

# LIN 2704: Language, Thought and Action

## Language as a Cognitive System

### Fall 2013

#### **Class Meeting Time and Place**

Anderson Hall, room 21  
Tuesday Period 4 (10:40-11:30)  
Thursday Periods 4 – 5 (10:40 – 12:35)

#### **Professor**

Dr. Wind Cowles  
Turlington Hall 4131F (Lab: B127)  
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Phone: (352) 294-7451

Office hours:  
Tuesday & Thursday 1:30-3:30pm  
Wednesday 1-2pm

#### **Website: Sakai (E-learning)**

This class will make heavy use of Sakai in that all readings, assignments and even a couple of the lectures will be delivered via this site. Lecture slides will also be posted to the website AFTER the class they are presented.

#### **Course Rationale and Objectives**

Language has traditionally been identified as the distinguishing mark of our species. In the latter half of the 20<sup>th</sup> century, the study of language became a focal point of scientific research on human cognition, in hopes that it could provide us with a privileged window into the workings of the human mind. Since World War II, there have been tremendous advances in the fields of linguistics, cognitive psychology, neuroscience and computer science. All of these disciplines have, to varying degrees, taken up the challenge of characterizing the human ability for language. Recent years have witnessed the advent of interdisciplinary studies of language, resulting in a richer, more profound understanding not only of language but of human cognition and its interaction with language.

While language is a fundamentally social behavior, the knowledge and use of language resides in individual human minds and so one important part of understanding language as a part of human society is to understand how language and human thought interact. This course counts toward the Social and Behavioral Sciences requirement by exploring this relationship between mind and language, in other words covering the cognitive aspects of language. In this course, you will be introduced to key themes and terminology in cognitive science and linguistics through the reading and discussion of current scientific papers covering research on a number of central topics.

By the end of this course, you should have a good understanding of current scientific thought on many facets of the interaction between language and cognition and how these relate to language use and thought in everyday life. This understanding will allow you to:

- Critically evaluate articles on language and animal communication appearing in the popular press
- State the implications of language research for fundamental issues in cognitive science and linguistics

## **Course Structure and Policies**

The course consists of two lectures each week. It will cover many topics in language and cognition, divided into three units:

(1) What is language, anyway?

This unit is concerned with defining human language and examining the similarities and dissimilarities between human language and other forms of animal communication. We will examine cognition and communication abilities of animals both in the wild and in captivity and compare that to human abilities.

(2) Thinking, doing and speaking

This unit is concerned with the interaction of language with thinking about the world and interacting directly with it. We will examine how language does (and does not) influence the ways in which we perceive and conceptualize the world and to what extent language may be grounded in our everyday interactions with the physical world.

(3) Getting language

Finally, we will consider how we came to have language, both as a species (evolution of the language) and as individuals (child language development). This unit will focus on the interaction of cognitive and language development across the species and within individual humans.

At the end of each unit there will be a 50-minute exam. The exams will cover material from class lectures, assigned readings (including websites), any videos designated as test material in class. During each unit, two homework assignments will be due (TED Talk Project and Be the Scientist). More information about these assignments will be given in class.

Your grade in this course will be calculated based on the following breakdown:

3 Unit exams	14% each (42% total)
3 TED Talk Project Assignments	8% each (24% total)
3 Be the Scientist Assignments	8% each (24% total)
Class participation	10% total

Grading policy: UF has a grading policy that includes minus grades. Please see <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html> for more information. Final grades in this class will be assigned based on the following distribution:

	91-100 A	88-90.9 A-
85-87.9 B+	81-84.9 B	78-80.9 B-
75-77.9 C+	71-74.9 C	68-70.9 C-
65-67.9 D+	61-64.9 D	58-60.9 D-
	Below 58 E	

Homework assignments will be handled online via the Sakai course system. Homework must be submitted in the system by the assigned date and time – each homework will be due by 5pm on the day it is due. If you attach your homework as a document, it must be in plain text, rtf, or Word format.

