

PSYCHOLOGY OF LANGUAGE (830:351:01/615:371) Fall 2011

(Syllabus will be updated during the semester – Please check periodically)

Last Updated: November 7, 2011)

WARNING: The exams will stress the material that I present in class, and some material is not in the books. The posted lecture slides are only meant to aid you in taking notes during class. They are not substitutes for attending class. **IF YOU CANNOT ATTEND CLASS REGULARLY, DO NOT TAKE THIS COURSE!**

INSTRUCTOR

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Choonkyu Lee

E-mail: TA.psychlang@gmail.com**Office hours:** Fridays 9-10 AM

Location: Busch Psych Building, Room 121b

Course: Mondays & Thursdays 10:20 -11:40 am, Pharmacology Building Room 115**Sakai site:** Psych of Language: Fall 2011

Unit 1: Language, Communication & Thought		
Thur 9/1	Introduction to Psycholinguistics	Pinker ch. 1-2; Gleason & Ratner ch. 1
Thur 9/8	Language & Communication	Crystal, pp 396-402
Mon 9/12	Language & Communication	Hauser, Chomsky & Fitch
Thur 9/15	Language & Thought	Pinker chap. 3
Mon 9/19	Language & Thought (lecturer: G. Kharkwal)	Boridisky Scientific American article
Unit 2: Sounds: Phonetics, Speech Production & Speech Perception		
Thur 9/22	Phonetics & Speech Production	Pinker chap. 6
Mon 9/26	Speech Production	Gleason & Ratner chap. 3
Thur 9/29	NO CLASS	
Mon 10/3	Speech Perception	Gleason & Ratner chap. 3
Thur 10/6	Speech Perception	Gleason & Ratner chap. 3
Mon 10/10	Speech Perception	Gleason & Ratner chap. 3
Unit 3: Words: Morphology, Lexical Access, and Meaning		
Thur 10/13	Words & Meaning	Gleason & Ratner chap. 4
Mon 10/17	Words & Meaning	Gleason & Ratner chap. 4
Thur 10/20	Lexical Access	Pinker chap. 5
Mon 10/24	Lexical Access	Pinker chap. 5
Thur 10/27	Lexical Access	Pinker chap. 5
Mon 10/31	MIDTERM EXAM	In regular room
Thur 11/3	Morphology & the Lexicon	Pinker chap. 5
Unit 4: Sentences: Syntax, Parsing & Production		
Mon 11/7	Sentences & Syntax	Pinker chap. 4
Thur 11/10	Sentence Processing	Pinker chap. 7
Mon 11/14	Sentence Processing	Gleason & Ratner chap. 5
Thur 11/17	Sentence Production	Gleason & Ratner chap. 6
Unit 5: Biological Bases of Language		
Mon 11/21	NO CLASS	
Tues 11/22	Language Acquisition	Pinker chap. 9, G&R ch. 8
Mon 11/28	Language Acquisition	Pinker chap. 9, G&R ch. 8
Thur 12/1	Language Disorders & Neurolinguistics	Pinker chap. 9, G&R ch. 8
Mon 12/5	Language Disorders & Neurolinguistics	Pinker, chap. 10, G&R ch. 2
Thur 12/8	Genetics of Language	Stromswold, Pinker chap.11 (2 nd half)
Mon 12/12	Wrap up & review. Bring questions	
Tues 12/20 12-3 pm	Cumulative Final Exam	Room: TBA

Learning objective: Psychology of Language explores the cognitive and neural bases of human language. The underlying question that this course seeks to address is: *What makes human language special?* How does human language differ from other systems of communication systems? What is the relationship between language and thought? Why are people able to speak, understand, and learn the sounds, words, and sentences of language with ease, despite the daunting computational problems associated with doing so?

Required readings

Textbooks:

Gleason, J.B & Ratner, N. B. 1998. *Psycholinguistics*, 2nd edition.
Pinker, S. 1994. *The Language Instinct*. William Morrow. Any edition is fine.

Articles & chapters (copies available on the sakai site)

Boroditsky, L. 2011. How language shapes thought. *Scientific American*. February 2011, p. 63-65.
Crystal, D. 1991. *The Encyclopedia of Language*, pp. 396-402.
Hauser, M., Chomsky, N., & Fitch, T. 2002. The Faculty of Language: What is it?, Who has it? And how did it evolve? *Science* 298, 1569-1579.
Stromswold, K. 2005.. Genetic specificity of linguistic heritability. In A. Cutler (Ed.), *Twenty-First Century Psycholinguistics: Four Cornerstones*. Mahwah NJ: Lawrence Erlbaum Associates.

