SEMANTICS III (Ling 532)
FALL 2015
Recent Advances in Experimental Semantics and Pragmatics

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

Classes: Mondays 1:15 -4:15 pm, Linguistics Department (18 Seminary Place), room 108
Office hours: by appointment (in person in my office on CAC, my lab on Busch, or via Skype)

Course Objectives

- You will obtain a solid background in recent experimental research (covering the last 10-15 years) done in the Linguistic fields of Semantics, Pragmatics, and Psycholinguistics.
- You will learn to formulate a hypothesis based on claims in the theoretical literature, and make predictions about observable data in an experiment with human participants.
- You will become acquainted with a range of experimental methodologies for use with human participants.
- You will be able to identify strengths and weaknesses of experimental research, and written summaries of such research (papers and abstracts).
- You will become acquainted with reasons for collaborative and interdisciplinary experimental research.
- You will be able to write a paper modeling the structure of an experimental article.
- You will take the online CITI Human Subjects Certification Course, in order to be certified to conduct experiments with humans, and appreciate the ethical reasons for why we have an Institutional Review Board (IRB) for research.

Your requirements

(1) Class Presentation on a Predetermined Topic

Each of you will present one paper/topic from the list of papers and topics that follows, with my guidance. All presentations must be done via slides! You will not be allowed to use handouts. You may use Powerpoint, Endnote, LaTex/Beamer, Prezi, or whatever your presentation mode of choice is. Please do not print slide handouts for the class! You will meet with me the week 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 or auditing is required to complete this component! Sign up for a class topic ASAP!

(2) Participation in a Linguistics Experiment

Each of you is required to join the SONA experiment system online, and sign up to participate in an experiment (either online or in my lab). This can take place any time between October 1 and December 1. (Because this is a class requirement, we won't use your data!)

(3) Final Experimental Project – Presentation and Paper

Each of you will propose an experimental project and write a final paper outlining an experiment (or small set of experiments) based on a topic, theoretical background, and/or experimental material discussed in class. The experiment(s) proposed should be in response to a theoretical puzzle, observation about a linguistic phenomenon, or a well-articulated open question. If you

are formerly enrolled in the class and/or are doing an experimental QP or dissertation with me, you are required to complete this component!

Important Deadlines

Experimental project idea (2- to 3-page summary):	October 19
Statement of hypotheses, proposal of methodology, and list of references:	November 2
1- to 2-page theoretical summary, outline of experiment, sample stimuli:	November 23
Draft of final presentation slides:	November 30
Final paper:	December 14

The Plan		
Date	**Topic**	**Readings**
9/8 **(Tues)**	**Introduction to Experimental Research** **Quantification and Scope**	Required Lidz & Musolino (2002) If you haven't already, take the CITI Human Subjects certification course: https://orra.rutgers.edu/citi Optional Brasoveanu & Dotlačil (2015), Gualmini et al. (2008)
9/14	**Quantifier Raising, ACD**	Required Syrett & Lidz (2011); Syrett (2015); Kennedy (1997) Optional Hackl et al. (2012); Szabolsci (2014)
9/21	**Gradable Adjectives and Vagueness** **Presenter: Vera Gor**	Required Frazier et al. (2008); Kennedy (2007); Syrett et al. (2010)) Optional McNally (2011); Solt (2015)
9/28	**Definiteness** **Presenter: Luca Iacoponi**	Required Caponigro et al. (2012); Schwarz (2015) Optional Strawson (1950)
10/5	**Presuppositions and Accommodation** **Presenters: Diti Bhadra, Nick Winter**	Required Chemla (2009); Schwarz (2007) Optional Chemla & Bott (2011); Stalnaker (1974)
10/12	**At-Issueness, Appositives** **Presenter: Peter van Elswyk**	Required Harris & Potts (2009); Syrett & Koev (2015); Potts (2011) Optional Anderbois et al. (2010); Simons et al. (2010)

