span group. Interestingly, however, the late region analysis in Span-Eng bilinguals indicated a significant competitor effect in both *b-v* and *j-h* trials, suggesting that native Spanish speakers may be influenced by the orthographic system of their less-dominant L2 English, which we did not predict but is well-supported in the sentence processing literature (e.g., Dussias & Sagarrà, 2007). In summary, there was evidence of competition in eye-tracking in both *b-v* trials and *j-h* trials only in the Span-Eng group. Despite this early, online competition effect for the Span-Eng bilingual group, they only continued to show a competitor effect in target selection RT for *b-v* trials. In contrast, the late Eng-Span bilingual group was largely insensitive to these competition effects in online processing and only marginally showed a competitor effect for *j-h* trials in accuracy. We will discuss the results as extending bilingual non-selectivity to cross-linguistic orthographic-phonological mappings that led to our asymmetric results.
References


Extant research reveals a relation between lexical processing speed and vocabulary size, such that monolingual children with larger vocabularies demonstrate faster word retrieval than peers with smaller vocabularies. A similar relation has been documented in bilingual children in each of their languages. However, little is known about whether improvements in lexical processing are dissociable across languages within a single language learner (Marchman, Fernald, & Hurtado, 2010; Legacy, Zesiger, Friend, & Poulin-Dubois, 2015). What’s more, adult findings suggest that bilinguals exhibit slower lexical access than monolinguals (Ivanova & Costa, 2008). It is unclear whether this difference exists early in language development. Thus, the goals of the present study are three-fold: 1) To examine whether processing in one language is related to vocabulary size in the second language in bilinguals, 2) To determine whether cross-linguistic associations are modulated by language dominance, and 3) To investigate whether a disparity in word retrieval speed extends to early, simultaneous bilingualism.

Toddlers (N=187, 94 females, M age in months:days=16;25) were grouped based on exposure scores on the Language Exposure Assessment Tool (DeAnda, Bosch, Poulin-Dubois, Zesiger, & Friend, in press): Monolingual English (N=79 , ≥80% English exposure), Monolingual Spanish (N=64 , ≥80% Spanish exposure), and Spanish-English bilingual (N=44 , ≤75% Spanish or English exposure). The samples were roughly matched on mean age and sex. The English and Spanish adaptations of the Computerized Comprehension Task (Friend et al., 2003, 2008, 2012) assessed receptive vocabulary size and speed of lexical access (haptic reaction time to touch target image, RT) longitudinally at 16 and 22 months of age. Monolinguals were tested in their single language, whereas bilinguals were tested in both languages.

We first asked whether lexical access (RT) in the dominant language is influenced by within and cross-language vocabulary size. A linear regression with RT in the dominant language as the dependent measure was run with age (16 or 22 months) on the first step, dominant language vocabulary size on the second step, and non-dominant language vocabulary size on the third step. Results revealed a significant effect of vocabulary size in the dominant language (F(1, 51) = 6.98, p = .01) and an effect of age (F(1, 51) = 7.63, p = .008), but no significant effect of non-dominant vocabulary. Next, we evaluated vocabulary effects on lexical access in the non-dominant language. A linear regression with RT in the non-dominant language as the dependent measure revealed a significant effect of age (F(1, 52) = 9.64, p = .004), but no within-language effect of vocabulary size. Nevertheless, dominant language vocabulary size significantly predicted lexical access in the non-dominant language (F(1, 52 = 5.7, p = .02).

Finally, we examined whether lexical access differed between bilinguals and monolinguals. A repeated-measures ANOVA with RT as the dependent variable showed no effect of language group but a significant effect of age (F(3, 368) = 72.77, p < .001) indicating faster processing at 22 relative to 16 months across monolinguals and bilinguals.

These findings replicate and extend previous research examining the factors that influence the speed of word retrieval in early bilinguals. The present results are consistent with previous monolingual and bilingual findings: within the dominant language, vocabulary size and lexical processing are related. These findings also indicate that cross-language relations in bilinguals are only partially dissociable and mediated by language dominance. Nevertheless, comparisons with monolinguals revealed that unlike adults, dual language exposure does not pose a problem for speed of word recognition for bilinguals relative to monolinguals in early development.
Licensing adpositions in Media Lengua: Quichua or Spanish?

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Little consensus exists in the literature on the exact nature of adpositions in the world’s languages; some have suggested that they straddle the boundary between lexicon and grammar (cp. Hagège 2010). While research examining adpositions in language contact situations is scarce, unique language configurations such as the one described below can offer interesting insights into the licensing of adpositions in the context of language contact and into their status as a linguistic category.

This study analyzes the morphosyntactic nature of adpositions in Media Lengua, a mixed language found in the northern Ecuadorian region of Imbabura, composed of mainly Quichua grammar and over 90% of lexical roots relexified from Spanish (Gómez Rendón 2008). In terms of their linguistic profile, Quichua and Spanish differ fundamentally: While Spanish is a synthetic language employing head-initial prepositional phrases, Quichua is an agglutinating, postpositional language. However, both Spanish and Quichua form complex adpositions by combining a lexical item (e.g. a noun or adverb) and a simple adposition. Since some models of generative grammar describe syntactic structures as projections from the lexicon, the realization of adpositional phrases in Media Lengua can reveal their underlying linguistic structure.

A group of participants, trilingual in Quichua, Spanish and Media Lengua, participated in both a video-description task in Media Lengua and a translation task from Spanish or Quichua into Media Lengua. The study was conducted in the villages of Casco Valenzuela, Angla and Pijal, Ecuador, rendering approximately 20 minutes of recorded speech per participant. Results indicate that most adpositional phrases were headed by Quichua postpositions in fulfillment of Quichua structural requirements, even in the contexts of priming in Spanish to Media Lengua translations (1). Very few Spanish prepositions are found incorporated in Media Lengua in either task and they mostly occurred in frozen expressions/borrowed collocations (2). Among the few Spanish tokens found, many were embedded with their respective Quichua counterpart postposition (3). However, no simple Spanish prepositions were found incorporated as postpositions. In line with Muysken’s relexification hypothesis (1981), complex adpositional phrases (cp. (4) and (5)) appeared with a Spanish lexical item occupying the spot of a Quichua lexical item (cp. Cole 1985: 122) and retained a simple Quichua adposition as the head of the projection. While an earlier study had described Spanish prepositions as alternating with Quichua suffixes or occurring in double constructions (Dikker 2008), the results of the current study underscore the robustness of Quichua morphosyntax and stand in direct contrast to the results found in Dikker 2008.
All in all, adpositions in Media Lengua provide evidence of a lexical-functional split, manifested in the dual-language realization of complex items. Moreover, the results lend further strength to the claim that Media Lengua can be defined as a mixed language characterized by relexification given that relexified complex adpositions mirror the syntactic structure of complex Quichua postpositions. On a more general level, this indicates that Media Lengua across communities is systematically modeled on Quichua morphosyntax.

Examples (bold indicates Spanish, regular indicates Quichua):

(1) Abuela-ka flor-ta mesa-pi poni-rka fiesta-pa  
   grandmother-TOP flower-ACC table-on put-PST.3 party-for  
   'Grandmother put the flowers on the table for the party.'

(2) Puerta-ta abri-ju-n-mi dueña de la casa  
   door-ACC open-PROG-PRS.3-VAL owner of the house  
   'The owner of the house is opening the door.'

(3) Jala-ju-n para arriba-man.  
   pull-PROG-3 towards up-towards  
   'They are pulling upwards.'

(4) Media Lengua: Mio casa-adelante-pi  
   my house-in.front.of-in  
   'In front of my house'

(5) Quichua: ñuka wasi-ñaupa-pi  
   my house-in.front.of-in  
   'In front of my house'

References


The effects of lexical stress and distance from the codeswitching site on Spanish heritage speaker vowel production

*Vanessa Elias, Sean Mckinnon, and Angel Milla Muñoz (Indiana University)*

The degree to which bilinguals maintain separate phonological systems is a widely investigated topic in bilingualism (e.g. Caramazza, Yeni-Komshian, Zurif & Carbone, 1973; Flege, 2003; Sancier & Fowler, 1997). Although previous research has investigated the two languages during separate tasks, more recent phonetics research has begun to examine the effects of activating both languages during production tasks (Goldrick, Runnqvist & Costa, 2014; Olsen, 2013; Simonet, 2014), including the use of intra-sentential codeswitching (Balukas & Koops, 2015; Bullock & Toribio, 2009; González López, 2012; Piccinini &
Arvaniti, 2015), i.e. “[when] speakers switch from one language to another within the same sentence” (Myers-Scotton, 1993). So far the majority of research investigating the effects of Spanish-English codeswitching on phonetic production has focused on the voice onset time of voiceless stops, which has shown a greater effect of Spanish on English productions (Balukas & Koops, 2015; Piccinini & Arvaniti, 2015); furthermore, few studies have examined the phonetic effects of codeswitching beyond the switch site (Balukas & Koops, 2015).

The objective of this study is to investigate the effects of codeswitching on the quality and duration of Spanish vowels of U.S. heritage Spanish speakers. Despite this growing population, there are currently only a few studies on the phonetic production of Spanish heritage speakers in the U.S. (see Rao & Ronquest, 2015). Twenty Spanish heritage speakers from the Midwest completed a controlled narration reading task, which asked them to read out loud children stories that were either written in monolingual Spanish or Spanish-English codeswitching. For the codeswitching data, only intra-sentential codeswitches from English to Spanish were examined and we extracted the first five vowels after switch; for the monolingual text we extracted 20 tokens per vowel per lexical stress position to serve as a comparison to the codeswitching data. After data extraction, we used Praat (Boersma & Weenink, 2016) to obtain values for our dependent variables: F1 (i.e. vowel height), F2 (i.e. vowel front/backness) and duration (measured in ms). Our independent variables were lexical stress (i.e. stress or unstressed), language session (i.e. monolingual or codeswitching) and distance from the codeswitching site (i.e. if the token was the first, second, third, fourth or fifth vowel after the switch). A multivariate analysis in R using Rburl (Johnson, 2009) was employed for each of the vowel phonemes to model these independent variables as well as the random effect of speaker to investigate their effect on each of the dependent variables.

The results revealed main effects for lexical stress, language session and distance from the codeswitching site: 1) the unstressed vowel tokens were shorter in duration and more centralized in the vowel space than stressed vowels; 2) the vowels in the codeswitching session were shorter in duration and were more centralized than in the monolingual session; 3) as the distance from the codeswitching site increased there was less centralization and an increase in duration. These results are in line with previous research, which has shown that unstressed heritage vowels are shorter and more centralized (Alvord & Rogers, 2014; Ronquest, 2013), that productions in monolingual and codeswitching sessions by the same speaker are phonetically different (Balukas & Koops, 2015; Bullock & Toribio, 2009; Piccinini & Arvaniti, 2015), and that the distance from the codeswitching site also affects the phonetic productions (Balukas & Koops, 2015). We argue that these transient effects of English on Spanish are due to the introduction of English, a language, which reduces unstressed vowels in both duration and quality (Fletcher, 2012), but that the effect of English is lessened as speakers move away from the codeswitching site.

References


Consistency across ways of measuring the Mean Length of Utterance in early Basque: Short and long versions of the Basque CDI

**María José Ezeizabarrena and Iñaki García Fernández (University of the Basque Country)**

Since Brown (1973) proposed the mean length of utterance (MLU) as a more accurate index for children’s language development than age, this measurement is regularly reported in the studies on early spontaneous language production. Its reliability as an indicator of (morpho-)syntactic development is controversial (Bickerton 1991) but nevertheless it is included in monolingual and bilingual language acquisition studies focusing on intraindividual, interindividual and/or cross-linguistic comparison (Meisel 2011; Yip & Mathews 2006, Larrañaga & Guijarro-Fuentes 2013). Measuring MLU in words (MLU-w) vs. morphemes (MLU-m) may have relevant consequences, especially when comparing development in languages diverging in morphological complexity. A slightly different variation of this measure (MLU3), included among the subscales of expressive language development in parental reports (Fenson et al.1993) is susceptible of the same criticism and debate as the original MLU.

In this study we report on MLU3 data from the parental reports of 16- to 30-month-old children obtained with the long (975 children) and the short (928 children) versions of the Basque CDI, in order to investigate the consistency of such a measure to assess bilingual children’s language development. Data shows that MLU3-w and MLU3-m can equally report on very young children’s development ($r = .98$ longCDI, $r = .97$ shortCDI) even in Basque, a language with very rich nominal and verbal inflection. Secondly, the high correlations between MLU3 and expressive vocabulary in both instruments ($r >= .68$...
MLU3), as well as with grammar, in both the nominal (r > .67) and the verbal (r > .67) inflection confirm this measurements’ consistency in particular, and the instruments’ internal consistency in general. Finally, the correlation between MLU-3 and the amount of relative exposure to the Basque language also revealed as statistically significant (r = .13 for MLU3-m, r = .12 for MLU3-w in long CDI; r = .14 MLU3-m, r = .15 for MLU3-w in short CDI). These last results suggest that the usefulness of the MLU3 subscale can extend to measure language development in bilingual communities like the Basque, where the amount of children’s relative exposure to the target language(s) varies considerably among children in the same age group.

The intonation of broad focus declaratives in Afro-Peruvian Spanish: An experimental approach

Elyssa Fenton and Amy Bustin (Florida State University)

This study examines the intonation of broad focus declaratives in the Spanish spoken by two generations of Afro-Peruvians in Chincha, Peru. Research on the intonation systems of Afro-Hispanic (AH) varieties and creoles has uncovered several commonalities in their prosodic features that diverge from other varieties of Spanish. For example, in declaratives, AH varieties in Colombia, Panama, and Venezuela lack downstepping (Lipski, 2007), Afro-Bolivian Spanish shows multiple intonational peaks (Lipski, 2008), and Colombia’s Palenquero creole displays downstepping in phrase-final high tones (Hualde & Schwegler, 2008). More recently, Rao and Sessarego (2016) examined declaratives from sociolinguistic interviews of two elderly Afro- Bolivian Spanish speakers, and found early-aligned H* tones, high frequencies of boundary tones, and a lack of downstepping.

Researchers of Afro-Hispanic intonation have traditionally limited their focus to eldest speakers of the AH variety for each region, relying heavily on the use of sociolinguistic interviews to obtain semi-natural speech samples without the inclusion of control groups. The present study uses an innovative methodology to examine the intonation of two younger generations of Afro-Peruvian Spanish (APS) speakers in Chincha, Peru. Experimental tasks were implemented to collect comparable data between target APS speakers and a control group of community members without Afro-Hispanic descent. The tasks were designed to constrain the possible effects of pragmatic intent on intonation contours of broad focus declaratives. The objectives of the present study are: (a) to compare APS intonation with that of other AH varieties; (b) to compare APS with the Spanish spoken by the control group; and (c) to examine the effects of gender and age on intonation patterns. Data were collected from 15 Afro-Peruvians (7 male, 8 female; 10 aged 18-35 years, 5 aged 36-54 years), and 8 non-Afro-Peruvian control group members (2 male, 6 female; 4 aged 18-35 years, 4 aged 36-54 years). In the first task, participants were presented with character (Figure 1) and action cards (Figure 2) from the Story Builder Action Cards (Sardinha, 2011) and responded to four question prompts (1)-(2). This task produced 552 broad focus declaratives within a pragmatically constrained context. These data were compared to 210 declaratives extracted from semi-natural speech in two additional tasks: sociolinguistic interviews and a narration of the frog story (Mayer, 1969). Data were transcribed in ELAN (Sloetjes & Wittenburg, 2008) and intonation contours were analyzed in Praat (Boersma & Weenink, 2016).

Preliminary findings for these younger generations of APS speakers show a lack of downstepping and multiple high pitch accents in prenuclear stressed syllables in broad focus declaratives extracted from the experimental tasks and sociolinguistic interviews. These intonation patterns differ from the variety of Spanish spoken in Lima. O’Rourke (2005), for example, found for broad focus declaratives that Limeneans realize prenuclear peaks on post-tonic syllables and exhibit downstepping. On the other hand, our results mirror the findings for the elder speakers of other AH varieties (Lipski, 2007, 2008; Rao & Sessarego, 2016). Differences along the dimensions of gender and age are also discussed. Finally, we discuss potential explanations for the observed APS intonation patterns that diverge from non-AH varieties, such as language contact (Lipski, 2007) and second language acquisition strategies that were conventionalized into APS speech (Sessarego, 2013).
Examples:

Fig. 1.

![Image of a child]

Fig. 2.

![Image of a person sleeping]

(1) ¿Qué va a hacer? ‘What is s/he going to do?’
(2) Va a dormir. ‘S/he is going to sleep.’

References


Growth in oral narrative retells for Spanish-English speaking children

Clariebelle Gabas, Claire Wofford, and Carla Wood (Florida State University)

Purpose: The purpose of the study was to measure growth in narrative microstructure and macrostructure in the oral retells of low-SES early elementary Spanish-English dual language learners (DLLs) over an academic year. This study aimed to examine concurrent and predictive relationships between English microstructural and macrostructural aspects of oral narrative retells for DLLs.