Additional required and optional readings may be assigned throughout the semester.

GRADING

Final grades will be determined by the total number of points earned in the class. Grades will be scaled so that the top-scoring student receives 100 points for the course. For example, if the top scoring student earns 95 points during the course, all students will have an additional 5 points added to their final grade. Course grades will be assigned as follows:

A (90-100 points); B+ (85-89 points); B (80-84 points); C+ (75-79 points); C (70-74 points); D (60-69 points); F (<60)

Midterm: The midterm is worth 40 points.

Final exam: The final exam is worth 60 points. Approximately one third of the questions on the final will cover material from the first 1/2 of the course and two-thirds of the questions will cover material from the second half of the course.

Makeup exams will not be given without a note from a doctor, dean or other appropriate person.

LECTURE SLIDES

WARNING: IF YOU CANNOT ATTEND CLASS REGULARLY, DO NOT TAKE THIS COURSE! The exams will stress the material that I present in class, and some material is not in the books. The posted lecture slides are only meant to aid you in taking notes during class. They are not substitutes for attending class.

At the beginning of a topic, I will post the lecture slides for that topic. I recommend you look over the slides before lecture and bring a copy of them to class to take notes on. Three caveats about the slides

1. The lecture slides are only meant to aid you in taking notes during class, and to remind you of what was covered in class. They are not substitutes for attending class.
- 2) Because I post the slides BEFORE the lectures, they are subject to change. I recommend that you check the sakai site periodically to make sure you have the most up-to-date version.
- 3) Despite my best efforts, sometimes the slides will contain typos. If you think you have found a typo, send email

to psychlang@gmail.com

EXERCISES

Periodically, I will give you exercises to do at home. These exercises are designed to help you learn the material and/or extend your knowledge. You will not be asked to do hand them in and they do not count towards your grade. Answers will not be posted. Rather, if you have trouble with an exercise, you should ask me to go over it in class or you can get help during my office hours or the TA's office hour.

In general, you should do exercises after the corresponding lecture. For example, you should do the Language & Communication exercise after the Language & Communication lecture. Sometimes, we will go over the exercises in the beginning of the next class. Sometimes we will do so because a number of students had trouble completing the exercise, and sometimes we will do so because the exercise involves students generating their own examples of phenomena.

WARNING ABOUT USING COMMERCIAL SITES (e.g., StudyBlue etc.)

1. All of the materials on this course's sakai site are copyrighted (e.g., syllabus, lecture notes, lecture slides, study guides, tests, readings, etc.)
 - o They are exclusively for students enrolled in the course
 - o You may download sakai resources and edit them as you wish for the purposes of preparing for this course.
 - o You may not give or sell the material to anyone who is not enrolled in the course
 - o Specifically, you may not publish or post any of the material on another non-commercial or commercial site (e.g., StudyBlue etc.). Doing so is illegal.
1. What appears on StudyBlue is often inaccurate, out-of-date etc.

EXTRA CREDIT

PURPOSE: Throughout the semester, students may earn extra credit points toward their final grade. The purpose of the extra credit assignments is to give students the experience of learning about language in the ways that a researcher/scientist learns about language.

HOW MANY: You will receive one point toward your final grade for each acceptable paper you write (see below). You may earn a **maximum of 5 extra credit points** toward your final grade.

DEADLINES FOR EXTRA CREDIT ASSIGNMENTS. LATE ASSIGNMENTS WILL NOT BE ACCEPTED

- #1: Oct 10th
- #2: Oct 31st
- #3: Nov 14
- #4: Nov 28
- #5: Dec 12 (last day of class)

EMAIL EXTRA CREDIT ASSIGNMENTS TO: TA.psychlang@gmail.com

On the subject line, type: Extra Credit: YOUR NAME. For journal article extra credits, you must include the full reference for the article and the article's abstract. For all extra credits, you must send PDFs and not .doc files.

