Semantics Seminar
Language Acquisition
Spring 2018

Instructor: Kristen Syrett (kristen.syrett (at) rutgers.edu)

Classes: Mondays 1:10 - 4:10 pm, Linguistics Department (18 Seminary Place), room 108
Office hours: Thursdays 11:00 am – 12:30 pm and by appointment
(in my office on CAC, my lab on Busch, or via Skype)

Course Introduction and Objectives

The job of a linguist is to scientifically study language in order to capture and explain patterns of linguistic structures and language usage. In doing so, we propose hypotheses that are clear and testable, and aim to arrive at theories with explanatory power. These theories should not only effectively explain the idiosyncratic properties of a single language, but illustrate properties that hold across languages, and bear on how we acquire language, why languages vary, and how languages change. The relevance of a hypothesis and a theory to the process of language acquisition is one of the ways in which it can be evaluated. Every linguist – even a pure theoretician who never intends to conduct an experiment, analyze corpora, or make contact with a baby – should be well versed in language acquisition and the issues that are central to linguistic development. The objectives of this class are twofold. First, it will introduce you to the topic of language acquisition by exploring some of core issues, debates, lines of evidence, and methodologies in language acquisition. Second, it will invite you to get your feet wet and your hands dirty by reading core articles, analyzing data, and designing experiments on your own.

Course Learning Goals

In this course, you will

- become exposed to a range of foundational work in language acquisition
- become acquainted with both sides of key debates that have advanced our understanding of the language acquisition process (and at times polarized researchers)
- connect core issues in linguistic theory and the process of language acquisition
- become familiarized with a number of experimental techniques used to collect and/or analyze empirical language acquisition data in linguistics and psychology
- critically evaluate previously-collected data that were collected by researchers using these methodologies

Your requirements

(1) Participation 10%

You must attend every class and participate.

(2) Class Presentation on a Predetermined Topic 10%

Each of you will select one topic/paper to present in class from the list provided. All presentations must be done via slides. You will not be allowed to use handouts, unless it is for an in-class activity. You should meet with me 1-2 weeks before you are assigned to present with a draft of your presentation ready to discuss with me, and we will work together on developing your presentation. Everyone who is enrolled/auditing is required to complete this component. Sign up for a class topic now!

(3) Hands-on work with child language data 20%

There will be **two** in-class projects in which you will work together in small groups to collect and/or analyze data and propose an account of the patterns you see in child-directed and child-produced speech. We will be making use of the CHILDES database for these projects.

(4) Final Project and Paper 60%

Each of you will propose a language acquisition experiment (or small set of 1-3 experiments) and write a final paper outlining this experiment using the format of a language acquisition article. The experiment should be in response to a theoretical puzzle or phenomenon or an open question about language acquisition and development. All students registered for the class or regularly auditing are required to complete this component!

Important Deadlines for (4)

Language Acquisition project and final paper

2- to 3-page summary of idea:	April 2
Statement of hypotheses, proposal of methodology, and list of key references:	April 9
1- to 2-page summary, outline of experiment, annotated references, sample stimuli:	April 16
Lightning talk on topic:	April 30
Final paper:	May 4

SCHEDULE

Class Meeting	Topic	Presenter(s)
January 22	Introduction: The Importance of Language Acquisition	
January 29	Distributional information in the input: Rules or statistics, dependencies	
February 5	Distributional information in the input: Statistical information and segmentation	Hazel (Saffran)
February 12	Word learning: Concepts, Constraints, Principles [data set #1]	
February 19	Word learning: The Linguistic Context (Syntactic Bootstrapping)	Yu (Gleitman 1990) Morgan (Gleitman 2005)
February 26	Word learning: The Linguistic Context (Frequent frames)	
March 5	Structure Dependence, Poverty of the Stimulus [data set #2]	
March 19	Adjectives, Comparatives	Meg (Barner & Snedeker)
March 26	Pragmatic Implicatures	Chen (Katsos & Bishop) Caley (Skordos & Papafragou) Elyesa (Pouscoulous et al)
April 2	Definites, Determiners	Ang (Caponigro et al)
April 9	Quantification: Scope	John (Gualmini et al.) Vera (Lidz & Musolino 2002)
April 18 (WED!)	Generics + Disjunction, Conjunction	
April 23	Attitude Verbs and Question Embedding	Shiori (Hacquard & Lidz) Haoze (Dudley et al)
April 30	Lightning Talks on Final Project/Paper Topics	All of you!

Readings

Distributional information in the input

(1) Rules or statistics, Dependencies

Christiansen Morten H., Curtin S. (1999). Transfer of learning: Rule acquisition or statistical learning? *Trends in Cognitive Science*, *3*, 289-290.

Gómez, Rebecca L. (2002). Variability and detection of invariant structure. *Psychological Science*, *13*, 431-436.