Methods: The investigators collected narrative retells from 80 kindergarten and first grade children. Narrative retells were audio-recorded and later transcribed using the Systematic Analysis of Language Transcription (SALT; Miller & Iglesias, 2012). The investigators coded and analyzed the narratives for microstructure (e.g., mean length of utterance, number of different words, verb accuracy, and words per minute) and macrostructure (e.g., characters, setting, attempts, consequences) to examine the developmental trajectories of narrative acquisition in ELs. Path analysis models were used to test the relations between the identified independent and dependent variables accounting for baseline vocabulary and form effects of the story.

Results: Overall narrative measures were sensitive to developmental differences across the school year. Fall NDW performance in narrative retells was the moderately related to both Spring NDW and the total number of macrostructural elements in the spring. Spring words per minute was uniquely predicted by fall words per minute.

Conclusions & Implications: Findings substantiated previous research showing that narrative retells can be used as contextualized and naturalistic measures of language development and support the use of narrative retell measures for progress monitoring language growth of young DLLs.

Language attitudes of Puerto Rican bilingual youth

Rosa Guzzardo Tamargo (University of Puerto Rico), Jessica Vélez Avilés (University of Puerto Rico), Verónica Loureiro-Rodríguez (University of Manitoba), and Elif Acar (University of Manitoba)

English has had a presence in Puerto Rico (PR) for over a century—due mainly to its status as an unincorporated territory of the United States—and it has impacted life on the island in political, educational, social, and linguistic contexts. Despite English and Spanish coexisting in education as well as in many areas of daily life (e.g., media outlets, movie theaters, business names, street signs; Torres González, 2002; Nickels, 2005; Schmidt, 2014), Puerto Ricans’ actual use of and proficiency in English varies greatly. A large portion of the population (~66%) does not consider itself bilingual and reports having receptive rather than productive English skills, but a considerable number of speakers (~30%), particularly those among the younger generations, are proficient in Spanish and English, use both languages frequently, and their speech displays effects of this language contact, such as loanwords or Anglicisms (Cortés et al., 2005), lexical and phrasal calques (Morales 1981, 2000), and codeswitching (CS; Pousada, 2000, 2010).

Previous research on language attitudes in PR has presented a complex picture. Early attitudinal work displays a rejection of English and a defense of Spanish from its influence (Tió, 1948; Cardona, 1980; Rúa, 1992; Rodríguez Bou, 1984). Other studies refer to a generalized ambivalence among Puerto Ricans, who simultaneously support English language acquisition, but covertly resist it (Resnick, 1993; Clachar, 1997; Pousada, 1999) because they fear it will lead to the loss of their Hispanic heritage (Schweers & Vélez, 1999) or to the attrition of their Spanish (Alvar, 1986; López Laguerre, 1997). More recent attitudinal research suggests that younger inhabitants accept an ample definition of Puerto Rican identity that includes not only speakers of Puerto Rican Spanish, but also speakers of English. They do not consider English a threat to their
acquisition of Spanish nor do they fear it will eventually substitute Spanish in PR, and they deem CS an integral part of their linguistic repertoire (Pérez Casas, 2009; Mazak, 2012; Domínguez-Rosado, 2015).

This research appears to exhibit a change in the attitudes that Puerto Ricans display towards the languages spoken on the island and towards CS. These studies do, however, tend to include small participant samples and could, therefore, benefit from further examination. By means of the matched guise test (Lambert et al., 1960), the present study set out to elicit Puerto Rican bilinguals’ attitudes towards two monolingual speech types, Spanish and English, and three bilingual speech types, namely, English lexical insertions, intersentential CS, and intrasentential CS. One hundred and ten students (55M, 55F) from the University of Puerto Rico listened to the recordings prepared by four bilingual speakers (2M, 2F) in the five speech types. After each recording, they answered a questionnaire that inquired about traits related to personality, socio-economic status, and ethnicity/identity. The results display interesting links between certain speech types and specific identities as well as with particular political, social, and educational characteristics. With respect to the monolingual speech types, Spanish guises receive more solidarity ratings and identification with Puerto Rican identity. Clear links between language and political affiliation, socioeconomic status (SES), and schooling also arise, in which English is associated with the political party that favors PR statehood, with higher SES, and with private schooling. The traits associated with the bilingual speech types seem to fall somewhere in between those associated with Spanish and English. The bilingual guises are associated with the same SES as English guises, but, like Spanish guises, two types of bilingual guises—lexical insertions and intrasentential CS—receive greater solidarity ratings and one type—lexical insertions—is strongly identified with Puerto Rican identity. These results will be discussed in light of previous attitudinal work in PR.

References


This paper looks at the interrogative suggestions in Spanish, syntax-pragmatics structures that have not been examined in the Spanish SLA literature, and what beginning learners must acquire in order to interpret these suggestions correctly.

Koike (1994) analyzed the production of suggestion forms from a corpus of native speakers from Cuernavaca, Mexico and found that they exclusively produce negated interrogative suggestions, as in (1). English, meanwhile, offers both negative and affirmative interrogative suggestion forms as in (2) and (3). Koike argues contra Leech’s (1983) claim that negation mitigates utterances, finding that this is not necessarily the case for interrogative suggestions in English and Spanish. This is because Spanish interrogative suggestions do not have a corresponding affirmative form that might present a contrasting level of mitigation, and because English negative interrogative suggestions can be perceived as having more force. It should be noted that the syntax of negation is also different in the two languages; in English, negation occurs between the auxiliary verb and the main verb of the sentence, while in Spanish, negation occurs before both verbs. Given this syntactic difference, the goal of the study was to look at whether or not speakers with an English L1 would be able to 1) acquire the syntax of negation in L2 Spanish and 2) whether they can acquire the difference in mitigation that is associated with Spanish interrogative suggestions.

Our hypotheses were the following: (i) Beginning learners (80% with less than two years’ experience) will not have completely acquired the syntactic structure of negation, while advanced learners will; (ii) advanced learners (with an average of 10 years of study) will not have completely acquired the pragmatics of negated suggestions; and (iii) there will be non-facilitative transfer from the L1 to the L2 in the advanced learners related to the perception of affirmative and negative suggestions. Participants completed two linguistic tasks. A translation task was given to 19 beginning and 7 advanced L2 Spanish learners. In it, they were asked to translate English negative suggestions into Spanish to verify if they had acquired the syntax of negation. In addition, the two groups of L2 Spanish speakers, monolingual Spanish speakers (N=9) and monolingual English speakers (N=10) read scenarios that ended in both a negated and affirmative suggestion form and were asked to complete a scaled (0-3 points) forcefulness judgment task and explicitly choose which form was preferable. The monolingual speakers answered questions about their native language, while the learners performed the task in Spanish.
The results of the translation task indicate that the beginning learners placed the negation in the correct location in the Spanish translation 75% of the time, while the advanced learners were 100% accurate, confirming hypothesis (i). The difference between the two learner groups was statistically significant ($p < .001$). In the judgment task, English monolinguals identified the negated suggestion as having more force than the affirmative suggestion, as predicted. Monolingual Spanish speakers preferred the negated suggestion more often, in line with Koike’s observations. T-test comparisons between learner groups and native speakers appear in Table 1. Beginning learners exhibit statistically significant differences in all categories, while the advanced speakers were statistically different ($p < .05$) from monolingual Spanish speakers in three of four categories in their judgements of negated suggestions. Furthermore, advanced speakers and English monolinguals rated (A) as having the same forcefulness, while Spanish monolinguals judged (A) as being much more forceful. This indicates the presence of transfer from the L1 in the advanced learners’ judgments.

These results suggest that advanced learners have acquired the syntax of negation while still struggling to acquire the pragmatics of suggestions in Spanish, providing confirmation that it is not only the syntactic aspects of negation, but the pragmatic ones as well, that must be acquired in order to fully acquire interrogative suggestions in an L2.

Examples
(1) ¿No has pensado en leer este libro?
(2) Haven’t you thought about reading this book?
(3) Have you thought about reading this book?

Judgment Task Sample Question
(4) Your roommate is trying to decide whether to go to Columbia University or University of Georgia for law school, and is making a list of the pros and cons of each school. You say to him/her:
Option A: Have you thought about going to visit each university?
Option B: Haven’t you thought about going to visit each university?

How forceful is Option A?
3 - Very Forceful
2 - Somewhat forceful
1 - A little forceful
0 - Not forceful
I would not use this option to make a suggestion.

Table 1: Forcefulness Judgment Task Results of Monolingual Spanish Speakers and Spanish Learners

<table>
<thead>
<tr>
<th></th>
<th>Force A</th>
<th>Force B</th>
<th>(B - A)</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual Spanish Average</td>
<td>1.88</td>
<td>1.92</td>
<td>0</td>
<td>-.07</td>
</tr>
<tr>
<td>Beginner Spanish Average</td>
<td>.61*</td>
<td>1.31*</td>
<td>.69*</td>
<td>.53*</td>
</tr>
<tr>
<td>Advanced Spanish Average</td>
<td>.43*</td>
<td>.76*</td>
<td>.37</td>
<td>.26**</td>
</tr>
</tbody>
</table>

(Statistical differences as follows: * = $p < 0.001$, ** = $p < 0.05$)

References

Kaqchikel in San Marcos La Laguna, Guatemala: Language maintenance or language shift?

Tammy Jandrey Hertel (Lynchburg College) and Hilary Barnes (College of Charleston)

The focus of the present study is the language contact situation of San Marcos La Laguna, a small town in the highlands of Guatemala. Most of the town’s approximately 2,200 residents are indigenous Mayans who speak Kaqchikel as their native language and Spanish as their second language. The town is also home to a number of ladinos and expatriates from around the world and is a destination for national and international tourists. In addition, indigenous communities from neighboring villages speak two other Mayan languages, K’iche’ and Tz’utujil. Thus the languages in contact in this community are extensive.

There are many social and economic factors that influence the status of languages in contact (c.f., Garzon 1998, Lam 2009, Messing 2007, Muñoz 2004, Woolard 1989) and whether language maintenance or language shift occurs. Richards (1998) studied language maintenance in San Marcos la Laguna from the 1980s through 1994, reporting that Kaqchikel was almost exclusively used for interactions among indigenous community members and that only marginal levels of Spanish had been acquired. Reasons cited for limited acquisition of Spanish by Marquenses included loyalty to the mother tongue and its use as a marker of social identity in the community, the limited utility of Spanish in their daily lives and the perceived threat to their indigenous ethnic identity encoded in the acquisition of Spanish. The present study provides an update on the linguistic situation of San Marcos and aims to determine whether bilingualism remains additive or whether the town has experienced an accelerated language shift.

In the 20 years since Richards (1998) collected data in San Marcos the town has experienced significant growth and change resulting in more contact between speakers of different languages. An increase in the availability of public transportation has resulted in an increase in tourism to the town as well as more frequent travel by locals between towns on the lake. There is also a much larger expatriate population in San Marcos and as a result, more English and Spanish usage. This study focuses on understanding the present linguistic situation and the factors influencing language use in San Marcos. The following research questions were considered: What are the patterns of language usage among local indigenous people in San Marcos La Laguna, Guatemala? What attitudes do indigenous people of San Marcos La Laguna have toward the languages spoken in the community? What are the factors contributing to language shift or language maintenance in San Marcos La Laguna?

Participants included 31 residents of San Marcos La Laguna. Data from only 10 bilingual indigenous participants will be presented for this study. These 10 participants, 5 men and 5 women ranging in age from late 20’s to late 40’s, all speak Kaqchikel as their L1 and Spanish as their L2. Data collection consisted of one approximately hour-long semi-structured oral interview with each participant. Audio recordings of the interviews were transcribed and analyzed qualitatively. The qualitative interview data revealed that economic factors, demographic changes, educational policies and strength of ethnic identity all influenced language use and attitudes among the participants. While Kaqchikel remains the dominant language among members of the indigenous community, most now also speak Spanish, and some young, relatively well-educated parents have begun to speak Spanish to their children at home, viewing Spanish as the language of economic opportunity. While this does indicate language shift, it appears to be slow, given the strong ethnic identity of the indigenous Marquenses.
References


Mixing things up: How blocking and mixing affect the processing of codeswitched sentences

Michael Johns (Pennsylvania State University), Jorge Valdés Kroff (University of Florida), and Giuli Dussias (Pennsylvania State University)

Given the link between language usage and language structure\(^1\), one goal of lab-based approaches to language comprehension should be to draw on corpus-based studies to answer questions concerning the production and processing of language. In the psycholinguistic study of codeswitching, this connection is particularly lacking: many studies do not take into account the social contexts in which codeswitching occurs. As a result, the presentation of stimuli in lab-based studies often does not align with how codeswitches are encountered in naturalistic bilingual discourse.

One such example can be found in how stimuli are presented in many lab studies on codeswitching: blocked (i.e., codeswitched and unilingual stimuli are separated and presented to the participant in distinct blocks) or mixed (i.e., where the language changes from sentence to sentence, and both codeswitched and unilingual stimuli occur together in the same block). While corpora show that codeswitches often occur localized and surrounded by longer unilingual stretches of speech\(^2\), many lab studies present codeswitched stimuli in a mixed fashion. Mixing is claimed to incur global processing costs\(^3\), i.e. local and between-trial switches may be so frequent as to inflate purported switch costs. Despite this possibility, the effects of mixing compared to blocking have yet to be systematically examined, nor has prior experience with codeswitching. In this study, we take up this issue and examine how the method of presentation—mixed vs. blocked—and experience with codeswitching affects the processing of codeswitches.

In a within-subjects design, we recorded eye-movements while three groups of bilinguals (heritage speakers, Spanish-dominant late bilinguals, and English-dominant late bilinguals) read Spanish/English codeswitched and unilingual Spanish sentences. Codeswitched sentences contained determiner-noun switches designed to exploit the masculine default strategy\(^4\) (see examples in Table 1). Stimuli were presented in two separate sessions: in the first session, participants read a block of unilingual Spanish sentences and a block of code-switched sentences, with the order counterbalanced; in the second session, participants read a single block of unilingual Spanish sentences interleaved with code-switched sentences. Participants also completed modified versions of the DELE and MELICET, a category fluency and picture naming task (in English and Spanish, counterbalanced), the Flanker task, and the AX-CPT.
Linear mixed-effects models compared gaze duration, regression path duration, right bounded duration, and total fixation duration on the target noun; interestingly, the models revealed no main effects or interactions; additionally, switch costs did not differ with mode of presentation (blocked or mixed). Code-switching experience, however, may have played a role: while heritage speakers (who self-reported regularly engaging in codeswitching) did not differ in reading times across conditions, sequential bilinguals with limited codeswitching exposure showed significantly shorter right bounded durations ($t = -2.150$) and regression path durations ($t = -2.047$) in the unilingual Spanish block compared to the codeswitch-only and mixed blocks.

These preliminary findings are surprising, given the lack of an effect of mode of presentation on processing for heritage speakers. This may be due to a limited number of participants available at this point in time (n = 15); however, it may also indicate that bilinguals with limited codeswitching experience (i.e., the late bilinguals tested here) are the ones who show the typical costs associated with codeswitching, and not heritage speakers with more exposure to codeswitching. We anticipate having 45 participants, and more analyses will be conducted to further determine the potential role of language proficiency and cognitive control\(^5\) in the processing of codeswitched sentences.

References


Examples

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine Noun, Non-Switched</td>
<td>El mecánico reparó el <strong>barco</strong> en su tiempo libre.</td>
</tr>
<tr>
<td>Masculine Noun, Code-Switched</td>
<td>La mujer planchó el <strong>suit</strong> para su hijo.</td>
</tr>
<tr>
<td>Feminine Noun, Non-Switched</td>
<td>El joven explore la <strong>casa</strong> con sus amigos.</td>
</tr>
<tr>
<td>Feminine Noun, Code-Switched</td>
<td>La cocinera compró la <strong>meat</strong> para la cena.</td>
</tr>
</tbody>
</table>

**Similar outcome due to different reasons? A comparison between heritage speakers and L2 learners in the production of Spanish lexical stress**

*Ji Young Kim (University of California, Los Angeles)*

The present study compares the production of Spanish lexical stress by two groups of Spanish-English bilinguals who are English-dominant, namely Spanish heritage speakers and English second language (L2)
learners of Spanish. In a previous study, Kim (2015) found that heritage speakers and L2 learners showed a deviant pattern from Spanish monolinguals when they produced the first person singular of the present indicative form of Spanish regular -ar verbs (e.g., Canto. ‘I sing’). That is, while this verb form is a paroxytone (i.e., stress on the penultimate syllable), in many cases the heritage speakers and the L2 learners produced the final vowel longer than the penultimate vowel as if it was an oxytone (i.e., stress on the final syllable). Stress misplacement in reading tasks has also been observed in other studies, both in the speech of L2 learners (Adams, 1979; Knightly et al., 2003; Lord, 2007) and heritage speakers (Knightly et al., 2003; Robles-Puente, 2014). Kim (2015) suggested two possibilities to explain this phenomenon: preference for past tense over present tense verbs (Martin et al., 2013) and final vowel lengthening. The purpose of the present study was to further examine whether longer final vowel in paroxytones is also observed in different prosodic contexts and, if so, whether the two possibilities suggested by Kim (2015) provide reasonable explanations to this behavior.