FORMAT OF EXTRA CREDIT PAPERS: For each talk, experiment, or journal article, you must write a double-spaced two-page paper. If you write about a journal article, include in your paper the author(s) of the article, the title of the article, the name of the journal in which the article appears, and the volume and pages and date of publication. **To get an extra credit point, your NAME, RU ID, email address, and the date you submitted the extra credit (see deadlines above) must appear on your extra credit papers.**

CONTENT OF EXTRA CREDIT PAPERS: The content of extra credit papers is very flexible. Some possibilities are 1) a summary of the talk or paper, 2) what you liked/disliked about the talk or paper, 3) how you would change the talk or paper, 4) what you did and did not understand about the talk or paper, 5) how the material covered in the talk relates to what you have learned in class. The key is that your extra credit paper be written in your own words and contain your own thoughts. I do not expect a professional-quality paper.

WAYS OF EARNING EXTRA CREDIT POINTS:

1) COLLOQUIUM TALKS. Attend a colloquium that concerns language and write a 2-page double-spaced paper that summarizes the talk and what you have learned by attending the talk. Throughout the course, I will announce various colloquia/talks that definitely count towards extra credit. In addition, students may attend other language colloquia. If you plan to attend a colloquium that I do not announce in class must talk to me before the talk so I can determine whether the colloquium will count for extra credit. When you speak to me, you must bring a print out of the announcement that gives the name of the speaker, the title of the talk, what series the talk is part of, and an abstract of the talk. When you hand in your paper, please attach this announcement. Course lectures do not count.

2) LANGUAGE EXPERIMENTS. Participate in a language experiment and write a 2-page double-spaced paper that summarizes what you did in the experiment and what you think the experiment was investigating. You must also provide proof that you did the experiment (e.g., a signed consent form, a note from the experimenter, etc.). You must talk to me before you do the experiment so I can determine whether the experiment counts. When you speak with me, you will have to provide a print-out that gives the name of the experiment, the experimenter or lab that is conducting the experiment, and the affiliation of the experimenter (e.g., Rutgers Psychology Department). When you hand in your paper, please append this print out.

3) JOURNAL ARTICLES. Read a peer-reviewed, published journal article on psycholinguistics and write a 2-page paper about what you learned by reading the paper. In order to get credit, your paper must give the full citation for the article (the authors of the paper, year of publication, the title of the paper, name of the journal, journal volume, page numbers), and you must append the abstract for the article.

Articles must have been published in the last 5 years (i.e., 2005-) and must appear in the following journals

Applied Psycholinguistics

Brain & Language

Journal of Child Language

Journal of Psycholinguistic Research

Journal of Neurolinguistics

Language and Cognition

Language and Cognitive Processes

Memory & Language,

[If you really want to read an article that appears in some other journal, please speak to me before you read the journal paper so I can determine whether the journal article will count for extra credit. When you speak to me, you must bring a print out that has the name of the journal, the authors of the paper, the title of the paper, and the abstract. When you hand in your paper, please append a copy of the journal article. Book chapters, articles that appear in the popular press (e.g., New York Times, Scientific American, Time Magazine, etc.), and on-line articles (e.g., Wikipedia entries, NIH summaries, articles directed at parents, etc.) do not count.

How to find journal articles

1. Go to the following URL:
<http://www.libraries.rutgers.edu/rul/indexes/findarticles.shtml>
2. [You can get an overview on how to find an article at RU, by going to the following URL]
http://www.libraries.rutgers.edu/rul/how_do_i/find_an_article.shtml