### **Attendance and Late/Missed Work**

Except at the beginning of the semester, attendance will not be taken formally. However, students will be expected to know the information covered in class, and class participation counts toward the final grade in the course. So, you should make every effort to attend each class.

Make-up exam times will be provided for students who must miss a class for a reason that is accepted by UF policy, including illness, serious family emergencies, military obligation, severe weather

conditions, religious holidays and participation in official university activities. (See <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx> for a full description.) If you know in advance that you will need to miss a class or exam, please inform me as soon as possible.

Late homework assignments will not be accepted, although exceptions may be made in cases of unexpected circumstances, such as illness or serious emergency.

### **Course Readings**

The readings for the course are available online via UF's Sakai eLearning system (<http://lss.at.ufl.edu>). There will also be websites assigned for you to explore. Links to these websites will also be available through Sakai.

It is *very important* that you do the readings. While most of the readings are from sources meant for a wide audience, you may find that some readings are more difficult than others. Because of this, you should read them *before* the class they are associated with so that we can discuss questions about them in class. In general, you should plan to spend 2-3 hours of outside time and effort per hour spent in class.

### **Students with Special Needs**

Students requesting accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to me when requesting accommodation.

### **Academic Honesty**

Academic honesty and integrity are fundamental values of the university community. An academic honesty offence is defined as the act of lying, cheating, or stealing information so that one gains academic advantage. Violations of the Honor Code include, but are not limited to: plagiarism, cheating, bribery, misrepresentation, fabrication, and conspiracy. Such violations may result in the following: lowering of grades, mandatory zero on assignments, redoing assignments, a final failing grade in the course, expulsion from the course, and/or referral to the student-run Honor Court. On all work submitted for credit, the following pledge is either required or implied: On my honor, I have neither given nor received unauthorized aid in doing this assignment. For more information, refer to: [http://www.dso.ufl.edu/Academic\\_Honesty.html](http://www.dso.ufl.edu/Academic_Honesty.html).

### **Disagreements and Grade Disputes**

If you disagree with a grade, please see me as soon as possible to try to resolve the issue. Please do not wait until the end of the semester!

### **Schedule (Subject to change)**

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Readings and Assignments</b>
0	Aug. 22	Introduction	
1	Aug. 27	Mind vs. Brain	(1) Some languages are harder than others (2) The mind-body problem TED1: John McWhorter
<b>UNIT 1: What is language, anyway?</b>			
1	Aug. 29	Features of Language	(3) Semantics, (4) Syntax (5) Phonology
2	Sep. 3	Features continued	(6) Language and communication (7) Language and other communication systems
	Sep. 5	Finding and accessing research articles (Guest lecture)	(WEB1) Library guide for Linguistics