In total, 68 subjects participated in the study: 24 monolingual native speakers of Spanish (NS) (13F, 11M), 24 Spanish heritage speakers of Mexican descent (HS) (18F, 6M), and 20 English L2 learners of Spanish (L2) (14F, 6M). The NSs were recruited as a control group in Mexico, and the recruitment of the HSs and the L2s took place in the U.S. The participants read out loud 20 stress minimal pairs of Spanish regular -ar verbs, i.e., paroxytones (e.g., Canto. ‘I sing’) vs. oxytones (e.g., Cantó. ‘He/She/You (formal) sang’), in a meaningful sentence in three prosodic contexts: nuclear position (N) (e.g., La saco. ‘I take it out.’), prenuclear position (PN) (e.g., Sacó la basura. ‘I take out the trash.’), and unaccented context (U) (e.g., ¿De dónde saco caramelos? ‘From where do I take out candies?’). Apart from the target items, 20 pairs of Spanish verbs that do not form stress minimal pairs were included as fillers (e.g., Sale. ‘He/She leaves. / You (formal) leave.’ vs. Salí. ‘I left.’). Suprasegmental information, such as the duration, average intensity, and average pitch, of the penultimate (V1) and final vowels (V2) of the target items were extracted, which were normalized using z-score normalization, in order to control for individual differences, such as speech rate, gender, and test location. The effects of group (NS/HS/L2), stress pattern (paroxytone/oxytone), prosodic context (N/PN/U), and the interactions among the fixed factors on the relative difference between the normalized duration, pitch, and intensity of V1 and V2 were analyzed using linear mixed effects modeling with participants and items as random effects.

Results showed that, while duration was the only cue that the three groups used across the prosodic contexts to distinguish paroxytones from oxytones, only the NSs consistently used this cue to produce the stressed vowels with longer duration than the unstressed vowels. The HSs and the L2s showed a deviation from the NSs in the production of paroxytones. That is, in more than half of the cases, they produced the V2 longer than the V1 (i.e., negative duration difference), even when the stress was located in the V1 (see Figure 1). Further analysis was carried out on the error type of the fillers, in order to examine whether HSs’ and L2s’ behaviors were due to preference of past tense verbs or final vowel lengthening, as suggested in Kim (2015). Fillers were considered incorrect if they were produced with incorrect tense (e.g., Salí ‘I left.’ instead of Sale. ‘He/She/You (formal) leave(s).’) or with incorrect position of lexical stress (e.g., *Sale instead of Sale. ‘He/She/You (formal) leave(s).’). Results showed that HSs’ most common error type was the production of incorrect tense (i.e., past tense instead of present tense) (58.82%), while for the L2s it was the production of incorrect position of lexical stress (i.e., stress on the final syllable instead of the penultimate syllable) (48.39%) (see Table 1). Although this is only an indirect measure, the finding suggests that it is likely that the HSs and the L2s produced the paroxytones with longer unstressed vowels for different reasons. That is, while it is likely that the HSs had preference toward past tense verbs (Martin et al., 2013), the L2s may have lengthened the final vowels, as a result of positioning a phrase boundary after the target words.
Figure 1. Duration difference between V1 and V2 (**: p < 0.001, *: p < 0.01; *: p < 0.05)

Table 1. HSs’ and L2s’ incorrect production of fillers by error type

<table>
<thead>
<tr>
<th>Error type</th>
<th>Incorrect tense</th>
<th>Incorrect stress position</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>present → past</td>
<td>past → present</td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>80 (58.82%)</td>
<td>8 (5.88%)</td>
<td>136</td>
</tr>
<tr>
<td>L2</td>
<td>20 (16.13%)</td>
<td>18 (14.52%)</td>
<td>124</td>
</tr>
</tbody>
</table>

References

Psycholinguistic research in bilingual lexical access has shown that speakers of two languages with grammatical gender have an L1-L2 integrated gender representation (Salamoura & Williams, 2007; Paolieri et al, 2010; Lemhöfer, Spalek & Schriefers, 2008), and that this holds even for speakers of languages mismatched in number of gender values (such as Spanish and German), with the exception of the asymmetric gender value (i.e. neuter) which has a unique representation (Klassen, 2016).

Bilinguals’ use of gender in code-switching within the Determiner Phrase (DP) offers further insight into the nature of L1-L2 asymmetric gender systems. Previous research has shown that bilingual speakers of two languages with grammatical gender primarily opt for concord between the determiner (D) and the noun (N) realized in the switch (1) (Cantone & Müller, 2008), though there is some evidence of concord between the determiner and the translation equivalent noun (2) (Radford et al, 2007).

(1a) dieF mesaf (Spanish)  (2a) derM mesaF (German)
mesaF (Spanish) elM TischM
TischM (German)  ‘the table’

In this study, 23 L1 Spanish-L2 German bilinguals and 16 L1 German-L2 Spanish bilinguals with an intermediate level of proficiency in their respective L2s performed a written acceptability judgment task in which they rated 120 sentences containing code-switched DPs. The sentences contained either a German D-Spanish N (3) or a Spanish D-German N (4) DP followed by Prepositional Phrase + Copula (ser/sein) + gender-ambiguous adjective. The gender congruency between the L1 and L2 nouns was manipulated and each type of DP was presented with all possible D forms (5).

<table>
<thead>
<tr>
<th>German D-Spanish N DP</th>
<th>Spanish D-German N DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>derM mesaF</td>
<td>elM TischM</td>
</tr>
<tr>
<td>dieF mesaF</td>
<td>laF TischM</td>
</tr>
<tr>
<td>dasNt mesaF</td>
<td>---</td>
</tr>
</tbody>
</table>

The highest rated D in each condition was coded according to the gender use strategy it represented: concord with the N realized in the switch (1), concord with the translation equivalent N (2), or no discernible strategy (i.e. conditions in which there was no clear D preference, or a preference for the neuter D in German D-Spanish N DPs). Results (6) show that while with German D-Spanish N DPs neither the L1 Spanish nor the L1 German bilinguals consistently display a gender concord strategy preference, with Spanish D-German N DPs, each group prefers concord between the D and the noun in their L1, regardless of whether it is realized (for the L1 German speakers) or not (for the L1 Spanish speakers). The preference for concord between the D and the L1 noun supports the integrated nature of asymmetric gender systems in that both L1 and L2 gender information is available to these bilinguals, even when the noun is not realized in the switch. The complexity added by the asymmetric nature of the Spanish-German gender system is evident in the lack of discernible concord strategy when the D has more gender options than the N (German D-Spanish N DPs).
References


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**Linguistic theory and code-switching data: Feature matching restrictions… And beyond**

*Juana Liceras (University of Ottawa), Raquel Fernández Fuentes (Universidad de Valladolid), and Rachel Klassen (University of Ottawa)*

There is a long-standing tradition of linguists who have contributed formal analyses of code-switched data under the assumption that the same principles that constrain individual grammars also constrain code-switching (Sankoff & Poplack 1981; Woolford 1983; DiSciullo, Muysken & Singh 1986; Myers-Scotton 1993, 1997; Belazi, Rubin & Toribio 1994, among others). More recently, the Minimalist Program (MP) and Distributed Morphology (DM) have provided the theoretical framework to account for spontaneous and experimental code-switched data produced and elicited from both unimodal bilinguals (MacSwan 1999, 2000; Liceras et al. 2008; González-Vilbazo & López 2011; Lohndal 2013; Alexiadou et al. 2015; Klassen 2016, among others) and bimodal bilinguals (Lillo-Martin, Müller & Chen Pichler 2016). Even though formal features are central to all of these recent accounts, some take a lexicalist approach while others rely on the late insertion model of
DM which allows for a unified view of word-internal and word-external code-switching (Chomsky 2009; Alexiadou et al. 2015).

In this paper, we argue that constraints beyond the minimum requirements of the MP and DM (i.e. processing constraints) may shape the language choices made by bilinguals in producing and interpreting code-switched structures. We take as a point of departure the divide between the spontaneous production and interpretation of English-Spanish and English-German DPs (Liceras et al. 2008; Jorschick et al. 2010) that has shown that DPs consisting of a Spanish or German Determiner (D) and an English Noun (N) are abundant in production data while those in which English provides the D are seldom produced but easily interpreted—as in (1) versus (2). In relation to this divide, we argue that Moro’s (2000, 2014) adoption of Chomsky’s (2000) constraint on feature checking as illustrated in (3) fails to account for the overwhelming acceptance of English D-Spanish N DPs, as in (2), and disregards the fact that balanced bilinguals in Gibraltar and Spanish dominant English-Spanish bilinguals do not accept all Spanish D-English N DPs but show a significant preference for those in which the Spanish D agrees with the Spanish translation equivalent of the English N (following the analogical criterion), as in (4) versus (5). In fact, a divide between production and interpretation has also been shown to shape the analogical criterion (Klassen & Liceras 2015).

We propose that processing constraints such as the Grammatical Features Spell-Out Hypothesis (Liceras et al. 2008; Jorschick et al. 2010), which states that the presence of a highly grammatised feature such as gender agreement (φ) determines code-switching preferences, (a) accounts for the preference for the Spanish D in spontaneous production and (b) activates the double-feature valuation mechanism which is realized as the analogical criterion in (4) versus (5).

As for the different status of the analogical criterion in the production and interpretation of code-switched DPs versus code-switched Adjectival predicates in (6) versus (7), we propose two processing constraints: one which abides by the directionality of the double-feature valuation mechanism, as in (8) versus (9), and one that is determined by the number of lexical categories that are to be accessed in a code-switched construction, as in (10) versus (11). We will show that, when performing acceptability judgments, English dominant English-Spanish bilinguals have more problems matching the gender of the Spanish D with the translation equivalent of the English N in concord structures such as (6) than matching the gender of the English DP with the Spanish Adjective in agreement structures such as (7). We will argue that this is due to the double directionality (right to left and left to right) of the valuation mechanism in (8) versus the unidirectionality (right to left) of the valuation mechanism in (9). We will further show that in a production task, English dominant English-Spanish bilinguals have more problems with gender matching in Alignment structures in (7) in Concord structures in (6), a fact that we attribute to the need to access two lexical categories (the Noun and the Adjective) in the case of Agreement structures, as shown in (11), versus only one lexical category (the Noun) in Concord structures, as shown in (10).

**Examples:**

(1) La casa

(2) The house

(3a) La casa [Person, Number, Gender] / casa [Person, Number]

(3b) El casa [Person, Number]

In (3a) the phi-features of the English N are a subset of the phi-features of the Spanish D so the latter can be valued. In (3b) the phi-features of the Spanish N are not a subset of the phi-features of the English D, which means that the gender feature of the Spanish N is not valued and the derivation crashes.

(4) La casa / El libro

(5) El libro / La casa

(6) concord

El [SP masc-the] book [SP masc-libro]
La [SP fem-the] house [SP fem-casa]

(7) agreement

The cars [SP masc-coche]
The chair [SP fem-silla]
Previous studies (Guillelmon & Grosjean, 2001; Lew-Williams & Fernald, 2007, 2010) have demonstrated that native speakers process the gender assignment information contained within the determiner of a noun phrase more efficiently than L2 speakers. This has led some researchers to propose that L2 speakers are unable to assign gender lexically in the L2 (Carroll, 1989) or compute gender agreement syntactically (Franceschina, 2001; Hawkins & Franceschina, 2004). However, two recent studies (Arnon & Ramscar, 2012; Grüter et al., 2012) found that L2-ers better acquired the grammatical gender of pseudowords when they were learned in auditorily-presented, gender-marked noun phrases rather than in isolation. This makes the learning environment more similar to that of L1 acquisition in which children ‘segment’ the noun phrases they hear in the input into a noun and a gender-marked determiner during word recognition (Montrul, 2004). This study sought to extend this previous finding to proficient L2 and native speakers of Spanish learning new Spanish words. Twenty highly proficient L2 and 18 native Spanish speakers completed a learning session in which they were exposed to Spanish-like pseudowords presented in text that they read out loud. Participants first saw the pseudowords in complete sentences and then in isolation, or vice-versa, along with

References

**Input segmentation and the acquisition of grammatical gender in Spanish**

*Sara Ann Mason (university of Illinois at Urbana-Champaign)*

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Previous studies (Guillelmon & Grosjean, 2001; Lew-Williams & Fernald, 2007, 2010) have demonstrated that native speakers process the gender assignment information contained within the determiner of a noun phrase more efficiently than L2 speakers. This has led some researchers to propose that L2 speakers are unable to assign gender lexically in the L2 (Carroll, 1989) or compute gender agreement syntactically (Franceschina, 2001; Hawkins & Franceschina, 2004). However, two recent studies (Arnon & Ramscar, 2012; Grüter et al., 2012) found that L2-ers better acquired the grammatical gender of pseudowords when they were learned in auditorily-presented, gender-marked noun phrases rather than in isolation. This makes the learning environment more similar to that of L1 acquisition in which children ‘segment’ the noun phrases they hear in the input into a noun and a gender-marked determiner during word recognition (Montrul, 2004). This study sought to extend this previous finding to proficient L2 and native speakers of Spanish learning new Spanish words. Twenty highly proficient L2 and 18 native Spanish speakers completed a learning session in which they were exposed to Spanish-like pseudowords presented in text that they read out loud. Participants first saw the pseudowords in complete sentences and then in isolation, or vice-versa, along with
‘pseudo-objects’ that were the pseudowords’ referents. Similarly to real Spanish nouns, the pseudowords varied in grammatical gender (masculine/feminine) and in the transparency of their ending towards their gender assignment (transparent: –o/-a or nontransparent: –e/consonant). Participants were then tested on oral production of the pseudowords (both in isolation and in gender-marked noun phrases), and recognition of the correct gender assignment (in sentences presented both in writing and auditorily). At the end of their laboratory session, participants provided open-ended commentaries about their learning experience.

Results indicate virtually no differences in overall accuracy between L2 and native speakers. Furthermore, both groups showed an advantage for learning the gender of masculine and transparent pseudowords, which demonstrates in native speakers a tendency primarily documented (and thought of as a representational or processing shortcoming) in late bilingual speakers (e.g. Montrul et al., 2008). This result validates previous conclusions that L2-ers’ variability in accuracy with grammatical gender during production may be an artifact of the context and modality of acquisition rather than a fundamental difference in how gender is represented in L2 grammars (e.g. Franceschina, 2001; Hawkins & Franceschina, 2004). According to this account, temporary difficulty in lexical access, and differences vis-à-vis native speakers in gender assignment of specific nouns, is what underlies most performance differences between the two groups, who actually process grammatical gender in an equivalent way (c.f. Grüter et al., 2012). This finding and explanation are compatible with Hopp (2013)’s previous finding that L2 speakers of German were more native-like in their processing of cues to grammatical gender with more native-like lexical access speed and gender assignment of the nouns used in the experiment.

However, unlike Arnon and Ramscar (2012), there was no advantage for learning the gender of pseudowords first presented in sentences. Presenting new words visually, rather than auditorily as in Arnon and Ramscar’s study, may be ineffective to force adult speakers to engage in input segmentation: in addition to their previous knowledge that nouns and determiners are separate, written input clearly shows the division between words. Furthermore, mature, literate proficient speakers may have overall less sensitivity to grammatical cues presented in input, because of the saliency of other sources of information that may support their learning process (cf. Grüter et al., 2012). This conclusion is supported by participants’ end-of-experiment comments which feature highly individual strategies based on previous phonological, lexical and semantic knowledge, such as pairing a pseudoword with a real word that rhymes, or remembering that a pseudoword is feminine because its pseudo-object is pink, pink is for girls, and ‘a girl breaks your heart’.

Overall, this result highlights the importance of considering input modality in theories of language acquisition (cf. Montrul 2008). The kind of input presentation may impact what kinds of grammatical information are most salient to both native and late bilingual speakers.

References


Hopp, H. (2013). Grammatical gender in adult L2 acquisition: Relations between lexical and syntactic

Morphological processing in native, early and late bilingual Spanish speakers

Sara Ann Mason (University of Illinois at Urbana-Champaign)

The representation and processing of regular and irregular morphology has proven a useful testing ground for important questions such as the psychological validity of the distinction between a rule-based grammar and a lexicon of unpredictable exceptions. Research on this topic has prominently focused on the acquisition and representation of the English past tense in native speakers (e.g. Beck 1997 and Rumelhart and McClelland 1986, among many others), dividing most researchers into two main positions. ‘Single mechanism’ accounts propose that native speakers employ one mechanism of morphological representation and processing: storing inflected forms whole in a network of association between form (“gave”) and meaning (give, past) (McClelland & Patterson 2002). Dual mechanism accounts propose that irregularly inflected forms must be stored, and regularly inflected forms ‘computed’ via the application of rules (Pinker & Ullman 2002). Other proposals have since emerged that posit qualitative differences between native and L2 speakers due to maturational constraints on the development of morphological representations and rules (Clahsen et al. 2010). At the same time, early bilingual ‘heritage’ speakers also evidence divergent acquisition of parts of the heritage language’s morphosyntax (Montrul 2016). In spite of this, to date only two studies on this topic feature heritage speakers (Gor & Cook 2010; Gunnar & Kirkici 2016). Including both early and late bilingual Spanish speakers in this line of research will clarify the influence of age of acquisition on morphological representation and processing, as well as the adequacy of single or dual mechanism models for these different speaker groups.