Gómez, Rebecca L., & Lakusta, Laura. (2004). A first step in form-based category abstraction by 12-month-old infants. *Developmental Science*, *7*, 567-580.

Marcus Gary F., Sugumaran, Vijayan, Bandi Rao, S, & Vishton, Peter M. (1999). Rule learning by seven-month-old infants. *Science*, *283*, 77-80.

Santelmann, Lynn M., & Jusczyk, P. W. (1998). Sensitivity to discontinuous dependencies in language learners: Evidence for limitations in processing space. *Cognition*, *69*, 105-134.

Seidenberg Mark S., & Elman, Jeffrey. (1999). Do infants learn grammar with algebra or statistics? *Science*, *284*, 434-435.

(2) Statistical information and segmentation

Estes, Katharine G., Evans, Julia L., Alibali, Martha W., & Saffran, Jenny R. (2007). Can infants map meaning to newly segmented words? Statistical segmentation and word learning. *Psychological Science*, *18*, 254-260.

Maye, Jessica, Werker Janet F., Gerken LouAnn. (2002). Infant sensitivity to distributional information can affect phonetic discrimination. *Cognition*, *82*, B101–B111.

Saffran Jenny R. (2001). Words in a sea of sounds: The output of infant statistical learning. *Cognition*, *81*, 149-169.

Saffran, Jenny R., Aslin, Richard, & Newport, Elissa. (1996). Statistical learning by 8-month old infants. *Science*, 274, 1926 – 1928.

Word learning: Concepts, Constraints, Principles

Clark, Eve V. (2004). How language acquisition builds on cognitive development. *TRENDS in Cognitive Science: Language and Conceptual Development Series*, *8*, 472-478.

Clark, Eve V. (2017). Conversation and language acquisition: A pragmatic approach. *Language Learning and Development*. [In press]

Markman, Ellen M., & Wachtel, Gwyn F. (1988). Children's use of mutual exclusivity to constrain the meaning of words. *Cognitive Psychology*, *20*, 121-157.

Quine, W.V.O. (1960). *Word and object*. Cambridge: MIT Press.

Word learning: The Linguistic Context (Syntactic Bootstrapping)

Fisher, Cynthia, Gleitman, Henry, & Gleitman, Lila R. (1991). On the semantic content of subcategorization frames. *Cognitive Psychology*, *23*, 331-392.

Gleitman, Lila R. (1990). Structural sources of verb learning. *Language Acquisition*, *1*, 1-63.

Gleitman, Lila R., Cassidy, Kimberly, Nappa, Rebecca, Papafragou, Anna, & Trueswell, John C. (2005). Hard words. *Language Learning and Development*, *1*, 23-64.

Goldberg, Adele. (2004). But do we need Universal Grammar? Comment on Lidz, Gleitman and Gleitman 2003. *Cognition*, *94*, 77-84.

Lidz, Jeffrey, & Gleitman, Lila R. (2004). Yes, we still need Universal Grammar. *Cognition*, *94*, 85-93.

Lidz, Jeffrey, Gleitman, Lila R., & Gleitman, Henry. (2003). Understanding how input matters: Verb learning and the footprint of universal grammar. *Cognition*, *87*, 151-178.

Word learning: The Linguistic Context (Frequent frames)

Chemla, Emmanuel, Mintz, Toben H., Bernal, Savita, & Christophe, Anne. (2009). Categorizing words using frequent frames: What cross-linguistic analyses reveal about distributional acquisition strategies. *Developmental Science*, *12*, 396-406.

Mintz, Toben H. (2003). Frequent frames as a cue for grammatical categories in child directed speech. *Cognition*, *90*, 91-117.

St. Clair, Michelle C., Monaghan, Padraic, & Christiansen, Morten H. (2010). Learning grammatical categories from distributional cues: Flexible frames for language acquisition. *Cognition*, *116*, 341-360.

Structure Dependence, Poverty of the Stimulus

Crain, Stephen, & Nakayama, Mineharu. (1987). Structure dependence in grammar formation. *Language*, *63*, 522-543.

Gualmini, Andrea, & Crain, Stephen. (2005). Operator conditioning. In Alejna Brugos, Linnea Micciulla, & Christine E. Smith (eds.), *Proceedings of the 28th Annual Conference on Language Development (BUCLD)* (pp. 232-243). Somerville, MA: Cascadilla Press.

Lewis, John D., & Elman, Jeffrey L. (2001). Learnability and the statistical structure of language: Poverty of stimulus arguments revisited. In Barbora Skarabela, Sarah Fish, and Anna H.-J. Do (Eds.), *Proceedings of the 26th Annual Conference on Language Development (BUCLD)* (pp. 359-370). Somerville, MA: Cascadilla Press.