3. Go to the link that says "Indexes and Databases"
<http://www.libraries.rutgers.edu/rul/indexes/indexes.shtml>
 This lists all of the indexes and databases that RU subscribes to in alphabetic order and by subject.
4. For most of you, the most relevant databases will be:
 PsycInfo:
http://www.libraries.rutgers.edu/rul/indexes/search_guides/psycinfo.shtml
 Medline: http://www.libraries.rutgers.edu/rul/indexes/search_guides/medline.shtml
 It is also not a bad idea to check the "by subject" to see if there are any additional or more specialized databases you should search.
5. Once you choose your database, login in by hitting the CONNECT button. You will be prompted to provide keywords or phrases.
6. The default search is a Keyword search. If "Map terms onto subject headings is "clicked", your terms will be used to find matching subject headings, a strategy that sometimes is useful when you are just beginning
7. If you want to search for a particular author, click the author icon, and then provide the last name of the author and the author's first initial.
8. If you "unclick" "map term to subject heading", the system will yield matches where that word appears in the journal title, author, journal title or abstract.
9. If you get too many hits, you can use the "LIMIT" function to limit your search to particular years, articles with abstracts, review articles, age groups, population groups (e.g., animals vs. humans), publication type etc. For example, if you merely search for "autism" on PsycInfo, you will get 16155 hits ... far too many to even read the abstracts of. But let's say I am interested in animal models of autism, and only want articles written in English, with an abstract. By limiting my search to English, abstract and animal, I get a semi-manageable 205 hits.
10. Another strategy for when you get too many hits is to use the COMBINE function to combine the results of two or more searches. For example, on PsychInfo, combining the searches for "autism" with "genetics" yields a hefty 679 hits. Combining "autism", "genetics" and "twin" will pick out the articles that have all 3 words, in this case a manageable 41 hits.
11. Once you have found a reference for something that appears in a journal, see if Rutgers has an electronic version of the journal by going to the following URL:
http://www.libraries.rutgers.edu/rul/rr_gateway/ejournals/ejournals.shtml
 Most of the time you will be interested in electronic journals, not electronic government journals.
12. Even if the RU Library does not have the electronic version of the journal, they may have a hard copy version of the journal. You can check this by going to:
http://www.libraries.rutgers.edu/rul/how_do_i/subscribes.shtml

A good summary of databases available to Rutgers students can be found at the following URL and its links:
http://wire.rutgers.edu/research_finding_library.html

PLAGIARISM

DO NOT PLAGIARIZE. If you are caught plagiarizing any extra credit assignments, you will not receive for any of their extra credit assignments. Furthermore, depending on the egregiousness of the plagiarism, I reserve the right to lower your final grade and/or notify your dean about the plagiarism.

WHAT IS PLAGIARISM?

1. If you copy something that is in print ANYWHERE (books, journals, popular magazines, on-line. blogs, mailing lists etc.), you are plagiarizing.
2. Taking someone else's words and substituting a word here or there is still plagiarism.
3. Paraphrasing someone else's words but 'borrowing' their line of argument and reasoning is plagiarism.
4. Plagiarism is stealing. Better to hand in something that is yours but not polished, than to hand in something that is perfect but stolen.
5. For more guidelines on plagiarism, see http://wire.rutgers.edu/research_plagiarism.html

Ten hints for doing well in this class:

1. **Come to every class and take good notes.** If you do miss a class, get the notes from a classmate. I stress

different topics in my lectures than those stressed in the readings. The material I stress in lecture tends to appear on exams.

2. Spend 10 minutes immediately after each lecture going over your lecture notes, reconstructing the lecture and making sure you understand the "key concepts" for the day.
3. Spend the 10 minutes before each lecture going over the lecture notes and "key concepts" from the previous class.
4. Try to at least skim the assigned readings before each class.
5. When you go back and reread the books, use the lecture notes to guide your reading.
6. If you are having trouble with one of the readings for a topic, try the other reading for the topic.
7. If you don't understand something said in the lectures or in the readings, let me know. Ask a question in class or come to my office hours. Chances are if you are confused, others are too.
8. Use the posted slides, your lecture notes and the "key concepts" to review for exams
9. Form study groups and quiz each other on key concepts.
10. Do not try to cram. The material in this course builds on itself, just like in a math or physics course and the exams are cumulative. If you don't learn the material in the beginning of the course, you are going to be lost.

KEY CONCEPTS

(Subject to Change – Please see the Key Concepts given on the slides)

Introduction to Psycholinguistics

- Linguistics vs. psycholinguistics
- Competence vs. performance
- Descriptive grammar
- Prescriptive grammar
- Metalinguistics

Language & Communication

- Formalism
- Functionalism
- Communication systems vs. Human Language
- Hockett's 13 Design Features
- Faculty of Language Broad (FLB)
- Faculty of Language Narrow (FLN)

Language & Thought

- Relationship between language & thought
- Linguistic determinism
- Linguistic relativism
- Sapir-Whorf Hypothesis

Speech Production

- Phonetics
- Articulatory phonetics vs. acoustic phonetics vs. aural phonetics
- Phonology
- Differences between vowels & consonants
- Phones
- Phonemes vs. allophones
- Minimal pairs of words

- Articulatory features of English consonants (Voicing, Place of Articulation, Manner of Articulation)
- Coarticulation