The Plan		
Date	**Topic**	**Readings**
10/19 ***deadline***	**Scalar Implicatures** **Presenters: Sarah Hansen, Augustina Owusu**	Required Bott & Noveck (2004); Breheny et al. (2012)
		Optional Breheny et al. (2005); van Tiel et al. (to appear); Horn (2008)
10/26	**Embedded Implicatures** **Presenters: Morgan Moyer, Livia Souza**	Required Chemla & Spector (2011); Chierchia et al. (2012)
		Optional Geurts & Pouscoulous (2009); Ippolito (2010)
11/2 ***deadline***	**Collectivity, Distributivity, Plurality** **Presenter: n/a**	Required Schwarzschild (1996); Syrett & Musolino (to appear)
		Optional Frazier et al. (1999); Syrett & Musolino (2013)
11/9	**Numerals** **Presenter: Deepak Alok, Kunio Kinjo**	Required Cummins et al. (2012); Geurts (2006)
		Optional Breheny (2008); Huang et al. (2013); Musolino (2004)
11/16	**Modified Numerals** **Presenter: Tomoe Arii, Shu-Hao Shih**	Required Cummins et al. (2010); Marty et al. (2015); Nouwen (2010)
		Optional Geurts et al. (2010); Schwarz et al (2012
11/23 ***deadline***	***No class!***	
11/30 ***deadline***	***Most*** **Presenter: Eason Chen, Jess Law**	Required Hackl (2009); Lidz et al. (2011)
		Optional Gajewski (2009); Kotek et al. (2015)
12/7 12/14 ***deadline***	**Final Presentations (10 mins each)**	n/a

Note:
Do not panic when you look at this list. There's no way on God's green earth that we're going to get through all of these readings! I'm providing you with a rather comprehensive list of key papers that represent work done on the topics we're covering, so that if you're interesting in doing more with any of these topics, you'll have many key references at your fingertips.

*Required and optional readings for each week are in **bold**. The others are for your reference.*

TOPICS AND READINGS

Quantification and Scope

Experimental Papers

Brasoveanu, Adrian, & Dotlačil, Jakub. (2015). Strategies for scope taking. *Natural Language Semantics*, *23*, 1-19.

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, & Gualmini, Andrea. (2004). The role of partitivity in child language. *Language Acquisition*, *12*, 97-107.

Musolino, Julien, & Lidz, Jeffrey. (2003). The scope of isomorphism: Turning adults into children. *Language Acquisition*, *11*, 277-291.

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.

Theoretical Background

Reinhart, Tanya. (1997). Quantifier scope: How labor is divided between QR and choice functions. *Linguistics and Philosophy*, *20*, 335–397.

Reinhart, Tanya. (1976). The syntactic domain of anaphora. PhD dissertation, MIT. [Chapters 1, 5]

Quantifier Raising and Antecedent-Contained Deletion

Experimental Papers

Hackl, Martin, Koster-Hale, Jorie, & Varvoutis, Jason. (2012). Quantification and ACD: Evidence from real-time processing. *Journal of Semantics*, *29*, 145-206.

Kiguchi, Hirohisa, & Thornton, Rosalind. (2004). Binding principles and ACD constructions in child grammars. *Syntax*, *7*, 234-271.

Sugawara, Ayaka, Kotek, Hadas, Hackl, & Wexler, Ken. (2013). Long vs. short QR: Evidence from the acquisition of ACD. In S. Baiz, N. Goldman, and R. Hawkes (eds.), *Proceedings of the 37th Annual BUCLD* (pp. 410-422). Somerville, MA: Cascadilla Press.

Syrett, Kristen. *to appear*. QR out of a tensed clause: Evidence from Antecedent-Contained Deletion. *Ratio (Special Issue: Investigating Meaning, ed. by N. Hansen and E. Borg)*, *28*.

Syrett, Kristen. (2015). Experimental support for inverse scope readings of finite-clause embedded Antecedent-Contained Deletion sentences. *Linguistic Inquiry*, *46*, 579-592.

Syrett, Kristen, & Lidz, Jeffrey. (2011). Competence, performance and the locality of Quantifier Raising: Evidence from 4-year-old children. *Linguistic Inquiry*, *42*, 305-337.

Syrett, Kristen, & Lidz, Jeffrey. (2009). QR in child grammar: Evidence from Antecedent-Contained Deletion. *Language Acquisition: A Journal of Developmental Linguistics*, 16: 67-81.