Lidz, Jeffrey, Waxman, Sandra R., and Freedman, Jennifer. (2003). What infants know about syntax but couldn't have learned: Experimental evidence for syntactic structure at 18-months. *Cognition*, 89, B65-B73.

Pullum, Geoffrey, & Scholz, Barbara C. (2002). Empirical assessment of stimulus poverty arguments. *The Linguistic Review*, *19*, 9-50.

Introduction to Semantics in Language Acquisition

Syrett, Kristen. (*to appear*). The historical emergence and current study of semantics in acquisition. In Syrett, Kristen, & Sudha Arunachalam (Eds.), *Semantics in Language Acquistiion*, *Trends in Language Acquisition Research* series. Amsterdam: John Benjamins.

Adjectives, Comparatives

Arii, Tomoe, Syrett, Kristen, & Goro, Takuya. (2017). Investigating the form-meaning mapping in the acquisition of English and Japanese measure phrase comparatives. *Natural Language Semantics*, *25*, 53-90.

Barner, David, & Snedeker, Jesse. (2008). Compositionality and statistics in adjective acquisition: 4-year-olds interpret *tall* and *short* based on the size distributions of novel noun referents. *Child Development*, *79*, 594-608.

Hohaus, Vera, Tiemann, Sonja, & Beck, Sigrid. (2014). Acquisition of comparison constructions. *Language Acquisition*, *21*, 215-249.

Mintz, Toben H., & Gleitman, Lila R. (2002). Adjectives really do modify nouns: The incremental and restricted nature of early adjective acquisition. *Cognition*, *84*, 267-293.

Syrett, Kristen. (2016). Comparatives and degree constructions. In Jeffrey Lidz, William Snyder, & Joe Pater (Eds.), *Oxford Handbook of Developmental Linguistics* (pp. 463-497). Oxford: Oxford University Press.

Syrett, Kristen, Bradley, Evan, Kennedy, Christopher, & Lidz, Jeffrey. (2006). Shifting standards: Children's understanding of gradable adjectives. In Kamil Ud Deen, Jun Nomura, Barbara Schulz, & Bonnie D. Schwartz (Eds.), *Proceedings of the Inaugural Conference on Generative Approaches to*

Language Acquisition - North America, Honolulu, HI, Vol. 2 (pp. 353-364). Cambridge, Mass: UConn Occasional Papers in Linguistics 4.

Syrett, Kristen, Kennedy, Christopher, & Lidz, Jeffrey. (2010). Meaning and context in children's understanding of gradable adjectives. *Journal of Semantics*, *27*, 1-35.

Pragmatic Implicatures

Katsos, Napoleon, & Bishop, Dorothy. (2011). Pragmatic tolerance: Implications for the acquisition of informativeness and implicature. *Cognition*, *120*, 67-81.

Noveck, Ira. (2001). When children are more logical than adults: Experimental investigations of scalar implicature. *Cognition*, *78*, 165-188.

Papafragou, Anna, & Musolino, Julien. (2003). Scalar implicatures: Experiments at the semantics-pragmatics interface. *Cognition*, *86*, 253-282.

Papafragou, Anna, & Tantalou, Nicki. (2004). Children's computation of implicatures. *Language Acquisition*, *12*, 71-82.

Pouscoulous, Nausicaa, Noveck, Ira A., Politzer, Guy, & Bastide, Anne. (2007). A developmental investigation of processing costs in implicature production. *Language Acquisition*, *14*, 347-375.

Skordos, Dimitrios, & Papafragou, Anna. (2016). Children's derivation of scalar implicatures: Alternatives and relevance. *Cognition*, *153*, 6-18.

Stiller, Alex, Goodman, Noah, & Frank, Michael C. (2015). Ad-hoc implicature in preschool children. *Language Learning and Development*, *11*, 176-190.

(In)definites, Determiners

Caponigro, Ivano, Pearl, Lisa, Brooks, Neon, & Barner, David. (2012). Acquiring the meaning of free relative clauses and plural definite descriptions. *Journal of Semantics*, *29*, 261-293.

Hunter, Tim, & Lidz, Jeffrey. (2013). Conservativity and the learnability of determiners. *Journal of Semantics*, *30*, 315-334.

Modyanova, Nadya, & Wexler, Ken. (2008). Maximal trouble in free relatives. In H. Chan, H. Jacob, and E. Kapia, *Proceedings of the 32nd Annual Boston University Conference on Language Development* (pp. 287-298). Somerville, MA: Cascadilla Press.

Tieu, Lyn, & Lidz, Jeffrey. (2016). NPI licensing and beyond: Children's knowledge of the semantics of any. *Language Acquisition*, *23*, 311-332.

Quantification: Scope

Gualmini, Andrea, Hulsey, Sarah, Hacquard, Valentine, & Fox, Danny. (2008). The question-answer requirement for scope assignment. *Natural Language Semantics*, *16*, 205-237.