Speech Perception

- Lack of invariance problem in speech perception
 - Word Segmentation
 - Mondegreenes
 - Assimilation & Phonetic context
 - Lexical context
 - Phoneme restoration
 - Speaker normalization
- Categorical speech perception & phoneme boundary (vs. continuous speech perception)
- Key acoustic features for voiced vs. unvoiced oral stop
 - Syllable initial (e.g., ba/pa, da/ta, ga/ka) Voice onset time
 - Syllable final (e.g., ab/ap, ad/at, ag/ak): duration of preceding vowel
- Motor Theory of Speech Perception
- Auditory Theory of Speech Perception
- McGurk Effect
- Acquisition of speech perception

Morphology

- Morpheme { }
- Allomorph / /
- Root morphemes versus affixes (prefixes, infixes, suffixes)
- Bound morphemes vs. free (unbound) morphemes
- Open class vs. closed class morphemes
- Semantic predictability
- Morphological productivity
- Inflectional morphemes
- Derivational morphemes
- Unpaired words:
- Acquisition of inflectional and derivational morphology

Words & concepts

- Neologisms (compounding, blending, coinage, iconic, eponyms, acronyms, backformation, clipping, derivational morph, coinage)
- Semantic change (amelioration, degradation, narrowing, etc)
- Intension vs. extension of a concept
- Ostensive definition
- Classical view of concepts: necessary and sufficient
- Family resemblance (Wittgenstein)/Prototype theory of concepts (Rosch)
- Lexical concepts (Fodor)
- Primitive vs. complex concepts

- Causal theory of reference (Kripke)
- Natural kind terms vs. artifact terms
- Word learning as an induction problem
- Component-by-component word learning (Clark)
- Principle of Contrast
- Syntactic context and word learning
- Soja et al.s word learning of object and substance names
- Fast-mapping (One trial word learning)

Lexical access

- The lexicon (what's in it)
- Lexical access (how do we get the info out)
- Tachistoscopic studies of lexical access
- Lexical decision experiments
- Lexical naming experiments
- Lexical priming
- Tip-of-the tongue phenomenon
- Speech errors (slips of the tongue)
 - Sound-based slips of the tongue: malapropisms, spoonerisms, anticipations, perseverations, deletions)
 - Meaning-based errors: antonyms (polarity changes), other feature changes
- 2-Stage model of lexical access (Stage 1: meaning. Stage 2: sound)
- Cross-modal priming experiments
- Serial search versus parallel search of the lexicon
- Access vs postaccess effects in lexical decision
- Top-down vs Bottom-up models of lexical access

Syntax & sentences

- Autonomousness of grammatical and understandable
- Ungrammatical: Descriptive vs. Prescriptive linguistics
- Grammar = List of Sentences (talking doll)
- Finite State Grammar
- Transitional probabilities between words
- Recursion revisited
- Tree-diagram: Nodes and branches
- Grammatical categories (N, V, Adj, Adv, Det, P, Aux)
- Phrases (NP, VP, AP, DP, PP ... XP) &
- Heads of Phrase : Features of the Head determine the features of the phrase
- Phrase structure grammar
- Rewrite rule (e.g., NP --> (det) (Adj*)N: You do NOT need to know the specific rewrite rules!)
- Transformational theory of language:

- D(eep)-structure → S(urface)-structure → Phonetic Form → motor program
- Predicate
- Arguments vs. Adjuncts
- Transitive verbs vs. Intransitive verbs
- Theta-theory (every theta-role must be discharged exactly once)
- Case-theory (every NP must get case once and only once)
- Universal Grammar (UG)
- Principles and Parameter approach to syntax
- Spec-initial vs SPEC-final parameter
- Head-initial vs Head-final parameter) –

Sentence Processing

- Syntactic parsing
- Semantic interpretation
- On-line vs. off-line sentence processing
- Speech shadowing
- Simultaneous translation
- RSVP of sentences: Rapid serial visual processing
- Eye movement studies
- Garden path sentences
- Ambiguous sentences
- Competence vs. performance revisited
- Mondegreens revisited
- Top-down vs. bottom-up theories of sentence processing
- Minimal attachment sentence processing heuristic:
- Late Closure sentence processing heuristic

Sentence Production

- Pauses & dysfluencies
- Prosody & intonation
- Neuroimaging studies
- Self-repairs
- Slips of the tongue
- Serial vs. parallel models of sentence production:
- Garrett's Model of Sentence Production

Normal Language Acquisition

- Theories of language acquisition: Nativist, Empiricist, Constructivist/Emergentist
- Language acquisition as rule learning vs. statistical learning