Theoretical Background

Cecchetto, Carlo. Explaining the locality conditions of QR: Consequences for the theory of phases. *Natural Language Semantics*, *12*, 345-397.

Fox, Danny. (2002). Antecedent-contained deletion and the copy theory of movement. *Linguistic Inquiry*, *33*, 63-96.

Fox, Danny. (1995). Economy and scope. *Natural Language Semantics*, *3*, 283-341.

Kennedy, Christopher. (1997). Antecedent-contained deletion and the syntax of quantification. *Linguistic Inquiry*, *28*, 662-688.

Merchant, Jason. (2000). Economy, the copy theory, and antecedent-contained deletion. *Linguistic Inquiry*, *31*, 566-575.

Szabolsci, Anna. (2014). Quantification and ACD: What is the evidence from real-time processing evidence for? A response to Hackl *et al*. (2012). *Journal of Semantics*, *31*, 135-145.

Gradable Adjectives and Vagueness

Experimental Papers

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.

Frazier, Lyn, Clifton, Charles, Jr., & Britta Stolterfoht. (2008). Scale structure: Processing minimum standard and maximum standard scalar adjectives. *Cognition*, *106*, 299-324.

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.

Theoretical Background

Kennedy Christopher. (2007). Vagueness and grammar: The semantics of relative and absolute gradable adjectives. *Linguistics and Philosophy*, *30*, 1-45.

Kennedy, Christopher, & McNally, Louise. (2005). Scale structure, degree modification, and the semantics of gradable predicates. *Language*, *81*, 345-381.

McNally, Louise. (2011). The relative role of property type and scale structure in explaining the behavior of gradable adjectives. In Rick Nouwen, Robert van Rooij, Uli Sauerland, and Hans-Christian Schmitz (eds.), *Papers from the ESSLLI 2009 Workshop on Vagueness in Communication* (pp. 151-168). Berlin: Springer.

Sassoon, Galit. (2013). A typology of multidimensional adjectives. *Journal of Semantics*, *30*, 335-380.

Solt, Stephanie. (2015). Vagueness and imprecision: Empirical foundations. *Annual Review of Linguistics*, *1*, 102-127.

Toledo, Assaf, & Sassoon, Galit. (2011). Absolute vs. relative adjectives – Variance within vs. between individuals. In Neil Ashton, Anca Chereches, and David Lutz (Eds.), *Proceedings of Semantics and Linguistics Theory (SALT) 21* (pp. 135-154). eLanguage.

Definiteness

Experimental Papers

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.

Schwarz, Florian. (2015). False but slow: Evaluating statements with non-referring definites. *Journal of Semantics*.

Theoretical Background

Russell, Bertrand. 1905. On denoting. *Mind*, *14*, 479-493.

Schoubye, Anders J. 2010. Descriptions, truth value intuitions, and questions. *Linguistics and Philosophy*, *32*, 583-617.

Strawson, P. F. (1950). On referring. *Mind*, *59*, 320-344.

Presuppositions and Accommodation

Experimental Papers

Chemla, Emmanuel. (2009). Presuppositions of quantified sentences: Experimental data. *Natural Language Semantics*, *17*, 299-340.

Chemla, Emmanuel, & Bott, Oliver. (2011). Processing presuppositions: Dynamic semantics vs pragmatic enrichment. *Language and Cognitive Processes*, *28*, 241-260.

Cummins, Chris, Amaral, Patricia, & Katsos, Napoleon. (2012). Experimental investigations of the typology of presupposition triggers. *Humana. Mente Journal of Philosophical Studies*, *23*, 1-15.

Geurts, Bart, & van Tiel, Bob. (2015). When "all the five circles" are four: New exercises in domain restriction. *Topoi*.

Romoli, Jacopo, & Schwarz, Florian. (2015). An experimental comparison between presuppositions and indirect scalar implicatures. In F. Schwarz (ed.). *Experimental Perspectives on Presuppositions – Studies in Theoretical Psycholinguistics*, *45* (pp. 215-240). Dordrecht: Springer

Schwarz, Florian. (2007). Processing presupposed content. *Journal of Semantics*, *24*, 373-416.