The current study takes a step towards this goal. Following Prasada and Pinker (1993), we asked native (n=17), early (n=14) and late (n=17) proficient bilingual Spanish speakers to complete a written nonce verb production and acceptability judgment task (AJT) in order to test which morphological and phonological factors influence their tendency to generalize, or accept, regular and irregular inflection on nonce Spanish verbs. The nonce verbs varied in global similarity to real verbs that were either regular or irregular in the present indicative and past participle forms. Production responses were coded as regularizations or irregularizations. Regularizations (foner > fone, fonido) occurred at a high rate of 85.74%, compared to 10.54% of irregularizations (foner > fuene, fuesto) (and 3.70% of discarded items). While L2-ers irregularized more than the other two groups according to a simple logistic regression, regularizations occurred across participant groups at high rates regardless of the nonce verb’s degree of similarity to a real verb. Irregularizations occurred least with nonce verbs that were least similar to any real verb. AJT responses ranked inflected forms of the nonce infinitives on a four point scale. Ratings were normalized and analyzed via one-way and mixed ANOVAs with post hoc Tukey’s HSD tests. These analyses indicate that all three participant groups strongly preferred regular inflection. Irregularly inflected nonce verbs were rated more acceptable if they were more similar to a real verb, whereas regular inflection was more acceptable
overall and did not decrease with a nonce verb’s decreasing similarity to a real verb. Overall, these results are entirely in line with Prasada and Pinker (1993)’s findings with English native speakers, and indicate a dissociation between the mechanisms that propagate regular and irregular inflection in all speaker groups. Regular inflection is generated via a rule to any member of the appropriate syntactic category, so it does not depend on whether a verb ‘sounds like’ it could be a real verb. Irregular inflection is based on phonological analogy to words that ‘sound’ irregular to the speaker, so it is most common (and acceptable) with nonce verbs that sound more similar to real verbs. These results are most compatible with a dual mechanism account, and contradict single mechanism accounts for native speakers and accounts positing limitations on morphological computation in L2 speakers.

References


Syntactic ambiguity resolution in code-switched discourse

Cristina Isabel Maymi (University of Puerto Rico, Río Piedras)

An intriguing question to pose about language processing is how fluent speakers of two languages assign structure to ambiguous syntactic constituents. Cross-linguistic variations observed in the attachment preferences of relative clauses (RC) to complex nominal phrases (NP) have challenged the traditional understanding of language processing comprised by the garden-path model (Frazier, 1987). Until recently, sentences (1a) and (1b) were thought to be processed by a universal structure-driven parser that attached new information into the phrase currently being processed.

(1a) The police arrested the sister of the lawyer who was always late for everything.
(1b) La policía arrestó a la hermana del abogado que siempre estaba tarde para todo.

Cuetos and Mitchell (1988) were the first to report that when considering sentences like (1), in which the RC is preceded by a complex NP of the type “NP1-of-NP2” that could potentially be attached to either of the
two preceding NPs, native speakers of English attached the RC to the NP2 (the lawyer) while the native speakers of Spanish attached it to the NP1 (la hermana).

These findings allowed researchers to dwell on the types of relationships bilinguals maintain between both their languages when processing syntactic information. Principle-based models of parsing -like the construal hypothesis (Frazier & Clifton, 1996:1997) and the recency preference and predicate proximity (Gilboy et al., 1995)- argue that the assignment of syntactic structure is initially guided by grammatical principles, while probabilistic models -such as the tuning hypothesis (Cuetos et al., 1996)- try to explain parsing preferences on the basis of language exposure. Several studies on the attachment preferences of bilinguals have showed that speakers tend to parse like their L1 monolingual counterparts (Fernández, 2000) both in their L1 and L2, and that these preferences can be adjusted according to the dominant language of their environment (Dussias & Sagarr, 2007). However, other studies (Hemforth et al., 1994; Igoa et al., 1998; Papadopaulou & Clahsen, 2003) have attested that the properties of relative pronouns, their thematic roles and lexical restrictions can also account for the differences in parsing preferences while sustaining a cognitive economy principle.

The present study expands on previous research by examining the parsing strategies of bilinguals in a code-switching context between languages with opposing attachment preferences. 50 Spanish/English bilinguals from the University of Puerto Rico were recruited for this study. Participants were divided into two groups according to their self-report of L2 proficiency and asked to complete an unspeeded questionnaire to determine whether bilinguals, when confronted with an ambiguous code-switched construction, resort to the often-observed NP1 preference in Spanish or to the less cognitive demanding NP2 preference associated with English speakers. All target items presented intra-sentential code-switches between the RC and a complex NP that offered more than one potential attachment site, as seen in (2):

(2a) The police arrested [the sister]_{NP1} of [the lawyer]_{NP2} [que siempre estaba tarde para todo]_{RC}.
(2b) La policía arrestó a [la hermana]_{NP1} de [el abogado]_{NP2} quien siempre estaba tarde para todo]_{RC}.

The data extracted from the experimental items was coded in terms of the attachment site (high vs. low) and correlated to the L2 proficiency of the bilinguals -within and between both groups- and the directionality of the code-switch. Results indicate that Puerto Rican bilinguals display a higher bias for the N2/low attachment site when resolving syntactic ambiguities in code-switched discourse than what has been previously observed in a monolingual context (Dussias & Sagarr, 2007; Fernández, 2000). Theoretical implications of the findings for previous and future models of language processing are discussed.

References

A sociophonetic analysis of Spanish voiceless stop aspiration in monolingual and bilingual (Spanish-Kaqchikel) Guatemalan speech

Sean McKinnon (Indiana University)

Scholarly interest in language contact in the Spanish-speaking world has grown tremendously (e.g. Clements, 2009; Klee & Lynch, 2009; Sessarego & González Rivera, 2015), especially for Spanish in contact with Catalan (see Blas Arroyo, 2011), Quechua (see Escobar, 2011) and Guarani (see Gynan, 2011). Despite this growth in research, one large indigenous language family of Latin America, Mayan, has received less attention in the literature, with the exception being Spanish in contact with Yucatec Maya (Michnowicz, 2008, 2009, 2011; Michnowicz & Carpenter, 2013; Michnowicz & Kagan, 2016). Furthermore, apart from these studies on Spanish in contact with Yucatec Maya, there is more research that has examined morphosyntax than phonetics, leaving this part of the linguistic system underinvestigated.

The present study investigates the Spanish voiceless stops /p, t, k/ in the speech of twenty-four Spanish-Kaqchikel Maya speakers and eight Spanish monolinguals from the same region to assess the possibility of language contact in Guatemala. In Spanish, the voiceless stop phonemes are phonetically realized with a short lag voice onset time (VOT, Lisker & Abramson, 1964), with values ranging from 10-30 ms (e.g. Hualde, 2005; Rosner et al., 2000; Williams 1977); in Kaqchikel, it has been claimed that these voiceless stops have two allophones, unaspirated (short VOT) and aspirated (longer VOT), depending on the position of the stop, with aspiration occurring word-finally and syllable final before a consonant (England, 2001; García Matzar, Toj Cotzajay & Coc Tuiz, 1999). However, there are currently no studies that have examined the VOT values for these two allophones, with the exception of Burnett-Deas (2009) who found a mean range 20-70 ms for the voiceless stops in word-initial position in three Mayan languages of the Yucatan Peninsula.

During the summer of 2015 a corpus of sociolinguistic interviews was collected from monolingual and bilingual speakers in Antigua, Guatemala. From this larger corpus, a total of thirty-two speakers were chosen to be representative samples according to age, gender, and language background. For the acoustic analysis, 30 tokens of each the voiceless stop phonemes were taken after the first 20 minutes of the interview to lessen the effect of the observer’s paradox (Labov, 1972) and were measured for VOT, which is the study’s dependent variable. Each token was coded for place of articulation (/p/, /t/ or /k/), lexical stress (stressed or unstressed), following segment (/a/, /e/, /i/, /o/, or /u/), position in the word (word-initial or word-medial), and the speaker’s age (measured as a continuous variable), biological sex (male or female) and linguistic background (monolingual or bilingual). Separate multivariate analyses were run for each of the voiceless stop phonemes using R (R Core Team, 2016) and the statistical package Rbrul (Johnson, 2009). A mixed-effects model was chosen in order to take into consideration individual speaker variation (as a random effect) and continuous variables (VOT and speakers’ age).

Results from the multivariate analysis show that for each of the voiceless stop phonemes the following factors were selected as significantly affect the VOT values: lexical stress (stressed syllables had longer VOT), position in word (word-initial had longer VOT), and following segment (front vowels and back vowels had longer VOT). Although the bilingual speakers’ VOT values were higher than what has been previously reported for non-contact varieties of Spanish (Hualde, 2005; Rosner et al., 2000; Williams 1977)
they were not statistically different from their monolingual counterparts, a result that parallels the findings of Michnowicz and Carpenter (2013) for Spanish in contact with Yucatec Maya. Taken together, this study’s findings may be the result of earlier language contact, by which earlier shifting Kaqchikel Maya speakers created an indigenized variety of Spanish that was later acquired by their monolingual Spanish children; this possibility will be discussed in light of the socio-historical context of Guatemala.

References


This paper examines the use of the glottal stop in the variety of Spanish spoken in San Juan, Puerto Rico. The glottal stop is relatively uncommon in Spanish, but it has been documented in several varieties of Spanish such as Nicaraguan, Argentine and Paraguayan to name a few (Chappelle 2013). There has been a debate on the origins of the glottal stop. Several studies have attributed the use of the glottal stop to the effect of language contact. For instance, Lipski (2000) attributes the use of the glottal stop in Chabacano to an influence from Tagalog, and Lope Blanch (1987) attributed the glottal stop in the Spanish of Yucatan, Mexico to contact with Mayan. Conversely, Chappell (2013) shows that the glottal variant in Nicaraguan Spanish was not caused by language contact, but rather is used as a hiatus reduction strategy. Where there were high rates of /s/ elision, she found a positive correlation with the glottal variant, e.g. [maʔal.to] for más alto (‘more tall’). Regarding Puerto Rican Spanish, Valentín Márquez (2006) showed that the glottal stop was used in coda position and between vowels such as in treʔ [años] (‘three years’) or laʔ [a] ves (‘the birds’), although it was not frequent. It was found to exist only in the younger population and more so in women than men. This author suggests that the use of the glottal stop could be due to contact with English or due to Puerto Ricans’ negative perceptions towards Dominican migration. That is, he suggested speakers used the glottal stop instead of elision to distance themselves from Dominicans, who are believed to ‘eat their /s/’ by many Puerto Ricans. Nevertheless, Valentín Márquez (2006) did not explore in depth the origins of the glottal stop.

The aim of the present study is to further investigate the possible reasons for the glottal stop as a variant of /s/ in Puerto Rican Spanish. The data come from 21 participants from the San Juan area. Nine of the participants were female and twelve were male. Their ages ranged between 23 to 60 years, with a mean age of 37. These participants either held a college degree or were in the process of completing their bachelors. They all came from the middle class and had a range of professions such as doctor, dentist, professor, elementary school teacher, etc. All participants had some contact with English on a weekly basis as a minimum. Contact ranged from listening to the radio to dealing with English monolinguals in the job setting. All participants took part in sociolinguistic interviews ranging from 30 minutes to an hour and forty minutes and completed a sociolinguistic background questionnaire. This questionnaire collected data on education levels, English and Spanish proficiency, and English exposure and production. The data were analyzed for the use of the glottal stop and possible correlations with the sociolinguistic factors such as gender, age, and education level, as well as for correlations with participants’ proficiency in English.

The preliminary results confirm that the glottal stop is used in this variety of Spanish, more frequently than previously thought. As for gender, the glottal stop is more frequent in males than in females, which differs from Valentín-Márquez (2006). Additionally with age, the glottal variant appears to be favored by those participants younger than 33, and did appear in those above this age. The results show evidence for a correlation with proficiency in English. In particular, those participants with a higher proficiency in English comprehension and above average English production have a higher use of the glottal stop. Thus, the preliminary results here suggest that the use of the glottal variant in Puerto Rican Spanish follows the pattern of the other varieties of Spanish mentioned above. Due to exposure to languages that include the glottal stop, the sound is borrowed into languages that do not normally have it, showing the power of the bilingual platform to morph and mold language.

References

Are lions green?: Child L2 learners’ interpretation of English generics and definite determiners

Alexandra Morales Reyes (University of Puerto Rico at Mayagüez), Begoña Arechabaleta (University of Illinois at Urbana-Champaign) and Claudia Crespo (Pontificia Universidad Católica del Perú)

Child acquisition of generics is a major research topic in languages such as English and Spanish. In order to express generics, Spanish speakers use plural noun phrases (NPs) with definite articles, while English speakers use bare plural NPs. However, plural NPs with definite articles can also express specific reference in Spanish, but can only refer to a specific reference in English (See Table 1). It is particularly interesting to study: 1) how speakers acquire determinant systems and 2) how speakers learn to assign the correct interpretation (generic versus specific).

Previous research suggests that generalizing skills are developed as an innate cognitive disposition, independently from language (Leslie, 2007), which explains why generics are acquired by children at a very young age and before other quantifiers. For example, English-speaking children and Spanish-speaking children seem to be able to distinguish between generic and non-generic sentences in their native language by the age of 4 (Gelman and Raman, 2003; Perex-Leroux et al., 2004). However, these studies also reported that children have a preference for generic responses, which led them to incorrectly interpret some specific NPs.

The present study examined 23 L1-Spanish/L2-English children from Puerto Rico (age range 4;11-11;7) on their interpretation of English NPs through an online task. The aim of the study was to study whether Spanish-speaking children are able or not to give a generic reference to bare plural NPs and a specific reference to definite plurals. In order to do so, children sat in front of a laptop and saw pairs of pictures of objects/animals with atypical characteristics (e.g. green lions; see task sample). Each set of picture was accompanied by either a question with a bare plural NP (e.g., Are lions green?) or a question with a definite plural NP (e.g., Are the lions green?). Children were instructed to press the Yes or No button as soon as they knew the answer. Children’s accuracy on the questions and their reaction time (RT) were analyzed. RTs were analyzed to evaluate whether RTs were longer for bare plural NPs or definite NPs.

Results seem to reveal that children are not able to correctly interpret English NPs. Participants’ interpretation to bare NPs was practically at chance as they only interpreted 55% of the bare NPs (i.e., Are lions green?) as generic. This suggests that they have not mapped English bare NPs to a generic interpretation. Moreover, as previously found, the children of this study also proved to have a preference for generics and incorrectly assigned a generic interpretation to 43% of the definite noun phrases (i.e., Are the lions green?). Analysis of the RTs revealed that there was not a significant difference between bare NPs and definite NPs. This might indicate that children ignore the absence or presence of the functional elements (e.g. definite determiner) of the NP and might have a tendency to unconsciously give a generic reference to the phrase based on the general meaning of the sentence. We propose that children’s bias toward the generic interpretation might cause some challenges for mapping the formal and the semantic features of English’s NPs. As a result, child L2 learners might need extensive input in order to be able to give English’s NPs a target-like interpretation.
Table 1 Generics and Definite Determiners in English and Spanish

<table>
<thead>
<tr>
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<th>Spanish</th>
<th>English</th>
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<tbody>
<tr>
<td>Bare plural generics</td>
<td>* Elefantes tienen trompa</td>
<td>Elephants have trunk</td>
</tr>
<tr>
<td>Definite plural</td>
<td>Los elefantes tienen trompa</td>
<td>*The elephants have trunk</td>
</tr>
<tr>
<td>specifics</td>
<td>Los elefantes tienen trompa</td>
<td>The elephants have trunk</td>
</tr>
</tbody>
</table>

Task sample:

Stimuli
Definite plural NP – Are the lions green?
Bare plural NP – Are lions green?

References


The processing of scalar implicatures with some and algunos in L2 learners

Cristina Mostacero Pinilla (University of Illinois Urbana-Champaign)

One of very few studies that tested L2 competence at the semantics-pragmatics interface is Slabakova (2010), who investigated the acquisition of scalar implicatures (SIs) with some by Korean learners of English. Results showed that L2 learners derived significantly more SIs in their L2, whereas native speakers of English and Korean interpreted some either pragmatically (‘some but not all’) or logically (‘some and possibly all’) at similar rates. These findings suggest that SIs do not represent a challenge for L2 speakers, and support the view that the mechanisms involved in the processing of SIs are governed by UG. Nevertheless, other studies in Spanish, a language with two existential quantifiers: algunos (some-pl) and unos (a-pl), have provided different results. In Maatman (2009), L2 learners of Spanish showed lack of sensitivity to the derivation of the SI associated with algunos. On the contrary, adult native speakers (Maatman, 2009; Miller and Schmitt, 2004; Vargas-Tokuda et al., 2008) and children L1 speakers were
aware of the pragmatically enriched meaning of *algunos* (Miller and Schmitt, 2004; Vargas-Tokuda et al., 2008).