- Learnability theory
 - Positive evidence and negative evidence
 - Text presentation & informant presentation
 - Subset and superset languages
- Input
 - Motherese
 - No negative evidence problem
- Output
 - Stages: prelinguistic, 1-word stage, 2-word stage, telegraphic stage, complex structures
 - Structure-dependence in language acquisition
 - Constrained productivity & non-occurring errors
- Universal Grammar and language acquisition
 - Specifically-linguistic innate constraints guide language learning
 - Principles & Parameters: Principles are universal, each with a few parametric settings
 Syntax acquisition is merely learning the parameter settings of your language
 - Optimality Theory: There are universal constraints, the ranking of which varies across languages
 - Syntactic acquisition is learning the ranking of syntactic constraints in your language
 Phonology acquisition is learning the ranking of phonological constraints in your language

Atypical Language Acquisition

- Critical Period & Sensitive Periods
- Critical period for first language
 - Wild children
 - Deaf isolates
 - Cochlear implants
- Critical period for second language acquisition
- Critical period, brain injuries and neural plasticity
 - Hemispherectomy
 - Focal Brain Injury
- Specifically language impairment (SLI) – including genetics of SLI
- Williams Syndrome

Neurolinguistics

- Hemispheric lateralization (which side): language is usually represented in left hemisphere
 - Wada test
 - Dichotic listening
 - Split brain patients
- Double dissociation of function
 - SLI vs. Williams Syndrome
 - Alzheimer's vs. aphasia (language impairment due to acquired brain injury)
 - Broca's aphasia vs. Wernicke's aphasia
- Language localization: regions within the left hemisphere where language is localized
- Perisylvian cortical regions: regions around (peri) the Sylvian fissure (major lateral fissure). Broca's area, Wernicke's area, angular gyrus, supramarginal gyrus
 - Broca's area: Anterior perisylvian region believed to be involved in syntax (functional category words) and speech production.
 - Wernicke's area: More posterior region believed to be specialized for meaning and language comprehension

- Lesion-deficit correlation studies in patients
 - Broca's aphasia (agrammatic aphasia): aphasia due to damage in Broca's area
 - Wernicke's aphasia (jargon aphasia): aphasia due to damage in Wernicke's area
- Neuroimaging
 - ERP studies (Event Related Potentials or Evoked Response Potentials)
 - PET studies (Positron Emission Tomography)
 - fMRI (functional Magnetic Resonance Imaging)
 - MEG (magnetoencephalography)

GENETICS

- Family aggregation studies
- Linkage studies
- Twin studies
- Adoption studies

Some Related Websites

UNIT 1: LANGUAGE, COMMUNICATION AND THOUGHT

General info

<http://www.yourdictionary.com/library/index.html#baldi>

Tongue in-cheek language essays

http://www.theonion.com/content/radio_news/rules_grammar_change?utm_source=slate_rss_1

More language humor

<http://www.geocities.com/CollegePark/3920/index.html>

An overview of the field and brief descriptions of its subdisciplines.

http://www.mc.maricopa.edu/academic/cult_sci/anthro/Language/what1.html

An introduction to the patterning of sounds, words, and phrases. Includes exercises and sound clips.

<http://www.zompist.com/langfaq.html>

Linguistics FAQ

Animal communication & non-linguistic human communication systems:

Bird Brains. Clues to the origins of human language are turning up in the brains of birds.

Ape Genius. Experts zero in on what separates humans from our closest living relatives

http://ruccs.rutgers.edu/~karin/Alex_obit.pdf

New York Times Animal communication article

<http://ruccs.rutgers.edu/~karin/DrDoolittleNYT2004.pdf>

Stephen Anderson & Dr. Doolittle's delusion.

<http://www.argyroneta.com/s4b/sem02.html>

A paper with explanations of various types of signs and their interpretations.

<http://www.yourdictionary.com/library/ling002.html>

Light hearted essay about animal communication

<http://www.angelfire.com/sc2/nhplanguage/>

The homepage for a project conducted by a seminar at the University of Leuven in Belgium. Includes a paper reviewing evidence for and against the existence of language in apes, with particular attention to Savage-Rumbaugh's work with Kanzi, the bonobo chimpanzee. Features a useful collection of links.