Theoretical Background

Heim, Irene. (1983). On the projection problem for presuppositions. In D. Flickinger (ed.), *Proceedings of the Second West Coast Conference on Formal Linguistics* (pp. 114-125). Stanford, CA: Stanford University Press. Also in P. Portner and B. Partee (eds.), *Formal semantics: The essential readings* (pp. 249-260). Blackwell

Karttunen, Lauri. (1974). Presuppositions of compound sentences. *Linguistic Inquiry*, *4*, 169-193.

Schwarz, Florian. (2015). Introduction: Presuppositions in context – theoretical issues and experimental perspectives. In F. Schwarz (ed.). *Experimental Perspectives on Presuppositions – Studies in Theoretical Psycholinguistics*, *45* (pp. 1-38). Dordrecht: Springer

Stalnaker, Robert. (1974). Pragmatic presuppositions. In R. (1999) Stalnaker (ed.), *Context and content* – Essays on intentionality in speech and thought (pp. 47-62). Oxford: Oxford University Press.

(not) At-Issueness and Appositives

Experimental Papers

Dillon, Brian, Clifton, Charles, Jr., & Frazier, Lyn. (2013). Pushed aside: Parentheticals, memory, and processing. *Language, Cognition, and Neuroscience*, *29*, 483-498.

Harris, Jesse, & Potts, Chris. (2009). Perspective-shifting with appositives and expressives. *Linguistics and Philosophy*, *32*, 523-552.

Syrett, Kristen, & Koev, Todor M. (2015). Experimental evidence for the truth conditional contribution and shifting information status of appositives. *Journal of Semantics*.

Theoretical Background

Amaral, Patricia, Roberts, Craige, & Smith, E. Allyn. (2007). Review of *The Logic of Conventional Implicatures* by Chris Potts. *Linguistics and Philosophy*, *30*, 707-749.

AnderBois, Scott, Brasoveanu, Adrian, & Henderson, Robert. (2010), Crossing the appositive/at-issue meaning boundary. In N. Li & D. Lutz (Eds.), *Proceedings of Semantics and Linguistic Theory (SALT) 20* (328-346). eLanguage (http://elanguage.net/journals/salt).

Potts, Chris. (2007). Conventional implicatures, a distinguished class of meanings. In G. Ramchand & C. Reiss (Eds.), *The Oxford handbook of linguistic interfaces* (pp. 475-502). Oxford: Oxford University Press.

Potts, Chris. (2011). Conventional implicature and expressive content. In Maienborn, Claudia, Klaus von Heusinger, and Paul Portner (eds.), *Semantics: An International Handbook of Natural Language Meaning: Volume 3* (2516-2536). Berlin: de Gruyter.

Simons, Mandy, Tonhauser, Judith, Beaver, David, & Roberts, Craige. (2010). What projects and why. *Proceedings of Semantics and Linguistics Theory (SALT) 20* (pp. 309-327).

Tonhauser, Judith, Beaver, David, Roberts, Craige, & Simons, Mandy. (2013). Toward a taxonomy of projective content. *Language*, *89*, 66-109.

Scalar Implicatures

Bott, Lewis, & Noveck, Ira. (2004). Some utterances are underinformative: The onset and time course of scalar inferences. *Journal of Memory and Language*, *51*, 437-457.

Breheny, Richard, Ferguson, Heather, & Katsos, Napoleon. (2013). Taking the epistemic step: Toward a model of on-line access to conversational implicatures. *Cognition*, *126*, 423-440.

Breheny, Richard, Ferguson, Heather, & Katsos, Napoleon. (2013). Investigating the timecourse of accessing conversational implicatures during incremental sentence interpretation. *Language and Cognitive Processes*, *28*, 443-467.

Breheny, Richard, Katsos, Napoleon, & Williams, John. (2005). Are generalized scalar implicatures generated by default? An on-line investigation into the role of context in generating pragmatic inferences. *Cognition*, *100*, 434-463.