Given the lack of studies, further research is needed to understand how SIs are computed in an L2. In the present proposal we replicate Slabakova’s (2010) study with L2 learners of English and Spanish. Two main changes are introduced with respect to this project: the same individuals are tested in their L1 and L2 (instead of two different groups of speakers); and reaction times (RTs) are measured for each participant. RTs can help us understand how SIs are computed. Under the Integrative account (Chierchia, 2004, 2006; Levinson, 2000), SIs are generated by default, therefore, individuals have a tendency to interpret *some* as meaning *not all*, and pragmatic answers require shorter RTs than logical ones, which are effortful. Contrary to this view, the Relevance Theory account (Sperber & Wilson, 1995) claims that SIs are not derived by default, but require extra cognitive effort instead. Consequently, the Relevance Theory predicts a smaller percentage of pragmatic answers, and longer RTs associated with this type of answers (vs. shorter RTs associated with logical answers).

Two experiments were designed to assess participants’ sensitivity to SIs with *some*. The first experiment includes a series of factually universal and factually existential statements presented via computer, with which subjects have to agree or disagree. The crucial items are the sentences that are logically true but pragmatically infelicitous, such as *Some elephants have trunks* (see Experiment 1 below for a complete list of all the types of sentences). Experiment 2 also presents a series of underinformative sentences, but in this case context is provided in the form of pictures. Participants see a few stories in which a child interacts with eight out of twelve objects, or twelve out of twelve objects. At the end of the story, the character states that she interacted with *some/all* the objects. Once again subjects have to indicate whether they agree or disagree with the child’s statement (see an example of this experiment in Experiment 2 below).

Based on Slabakova’s (2010) results, English native speakers are expected to interpret *some* either pragmatically or logically at similar rates, but Spanish speakers may have a stronger tendency to derive the implicature since this language has two existential quantifiers that English lacks. As for L2 speakers, we predict, following previous findings, that individuals will not compute SIs similarly in their L1 and their L2, but may be more pragmatic in one of the two languages. Regarding the predictions of the Integrative vs. the Relevance Theory accounts, following Slabakova’s (2010) results (where L2 learners were more pragmatic in their L2), we expect to find, among L2 speakers, a larger percentage of pragmatic answers and shorter RTs associated with this type of answers. Our goal is to better understand how SIs are computed by native and L2 speakers, and contribute to the under-researched area of the semantics-pragmatics interface in SLA.

**Experiment 1.** Sample stimuli in English and Spanish for Experiment 1.

1. **True with all**
   - All elephants have trunks.
   - Todos los elefantes tienen trompas.
2. **Infelicitous with some**
   - Some elephants have trunks.
   - Algunos elefantes tienen trompas.
3. **Felicitous with some**
   - Some books have color pictures.
   - Algunos libros tienen imágenes en color.
4. **False with all**
   - All books have color pictures.
   - Todos los libros tienen imágenes en color.
5. **Absurd fillers with all**
   - All garages sing.
   - Todos los garajes cantan.
6. **Absurd fillers with some**
   - Some fruits have computers.
   - Algunas frutas tienen computadoras.
7. **False random sentences**
   - The Earth is flat.
   - La tierra es plana.
8. **True random sentences**
   - English is a language.
   - El inglés es una lengua.
Experiment 2. An example of a story used in Experiment 2 in Slabakova (2010).

The impact of degree of bilingualism on the Basque sibilant merger

Ohiane Muxika-Loitzate (Ohio State University)

Basque has an apico-alveolar /ʃ/, a dental /ʒ/ and a prepalatal sibilant /ʃ/ that are represented by the graphemes <s> as in sama ‘neck’, <z> as in zama ‘load’ and <x> as in xake ‘chess’ respectively. The apico-alveolar and the dental sibilants seem to have merged in some areas of Biscay, Guipuzcoa, and the Basque-speaking territories of Alava and Navarre (e.g. Hualde, 2010). Spanish has been hypothesized as a factor driving this merger (Jurado Noriega, 2011), however complex sibilant systems like the traditional Basque one tend to be neutralized independently of language-contact. In order to add to this debate and shed new light on the merger, this study explores Biscayan Basque, a variety at an advanced state of the merger (Hualde, 2010). More precisely, I test how the degree of bilingualism, operationalized as language-dominance (Basque or Spanish), affects the production of the sibilants under study and the resulting neutralization by performing an acoustic analysis of the data. Furthermore, I explore the observation that stems from my fieldwork that in this variety the merger results in one single sibilant,
rather than two as in other dialects. The results show that Basque and Spanish dominant speakers behave differently with regard to the sibilant merger, and they have different places of articulation for their sibilants.

The data comes from the recordings of 8 bilingual speakers of Basque and Spanish from Amorebieta-Etxano who are between 20 and 33 years old. All the participants completed the Bilingual Language Profile (BLP) Questionnaire (Birdsong et. al, 2012) in order to have their language dominance measured. The BLP evaluates the following areas: (I) language history, (II) use, (III) proficiency and (IV) attitudes. The BLP provides numeric scores of dominance from -218 to +218 that allow researchers to measure dominance in a standardized way and place speakers within a continuum. According to the BLP scores in this study, four of the participants are more dominant in Basque, whereas the other four are more dominant in Spanish. The participants also completed a reading task that contained target words with the graphemes <s>, <z> and <x> that had been inserted in the middle of carrier sentences. A total of 1339 tokens were analyzed, and the PRAAT program (Boersma & Weenink, 2015) was used to measure the Center Of Gravity or COG. The COG correlates with the different articulatory configurations among fricatives which result in distinct places of articulation (Hualde, 2010; Styler, 2016), and the analysis of this acoustic cue allows us to determine whether the sibilants are merged or not.

All the statistical analyses were carried out using R (https://www.r-project.org). First, a four-factor ANOVA was carried out in order to analyze the effects of letter (<s>, <z> or <x>), stress (stressed or unstressed syllable), word and syllable position of the sibilant (onset initial, onset medial or coda), and language dominance (Basque or Spanish) on COG; and to evaluate whether the interactions between letter and the other variables have an effect on COG. In addition, post-hoc means comparison were carried out to explore differences among factor levels and possible interactions. The results show that <z> has the highest COG value for all the speakers in the present study (which means that it has a more fronted articulation), whereas <x> has the lowest COG value, which agrees with what Hualde (2010) describes. Only Basque dominant speakers maintain a significant distinction in the production of <z> and <x> overall, whereas Spanish dominant speakers do not make a distinction among sibilants. For Spanish dominant speakers, the resulting merged sibilant resembles the sibilant that we find in the variety of Spanish spoken in the region, which seems to support the claim that contact with Spanish is influencing the merger process that was taking place in Basque. For Basque dominant speakers, on the hand, the resulting merged sibilant seems to be more fronted.

This is the first acoustic study that explores the effect of language dominance quantitatively on the sibilant merger. Moreover, this is the first time that the BLP is applied to a study of Basque-Spanish bilingualism and it is a novel approach to the question of how the degree of bilingualism affects the merger in Basque.

References


I examine L2 acquisition of the variable word order of Spanish psychological verbs and its effect on subject-verb agreement to establish a cross-linguistic influence of English. Psych-verbs convey emotional states and can be subclassified in terms of theta roles and case assignments (Belleti & Rizzi, 1988). The present study examines the verb *gustar* ‘to like’, chosen due to its frequency and reverse psych-verb construction. This subclassification of verbs poses difficulties to second language learners for a variety of reasons: word order, argument alignment and agreement (Gómez Soler, 2012: 6). Reverse transitive psych-verbs permit a variable word order, accepting either the experiencer-verb-theme (EVT) word order, or the theme-verb-experiencer (TVE) order depending on pragmatic context (Miglio & Flores, 2012, p. 6).

Previous studies have examined either the pragmatic constraints on the variable word order with both heritage speakers (Prada Pérez & Pascual y Cabo, 2011; Pascual y Cabo, 2013; Toribio & Nye, 2006) and second language learners (Gómez Soler, 2013) or only verbal and clitic agreement in the canonical EVT word order; however, they have failed to identify “the interaction between word–order and (dis)agreement to determine the relation between these two factors” (Gómez Soler, 2013:107). The difficulty with subject-verb agreement in this type of verbs could be partially attributed to the canonical EVT word order in which the grammatical subject is postverbal. I predicted a facilitating effect on a learner’s acceptance of the non-canonical TVE word order (even perhaps in constructions that lack verbal agreement) due to a possible transfer of both the Given-before-new Principle evident in both Spanish and English and the rigid subject-verb-object (SVO) word order that more closely mirrors the English structure.

In order to determine if there is a relationship between word order and verbal agreement, preliminary data was collected from 30 second language learners of various proficiency levels (i.e. 3 advanced, 17 intermediate, 10 beginning) regarding their acceptability of contextualized sentences in a scalar Acceptability Judgment Task. The items were manipulated for context (E-focus vs. T-focus), word order (EVT vs. TVE), number of theme (singular vs. plural) and verbal agreement (agreement vs. disagreement). The contexts were intentionally designed to favor the theme or the experiencer as the new information in order to elicit the TVE or EVT word order in the response, following pragmatic constraints delineated by the Given-before-new Principle, causing the noncanonical order to surface. The task consisted of 24 contexts, each of which had 4 sentences to rate, yielding 96 tokens (6 items per the 16 combinations of factors), accompanied by an equal number of fillers of the same format.

The results indicated that the unmarked EVT word order has a facilitating effect on verbal agreement in *gustar* constructions, contrary to the hypotheses. Furthermore, learners were successfully able to identify the Theme as the licensing argument for verbal agreement regardless of the context, word order or proficiency level, which was also unexpected. The unexpected results are currently being further investigated due to the metalinguistic nature of the task and, thus, will be compared to production data to determine if the elicited structure will appear in participants’ responses.

This paper contributes to the field of second language acquisition by examining a frequently studied structure using a combination of factors that have not previously been considered in comparison to a production task. Although the results are contrary to many of the hypotheses, this study questions previously established principles such as the pragmatic constraints determined by the Given-before-new Principle to elicit the TVE word order. Furthermore, learners were found to have a substantially accurate understanding of these psych-verb constructions which have been shown to pose many difficulties for L2ers in previous studies.

References


Un-Strooping the Stroop Effect: Can bilinguals reduce Stroop interference through other-language mediation?

*Ana Oliveira-Beuses, JorgeValdés Kroff, and Lise Abrams (University of Florida)*

Variations of the Stroop task (Stroop, 1935) continue to be employed as a robust measure of interference. Typically, participants take longer to name or respond to incongruent trials where color words are presented in a different color to their meaning (*blue* presented in green; MacLeod, 1991). Bilingual Stroop variations have tested a) the magnitude of the Stroop effect (i.e., congruent or neutral minus incongruent trials) across languages; b) the magnitude of the Stroop effect in mixed language blocks; c) how cross-linguistic characteristics affect the Stroop effect; and d) differences between monolinguals and bilinguals (see Naylor et al., 2012, for review). Here we present a novel design to test whether bilinguals
are able to reduce within-language Stroop interference across same-day sessions via the non-test language.

Previously, we tested 24 Spanish-English bilinguals in a button press Stroop task in which incongruent and neutral trials (deal presented in blue) were presented as a response-eligible or – ineligible set in blocked presentation (as in Millham et al., 2001). Button responses were blue, yellow, and green, thus response-eligible incongruent trials were blue, yellow, green whereas response-eligible incongruent trials were red, orange, brown. Monolinguals demonstrated a response-eligible x trial type interaction such that the Stroop effect was greater in response-eligible trials than response-ineligible ones (Millham et al., 2001). Interestingly, bilinguals demonstrated only a main effect for trial type (see Figure 1). This lack of an interaction led us to hypothesize that bilinguals may reduce Stroop interference on response-eligible stimuli by using the non-test language as an alternative response mapping strategy, i.e. bilinguals may recruit Spanish to map their button responses (i.e., associate responses to azul, amarillo, verde) thereby diminishing the Stroop effect on response-eligible trials.

To investigate this hypothesis, we designed a new study which manipulates the presence of button labels across 4 same-day sessions (see Figure 2). In session 1, participants performed a baseline Stroop task without labels. In session 2, English color button labels were placed directly above the buttons. Sessions 3 and 4 were counterbalanced across two types of labels: (a) Spanish color words or (b) English objects strongly associated with a color (e.g., pea, which is strongly associated with green). As in the previous study, we included non-color words (e.g. deal), response-ineligible colors (e.g. red/orange/brown), or response-eligible color words (green/blue/yellow). The hypothesis will be tested via a repeated measures ANOVA, which compares the Stroop effect in the last two sessions to the two prior baseline sessions. The last two sessions allow us to directly compare whether bilinguals can effectively use direct language translations to reduce Stroop interference on response-eligible trials and whether monolinguals can employ a similar strategy with same-language prototypical color words.

Based on the pilot data, we predict that bilinguals will use Spanish as a strategy to reduce the Stroop effect in response-eligible trials relative to the baseline sessions and the reduction will be larger on response-eligible trials, and same-language alternative words could possibly aid monolinguals and bilinguals similarly, albeit to a lesser extent than the Spanish labels. Data collection on the new experiment has begun, and we anticipate having 20 participants per group by January, at which time analyses can be conducted.

Figure 1. Reaction times on Stroop manual response task

Mean Reaction times on Stroop interference task split by response-eligible and – ineligible. Monolinguals reliably show a response-eligible x trial type interaction whereas Spanish-English bilinguals only show a main effect for trial type.
Figure 2. Experimental set-up for same-day 4-session Stroop study

References


**Listening in two languages: Temporal costs in auditory comprehension of code-switched speech**

*Daniel Olson (Purdue University)*

While bilingual language selection and separation is undoubtedly a complex task, bilinguals are exceedingly efficient at separating their two languages. For example, bilinguals rarely experience unintentional intrusions from their non-target language during oral production (e.g., Poulissee, 1999). Although unintentional switches are rare, intentional alternation between a bilingual’s two languages, known as *code switching*, is a common linguistic device used for a range of pragmatic and communicative functions in many bilingual communities (e.g., Zentella, 1997). As such, the cognitive mechanisms governing language selection must provide for both adequate separation of the two languages, as well as (nearly) simultaneous access during code switching.

While the production of code switches occurs nearly seamlessly in naturalistic speech, recent psycholinguistic research, drawing partially on cued language switching paradigms (e.g., Meuter & Allport, 1999), has demonstrated that producing language switches incurs a small temporal cost, generally in the range of tens of milliseconds. This cost has generally been shown to be asymmetrical, with bilinguals evidencing a greater delay when producing switches into their dominant language relative to the non-dominant (e.g. Meuter & Allport, 1999), although such costs are variable depending on individual (e.g. Costa & Santesteban, 2004) and contextual factors (e.g., Gollan & Ferreira, 2009; Olson, 2016).

While these findings have been crucial for theories of bilingual language selection and control, both research has largely focused on production and failed to consider comprehension of language switches.
(Linck, Hoshino, & Kroll, 2008; Litcofsky, Tanner, & van Hell, 2015). Stemming from competing theories of bilingual access (e.g., Green, 1998; Dijkstra & van Heuven, 1998), it is possible that bilingual listeners employ either bottom-up processing (i.e., “open ears”) or that they limit possible lexical competitors via top-down control.

The current study employs a visual world, eye-tracking paradigm to investigate the time course of auditory comprehension of language switches. Spanish-English (N = 25) bilinguals listened to auditorily presented sentence-lengthed stimuli, containing either switched or non-switched target lexical items. Target items (N = 33) were controlled for length, frequency rank, (non)loan-word and (non)cognate status, and semantic predictability. To ensure parallel conditions, target lexical items were spliced from non-switched utterances and inserted into the auditory stimuli to create both switched and non-switched realizations. Auditory stimuli were accompanied by time-locked, four-picture visual displays (Figure 1). Investigating the role of context, stimuli were presented in either more monolingual-like or bilingual mode (e.g., Grosjean, 2008). There were 8 resulting conditions (2 token types × 2 target languages × 2 language modes) and 6,600 tokens. Analysis focuses on reaction times, defined as the temporal delay from the auditory onset of the target to the first fixation to the corresponding image. Reference is made to switch costs, defined as the difference between non-switch and switch tokens.

Paralleling previous production-oriented research, overall results of the current study (See Figure 2) demonstrate asymmetrical switch costs, such that bilinguals incur greater switch costs when comprehending a switch into the dominant language than the non-dominant language. Furthermore, switch costs during comprehension are modulated by language mode. Results are discussed with respect to bilingual language selection mechanisms and theory in both production and comprehension.

Figure 1. Visual representation of stimulus presentation.

Figure 2. Switch costs, defined as the difference between switched and non-switched trials, by language dominance and language mode.
References


From complexification to simplification:

**Copula choice among Romani-Spanish bilinguals in Mexico**

Cristian Padure (INALCO), Stefano de Pascale (KU Leuven), and Evangelia Adamou (French National Centre for Scientific Research (CNRS))

Based on evidence from heritage speakers of Spanish in the US who generalize *estar* Silva-Corvalán (1986, 1994) argued that bilinguals tend to simplify alternatives. However, using a large sample from the Iberian Peninsula, Geeslin & Guijarro-Fuentes (2008) showed that bilingualism does not always lead to simplification. Adamou (2013) further demonstrated that bilingualism may lead to complexification of the L1. Specifically, it was shown that heritage speakers of Romani in Mexico developed under the influence of Spanish a distinction between attributive predications using the copula *si*, as in (1a), and the third person subject clitic pronouns, as in (1b), whereas Romani speakers from Europe only use the copula (Matras 2002, Elšík & Matras 2006).