Week	Date	Topic	Readings and Assignments
3	Sep. 10	Beyond speech: Gesture and language	Sakai: Online Lecture 1 (8) Why people gesture when they speak (9) Gesture
	Sep. 12	<b>NB! This is ONLINE only</b> Sakai: Online Lecture 2: Talking with your hands: Signed Languages	(10) Introduction (to sign language) (11) Sign language in the brain
4	Sep. 17	Animal communication in the wild	(12) Songs and shouts
	Sep. 19	Wild communication continued	(13) Learning to communicate <b>TED Talk Project #1 Due</b>
	Sep. 24	Animals among humans: Communication in the lab	(14) Inside the minds of animals (15) Deciphering monkeys (16) Animal minds
	Sep. 26	Lab communication continued	(17) Excerpts from Bringing up Kanzi (Web2) Transcript of Koko chat
6	Oct. 1	Unit 1 Exam	<b>Be the Scientist #1 Due</b>
<b>UNIT 2: Thinking, doing and speaking</b>			
6	Oct. 3	Introduction: Sapir-Whorf Hypothesis Eskimos, Snow and Beyond	(18) The great Eskimo vocabulary hoax (19) Synesthesia and language
7	Oct. 8	Can a rainbow have only three colors? Using color terms	(20) Color in mind
	Oct. 10	Color & cognition continued	(21) Draining the language out of color (22) Color (23) Language, thought & color
8	Oct. 15	When left is north: Spatial relationships	(24) Language may override innate human spatial cognition
	Oct. 17	Space & cognition continued	(25) Can language restructure cognition? <b>TED Talk Project #2 Due</b>
9.	Oct. 22	Embodied language: Perspective	(26) Putting words in perspective
	Oct. 24	Gender, language and cognition	TBA
10	Oct. 29	Gender, language continued	TBA
	Oct. 31	Two languages, two minds? Bilingualism	(27) (Multiple) Language representations and the brain
11	Nov. 5	<b>Unit 2 Exam</b>	<b>Be the Scientist #2 Due</b>
<b>UNIT 3: Getting language</b>			
12	Nov. 7	Language evolution: What we can learn from rocks	(28) The big bang (29) Great mysteries of human evolution (30) Beyond stones and bones (Web3) Becominghuman.org
13	Nov. 12	What humans need for language Early humans, artifacts and culture	(31) Cave speak: Did Neanderthals talk? (32) Paleolithic technology and human evolution

Week	Date	Topic	Readings and Assignments
			(33) Food for thought
	Nov. 14	Modern views: Gesture, brain and language	(34) The gestural origins of language (Web4) Nova special on Mirror Neurons
14	Nov. 19	Nature vs. Nurture: On being human and acquiring language	(35) Reading your baby's mind (36) Language rhythms in baby hand movements
	Nov. 21	How we can learn words	(37) The first twenty-four months
15	Nov. 26	Cognition and language acquisition	(38) Theory of mind and language ability <b>TED Talk Project #3 Due</b>
	Nov. 28	<b>NO CLASS – Thanksgiving</b>	
16	Dec. 3	<b>Unit 3 Exam</b>	<b>Be the Scientist #3 Due</b>

### Readings Source List

- (1) Andersson, Lars-Gunnar. (1998). Some languages are harder to learn than others. In Laurie Bauer & Peter Trudgill (eds.), *Language Myths* (pp. 50-57). London: Penguin Books.
- (2) Fodor, J. (1981) The mind-body problem. *Scientific American*, 124-132.
- (3, 4, 5) Excerpts from Crystal, D. (2010) *The Cambridge encyclopedia of language*. Cambridge, Cambridge UP.
- (6) Anderson, Stephen R. (2004). Language and communication. In *Doctor Doolittle's Delusion* (pp. 15-37). New Haven, CT: Yale University Press.
- (7) Crystal, D. (2010) Language and other communication systems, *The Cambridge encyclopedia of language*. Cambridge, Cambridge UP.
- (8) Iverson, J., & Goldin-Meadow, S. (1998) Why people gesture when they speak. *Nature*. 396, 228.
- (9) McNeill, D. (2010) Gesture. *Cambridge Encyclopedia of the Language Sciences*. Cambridge, UK: Cambridge UP.
- (10) Emmorey, K. (2002) Introduction. *Language, Cognition and the Brain: Insights from sign language research*. (pp. 1- 11) Lawrence Erlbaum.
- (11) Hickok, G., Bellugi, U. & Klima, E. (2001) Sign language in the brain. *Scientific American*. June, 58-65.
- (12) Friend, T. (2004) Songs and shouts. *Animal Talk*. Free Press, 138-164.
- (13) Rogers, Leslie, and Kaplan, Gisela. (2000). Learning to communicate. In *Songs, Roars, and Rituals* (pp. 128-149). Cambridge: Harvard University Press.
- (14) Kluger, J. (2010) Inside the Minds of Animals. *Time*, August 5<sup>th</sup>.
- (15) Wade, Nicholas (2010) Deciphering the Chatter of Monkeys. *New York Times*, January 12<sup>th</sup>.
- (16) Morell, Virginia (2008) Animal Minds: Minds of their own. *National Geographic*, March 2008.
- (17) Savage-Rumbaugh, Sue, Shanker, Stuart G., and Taylor, Talbot J. (1998). Excerpts from Chapter 1, *Apes, Language, and the Human Mind*. (pp. 22-36, 44-55, 65-74) New York, NY: Oxford University Press.
- (18) Pullum, G. (1991) The great Eskimo vocabulary hoax. *The Great Eskimo Vocabulary Hoax and other irreverent essays on the study of language*. (pp. 159-174) University of Chicago Press.
- (19) Ward, J. & R. Cytowic (2006) Synesthesia and Language. In *Encyclopedia of Linguistics and Language* (pp. 371-376). Oxford: Elsevier.
- (20) Fraser, Bruce (1996) Color in Mind. *Adobe Magazine*, November 1996.
- (21) Ross, P. (2004) Draining the language out of color. *Scientific American*, 290 (4), 46-47.