Degan, Judith, & Tanenhaus, Michael. (2015). Availability of alternatives and the processing of scalar implicatures: A visual world eye-tracking study. *Cognitive Science*.

Doran, Ryan, Baker, Rachel E., McNabb, Yaron, Larson, Meredith, & Ward, Gregory. (2009). On the non-unified nature of scalar implicature: An empirical investigation. *International Review of Pragmatics*, *1*, 211-248.

Doran, Ryan, Ward, Gregory, Larson, Meredith, McNabb, Yaron, & Baker, Rachel E. (2012). A novel experimental paradigm distinguished between what is said and what is implicated. *Language*, *88*, 124-154.

Grodner, Dan, Klein, Natalie M., Carbary, Kathleen M., Tanenhaus, Michael K. (2010). "Some," and possibly all, scalar inferences are not delayed: Evidence for immediate pragmatic enrichment. *Cognition*, *116*, 42-55.

Huang, Yi-Ting, & Snedeker, Jesse. (2009). Online interpretation of scalar quantifiers: Insight into the semantics-pragmatics interface. *Cognitive Psychology*, *58*, 376-415.

Katsos, Napoleon, & Cummins, Chris. (2010). Pragmatics: From theory to experiment and back again. *Language and Linguistics Compass*, *4/5*, 282-295.

van Tiel, Bob, van Miltenburg, Emiel, Zevakhina, Natalia, & Geurts, Bart. (*to appear*). Scalar diversity. *Journal of Semantics*.

Theoretical Background

Chierchia, Gennaro, & McConnell-Ginet. (2000). *Meaning and grammar: An introduction to semantics*. Cambridge, Mass: MIT Press. Chapter 4, section 5, in particular pp. 244-247.

Hirschberg, Julia. (1985). *A theory of scalar implicatures*. New York: Garland. Chapters 3

and 4.

Horn, Laurence R. (2008). Implicature. In L. R. Horn and G. Ward (eds.), *The handbook of pragmatics* (pp. 2-28). Oxford: Blackwell Publishing. Sections 1-3.

Embedded Scalar Implicatures

Experimental Papers

Chemla, Emmanuel, & Spector, Benjamin. (2011). Experimental Evidence for Embedded Scalar Implicatures. *Journal of Semantics*, *28*, 359-400.

Geurts, Bart, & Pouscoulous, Nausicaa. (2009). Embedded scalar implicatures?!? *Semantics & Pragmatics*, *2*, 1-34.

Geurts, Bart, & van Tiel, Bob. (2013). Embedded scalars. *Semantics & Pragmatics*, *6*, 1-37.

Theoretical Background

Chierchia, Gennaro, Fox, Danny, & Spector, Benjamin. (2008). Hurford's constraint and the theory of scalar implicatures: Evidence for embedded implicatures. Ms.

Chierchia, Gennaro, Fox, Danny, & Spector, Benjamin. (2012). The grammatical view of scalar implicatures and the relationship between semantics and pragmatics. Ms.

Chierchia, Gennaro, Fox, Danny, & Spector, Benjamin. (2012). Scalar implicatures as a grammatical phenomenon. In Maienborn, Claudia, Klaus von Heusinger, and Paul Portner (eds.), *Semantics: An International Handbook of Natural Language Meaning: Volume 3* (2297-2331). Berlin: de Gruyter.

Ippolito, Michela. (2010). Embedded implicatures? Remarks on the debate between globalist and localist theories. *Semantics & Pragmatics*, *3*, 1-15.

Collectivity, Distributivity, and Plurality

Experimental Papers

Anand, Pranav, Andrews, Caroline, Farkas, Donka, & Wagers, Matthew. (2011). The exclusive interpretation of plural nominals in quantificational environments. In N. Ashton, A. Chereches, and D. Lutz (eds.), *Proceedings of the 21st SALT* (pp. 176-196). eLanguage.

Frazier, Lyn, Pacht, Jeremy M., & Rayner, Keith. (1999). Taking on semantic commitments II: Collective versus distributive readings. *Cognition*, *70*, 87-104.

Musolino, Julien. (2009). The logical syntax of number words: Theory, acquisition and processing. *Cognition*, *111*, 24-45.