(1) a. le jave musa bibiak *si* barbale
   DEF.PL children POSS.1SG aunt.DAT be.3PL rich
   ‘My aunt’s children are rich.’ (Adamou 2013: 1085)

b. o raklo=*lo* felis
   DEF.M boy=3SG.M happy
   ‘The boy is happy.’ (Adamou 2013: 1075)

In order to explore more systematically this phenomenon, 60 simultaneous and early sequential Romani-Spanish bilinguals from Veracruz, Mexico, responded to a copula choice task in Spanish (Geeslin & Guijarro-Fuentes 2008) followed by immediate translation of the target clauses in Romani (Adamou 2013). Age range 17-90 (M = 37.08; SD = 18.86). 35 Romani-dominant and 25 Spanish-dominant. All participants had similar low education levels and similar socioeconomic status.

A mixed-effects logistic regression, with “Mexican Romani copula” as response variable and “participant” and “experimental item” as random effects, reveals a significant effect of “Spanish copula”
variant, i.e., *ser* or *estar* ($\chi^2 = 13.67; \text{df} = 1; p < 0.001$), the “generation” of the participant, i.e., young (ages 17-22), middle (ages 23-45), old (ages 48-90) ($\chi^2 = 20.35; \text{df} = 2; p < 0.001$), and the interaction between “referent”, i.e., individual frame of reference (compared to itself) or class (compared to a class of referents), and “experience with the referent”, i.e., immediate (e.g., surprise) or ongoing ($\chi^2 = 12.25; \text{df} = 1; p < 0.001$).

Analysis of these results shows that sentences with *estar* are significantly more frequently translated in Romani using the clitics, but those with *ser* correspond to both the Romani copula and the clitics (in accordance with results in Adamou 2013); see Figure 1. Moreover, the youngest cohort of participants tends to prefer the clitic significantly more frequently than the other two generations, including for class referents; see Figure 2. More generally, the main linguistic predictor for the use of the Romani clitics is immediate experience with the referent for individual or class, but ongoing experience only for class; see Figure 3.

Our study brings new insights about simplification processes among bilinguals. It shows that after a first complexification process in the heritage language, a simplification of alternatives is ongoing in Romani, in particular among the younger, Spanish-dominant generation.

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**Figure 1.** Innovative clitic choice in Mexican Romani with respect to Spanish copula choice (1: *ser*; 2: *estar*)

**Figure 2.** Innovative clitic choice in Mexican Romani with respect to generation (1: young; 2: middle; 3: old) and referent (class or individual)

**Figure 3.** Innovative clitic choice in Mexican Romani with respect to referent (class or individual) and experience with referent (immediate or ongoing)
Cross-linguistic transfer of object clitic structures: a case of L3 Brazilian Portuguese acquisition

Alan Parma (Florida State University)

Background: This project investigates the acquisition of object clitics in L3 Brazilian Portuguese (BP) by Spanish speakers (L1 and/or L2). There are several differences in clitic structures between Spanish and BP, whereas English lacks such structures. The most relevant differences to the current study are the exclusive use of proclisis in BP, independent of verb tense (1), and the absence of clitic climbing in BP (2) (Galves, 2000). Also, BP has lost its third person accusative clitics, using, instead, either the strong pronoun or a null object construction (3) (Cyrino, 2006; Nunes, 2011). Montrul, Dias and Santos (2010) have already begun to describe the acquisition of such BP structures by Spanish speakers and to comprehend which of the currently available linguistic transfer models is the most useful in describing this process. However, in order to confirm their results, it is important to add another group of participants, a L1 English/L2 BP group, for comparison with the L3 groups, as well as to better control for the occurrence of object expression in BP by avoiding constructions with the third person clitics. This paper attempts to address these issues in order to add to the current literature on object clitic expression and comprehension by learners of BP as an L3.

Purpose: The main goal of this project is to provide a detailed analysis of production and processing of object clitic expression by BP learners. Specifically, this paper investigates which of the following cross-linguistic influence models best accounts for the acquisition of clitics in L3 BP: the L2-status factor (Bardel & Falk, 2007), which states that L2 is the solely source of transfer, working as a shield that prevents access to the L1; the Cumulative Enhancement Model (Flynn, Foley & Vinnitskaya, 2004), which claims that any of the previous known languages could be a source of transfer, if such influence has a positive effect on acquisition; or the Typological Proximity Model (Rothman, 2011), which states that the language more typologically close (or perceived as such by the learner) will be the one influencing the L3 interlanguage, resulting in either positive or negative transfer. This research design accounts for all of the models mentioned above by means of the control of the structures analyzed as well as the division of groups, which adequately addresses the particularities of each model.

Methodology: 30 participants, divided into four balanced groups, performed two tasks. The participant subgroups are: BP native speakers (control), L1 English/L2 BP, L1 English/L2 Spanish/L3 BP, L1 Spanish/L2 English/L3 BP. First, participants completed a production task in which they narrated a children’s story in BP. Participants were instructed to use the first person in order to elicit object clitics. The occurrence and frequency of clitics was measured. Second, the participants completed a self-paced reading task designed using Superlab. For the self-paced reading task, participants read sentences containing the object clitics in grammatical and ungrammatical sentences in BP, with the ungrammatical sentences reflecting constructions most similar to Spanish (4). Reaction times were measured in order to determine if learners perceived the sentences with Spanish clitic construction as such and, therefore, recognizes the ungrammaticality of the sentence in BP.

Results: The preliminary analysis indicates that Spanish speakers, independent of order of
acquisition, show similar results. In the production task, the Spanish speakers produced more instances of clitics than both the control and the L1 English/L2 BP group. Most of the errors indicate negative transfer from Spanish, such as placement of the clitic after the verb or occurrence of clitic climbing. The L1 English groups used more strong pronouns than the other groups. In the self-paced reading task, the Spanish speakers failed to identify the ungrammatical sentences as such, which also indicates negative transfer.

**Implications:** The results obtained thus far have robust implications for research in L3 acquisition. In particular, the current paper validates and provides further evidence in support of the Typological Proximity Model. Further analyses are currently underway with more participants in each subgroup.

**Examples**

(1) 
- a. Me telefonaram no trabalho. 
  CL1sg-dat called-at-work
- b. *Telefonaram-me no trabalho. 
  called-CL1sg-dat at-work
  “They called me at work”
- c. Ele está me esperando. 
  He is CL1sg-ac waiting
- d. *Ele está esperando-me. 
  He is waiting-CL1sg-ac
  “He is waiting for me”

(2) 
- a. Eu quero te contar uma coisa. I want CL2sg-dat tell-a-thing
- b. *Eu te quero contar uma coisa. I CL2sg-dat want tell-a-thing
  “I want to tell you something”

(3) 
- a. *Eu o entreguei para a Maria. 
  I CL3sg-ac handed to the Mary
- b. Eu entreguei ele para a Maria. 
  I handed it to the Mary
- c. Eu entreguei Ø para a Maria. 
  I handed Ø to the Mary
  “I handed it to Mary”

(4) 
- a. Ele / vai nos contar / um segredo / hoje à noite. 
  He is-going CL1pl-dat to-tell a secret today at night
- b. *Ele / nos vai contar / um segredo / hoje à noite. 
  He CL1pl is-going to-tell a secret today at night
  “He is going to tell us a secret tonight.”

**References**


**Global Accent in the Portuguese Speech of Heritage Returnees**

_Anabela Rato (University of Toronto) and Cristina Flores (University of Minho)_

The present study investigated whether heritage speakers (HSs) of European Portuguese (EP) who were born or moved to a German-speaking country before the age of eight years were perceived as native speakers of EP. Specifically, this study aimed to determine whether a change of linguistic environment, length of residence in a migrant context, length of residence in the country of origin before migration and after remigration, and age at return could predict the degree of (non)native accent in the heritage language. Thirty native Portuguese speakers assessed the global accent of 20 Portuguese-German bilinguals, five Portuguese monolinguals and five highly proficient German speakers of Portuguese as a second language (L2). The group of HSs comprised 17 speakers who returned to Portugal, and three speakers who lived in Germany. The results showed that listeners perceived a heavy global foreign accent in the speech of the L2 learners, while the monolingual Portuguese speakers were clearly perceived as native speakers of EP. The average HSs’ ratings were considerably closer to the monolinguals’, but they revealed more variation, which suggests that non-native suprasegmental and/or segmental traces may be perceived in their accent. Further analyses showed that the age at which the HSs emigrated was the only significant predictor, while length of residence in the host country and in Portugal were less predictive.

**A bilingual benefit in processing variation: Evidence for shared morphosyntactic representations**

_Pablo Requena (University of Montana) and Grant Berry (Pennsylvania State University)_

While it is well-established that native language structure affects second language acquisition, recent research has suggested that learning a second language has implications for the native language (Dussias & Sagarra, 2007, Schoonbaert et al., 2007). Reshaping of L1 categories is one of the many processes involved in restructuring the bilingual linguistic system (Pavlenko, 2011:246-8), and changes often emerge as subtle, yet consistent, patterns of variation (e.g., Shin & Otheguy, 2005; Otheguy et al., 2007) rather than major shifts in grammar (e.g., Silva-Corvalán, 1994). For example, processing literature reports facilitation in sites where both languages overlap (e.g. cognates) and interference where they diverge (e.g. homographs) (e.g., van Hell & Dijkstra, 2002; Midgley et al., 2011). In the current study, we utilize morphosyntactic variation in Spanish clitic placement to explore effects of bilingualism on native language processing. Spanish direct object clitics in complex verb constructions (V[+finite] + V[-finite, +transitive]) can variably be preposed (‘proclisis’; see 1a) or postposed (‘enclisis’; see 1b). Proclisis is preferred in Modern Spanish (i.e. OV), though tendencies vary by finite verb construction (Davies, 1995, Schwenter & Torres Cacoullos, 2014). In contrast, English only permits VO word order in analogous constructions.
If bilingual syntactic representations are shared and jointly influenced by language experience (Dijkstra and van Heuven, 2002; Schwartz et al., 2007; Gullifer et al., 2013; van Assche et al., 2009), then bilingual experience should facilitate processing of shared structures. More specifically, Spanish-English bilinguals should show facilitation relative to monolinguals on constructions with enclisis, since this structure overlaps in Spanish and English.

A self-paced reading task in Spanish was administered to Spanish monolinguals (N=20) and Spanish-English bilinguals (N=21) in Granada, Spain. A preamble (e.g., Marisa admira a Gabriel mucho ‘Marisa really admires Gabriel’) was followed by a target sentence with either proclisis (1a) or enclisis (1b), also manipulating three finite verbs (ir ‘to go’, querer ‘to want’, or tener ‘to have’) which have well-attested preferences towards one clitic position. The critical region was the preposition immediately after the VP (e.g., con ‘with’ in con atención, Lit. ‘with attention’).

Linear mixed effects models on trimmed response latencies suggest that tokens of ir ‘to go’ were processed more quickly than other verbs ($\beta = -16.16, t = -2.06$) and that enclisis was processed more slowly overall ($\beta = 24.25, t = 4.35$). Crucially, there was also an interaction between language and condition: bilinguals showed a processing advantage for enclisis ($\beta = -19.94, t = -2.61$; see Figure 1), as predicted. We interpret this finding in support of a language non-specific view of bilingual processing, where sites of structural convergence are particularly sensitive to linguistic experience.

Figure 1 Distribution of Response latencies by Condition and Language Background

\[\beta = -16.16, t = -2.06\] and \[\beta = 24.25, t = 4.35\]

\[\beta = -19.94, t = -2.61\]

$^a$Point ranges indicate mean response times +/- one standard deviation; vertical lines show medians
References


**Competing conflict leads to bilingual disadvantage: Performance on an explicit and implicit Simon task**

*Ana Rivera, Lise Abrams, and Lori Altmann (University of Florida)*

Objective: The purpose of our study was to examine the effects of bilingualism on performance in an implicit and explicit Simon task.

Participants and Methods: Participants included 56 bilingual and 57 monolingual healthy young adults. Participants completed linguistic and nonlinguistic Simon tasks with either implicit vs explicit instructions. Attending to the language/orientation was either implicit (when the task required naming the color) or explicit (when the task required naming the language or orientation). The linguistic stimuli were the color words ‘BLUE’, ‘GREEN’, ‘AZUL’, or ‘VERDE’ shown in black font, whereas the nonlinguistic stimuli comprised of blue and green rectangles. The directions for the implicit Simon task instructed participants to name the color of the presented stimuli, ignoring the competing conflict of either the language (English or Spanish) or orientation (vertical or horizontal). The directions for the explicit Simon instructed participants to indicate the language or orientation, ignoring the competing
conflict of the color of the stimuli. The dependent variables were the Simon Effect (Incongruent RT – Congruent RT) and the Global effect (mean of Congruent and Incongruent RTs).

Results: Results showed that bilinguals were significantly disadvantaged on the Simon effect when the stimuli was in written form (linguistic stimuli) for both implicit (naming the color) and explicit tasks (naming the language/orientation). Bilinguals had a larger Simon effect compared to monolinguals, but there was no significant difference between groups for global effects.

Conclusions: Results suggest a bilingual disadvantage on tasks that require any mode of language processing.

How is syntax borrowed? Evidence from Basque DOM

Itxaso Rodríguez-Ordóñez (Southern Illinois University Carbondale)

The debate as to whether syntax can be borrowed has spurred much scholarly inquiry among those who argue that syntax cannot be borrowed (Sankoff, 2002; Silva-Corvalán, 1998, 2008) and those who claim that anything can be borrowed (Thomason, 2007). Such debate is contingent upon those who strictly consider syntactic borrowing feature transfer (Sauter, 2002; Montrul, 2016) or among those who argue that grammar gets borrowed or/and adapted (Bybee 2008; Heine and Kuteva, 2010). In contribution to this debate, this study aims to explore the contact-induced processes that have given rise to the variation of Basque Differential Object Marking (DOM) as a contact phenomenon from Basque-Spanish leísmo.

Basque DOM has been characterized to share 2 syntactic similarities with Basque-Spanish leísmo (Odria, 2014; Fernández and Rezac, 2016): structural dative marking and case agreement of pronominal clitics (Ormagazabal and Romero, 2013), as shown in 1-2. We use methodologies in SLA and sociolinguistics by asking 88 Basque-Spanish bilinguals (natives, early sequential bilinguals (ESB) and L2-speakers of Basque) to participate in a bi-dialectal acceptability judgment task (AJT) containing 16 target DOM sentences with 3rd person human specific objects and oral interviews in Basque (42 speakers of Gernika Basque and 46 speakers of Standard Basque) and Spanish. A number of ANOVAs and mixed-effects models were performed in R.

Results in the AJT show that native speakers rarely accept DOM whereas intermediate L2 speakers overwhelmingly accept DOM. Oral results show that native speakers from Gernika and L2-intermediate speakers produce significantly more Basque DOM than early sequential bilinguals and L2 advanced speakers (Standard Basque) and also at the same rate (~35%). However, the linguistic factors that shape the variation on Basque behind both groups are different; ESB and L2-advanced speakers rarely produce Basque DOM, showing only an interaction between animacy and specificity. The use of Gernika Basque DOM among natives was constrained, beyond animacy and specificity, by person and number, borrowed verbs from Spanish and null objects. L2-intermediate speakers used DOM with all objects, and favored them with null objects. It is proposed that Basque DOM in L2 speech is an example of direct transfer or polysemy copying, whereas native speakers are argued to evidence a process of replica grammaticalization (Heine and Kuteva, 2010) in which contact features and typological constraints work interactively.

In conclusion, it is argued that Basque DOM a replication of additive use patterns in already existing forms. This means that the function of dative (not the form) is being transferred into Basque (following patterns in Spanish). Furthermore, it is claimed that when Spanish verbs are being borrowed, the formal features attributed with such verbs [+human] are being transferred into Basque with the aid of common mechanisms of Agree/Case. This means that the lexicon property of syntax fuels the transfer of syntactic borrowing. However, the change in linguistic constraints that occur from L2-intermediate to advanced speakers is explained through the view that grammatical knowledge is an ‘automatized behavior’ (Bybee, 2008), that is, Basque L2-speakers adapt their grammatical abstractions over their cumulative experience with Basque.
EXAMPLES: DIFFERENTIAL OBJECT MARKING (DOM) IN BASQUE AND SPANISH

Standard Basque (canonical – non-DOM)
(1a) Ni-k Mikel-ø ikusi d-u-t
 I-ERG.1sg Mikel-ABS.3sg see ABS.3sg-have-ERG.1sg
 ‘I have seen Mikel’

Standard Basque (innovative DOM)
(1b) Ni-k Mikel-eri i ikusi d-i-ø-t
 I-ERG.1sg Mikel-DAT see ABS.3sg-have-DAT.3sg-ERG.1sg
 ‘I have seen Mikel’

Standard Spanish
(2a) lo he visto (a Mikel)
 Cl.ACC.3sg have-I.sg to see-PART-(DOM Mikel)
 ‘I have seen Mikel’

Basque-Spanish leismo:
(2b) le he visto a Mikel
 Cl.DAT.3sg have-I.sg to see-PART-(DOM Mikel)
 ‘I have seen Mikel’

References


L1 maintenance in young Spanish heritage speakers: The role of delayed L2 English exposure

Estrella Rodríguez, Kristina Bustamante, Carla Wood, and Gretchen Sunderman (Florida State University)

Heritage speakers of any language are an interesting group to investigate because of their diversity. Literature on young heritage speaker development of grammatical features demonstrates variability in
production patterns and instances of cross-linguistic interactions (Bedore & Peña, 2008; Dunn Davison & Scheffner Hammer, 2012; Kohnert, Bates, & Hernandez 1998; Rothman et al., 2016). Research on the developing grammar of heritage speakers who are beginning instruction in the social majority language is also emergent and limited on specific shifts that may occur from one academic year to the next (Carreira & Kagan, 2011; Montrul, 2016).

