

Cognitive Science of Language (LING 116/ CGSC 216)

Spring 2016

Instructor: Claire Moore-Cantwell

MW 2:30-3:45pm
Rm. WLH 116

General Info

INSTRUCTOR: Claire Moore-Cantwell

EMAIL: claire.moore-cantwell@yale.edu

OFFICE: Dow Hall, Rm. 301 (370 Temple St., in the Linguistics Dept.)

OFFICE HOURS: Wed 10:00-11:00am, or by appointment.

Teaching Fellow: Rikker Dockum

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OFFICE: Dow Hall, Rm. 210

OFFICE HOURS: Tues 2:00-3:00pm

Teaching Fellow: Luke Lindemann

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OFFICE: Dow Hall, Rm. 210

OFFICE HOURS: Thurs 1:00-2:00pm

NB To get to all of our offices, take the stairs in Dow Hall. The elevator can lead you over to another building without you necessarily realizing it.

Spring semester classes run January 19 - April 29 (finals end May 11).

Course website: there is a CLASSES*v2 website for this course.

Description

Cognitive Science of Language will focus on the uniquely human mental capacity to learn, comprehend and produce language. What is the system of knowledge that people possess when they know a language and what is the genesis of such knowledge? We will explore this issue in context of the interdisciplinary study of the mind embodied by cognitive science, embracing evidence from a range of methodological approaches including studies of normal and atypical language development and processing, brain imaging, neuropsychology, and computational modeling. We will devote particular attention to the question of the

relationship between linguistic and non-linguistic cognition: is there a distinct mental faculty for language or is it continuous with other cognitive domains? We will also spend time considering whether the language you speak constrains or enriches the way you perceive the world.

Requirements

Coursework:

- Reading and discussion: 20%

There will be a reading assignment for most meetings, which you should read carefully and thoughtfully beforehand. You are expected to come to class ready to discuss the assigned readings in detail. Discussion questions will be posted for each reading, but you should also prepare your own questions for discussion in class.

- Homeworks: 40%

There will be regular homeworks in this course. You are strongly encouraged to work together on these assignments; however, you must turn in your own, independent write-ups, and note who (if anyone) you collaborated with.

Late HWs will not be accepted, except under extreme circumstances.

HWs should be turned in via CLASSES*v2 by 11:59pm on the day they are due. Please turn everything in in PDF format. Other formats, including DOC, DOCX, and RTF will not be accepted.

- Exams: 40%

There will be a midterm on **March 9**, and a take-home final at the end of the course, which will be due at **11:59 pm, May 10**. The take-home final should be turned in via CLASSES*v2, and should be in PDF format.

Academic honesty

Yale does not tolerate plagiarism. People found to have plagiarized will be reported to the administration, with failure of the course, academic suspension, or even dismissal from the university as possible consequences.

If you're unclear about what constitutes plagiarism, or what the consequences are, check out <http://yalecollege.yale.edu/content/cheating-plagiarism-and-documentation>.

For advice on how (and why) to cite primary sources, see <http://writing.yalecollege.yale.edu/using-sources>.

Disabilities

If you qualify for classroom accommodations because of a disability, please:

1. Get a Course Accommodation Request from the Resource Office on Disabilities (ROD).
2. Submit it to me in person outside of class (e.g. office hours) within the first two weeks of the semester.

Contact the ROD at (203) 432-2324 (voice), (203) 432-8250 (fax), (203) 432-8250 (TTY/TDD), or see <http://yalecollege.yale.edu/content/resource-office-disabilities> for more information.

Tentative course outline

Readings should be completed **before** the class date listed.