Syrett, Kristen. (2015). Mapping properties to individuals in language acquisition. In *Proceedings of the 39th Annual BUCLD*.

Syrett, Kristen, & Musolino, Julien. (*to appear*). All together now: Collectivity, distributivity, and the semantics of *together* in child and adult language. *Language Acquisition: A Journal of Developmental Linguistics*.

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

Theoretical Background

Champollion, Lucas. (2015). Stratified reference: The common core of distributivity, aspect, and measurement. *Theoretical Linguistics*.

Lasersohn

Link, Gerhard. (1983). The logical analysis of plurals and mass terms: a lattice-theoretical approach. In R. Baüerle, C. Schwarze & A. von Stechow (eds.), *Meaning, use, and interpretation of language* (pp. 302-323). Berlin: de Gruyter.

Schwarzschild, Roger. (1996). Plurals, presuppositions and the sources of distributivity. *Natural Language Semantics*, *2*, 201-248.

Numerals

Experimental Papers

Cummins, Chris, Sauerland, Uli, & Solt, Stephanie. (2012). Granularity and scalar implicature in numerical expressions. *Linguistics and Philosophy*, *35*, 135-169.

Huang, Ti-Ting, Spelke, Elizabeth, & Snedeker, Jesse. (2013). What exactly do numbers mean? *Language Learning and Development*, *9*, 105-129.

Hurewitz, Felicia, Papafragou, Anna, Gleitman, Lila, & Gelman, Rochel. (2006). Asymmetries in the acquisition of numbers and quantifiers. *Language Learning and Development*, *2*, 77-96.

Musolino, Julien. (2004). The semantics and acquisition of number words: Integrating linguistic and developmental perspectives. *Cognition*, *93*, 1-41.

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

Theoretical Background

Breheny, Richard. (2008). A new look at the semantics and pragmatics of numerically quantified noun phrases. *Journal of Semantics*, *25*, 93-139.

Carston, Robyn. (1998). Informativeness, relevance, and scalar implicature. In R. Carston and S. Uchida (eds.), *Relevance theory: Applications and implications* (pp. 179-238). Amsterdam: Benjamins. See Section 4.

Geurts, Bart. (2006). Take 'five'. In Svetlana Vogeleer and Liliane Tasmowski (eds.), *Non-definiteness and plurality* (pp. 311-329). Amsterdam/Philadelphia: Benjamins.

Kennedy, Christopher. (2013). A scalar semantics for scalar readings of number words. In I. Caponigro and C. Cecchetto (eds.), *From grammar to meaning: The spontaneous logicality of language* (pp. 172-200). Cambridge: Cambridge University Press.

Spector, Benjamin. (2013). Bare numerals and scalar implicatures. *Language and Linguistics Compass*, *7*, 273-294.

Modified Numerals

Experimental Papers

Cummins, Chris, & Katsos, Napoleon. (2010). Comparative and superlative quantifiers: Pragmatic effects of comparison type. *Journal of Semantics*, *27*, 271-305.

Geurts, Bart, Katsos, Napoleon, Cummins, Chris, Moons, Jonas, & Noordman, Leo. (2010). Scalar quantifiers: Logic, acquisition, processing. *Language and Cognitive Processes*, *25*, 130-148.

Geurts, Bart. Experimental support for a modal analysis of "at least" and "at most." Ms.

Koster-Moeller, Jorie, Varvoutis, Jason, & Hackl, Martin. (2008). Verification procedures for modified numeral quantifiers. In N. Abner and J. Bishop (eds.), *Proceedings of the 27th West Coast Conference on Formal Linguistics* (pp. 310-317). Somerville, MA: Cascadilla Proceedings Project.

Marty, Paul, Chemla, Emmanuel, & Spector, Benjamin. (2015). Phantom readings: The case of modified numerals. *Language, Cognition, and Neuroscience*, *30*, 462-477.

Theoretical Background

Coppock, Elizabeth, & Brochhagen, Thomas. (2013). Raising and resolving issues with scalar modifiers. *Semantics & Pragmatics*, *6*, 1-57.