- (22) Kay, Paul. (1999) Color, Manuscript copy of article that appeared in *Journal of Linguistic Anthropology*.
- (23) Kay, Paul & Terry Regier (2006) Language, thought and color: Recent developments. *Trends in Cognitive Sciences*, 10(2), 51-54.
- (24) Biello, D. (2006) Language may override Innate Human Spatial Cognition, *Scientific American*, October 30.
- (25) Majid, A. Bowerman, M. Kita, S. Huan, D. and Levinson, S (2004) Can language restructure cognition? The case for space. *Trends in Cognitive Sciences*. 8(3), 108-114.
- (26) Borghi, A., A. Glenberg, & M. Kaschak (2004) Putting words in perspective, *Memory & Cognition*, 32 (6), 863-873.
- (27) Cowles, HW (2010) (Multiple) Language Representations and the Brain, In *Psycholinguistics 101*, NY: Springer.
- (28) Pinker, S. (1995) The Big Bang. In *The Language Instinct*, (pp. 340-381). New York, NY: Harper Perennial.
- (29) Zimmer, C. (2003) Great mysteries of human evolution, *Discover Magazine*, September 1.
- (30) Begley, S. (2007) Beyond stones and bones, *Newsweek*, August 21.
- (31) Swaminathan, N. (2007) Cave speak: Did neandertals talk? *Scientific American*, October 19.
- (32) Ambrose, S. (2001) Paleolithic technology and human evolution. *Science*, 291, 1748-1753.
- (33) Gibbons, A. (2007) Food for Thought. *Science*, 316, 1558-1560.
- (34) Corballis, M.C. (1999). The gestural origins of language. *American Scientist* 87 (2).
- (35) Author not given (2007) Reading your baby's mind. *Newsweek*, October 17. ([www.newsweek.com/id/56437](http://www.newsweek.com/id/56437))
- (36) Pettito et al. (2001) Language rhythms in baby hand movements. *Nature*, 413, 35.
- (37) Kennison, S. (2013) The first twenty-four months. In *Introduction to Language Development*. Los Angeles: Sage.
- (38) Ruffman, T. (2004) Theory of mind and language ability. Understanding the bigger picture. Web workshop on *Coevolution of Language and Theory of Mind*, now archived at <http://www.interdisciplines.org/archives.php>
- (TED1) [http://www.ted.com/talks/john\\_mcwhorter\\_txtng\\_is\\_killing\\_language\\_jk.html](http://www.ted.com/talks/john_mcwhorter_txtng_is_killing_language_jk.html)
- (WEB1) <http://guides.uflib.ufl.edu/linguistics>
- (WEB2) Transcript of Chat with Koko - [http://www.koko.org/world/talk\\_aol.html](http://www.koko.org/world/talk_aol.html)
- (WEB3) Human evolution – <http://www.becominghuman.org>
- (WEB4) Nova special on Mirror Neurons - <http://www.pbs.org/wgbh/nova/body/mirror-neurons.html>