More Ape Language <http://www.slatev.com/player.html?id=1630417590>

KANZI THE BONOBO. [Launch interactive](#)

What would it be like to converse with a bonobo? According to primatologist Sue Savage-Rumbaugh, a lead scientist at the Great Ape Trust of Iowa, these apes cannot only understand language, but some of them can convey their thoughts and feelings to humans and to each other by pointing to any of hundreds of symbols on lexigram keyboards. In this audio slide show, meet Kanzi, the Trust's alpha male, who has demonstrated an extraordinary ability to communicate on our terms.

<http://www.brown.edu/Departments/Anthropology/apelang.html>

Includes links to general Web sites concerned with primate research and primate communication, books and texts, newsgroups, and bulletin boards.

http://www.pbs.org/newshour/bb/science/chimp_5-6.html

The transcript of a PBS segment looking at both sides of the issue of language use among apes. Focuses on the work of Rumbaugh and Savage-Rumbaugh with Kanzi, the bonobo chimpanzee.

<http://natzoo.si.edu/zooview/exhibits/thinktandlp/olp/olp.htm>

Describes a language training program for orangutans at the National Zoo in Washington, DC, in which orangutans use computers with touch screens.

<http://www.cages.org/research/pepperberg/index.html>

Describes Irene Pepperberg's work with African Grey Parrots. Her claims for language in parrots are reported in favorable terms here

<http://www.abc.net.au/oceans/whale/song.htm>

Whale songs

Sapir-Whorf Hypothesis

<http://venus.va.com.au/suggestion/sapir.html>

<http://www.linguistlist.org/topics/sapir-whorf/>

<http://www.ecst.csuchico.edu/~atman/Misc/eskimo-snow-words.html>

UNIT 2: SOUNDS: PHONOLOGY, ACOUSTICS & SPEECH PERCEPTION

<http://hctv.humnet.ucla.edu/departments/linguistics/VowelsandConsonants/vowels/contents.html>

Lots of video and audio clips of sounds around the world

<http://www2.arts.gla.ac.uk/IPA/ipa.html>

Includes the full IPA chart and audio files, as well as information on the organization.

<http://www.umanitoba.ca/linguistics/russell/138/notes.htm>

Notes from a phonetics course at the University of Manitoba, including phonetic transcriptions of English, vocal tract anatomy, properties of consonants and vowels, and acoustic phonetics, among other things.

<http://www.ling.yale.edu/Ling120/index.html>

The homepage for a course at Yale. Includes lecture materials and audio-video clips.

<http://www.phon.ucl.ac.uk/project/siphtra.htm>

These interactive tutorials from University College London are part of a project called System for Interactive Phonetics Training and Assessment. They include voicing, plosives (i.e., stops), and other topics.

UNIT 3: WORDS: MORPHOLOGY, SEMANTICS AND THE LEXICON

<http://thisisnotthat.com/humor/language.html#conundrum>

Linguistic conundrums

<http://www2.hawaii.edu/~bender/paradox.html>

Morphological paradoxes

<http://www.yourdictionary.com/library/ling005.html>

This short essay from Robert Beard's files illustrating what morphology is begins with "Jabberwocky," compares lexemes and morphemes, and makes a stop at Tagalog reduplication along the way.

<http://www.ruf.rice.edu/~kemmer/Words/morphemes.html>

A definition and illustration of the concept of a morpheme using examples from English.

<http://www.quinion.com/words/articles/unpaired.htm>

Unpaired words or why people aren't couth, kempt or ruly

<http://www.geocities.com/Heartland/Lane/7867/humor/humor10.html>

Humor piece using unpaired words "How I met my wife" by Jack Winter (from the July 25th 1994 *New Yorker*)

http://www.libraries.rutgers.edu/rul/indexes/search_guides/oed.shtml

The Oxford English Dictionary. Probably the world's best dictionary for English. Entries include detailed etymologies for most words. (Requires Rutgers account to access this website).

<http://pages.zoom.co.uk/leveridge/dictionary.html>

An English neologism on-line dictionary (UK-leaning)

<http://www.rdues.liv.ac.uk/newwords.shtml>

This site contains 'new' English words culled from the *Independent* newspaper from 1997 to 1999.

<http://thisisnotthat.com/humor/language.html#office>

Office slang

<http://www.csupomona.edu/~jasanders/slang/>

College slang project homepage

<http://www.csupomona.edu/~jasanders/slang/top20.html>

Top 20 college slang words for 2002

UNIT 4: SENTENCES: SYNTAX, PARSING & PRODUCTION

<http://www.yourdictionary.com/library/ling004.html>

A lighthearted introduction to syntax from Robert Beard's files.