Geurts, Bart, & Nouwen, Rick. (2007). 'At least' et al.: The semantics of scalar modifiers. *Language*, *83*, 533-559.

Nouwen, Rick. (2010). Two kinds of modified numerals. *Semantics & Pragmatics*, *3*, 1-41.

Nouwen, Rick. (2008). Upper bounded *no more*: The exhaustive interpretation of non-strict comparison. *Natural Language Semantics*, *11*, 271-295.

Schwarz, Bernard, Buccola, Brian, & Hamilton, Michael. (2012). Two types of class B numeral modifiers: A reply to Nouwen 2010. *Semantics & Pragmatics*, *5*, 1-25.

Most

Experimental Papers

Hackl, Martin. (2009). On the grammar and processing of proportional quantifiers: *most* versus *more than half*. *Natural Language Semantics*, *17*, 63-98.

Halberda, Justin, Taing, L. and Lidz, Jeffrey. (2008). The development of 'most' comprehension and its potential dependence on counting-ability in preschoolers. *Language Learning and Development*, *4*, 99-121.

Kotek, Hadas, Sudo, Yasutada, Howard, Edwin, & Hackl, Martin. (2011); *Most* meanings are superlative. *Experiments at the Interfaces*, *Syntax and Semantics*, *37*, 101-145.

Kotek, Hadas, Sudo, Yasutada, & Hackl, Martin. (2015) Experimental investigations of ambiguity: The case of *most*. *Natural Language Semantics*.

Lidz, Jeffrey, Pietroski, Paul, Halberda, Justin, & Hunter, Tim. (2011). Interface transparency and the psychosemantics of *most*. *Natural Language Semantics*, *19*, 227-256.

Papafragou, Anna, & Schwarz, Naomi. (2005/2006). *Most* wanted. *Language Acquisition*, *13*, 207-251.

Pietroski, Paul, Lidz, Jeffrey, Hunter, Tim, & Halberda, Justin. (2009). The meaning of 'most': Semantics, numerosity and psychology. *Mind & Language*, *24*, 554-585.

Theoretical Background

Ariel, Mira. (2004). *Most*. *Language*, 80, 658-706.
AAAS on this research: http://sciencenetlinks.com/science-news/science-updates/value-of-most/

Barwise, Jon, & Cooper, Robin. (1981). Generalized quantifiers and natural language. *Linguistics and Philosophy*, *4*, 159-219.

Gajewski, Jon. (2009). Superlatives, NPIs, and *most*. *Journal of Semantics*, *27*, 125-137.

Hackl, Martin. 2000. *Comparative quantifiers*. Unpublished PhD dissertation, MIT. [Chapter 1]

We unfortunately won't have time to cover the following topics, but they fit in the course theme. I have included the list here and the readings on Sakai, so you have the references.

Embedded Questions

Experimental Papers

Cremers, Alexandre, & Chemla, Emmanuel. (2015). A psycholinguistic study of the exhaustive readings of embedded questions. *Journal of Semantics*.

Theoretical Background

Groenendijk, J. & Stokhof, M. (1982). Semantic analysis of *wh*-complements. *Linguistics and Philosophy*, *5*, 175-233.

Karttunen, Lauri. (1977). Syntax and semantics of questions. *Linguistics and Philosophy*, *1*, 3-44.

Klinedinst, Nathan, & Rothschild, Daniel. (2011). Exhaustivity in questions with non-factives. *Semantics & Pragmatics*, *4*, 1-23.

Lahiri, Utpal. (2002). *Questions and answers in embedded contexts*. New York: Oxford University Press.

More and the Mass/Count Distinction

Experimental Papers

Bale, Alan, & Barner, David. (2009). The interpretation of functional heads: Using comparatives to explore the mass/count distinction. *Journal of Semantics*, *26*, 217-252.

Barner, David, & Snedeker, Jesse. (2005). Quantity judgments and individuation: Evidence that mass nouns count. *Cognition*, *97*, 41-66.

Barner, David, & Snedeker, Jesse. (2006). Children's early understanding of mass-count syntax: Individuation, lexical content, and the number asymmetry hypothesis. *Language Learning and Development*, *2*, 163-194.

Theoretical Background

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