

The Rutgers Center for Cognitive Science Presents
Current Investigations in Bilingualism

Saturday, April 14, 2018

At the Department of Philosophy (106 Somerset St, New Brunswick, NJ 08901)

Workshop Schedule

Abstracts follow

- 10:00-10:30** **Welcome, coffee and pastries**
10:30-11:15 **Talk 1**
 Matt Goldrick, Northwestern University
*Integrating discrete and gradient aspects of linguistic knowledge:
Insights from bilingualism*
- 11:15-12:00** **Talk 2**
 Krista Byers-Heinlein, Concordia University
*Is this baby bilingual?
Best practices for characterizing early language environments*
- 12:00-1:15** **Lunch** (King Pita Palace)
1:15-2:00 **Talk 3**
 Matthew Carlson, Penn State University
Explorations in the MultiGrammar
- 2:00-2:45** **Talk 4**
 Lisa Bedore, University of Texas, Austin
*Developmental Language Disorders in Two Languages:
Patterns of Typical and Impaired Development in Spanish English Bilinguals*
- 2:45-3:30** **Talk 5**
 Jennifer Austin, Rutgers University (Newark)
 Liliana Sanchez, Rutgers University (New Brunswick)
 Kristen Syrett, Rutgers University (New Brunswick)
Conversational Implicatures in Heritage and Child L2 Bilingualism
- 3:30-4:00** **Coffee break**
4:00-5:45 **Community Outreach Panel, featuring members of RU Bilingual**
 Discussion to follow
- 6:00-8:00** **Dinner** (Delhi Garden)
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Organized by Kristen Syrett (Associate Prof., Linguistics, RuCCS, Rutgers – New Brunswick)

Speakers, Titles, and Abstracts

Lisa Bedore, University of Texas, Austin

Developmental Language Disorders in Two Languages:

Patterns of Typical and Impaired Development in Spanish English Bilinguals

Much of the work on bilingual language development and disorders focuses on the learner's first or second language but does not consider the profile in both languages. Because of divided input, performance in the bilingual's two languages does not appear to be fully independent. Thus, understanding the relationship between the acquisition of the two languages informs our expectations about language acquisition and profiles of language impairment. In this talk I will report on the extent to which language experiences predict outcomes in each of the child's languages between the ages of 4 and 9 years. Then, I will describe the dual language profiles of English Spanish speakers with and without language impairment in the same age range. Finally, I will consider how the markers of developmental language disorders that emerge from this work can be used to reliably identify language impairment in bilingual children.

Krista Byers-Heinlein, Concordia University

Is this baby bilingual? Best practices for characterizing early language environments

Studies on infant bilingualism often rely on researchers' ability to accurately categorize learners into language groups, such as monolingual and bilingual. These categories are typically based on infants' exposure to different languages, but consensus is only beginning to emerge about which variables are crucial to report and how to best measure these. This talk will characterize the current state-of-the art in characterizing infants' early language environments. Parental report has long been a key source of information about infants' language backgrounds. This talk will compare the validity of different types of parent report measures, and will discuss common measurement pitfalls and their solutions. Data will be presented comparing parent report measures to transcriptions of full-day home recordings using the LENA digital recorder system. Improving the measurement and reporting of early bilingual infant language environments is crucial for continuing to advance this young field.

Matthew Carlson, Penn State University

Explorations in the MultiGrammar

Users of more than one language can be thought of as mental jugglers who must constantly navigate partially overlapping, but distinct linguistic systems. From cognates and interlingual homophones, to crosscutting phonetic categories, and from competing syntactic representations to partially mismatched mappings from concepts to words, there often seems to be more than one way to represent what is being said. This contributes to the view that multilinguals possess a single, compound linguistic system, which is something more than the sum of two monolingual systems, an idea owing a great debt to Grosjean and to the notion of Multicompetence, introduced by Cook in the early 1990s. Nevertheless, somehow multilinguals nearly always arrive at the linguistically appropriate solution in the end, demonstrating an exquisite ability to deploy their linguistic resources adaptively and selectively. In this talk we will consider the nature of this compound language system, drawing specifically on recent findings showing subtle

shifts in bilinguals' speech perception as they switch between languages to explore what it might mean for two languages to be integrated into a single system.

Matt Goldrick, Northwestern University

Integrating discrete and gradient aspects of linguistic knowledge: Insights from bilingualism

How do discrete and continuous aspects of cognition interact? This general challenge for the cognitive sciences sits front and center in studies of bilingualism. I'll review neurobiological and behavioral measures that suggest there is simultaneous, graded co-activation of mental representations from both of the speakers' languages. However, structural analysis reveals that discrete grammatical principles shape and constrain bilingual language knowledge and use. I will discuss how this body of data informs cognitive architectures in the context of the Gradient Symbolic Computation framework, which allows us to specify grammars over gradient representations.

Jennifer Austin, Rutgers University (Newark)

Liliana Sanchez, Rutgers University (New Brunswick)

Kristen Syrett, Rutgers University (New Brunswick)

Conversational Implicatures in Heritage and Child L2 Bilingualism

Monolingual Spanish-speaking children have been reported to calculate the upper-bounded scalar implicature (SI) with *algunos* 'some', and further distinguish *algunos* from *unos* 'some'. Given documented crosslinguistic influence in interface phenomena in bilinguals, we asked whether young Spanish-English bilinguals calculate SIs with *algunos*, or if there is an effect of acquiring languages with overlapping but diverging lexical entries. A set of four experiments revealed that both heritage bilinguals and Spanish monolingual children inconsistently calculated SIs. In Experiments 1-3, heritage bilinguals did not calculate the SI associated with *algunos*. However, in Experiment 4, which relied upon an awareness of speaker-hearer dynamics, they did. In contrast, the L2 children in this study reliably distinguished *unos* and *algunos* from *todos*. However, they exhibited variable performance with *unos*, apparently because they had difficulty distinguishing between *un/una* 'one' and *unos/unas* 'some'. This suggests that their still-developing awareness of number morphology in Spanish might slow the acquisition of *unos*. This research highlights the challenges arising from interpreting linguistic phenomena where lexical, semantic, and pragmatic information intersect, and is a call for further investigation with different populations of bilinguals in a rapidly growing area where bilingual research is lacking.