<http://www.yourdictionary.com/library/ling003.html>

A lighthearted introduction to syntax from Robert Beard's files.

<http://babelfish.altavista.com/translate.dyn>

This engine translates entire paragraphs back and forth between English, French, German, Italian, Portuguese, and Spanish.

Speech errors:

<http://www.departments.bucknell.edu/linguistics/lectures/05lect16.html>

<http://www.lsadc.org/Fromkin.html>

What I meant to say was: Ambiguous sentences, headlines, signs etc.

<http://thisisnotthat.com/humor/language.html#bulletins>
<http://thisisnotthat.com/humor/language.html#signs>
<http://monster-island.org/tinashumor/humor/headline.html>
<http://www.departments.bucknell.edu/linguistics/synhead.html>

What I though you said was: AKA mondegreens (misunderstood song lyrics)

<http://www.rulefortytwo.com/mondegreens.htm>
<http://www.rulefortytwo.com/mondegreenhall.htm>
<http://www.punkhart.com/dylan/lyrics/mondegreens.html>
<http://strangeways.tripod.com/mondegreens.html>

UNIT 5: THE BIOLOGICAL BASES OF LANGUAGE

Language acquisition

<http://www.yourdictionary.com/library/ling001.html>

Humorous piece on language acquisition

<http://chilides.psy.cmu.edu>

CHILDES: Child Language Data Exchange System. Tools for studying children's language acquisition through the study of conversational interactions. The site features a database of transcripts, programs for analysis, and methods of coding data, among other things.

<http://www.sci.sdsu.edu/cdi>

The MacArthur Communicative Development Inventories. These are parent report forms to assess the development of language and communication in children. Included are lexical norms for English vocabulary acquisition showing when particular words and expressions are acquired.

<http://www.pbs.org/saf/1205/video/watchonline.htm>

Growing up different.

<http://www.pbs.org/wgbh/nova/transcripts/2112gchild.html>

Nova #2112G: Secret of the Wild Child. The broadcast transcript of a *Nova* program on Genie. Includes interview material with Susan Curtiss and others involved in caring for Genie and studying her development.

Deafness :

<http://www.pbs.org/wnet/soundandfury/>

<http://www.bbc.co.uk/science/horizon/silenttran.shtml>

Down Syndrome: <http://www.nas.com/downsyn/>

Williams Syndrome: <http://www.williams-syndrome.org/facts.htm>

Autism: <http://www.autism-society.org/>

Neurolinguistics

Video of how ischemic strokes happen

http://www.nytimes.com/packages/khtml/2007/05/25/health/20070528_STROKEB_FEATURE.html

<http://www.biology.about.com/science/biology/library/organs/brain/blbrain.htm>

Anatomy of the Brain. An outline with illustrations for students. Includes concise sections on Broca's area and Wernicke's area

[http://www.stroke.cwc.net/niweb/faq.htm#14 different parts of the brain do](http://www.stroke.cwc.net/niweb/faq.htm#14%20different%20parts%20of%20the%20brain%20do)

What Do Different Parts of the Brain Do? Question 12 in a series of frequently asked questions written for stroke victims and their families features a clear, color-coded, numbered diagram of the left hemisphere, with an explanation. Scroll down to read question 13 concerning speech problems.

Aphasia

http://www.asha.org/speech/disabilities/Aphasia_info.cfm

<http://fuzzy.iau.dtu.dk/aphasia.nsf>

<http://www.asha.org/speech/disabilities/index.cfm>

<http://www.med.harvard.edu/AANLIB/home.html>

Genetics of language:

<http://www.nature.com/nsu/011004/011004-16.html>

<http://ruccs.rutgers.edu/~karin/GeneDec2002.ppt>

<http://ruccs.rutgers.edu/~karin/stromswoldLANG.pdf>

Epigenetics (July 2007) Our lifestyles and environment can change the way our genes are expressed, leading even identical twins to become distinct as they age. [Watch now](#) (13 mins.)

Evolution of language:

<http://arti.vub.ac.be/~jelle/classics/>

<http://www.isrl.uiuc.edu/amag/langev/>

http://www.nature.com/cgi-taf/DynaPage.taf?file=/nature/journal/vaop/ncurrent/full/nature01025_fs.html