This study compares young heritage grammatical production from kindergarten to grade 1. Structures of interest included an early acquired structure common to both L1 (Spanish) and L2 (English), the present progressive with copula plus present participle. The study also documents production of later acquired structures; L2 English passive voice and L1 Spanish subjunctive, as passivity and mood traditionally represent challenging categories in the heritage grammar (Marinis & Saddy, 2013; Montrul, 2009; Montrul & Perpiñán, 2011). We investigated how young heritage production differed within and across languages for the early acquired structure as well as for the late acquired ones between kindergarten and first grade.

Grammatical forms were elicited from a group of Spanish heritage children (n = 46) using the morphosyntax subtest of the Bilingual English-Spanish Assessment, BESA (Peña, Gutiérrez-Clellen, Iglesias, Goldstein, & Bedore, 2014). A cross-sectional design was used with 25 participants in kindergarten and 21 in first grade. All children spoke Spanish at home and attended rural schools where English was the language of instruction. We controlled for amount of input, L2 environment and socio-economic status. Participants were assessed on a variety of normative measures; English and Spanish receptive vocabulary (English PPVT-4, Spanish TVIP), English reading readiness (WJRMT) and non-verbal intelligence (PTONI).

Data was collected in September of the kindergarten year, and again in September of Grade 1. Research findings indicated children produced more target structures in L1 Spanish (Konhert, Bates, & Hernandez, 1999). Not surprisingly, they also produced more of the earlier developing targets (Montrul & Perpiñán, 2011; Rothman et al., 2016) compared to the complex L1 subjunctive and L2 passives. There was some evidence of competition between the two languages. The structurally similar form (present progressive) was inconsistent after one year of formal instruction in the L2. English input was not found to inhibit accuracy or productivity of the complex L1 subjunctive target, as subjunctive production increased from kindergarten to Grade 1. This project supports the view sequential bilingualism may assist heritage speakers in L1 maintenance (Miller & Cuza, 2013; Pascual y Cabo & Gómez Soler, 2015).

Developmental patterns observed in L2 English from one academic year to the next will also be discussed.

References


Factors mediating language dominance in the phonetics of Spanish heritage speaker productions

Christine Shea (University of Iowa)

Bilinguals differ from each other along many dimensions, such as the timing of bilingualism (from birth vs. later in life) as well as their use of each language for different purposes and with different people (e.g., Grosjean, 2008). The knowledge bilinguals develop of their languages is tied to the use they make of each. Thus, of crucial interest to bilingualism researchers is how these differences can be characterized and how notions such as dominance apply to bilinguals as a group. In the present study we address this issue by examining how language dominance at the level of phonetics is modulated by individual differences in language use, language experience, proficiency and self-identity in Spanish heritage speakers.

Participants were 28 Spanish heritage speakers enrolled in a Spanish for Heritage Speakers undergraduate course at a Midwest American university (14 women).

We operationalized language dominance by calculating the degree of overlap in participants’ English and Spanish vowel systems. The degree of overlap was measured by means of the Pillai score (Hay et al, 2006). The Pillai score is part of the output for MANOVA models, which model variation with respect to more than one dependent variable simultaneously, in this case, F1 and F2. The higher the Pillai score, the greater the difference between the two distributions with respect to these dependent variables (Nycz & Hall-Lew, 2014). To collect the data for the vowel analysis, participants read a list of words in English and in Spanish from which we extracted F1 and F2 values for monophthongs and diphthongs. We hypothesized that greater overlap in the direction of Spanish values would suggest Spanish-influence on the vowel system of English while the opposite would hold in the case of greater overlap in the direction of English.

We hypothesized that various factors would contribute to the degree of overlap (whether towards Spanish or English values) in vowel production across speakers. To investigate this, participants carried out four different tasks that measured distinct aspects of linguistic knowledge and skill, in both English and Spanish. Fluency was measured by means of a monologue task for which participants responded to two prompts that referred to family/childhood topics or college/adult topics (“Talk about your favorite food” vs. “What is the most interesting thing you have learned in your major?”). We measured lexical complexity, pauses (greater than .25ms) and grammatical complexity in a 30 second sample. Vocabulary was measured with a standardized vocabulary test. Word retrieval was measured by means of a picture-naming task and articulatory speed was measured with a timed word-reading task. Finally, participants also provided information on language use patterns – namely, context of use for each language, self-identification, language background and age of acquisition. We created a standardized variable for each of these factors.

Since many of our predictors were potentially correlated (e.g., higher vocabulary scores may
contribute to greater fluency on the adult monologue tasks), we carried out a commonality analysis to understand the common and unique contributions of the language knowledge and skill variables to the Pillai scores. Data analysis is ongoing.

The results from this study will add to work on dominance and proficiency measures in heritage speakers by determining how the four measures uniquely contribute to and mediate each other in the phonetic system of Spanish heritage speakers.

References


Asas da Florestania: Languages and Cultures at Play in the Forest-Based Citizenship Literacy Program in Brazil

Silvia Sollai (Florida State University)

This paper describes how Asas da Florestania, a one-of-a-kind federal, state and municipal initiative, has gained United Nations Educational, Scientific and Cultural Organization (UNESCO) recognition for its startling ability to reduce illiteracy among children in school age in the state of Acre, one of the most remote indigenous reserves states northwest Brazil. Forest-dependent, Acre’s identity is a melting pot of traditional and hybrid cultures, sustainable rubber tapping advocates, indigenous land claimers, and Haitian refugees, where languages and literacy converge to legitimate the Brazilian linguistic and cultural diversity so as to eradicate illiteracy. The neologism Florestania combines the words forest (floresta) and citizenship (cidadania) in Portuguese, as in “forest-based citizenship”. This innovation is funded by communication mogul Rede Globo and the World Bank (Brasil, 2006; Souza, 2013). Despite population underrepresentation and scaling-up limitations, riverside indigenous communities, hardly accessible, count on their own students to be educational agents of the Asinhas da Florestania – little wings earliest grades, forest-based content material to promote meaningful learning, and home- based teaching visits as an anthropological approach to literacy (Cardia, Alves, Gomes, & Mourão, 2016). The results show movement of education decentralization in Brazil, where it is the state’s responsibility to a) guarantee ongoing training on the program methodology; b) supply didactic and pedagogical material; c) organize and maintain a partnership management with the municipalities; and d) monitor and evaluate agents and supervisors, and the municipalities’ responsibility to a) mobilize communities to implement the program; b) enroll the children; c) assist agents and supervisors in designing activities for the children; d) carry out regular pedagogical support; and e) maintain a municipal coordination.

References


It has been reported that in the speech of English-Spanish bilinguals, Spanish determiners with English nouns (el book) are preferred over English determiners followed by Spanish nouns (the libro) (e.g. Liceras, Fernández Fuertes, Perales, Pérez-Tattam & Spradlin, 2008; Moro 2015). These findings were argued to support a generativist view of feature spell-out where the language with the richest array of ‘uninterpretable phi features’ provides the surface realization of the functional category. Since the Spanish determiner carries two uninterpretable features (gender and number), it will be dominant. An alternative account is provided by the Bilingual NP Hypothesis within the Matrix Language Frame Model (MLF, Jake, Myers Scotton & Gross 2002), stating that determiners in mixed nominal constructions should come from the matrix language of the clause. Under this view, Spanish determiners will surface in clauses with a Spanish matrix language and English determiners will surface in clauses with an English matrix language.

Herring, Deuchar, Parafita Couto & Moro Quintanilla (2010) tested the predictions of both accounts with spontaneous data from Spanish-English and Welsh-English bilinguals. The generativist account was successful in explaining all their Welsh-English data and most of the Spanish-English data. However, when they examined the language of the verb in the clause containing the mixed nominal constructions as part of the process of testing the MLF model, they observed that the success of the generativist account was due to the fact that the language of the verb was almost always Welsh or Spanish, i.e. a language with grammatical gender. In the small number of clauses where the finite verb was in English, an English determiner was usually found, contrary to generativist predictions. It is possible then that if Spanish determiners are more frequent than English determiners in production data, it may just be because of the greater frequency of clauses with Spanish as a matrix language in the datasets that have been studied. Hence, more controlled studies are called for to be able to provide objective evaluation of the predictions from these two mainstream theoretical accounts of code-switching.

We set out to test the acceptability of sentences built to present different combinations of determiner and nouns, within a set syntactic frame. Twelve base sentences (Subject + Verb + Determiner + Noun) were modified into code-switched forms according to the following patterns (see table 1). In Experiment 1, the resulting 48 code-switched sentences were evaluated by 40 early English/Spanish bilinguals using a 5-point Likert Scale regarding how “permitted” a sentence was according to the way they would speak to or hear from another bilingual person. In Experiment 2, a separate sample of 40 bilinguals were successively presented with pairs of sentences in all possible permutations and had to decide which member of a pair was closer to the way they would speak to another bilingual person (i.e. a Two-Alternative Forced Choice task or 2AFC). These choices were then analyzed using Thurstone’s (1927) Law of Comparative Judgments, which yields a ranking of preference for the different constructions, as well as the relative distance between them along an interval scale.

Results for both experiments are presented in Table 2. Patterns B (MLF+/MP+) and C (MLF+/MP-) exhibit the highest acceptability in both experiments with no significant difference between them in either experiment (all ps > .6). Acceptability for patterns A and D was significantly lower (all ps < .05 in both experiments). For the Likert Scale results there was no difference between patterns A and D (p =.9), but that difference was significant (p < .001) for 2AFC data, which typically yields greater discriminability between conditions (Stadthagen-Gonzalez, López, Parafita, & Párraga, submitted). The overall pattern of results offers converging evidence in support of the MLF’s predictions. Theoretical implications of our results will be discussed.
Table 1: Patterns of Code-Switched Sentences and Examples

**Pattern A** MLF-/MP+: Sentences that follow the predictions of the Minimalist Program but not the Matrix Language Frame; \(V_{En} + D_{Sp} + N_{En}\) E.g.: *Edgard wanted estos shoes*

**Pattern B** MLF+/MP+: Sentences that follow the predictions of both models; \(V_{Sp} + D_{Sp} + N_{En}\) E.g.: *Edgar quería estos shoes*

**Pattern C** MLF+/MP-: Sentences that follow the predictions of the Matrix Language Frame but not the Minimalist Program; \(V_{En} + D_{En} + N_{Sp}\) E.g.: *Edgar wanted these zapatos*

**Pattern D** MLF-/MP-: Sentences that do not follow the predicted pattern from either theory; \(V_{Sp} + D_{En} + N_{Sp}\) E.g.: *Edgar quería these zapatos*

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Condition</th>
<th>Structure</th>
<th>Example</th>
<th>Thurstone’s Measure</th>
<th>Likert Rating (S.D.)</th>
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<tr>
<td>B</td>
<td>MLF+/MP+</td>
<td>(V_{Sp} + D_{Sp} + N_{En})</td>
<td>Edgar quería estos shoes</td>
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<td>2.96 (0.67)</td>
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<td>C</td>
<td>MLF+/MP-</td>
<td>(V_{En} + D_{En} + N_{Sp})</td>
<td>Edgar wanted these zapatos</td>
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<td>D</td>
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<td>Edgar quería these zapatos</td>
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References


**Noun-movement, Economy and the Acquisition of Word Order in Child Spanish DPs**

*Emma Ticio (Syracuse University)*

The current study examines the acquisition of word order in Child Spanish nominal expressions. The data come from the longitudinal spontaneous data of a group of monolingual (n=2) and bilingual (n=12) children. The results attest to the lack of non-target production in monolingual Child Spanish and the divergence in word order pattern acquisition by bilinguals, and are consistent with previous research that found that bilingual children acquiring a Germanic and a Romance language simultaneously may pass through a stage of non-target placement, especially in their Romance language (cf. Volterra and Taeschner, 1978; Cardinaletti and Giusti, 2010; or, more recently, Rizzi et al., 2013). Furthermore, the production in
the bilingual group is not uniform and only 7 subjects out of the 12 bilingual participants examined in this study do produce non-target word order in their combinations. The non-target word order production ranges from 2% to 23%, with the non-target productions appearing with both pre-nominal attributive adjectives and prepositional phrases (See examples in (1) and individual results in Figure 1).

This intragroup difference in the bilingual group rules out explanations of the non-target word order production based on external factors, such as input constraints (i.e., related to the language dominance hypothesis (cf. Kupisch, 2007; Serratrice, Sorace, Filiaci and Baldo, 2009; Yip and Matthews, 2009, among others), due to the lack of relation between MLUw, linguistic environment and non-target production in the group. In addition, explanations entirely based on the grammatical properties of the constructions (cf. the Interface Hypothesis (Sorace, 2006; Sorace and Serratrice, 2009; Sorace, 2011), for instance) cannot accommodate the fact that not all members of the bilingual group perform similarly. Given that neither input frequency nor construction properties per se seem to fully accommodate the data at hand, the study explores the possible impact on the target-deviant word order of the notion of Economy of Derivation.

Since Cinque (1994), syntactic theory has assumed that the availability of noun displacement to a superior position in Romance languages not only explains the apparent optionality in the Adjective-Noun order (cf. (2a-b)) but also the fixed order in the Noun-Preposition Phrases string (cf. (3a-b)). From an acquisitional point of view, the possibility of having noun-movement must pass by the possibility of projecting enough functional categories to accommodate the different positions needed for the operation undergone by the noun to take place and by the syntactic development that enables the child to take on more-complex operations.

Assuming that Economy reasons partially guide the process of language acquisition, pre-nominal modifiers are then less demanding and should then be preferred by children in some circumstances. It is assumed that the child adopts a conservative position (cf. Snyder, 2007 for the prospect of an initial stage of conservatism in monolinguals) and applies the most economical analysis (i.e., the simplest derivation coherent with the empirical possibilities offered in the input and contained in Universal Grammar) until s/he detects the trigger for Case and incorporates it within the Spanish system. At that point, the word order in modifiers follows target production, unless a severe decrease in input undermines this.

To the extent that it is correct, the analysis supports some previous studies pointing to the importance of Economy of Derivation in the process of language acquisition in bilingual children (Anderssen and Westergaard, 2010; Bernardini, 2003; Paradis and Crago, 2001, among many others). It also follows claims within the Minimalist Program (Zuckerman, 2001) that state that children only make mistakes when the resulting structure is less costly in terms of movement rules. Our result that the bilingual children prefer pre-nominal orders is compatible with this view.

Examples:

(1) a. *mi malo lobo (Leo, 3;0)
   my bad wolf
b. *un pequeño pupa (Sim, 3;0)
   a small booboo
c. *Dora el mono (EMP, 2;7)
   Dora the monkey
   ‘Dora’s monkey’
d. *mano mama (Sheila, 2;8)
   hand mom
   ‘mom’s hand

(2) a. Det—Adj1—N       Germanic languages
b. Det—N—Adj1—tn       Romance languages

(3) a. [DP D [poss[agent[N theme]]]]
b. [DP D N [poss tn [agent [ tn theme]]]
Subject position in Spanish as a heritage language: Interface vulnerability and cross-linguistic influence

Brechje van Osch, Suzanne Aalberse, Aafke Hulk, and Petra Sleeman (University of Amsterdam)

Traditionally, subject position in Spanish has been argued to be constrained by two factors. The first factor concerns unaccusativity: subjects follow unaccusative predicates but precede unergative predicates.
(examples 1 and 2) (Suñer, 1982). The second factor relates to focus (Zubizarreta, 1998): in narrow presentational focus, the subject is placed after the verb, regardless of predicate type (examples 3 and 4). The Interface Hypothesis (IH) (Sorace & Serratrice, 2009) predicts focus, located at the external interface between syntax and discourse, to be more vulnerable in bilingual populations, than unaccusativity, which pertains to the internal interface between syntax and semantics.

Several studies have tested this hypothesis for English-dominant heritage speakers of Spanish (Montrul, 2005; Zapata et al., 2005; de Prada Pérez & Pascual y Cabo, 2012). A robust finding is an overgeneralization of preverbal subjects on part of the bilingual groups, due to cross-linguistic influence from English. However, the results of these studies do not provide a clear answer to the question which of the two factors, unaccusativity or focus, is more vulnerable. Furthermore, the attested monolingual patterns are not consistent and often do not correspond to what theoretical grammars predict. This may be due to overlooked confounding variables such as verbal aspect, animacy, definiteness and heaviness of the subject, as suggested by Roggia (2011).

The present study compared heritage speakers (N=17) of Spanish with Dutch as their dominant language to monolingual Spanish speakers (N=18). An acceptability judgment task tested effects of predicate type (unergative vs. unaccusative) and focus (broad vs. narrow) and included definiteness of the subject as an additional explanatory variable. The items were controlled for aspect, animacy and subject heaviness.