Lidz, Jeffrey, & Musolino, Julien. (2002). Children's command of quantification. *Cognition*, *84*, 113-154.

Musolino, Julien, & Lidz, Jeffrey. (2006). Why children aren't universally successful with quantification. *Linguistics*, *44*, 817-852.

Viau, Joshua, Lidz, Jeffrey, & Musolino, Julien. (2010). Priming of abstract logical representations in 4-year-olds. *Language Acquisition*, *17*, 26-50.

Generics

Brandone, Amanda C., & Gelman, Susan A. (2009). Differences in preschoolers' and adults' use of generics about novel animals and artifacts: A window onto a conceptual divide. *Cognition, 110*, 1-22.

Brandone, Amanda C., Leslie, Sara-Jane, Cimpian, Andrei, & Gelman, Susan A. (2012). Do lions have manes? For children, generics are about kinds rather than quantities. *Child Development*, *83*, 423-433.

Gelman, Susan A., & Bloom, Paul. (2007). Developmental changes in the understanding of generics. *Cognition*, *105*, 166-183.

Gelman, Susan A., & Raman, Lakshmi. (2003). Preschool children use linguistic form class and pragmatic cues to interpret generics. *Child Development*, *74*, 308-325.

Conjunction, Disjunction

Gualmini, Andrea, Crain, Stephen, Meroni, Luisa, Chierchia, Gennaro, & Guasti, Maria Theresa (2001). At the semantics/pragmatics interface in child language. In *Proceedings of Semantics and Linguistic Theory 11* (pp. 231-247). Ithaca, NY: CLC Publications.

Goro, Takuya, & Akiba, Sachie. (2004). The acquisition of disjunction and positive polarity in Japanese. In V. Chand, A. Kelleher, A. J. Rodríguez, and B. Schmeiser (Eds.), *Proceedings of the 23rd West Coast Conference on Formal Linguistics (WCCFL)* (pp. 251-264). Summerville, MA: Cascadilla Press.

Jasbi, Masoud, & Frank, Michael. (2017). The semantics and pragmatics of logical connectives: adults' and children's interpretations of *and* and *or* in a guessing game. In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

Notley, Anna, Zhou, Peng, Jensen, Britta, & Crain, Stephen. (2012). Children's interpretation of disjunction in the scope of 'before': a comparison of English and Mandarin. *Journal of Child Language*, *39*, 482-522.

Singh, Raj, Wexler, Ken, Astle-Rahim, Andrea, Kamawar, Deepthi, & Fox, Danny. (2016). Children interpret disjunction as conjunction: Consequences for theories of implicature and child development. *Natural Language Semantics*, *24*, 305-352.

Tieu, Lyn, Yatsushiro, Kazuko, Cremers, Alexandre, Romoli, Jacopo, Sauerland, Uli, & Chemla, Emmanuel. (2017). On the role of alternatives in the acquisition of simple and complex disjunctions in French and Japanese. *Journal of Semantics*, *34*, 127-152.

Tieu, Lyn, Romoli, Jacopo, Poortman, Eva, Winter, Yoad, & Crain, Stephen. (2018). Children's comprehension of plural predicate conjunction. *Journal of Child Language*, *45*, 242-259.

Attitude Verbs, Embedded Questions

Cremers, Alexandre, Tieu, Lyn, & Chemla, Emmanuel. (2016). Children's exhaustive readings of questions. *Language Acquisition*.

Dudley, R., N. Orita, V. Hacquard, and J. Lidz. 2015: Three year olds' understanding of *know* and *think*. In F. Schwarz (Ed.), Experimental *Perspective on Presuppositions*. *Studies in Theoretical Psycholinguistics Series*. Springer.

Hacquard, Valentine & Lidz, Jeffrey. (*to appear*). Children's attitude problems: Bootstrapping verb meaning from syntax and pragmatics. *Mind and Language*.

Distributivity

Syrett, K. (2015). Events and agents in the acquisition of universal quantification. *Theoretical Linguistics, 41*, 211-222.

Syrett, K. (2015). Mapping properties to individuals in language acquisition. In Elizabeth Grillo and Kyle Jepson (Eds.), Proceedings of the *39th Annual Boston University Conference on Language Development* (pp. 398-410). Somerville, MA: Cascadilla Press.

Syrett, K., & Musolino, J. (2013). Collectivity, distributivity, and the interpretation of numerical expressions in child and adult language. *Language Acquisition: A Journal of Developmental Linguistics*, *20*, 259-291.

Syrett, K., & Musolino, J. (2016). All together now: Collectivity, distributivity, and the semantics of together in child and adult language. *Language Acquisition: A Journal of Developmental Linguistics*, 23, 175-197.