

Adult Language Processing / Psycholinguistics

PS 828 Time: MonWed 11-12:30 **Fall 2005**

Location: PSY B50 **Instructor:** Dr. Catherine Harris, charris@bu.edu

Course Description. What cognitive and brain mechanisms are recruited for speaking and understanding? Course examines how processing varies for different languages, for writing vs. reading, and for bilingual/multilingual speakers. Reviews reaction time, eye tracking, and neuroimaging methods.

Prerequisites. Graduate standing *or* two prior course on language and cognition, such as Foundations of Language (LX 250 or any other linguistics class), Developmental Psychology (PS 241), or Cognitive Psychology (PS 336). Auditors and visitors welcome.

Overview of class structure. The course will be run as a seminar, with a combination of lecture, discussion and class activities. Students will join forces with 1 other classmate to lead class for one class meeting, or can lead discussion for 45 minutes on one day of their choosing. When choosing a topic, consider the classic questions about the psychology of language, and also contemporary interdisciplinary issues. Students will participate in a group project (2-3 persons) of their choice.

Classic questions. This class will examine classic questions in the psychology of language:

- What is unique about human language?
- Is language and innate mental module or does it share design features with other aspects of cognition?
- What aspects of the brain mediate language?
- How did language evolve in our species?
- What can we learn about human language from its acquisition in children and adults?
- How does language -- and styles of language processing -- vary across communities?

Emphasis on mechanism and processing. The psycholinguistic perspective emphasizes empirical methods for quantifying phenomenon and testing models and theories.

Course Requirements

- Reading, class participation and written comments on reading (30%)
- Lead class discussion for one day with a classmate (30%)
- Final project (collaborate with 1-3 classmates on an empirical study) (40%)

Recommended text. *Twenty-First Century Psycholinguistics: Four Cornerstones*, Anne Cutler (Ed), 2005. The book is available for the discounted price of \$49.95 from the publishers' website, www.erlbaum.com (or call 800-926-6579). It is available at Barnes & Noble for \$69.95. While this book is interesting for providing up-to-date work from diverse theoretical perspectives, some of this content is available from journal articles available on line. We will thus decide as a class how much of this book we want to cover, or if journal sources will suffice.

Preliminary Schedule

The following schedule is provisional. Final readings will be decided by the class as a whole and will depend on interests and needs of class members. Most of these readings are available via sciencedirect.com

Sept 12 Brain bases of comprehending words, sentences and narratives

Kutas, M. & Federmeier, K.D. (2000) Electrophysiology reveals semantic memory use in language comprehension. *Trends in Cognitive Sciences*, 4.

Pulvermuller, F. (2001). Brain reflections of words and their meaning. *Trends in Cognitive Sciences*, 5.

Kaan, E., & Swaab, T.Y. (2002). The brain circuitry of syntactic comprehension. *Trends in Cognitive Sciences*, 6.

Mar, R.A. (2004). The neuropsychology of narrative: story comprehension, story production and their interrelation, *Neuropsychologia*, 42, 1414-1434.

Sept 19 Connectionist psycholinguistics

Christiansen, M.H., & Chater, N. (2001). Connectionist psycholinguistics: Capturing the empirical data. *Trends in Cognitive Sciences*, 5.

McClelland, J.L. & Patterson, K. (2001). Rules or connections in past-tense inflections: what does the evidence rule out? *Trends in Cognitive Sciences*, 6.

Gary S. Dell, Franklin Chang and Zenzi M. Griffin. (1999). Connectionist models of language production: Lexical access and grammatical encoding. *Cognitive Science*, 23, 517-542.

Li, P., & Farkas, I. (2002). A self-organizing connectionist model of bilingual processing. In R. Heredia & J. Altarriba (eds.), *Bilingual sentence processing* (pp. 59-85). North-Holland: Elsevier Science Publisher.

Sept 26 Bilingualism: Maturation and brain

Flege, JE, Yeni-Komshian, GH, & Liu, S. (1999). Age constraints on second-language acquisition. *Journal of Memory and Language*, 41, 78-104.

Vingerhoets G.; Borsel J.V.1; Tesink C.; van den Noort M.; Deblaere K.; Seurinck R.; Vandemaele P.; Achten E. (2003). Multilingualism: an fMRI study. *NeuroImage*, 20, 2181-2196.

Rachel I. Mayberry and Elizabeth Lock (2003). Age constraints on first versus second language acquisition: Evidence for linguistic plasticity and epigenesis, *Brain and Language*, 87, 369-384.

David Birdsong and Michelle Molis (2001). On the Evidence for Maturation Constraints in Second-Language Acquisition, *Journal of Memory and Language*, 44, 235-249.

Flege, JE, MacKay, RA. (2002). Assessing bilingual dominance. *Applied Psycholinguistics*, 23, 567-598.

Oct 3 Bilingualism: Social and emotional factors

Harris, C.L., & Gleason, J.B., & Aycicegi, A. (2006). When is a first language more emotional? Psychophysiological evidence from bilingual speakers. In A. Pavlenko (Ed.), *Bilingual minds: Emotional experience, expression, and representation*. Clevedon, United Kingdom: Multilingual Matters.