A mixed effects model revealed that, apart from previously documented effects of unaccusativity (p<0.05), and focus (p<0.001), definiteness proved a significant predictor for word order in monolingual Spanish: postverbal subject were more likely to be indefinite (p<0.01). The same analysis on the heritage speakers’ data rendered significant effects of unaccusativity (p=0.01) and focus (p<0.05), but not definiteness (p=0.31). These results demonstrate that heritage speakers have knowledge of both unaccusativity and focus. At the same time, they lack monolingual-like knowledge of the effect of definiteness on subject position. Given that definiteness is related to information structure, pertaining to the external interface between syntax and discourse, we interpret the finding as tentative support for the IH.

Interestingly, unlike English-dominant heritage speakers, the Dutch-dominant heritage speakers in the present study overgeneralized postverbal subjects (p<0.01). We relate this finding to the relatively more frequent occurrence of postverbal subjects in Dutch. Dutch is an SOV language with V2, which means that in root clauses only one constituent can precede the finite verb. Therefore, whenever the first position of the clause is filled by an adverb, the subject follows the verb (example 5).

We are currently running the same experiment with heritage speakers in the US. The results obtained through this study will allow us to investigate whether heritage speakers in the US resemble their Dutch peers concerning their knowledge of the effects of unaccusativity and focus and the vulnerability of definiteness. Moreover, these results will enable us to confirm the putative differential cross-linguistic influence of Dutch and English on subject position in heritage Spanish.

Examples:

(1) UNACCUSATIVE ¿Qué pasó? Llegó Juan.
What happened? Arrived John
(2) UNERGATIVE ¿Qué pasó? Juan gritó.
What happened? John screamed
(3) UNACCUSATIVE ¿Quién llegó? Llegó Juan.
Who arrived? arrived John
(4) UNERGATIVE ¿Quién gritó? Gritó Juan.
Who screamed? Screamed John
(5) Toen liep de jongen naar het huis.
Then walked the boy to the house.
Graphs:

Figure 1: Monolinguals’ and heritage speakers’ mean ratings on SV and VS orders in all conditions.

References


L1 and L2 Processing of Lexical and Grammatical Aspect in Spanish

Elena Vogel (Florida State University)

The ability to comprehend temporal reference is fundamental to human language and cognition. Thus, skilled language comprehension requires sensitivity to grammatical cues such as verbal aspect. For L2 Spanish learners, however, (im)perfective aspect has the reputation of being particularly difficult and late
acquired (Montrul & Slabakova, 2002). Although the topic of L2 production of aspect has been heavily researched (i.e., Andersen & Shirai, 1996; Bardovi-Harling & Reynolds, 1995), little is known about L2 comprehension of aspect. Consequently, this study uses psycholinguistic methods to shed light on our understanding of L1 and L2 processing of aspect in Spanish.

The present study reports the findings from two experiments (N= 93; 30 intermediate L2 learners, 32 advanced L2 learners, and 31 native Spanish speakers). The first experiment is a self-paced reading task, which examines how native and non-native speakers detect aspectual mismatches between logical and illogical sentences. The second experiment is a forced binary choice sentence-picture matching task, which considers how aspect restricts the mental representation of the endpoint of a situation. Overall, these two main experiments investigate how native and non-native speakers process both lexical aspect (i.e., verb type) and grammatical aspect (i.e., the linguistic representation of an event).

Results from the self-paced reading experiment revealed that (a) L1 speakers significantly outperformed L2 learners in distinguishing between logical and illogical sentences, and (b) L2 learners were less accurate to respond to sentences containing substantial morphosyntactic constructions. These results suggest that the L2 learners demonstrated some shallow processing (Clahsen & Felser, 2006), as they showed difficulties in comprehending morphosyntactic information. Results from the sentence-picture matching experiment demonstrated that (a) all three participant groups were most accurate in responding to the perfective accomplishment condition, and (b) the L1 speakers processed perfective accomplishments faster than any other condition. These results combined suggest that there was a perfective facilitation effect for accomplishment verbs, therefore supporting the Aspect Hypothesis (Andersen & Shirai, 1996), which predicts that accomplishments are applied to perfective aspect early in development.

References


An example of the experimental procedure for Experiment 1 is shown below in Figure 1:

Figure 1. Self-Paced Reading: Non-cumulative phrase by phrase segmentation

1. __________ __________ __________ __________ __________
2. El equipo
3. __________ __________
4. __________ contra
5. __________ __________ los rivales
6. __________ __________ __________ pero
7. __________ __________ __________ __________ __________
8. __________ __________ __________ __________ __________ __________ en los últimos minutos
9. __________ __________ __________ __________ __________ __________ __________ del partido.

Comprehension check: Is this sentence logical? Yes or No

The illogical version of this sentence reads as:

*El equipo perdió contra los rivales, pero ganó en los últimos minutos del partido.
An example of the experimental procedure for Experiment 2 is shown below in Figure 2:

**Figure 2. Forced Binary Choice Sentence-Picture Matching Task**

A. Presentation of a sentence containing either perfective or imperfective aspect:

El niño hacía un hombre de nieve.
The boy make-IMP a snowman
‘The boy was making a snowman.’

B. Presentation of a pair of pictures depicting an on-going event (on the left) versus a completed event (on the right):

C. Participant decides which picture best matches the sentence

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**How Spanish-English bilinguals produce code-switched sentences: An acoustic analysis**

Delaney Wilson, Marianna Nadeu, and Janet van Hell (Pennsylvania State University)

Code-switching, alternating between multiple languages in an utterance as in “the boy ate la pera en la cocina”\(^1\), is a hallmark of bilingualism and shows that bilinguals keep both languages active. While there is a substantial body of research on the interaction between a bilingual's syntactic systems during code-switching, only a few studies have specifically examined the interaction between a bilingual's phonetic systems during the production of code-switched speech.

Voice onset time (VOT) is the length of time between the release of a stop consonant and the onset of voicing. Recent studies have shown that Spanish-English bilinguals show significantly longer VOTs while naming unrelated pictures during switched trials\(^2\) than during non-switch trials and that their language-switched speech was “more accented”\(^3\), indicating that switching induces a difference in phonetic output. Since both of these studies focused on language switching during single picture naming, we employed a sentence creation task to see if VOT lengths are also present in more naturalistic code-switched sentences.

Languages differ in the types of VOT they use to implement contrasts, i.e., English is a long-lag language, meaning that the VOTs of voiceless stops in English are longer than the shorter stops found in Spanish. The interaction of the two phonologies potentially leads to a transfer of VOT patterns in code-switched speech. The present study is an acoustic analysis of voiceless stop VOTs (focusing on word-initial /p/ and /t/) in switched and non-switched sentences. The outcomes provide insight into how a meaningful sentence context may affect the phonetic realization of code-switched words embedded within this sentence.

A previously used experimental technique\(^4\) was adapted to elicit code-switched sentences. Pictures contained two images (the subject and object in the target sentence), each circled in a separate color for a code-switched sentence. The colors indicated in which language each should be referenced. There were four language conditions: a switched sentence from Spanish to English, a switched sentence from English to Spanish, a single-language English sentence, and a single-language Spanish sentence. Target words could appear before or after the language switch. Single-language sentences were presented in separate blocks and were not color-coded.

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‘The team lost against their rivals, but won in the last minutes of the game.’
Twenty-four Spanish-English bilinguals were tested at the University of Granada, Spain. The data of 11 participants were analyzed, based on their language proficiency scores for Spanish and English (DELE and MELICET). Forty-eight tokens were selected (2 languages*2 consonants*12 words). A total of 6,336 tokens (48 target words*2 conditions (unilingual, code-switch)*2 positions (before, after switch)*3 repetitions*11 participants) were collected and 5,696 were analyzed.

Preliminary results show that English VOTs are longer than Spanish VOTs, which was expected. Pre-switch and initial target positions tend to be longer than their post-switch counterparts, but not significantly so. No significant difference manifested between code-switching and unilingual trials. While this suggests that there is no tangible anticipatory or carryover effect on VOT during code-switched sentences in naturalistic speech, it does show that bilinguals are capable of producing a distinction between the differences in VOT length within languages.

Figure 1: Example of a switch trial. Color indicates language in which the word has to be produced. A likely sentence for this image would be “The family watches the tele” or “The family watches la tele”.

References


Young Spanish-English heritage speakers and e-book instruction effect through L1 activation

Carla Wood, Lisa Fitton, Yaacov Petsher, Estrella Rodriguez, Gretchen Sunderman, and Tehyeong Lim (Florida State University)

This study aimed to examine the effect of an intensive vocabulary intervention embedded in e-books on the vocabulary skills of young Spanish-English heritage speakers from low SES backgrounds. There is presently limited research on the vocabulary acquisition patterns of young heritage speakers. Moreover, heritage studies have started to receive attention in recent years, given that heritage speakers of all ages constitute a large heterogeneous group, neither entirely traditional native nor identical to second language learners in linguistic performance (Montrul, 2016).
A sample of kindergarten and first grade heritage children (n = 288) were randomly assigned to treatment and read-only conditions. All children received e-book readings approximately 3 times a week for 10-20 weeks using the same books. Children in the treatment condition received e-books supplemented with vocabulary instruction that included scaffolding through explanations in L1 Spanish, repetitions, checks for understanding, and highlighted morphology (Leacox & Wood Jackson, 2014; Lugo-Neris, Wood Jackson & Goldstein, 2010). Children were required to interact with the text (i.e. click on the ladder). Children in the read-only condition read the corresponding e-book in L2 English with no explanations in Spanish.

We included Spanish scaffolding in the treatment condition, since at beginning stages of second language learning, the first language (L1) is active and competing in comprehension and production tasks (Dufour & Kroll, 1995; Kroll & Stewart, 1994; Sunderman & Kroll 2006; Talamas,Kroll & Dufour 1999). All children were living in the United States at the time they received the e-book vocabulary intervention. They were tested on an expressve vocabulary task containing e-book word targets at the beginning and at the end of the e-book period (pre/ post measures). Children were also administered a standardized test of receptive English vocabulary, the PPVT-4 (Dunn & Dunn, 1981) pre- and post-intervention. Results indicated there was a modest main effect of the intervention on expressive labeling (g = .38) and vocabulary on the PPVT (g = .14) with no significant moderation effect of initial PPVT score.

Though different subgroups of the sample may have responded differently to the intervention, these findings support the effectiveness of computer enhanced instruction for increasing young heritage speakers’ vocabulary knowledge in the social majority language for school success (Leacox & Wood Jackson, 2014). The study also points at the importance of using the L1 as a promising approach to facilitate word learning in English L2 children of kindergarten and first grade.

References

VENUES AND MAPS

Conference location:
William Johnston Building
631 University Way, Tallahassee, FL 32306

Directions from Aloft Tallahassee Downtown hotel to William Johnston Building:

Aloft Tallahassee Downtown hotel
200 N Monroe St, Tallahassee, FL 32301 (850) 513-0313

There are many ways to get from Aloft hotel to William Johnston Building. Here is how you can walk from the hotel to the conference building:

- Walking distance – 21 min.
- Head south on N Monroe St toward E Call St
- Turn right onto E Call St
- Turn left onto Convocation Way
- Turn right onto University Way
You can also take public transportation

- Download Transloc Rider App to be able to use public transportation
- Choose the routes and the apps will allow you to follow the buses
- Azalea (A) bus, Canopy (C) bus run on Monday-Friday, 6:00 a.m.-7:30 p.m., on Tennessee St
- Azalea (A) bus runs on Saturday, 7:10 a.m.-7:30 p.m.
- On Sundays buses do not run.
- Bus stops are marked with the sign
Restaurants and coffee shops in Tallahassee

Distances are from the William Johnston Building on FSU’s campus, where the conference will be held. Please note that many of the restaurants offer both lunch and dinner items. Locations marked with (V) have multiple vegetarian options.

Coffee/Breakfast

The Sweet Shop (0.1 mi, $)
701 West Jefferson Street
*Coffee, tea, Breakfast, Sandwiches*

Starbucks (0.4, $)
608 W Tennessee Street
*Coffee, Snacks*

Catalina Café (0.8 mi, $)
603 W Gaines Street #6
*Coffee, tea, Breakfast, Sandwiches*

The Crepevine (1.0 mi, $)
809 Railroad Avenue

Coffee, Crepes (V)

Lucky Goat Coffee (1.9 mi, $)
1307 North Monroe Street
*Coffee, Tea, Snacks*

Black Dog on the Square (1.1 mi, $)
567 Industrial Drive
*Coffee, Tea, Snacks*

Lunch/Dinner

Chick-fil-A (0.0 mi, $, closed Sunday)
127 Honors Way, Johnson Annex Building
*Chicken, Fast food*
Suwannee Room (0.0, $)
143 Honors Way
*Dining Hall, American, Buffet*

Chili’s (0.4 mi, $)
196 Academic Way
*American, Grill*

Pitaria (0.5 mi, $)
631 W Tennessee Street
*Greek (V)*

Gaines Street Pies (0.8 mi, $)
603 W Gaines Street #3
*Pizza (V)*

Merv’s Melts (0.9 mi, $)
825 Railroad Avenue
*Sandwiches, Breakfast, Burgers (V)*

Bread and Roses (1.0 mi, $)
915 Railroad Avenue
*Southern (V)*

Zoë’s Kitchen (1.2 mi, $)
1670 W Tennessee Street #1
*Mediterranean (V)*

El Cocinero (1.3, $$, closed Sunday)
402 E Tennessee Street
*Tacos, Steak, Drinks*

**Dinner**

Harry’s (1.0 mi, $$$)
301 South Bronough Street
*Seafood, Grill, Drinks*

Jasmine Cafe and Lounge (1.0 mi, $$)
100 East College Avenue
*Japanese, Sushi*

Avenue Eat + Drink (1.1 mi, $$)
115 East Park Avenue
*American, multi-cuisine*

Cypress (1.4 mi, $$$$; closed Sunday)
320 East Tennessee Street
*Fine dining, Southern*

Bella Bella (1.7, $$, closed Sunday)
123 East 5th Avenue
*Italian*

Masa (2.2 mi, $$$)
1250 North Monroe Street
*Asian, Japanese, Sushi (V)*

Midtown Caboose (2.2 mi, $$)
1406 North Meridian Road
*American, Burger, Sandwich (V)*

4 Rivers Smokehouse (2.7 mi, $$, closed Sunday)
1817 Thomasville Road #100
*BBQ*

El Jalisco (2.8 mi, $)
1022 North Monroe Street
*Mexican, Tex-Mex*

Mayuri (2.8 mi, $$)
1108 South Magnolia Drive
*Indian (V)*

Red Elephant (2.9 mi, $)
1872 Thomasville Road
*Pizza, Burgers, Sandwiches*

**Nightlife**

Madison Social (0.6 mi, $$)
705 South Woodward Avenue #101
*American, Bar Food, Drinks*

The Brass Tap (0.8 mi, $$)
699 West Gaines Street #110
*Bar Food, Sandwiches, Drinks*
Proof (1.2 mi, $$)
644 McDonnell Drive
Drinks

Fifth and Thomas (1.9 mi, $$$)
1122 Thomasville Road
Cajun, Southern, Drinks

Liberty Bar (1.9 mi, $$)
1307 North Monroe Street
Tapas, American, Drinks

The Fox & Stag (1.9 mi, $$, closed Sunday)
1122 Thomasville Road
Drinks
PARKING, TAXIS AND PUBLIC TRANSPORT

Parking for visitors at Florida State

(source: https://transportation.fsu.edu/parking/visitor)

Visitor Parking Lot: Visitor parking is available at the University Center next to the FSU Visitors' Center. Parking is $1.00 per hour with a max of $5.00 per day.

Metered Parking: Metered parking spaces are available throughout campus at a rate of $0.50 per hour.

Visitor Permits: Visitor parking permits are available for purchase at the TAPS office, located at 104 North Woodward Avenue (located in the FSUCard Center, entrance through the FSU Bookstore). These permits can be purchased for $3.25 (daily rate) cash or check. Visitor permits are allowed in any non-gated faculty/staff space as well as student spaces.

Daily visitor parking permits can also be purchased online using the following: https://transportation.fsu.edu/ebusiness/cmn/auth.aspx

Seminole Express Bus Service: FSU's bus service, Seminole Express, runs throughout campus and is also available for visitors free of charge. Visit the Seminole Express Bus Service page for more details:

https://transportation.fsu.edu/bus-service

Taxis

City Taxi ...........................................................(850) 575-7575
Discount Transportation......................................................(850) 764-2702
Capital City Transportation...................................................(850) 544-3582
Yellow Cab ...............................................................(850) 999-9999

City Bus services

www.talgov.com/starmetro/starmetroHome.aspx
http://www.talgov.com/starmetro/starmetro-rider-srvcas.aspx#dar
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### Important Phone Numbers

- BHL organizing committee (Antje Muntendam)…………………………….. (850) 408 1772
- Emergency…………………………………………………………………….. 911

### Wi-Fi Access

**FSUGuest:** FSUGuest is the university’s guest Wi-Fi network. It provides free, public Wi-Fi to visitors to the main campus. In order to use this network, users simply connect to the network and fill out the guest registration form on their device. **Eduroam** is also available.