Topic	Reading
The science of language (20 Jan)	
The language faculty (22 Jan)	R. Jackendoff (1994). <i>Patterns in the Mind</i> . Basic Books. Chapters 1–3.
Grammatical categories (25 Jan)	D. Marr (1982). <i>Vision</i> . W.H. Freeman. pp. 69–74,80–81. R. Brown (1957). <i>Linguistic determinism and the parts of speech</i> , <i>Journal of Abnormal and Social Psychology</i> 55:1–5. A. Caramazza and A. Hillis (1991). <i>Lexical organization of nouns and verbs in the brain</i> , <i>Nature</i> 349:788-790. M.K. Tanenhaus, J.M. Leiman and M.S. Seidenberg (1979), <i>Evidence for multiple stages in the processing of ambiguous words in syntactic contexts</i> , <i>Journal of Verbal Learning and Verbal Behavior</i> 18:427-440.
Phonetic categories (27 Jan)	Repp, Bruno H. <i>Categorical perception: Issues, methods, findings</i> , <i>Speech and language: Advances in basic research and practice</i> 10 (1984): 243–335.
Speech perception (1 Feb & 3 Feb)	Anne Cutler (2012). <i>Native Listening</i> , MIT Press. Chapters 1–2

Phonology (8 Feb & 10 Feb)	<p>E. Dupoux, K. Kakehi, Y. Hirose, C. Pallier, and J. Mehler (1999) <i>Epenthetic vowels in Japanese: A perceptual illusion?</i> Journal of Experimental Psychology Human Perception and Performance, 25(6), 1568-1578.</p> <p>E.L. Newport and R. Aslin (2004) <i>Learning at a distance: I. Statistical learning of non-adjacent dependencies</i>. Cognitive Psychology 48.</p>
Syntax (15-24 Feb)	<p>Lyn Frazier and Keith Rayner (1982) <i>Making and correcting errors during sentence comprehension: eye movements in the analysis of structurally ambiguous sentences</i> Cognitive Psychology, 14, 178-210</p> <p>Brian Dillon, Alan Mishler, Shayne Sloggett, and Colin Phillips (2013) <i>Contrasting intrusion profiles for agreement and anaphora: Experimental and modeling evidence</i></p>
Semantics (29 Feb and 2 Mar)	<p>Lisa Feigenson, Stanislas Dehaene, and Elizabeth Spelke (2004) <i>Core systems of number</i>. Language and conceptual development series, 8:7, 307-314</p> <p>Lyn Frazier and Charles Clifton Jr. (2011) <i>Quantifiers undone: reversing predictable speech errors in comprehension</i>. Language 87:1, 158-171</p>
Midterm – 9 March	
Does language affect thought? (28 Mar - 31 Apr)	<p>B. Whorf (1956) <i>The relation of habitual thought and behavior to language</i>. In J.B. Carroll (Ed.) Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf. MIT Press.</p> <p>G. Orwell (1941) <i>The Principles of Newspeak</i> Appendix to 1984.</p>
Signed languages (4 April)	<p>G. Hickok, U. Bellugi and E.S. Klima (1998) <i>The neural organization of language: evidence from sign language</i>. Trends in Cognitive Science.</p>

The invention of language (6 April)	A. Senghas, S. Kita, and A. Özyürek (2004). <i>Children creating core properties of language: evidence from an emerging sign language in Nicaragua</i> . <i>Science</i> 305:17791782
Acquisition (11 - 13 Apr)	<p>J. Saffran, R. Aslin and E. Newport (1996). Statistical Learning by 8-month-old Infants. <i>Science</i> 274, 19261928.</p> <p>C. Yang (2004) Universal grammar, statistics, or both? <i>Trends in Cognitive Sciences</i> 8:451456.</p> <p>J.M. Pine and E.V. Lieven (1997) Slot and frame patterns and the development of the determiner category. <i>Applied Psycholinguistics</i> 18:123138.</p>
Language in the face of cognitive deficits (18 Apr)	J. Musolino and B. Landau (2012) Genes, language, and the nature of scientific explanations: The case of Williams syndrome. <i>Cognitive Neuropsychology</i> 29(12):123148.
Modeling of Language and AI (20 - 27 Apr)	<p>A. Turing (1950) <i>Computing machinery and intelligence</i>. <i>Mind</i> 59:433-460</p> <p>J. Searle (1980) <i>Minds, brains, and programs</i>. <i>Behavioral and Brain Sciences</i> 3 (3): 417-457</p> <p>J.L. McClelland, K. Patterson, S. Pinker and M. Ullman (2002) The Past Tense Debate: Papers and replies <i>Trends in Cognitive Sciences</i> 6:456474.</p> <p>N. Chomsky (1956) <i>Three models for the description of language</i>. <i>IRE Transactions on Information Theory</i> 2(3):113-124</p>