Marian and Kaushanskaya (2004). Self-construal and emotion in bicultural bilinguals. *Journal of Memory and Language*, 51, 190-201.

Azara L. Santiago-Rivera and Jeanette Altarriba (2003). The Role of Language in Therapy With the Spanish-English Bilingual Client. *Professional Psychology: Research and Practice*, 33, 30-38.

Schrauf (2000). Bilingual Autobiographical Memory. *Culture and Psychology*, 6, 399-405.

Dewaele, J-M (2005). Investigating the Psychological and Emotional Dimensions in Instructed Language Learning: Obstacles and Possibilities. *The Modern Language Journal*, 89, 367-380.

Oct 10: Holiday (and class canceled Oct 12)

Oct 24 Embodiment and “simulation semantics”

Glenberg, A. M., & Kaschak, M. P. (2002). Grounding language in action. *Psychonomic Bulletin & Review*, 9, 558-565.

Bergen, B. (to appear). Experimental methods for simulation semantics To appear in: Monica Gonzalez-Marquez, Irene Mittelberg, Seana Coulson, and Michael J. Spivey (eds.) *Methods in Cognitive Linguistics*. Ithaca: John Benjamins.

MacWhinney, B. (in press) The emergence of grammar from perspective taking. In Pecher, D and Zwaan, R., editors, *The grounding of cognition*.

Oct 31 Metaphor and figurative language

Sam Glucksberg, (2003). The psycholinguistics of metaphor, *Trends in Cognitive Sciences*, 7, 92-96.

Alexander M. Rapp, Dirk T. Leube, Michael Erb, Wolfgang Grodd and Tilo T. J. Kircher. (2004). Neural correlates of metaphor processing, *Cognitive Brain Research*, 20, 395-402.

Nov 7 Deafness and sign language

Jenny L. Singleton and Elissa L. Newport. (2004). When learners surpass their models: The acquisition of American Sign Language from inconsistent input, *Cognitive Psychology*, 49, 370-407.

Paula T. Markham and Elaine M. Justice. (2004). Sign language iconicity and its influence on the ability to describe the function of objects, *Journal of Communication Disorders*, 37, 535-546.

Ruth Campbell and Bencie Woll. (2003). Space is special in sign. *Trends in Cognitive Sciences*, 7, 5-7.

David P. Corina and Susan L. McBurney. (2001). The neural representation of language in users of American Sign Language. *Journal of Communication Disorders*, 34, 455-471.

Nov 14 Evolution of language

W. Tecumseh Fitch, Marc D. Hauser and Noam Chomsky. (in press). The evolution of the language faculty: Clarifications and implications, *Cognition*.

Mark C. Baker (2003). Linguistic differences and language design. *Trends in Cognitive Sciences*, 7, 349-353.

Salvatore Attardo. (2002). Talk is Cheap: Sarcasm, Alienation, and the Evolution of Language. *Journal of Pragmatics*, 34, 1891-1893.

The remaining three weeks of class can be used to explore the articles in Ann Cutler (Ed.), *Twenty-First Century Psycholinguistics: Four Cornerstones*, or can be devoted to additional topics of interest to the class.

Remaining Dates:

Nov 21 (Monday only)

Nov 28, 30

Dec 5, 7

Dec 12

First Day of Class

Discussion for the whole class:

What theoretical perspective was most important in your prior exposure to psycholinguistics? What viewpoints do you want to learn more about?

In your opinion, what is the optimal relationship between the parent disciplines (i.e., between linguistics and psychology)?

Small group discussion. Divide into groups of 2 (or 3 if you prefer). Introduce yourself, your background (your major or graduate school program), and state if there is already an area within psycholinguistics that is your main interest.

The goal of the group meeting: To begin to hone in on the topics for which you would like to lead discussion, and to identify the topics which are of interest to the class as a whole.

In your groups, go over each topic listed on the syllabus. Whoever is knowledgeable about a topic can start by discussing any of the following:

- why does this topic intrigue you
- what do you already know about it (books read about it, material learned in other classes)
- is this topic sufficiently new (not already well covered by other courses)
- what would you like to learn more
- how does learning about this topic fit in with education or career goals
- how could you convince others in the class to include this topic?

As you go through the topics on the syllabus, note absent topics that interest you.

One of you will be the spokesperson to present your discussion results to the class: three or four topics you want included, one (or two) that could be omitted. List them here:

Favorite topics from syllabus

Least interesting/useful topic on syllabus

Additional topics not on syllabus of interest to you

Brainstorm with your group members about class requirements. In particular, should there be a weekly of writing a paragraph of comments on reading? What would be most useful to you? Consider these and any other variations you think of:

hand in written comment on one article each week_____ length: 1 paragraph, 1/2 page

sign-up to write short summary of one of the articles assigned for each week_____ once per month_____

sign-up to find commentary, review or alternative perspective on an article_____ once per month_____