

PSYCHOLOGY OF LANGUAGE (830:351:01/615:371) Fall 2020
 (Syllabus will be updated during the semester – Please check periodically)

WARNING: This is a hard class.

INSTRUCTOR: Prof. Karin Stromswold
Email: kstrom@rutgers.edu

Class: Mon & Wed 3:20 - 4:40 pm (on Zoom)
Office hours: TBA (on Zoom)

Canvas site: 22020FA - PSY OF LANGUAGE 01:830:351:01

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?

TENTATIVE LECTURE SCHEDULE

Unit 1: Language, Communication & Thought		
Wed 9/2	Introduction to Psycholinguistics	Fernandez & Cairns, pp 25 – 29. Optional: Pinker, chap. 1 – 2
TUES 9/8	Language & Communication	Traxler chap. 1, pp 1 – 18, Crystal, pp. 396 – 398
Wed 9/9	Language & Communication	Hauser, Chomsky & Fitch
Mon 9/14	Language & Thought	Traxler chap. 1, pp 18 – 30 , Pinker, chap. 3
Wed 9/16	Language & Thought	Traxler chap. 1, pp 18 – 30 , Pinker, chap. 3
Unit 2: Sounds: Phonetics, Speech Production & Speech Perception		
Mon 9/21	Phonetics & Phonology	Fernandez & Cairns, pp 29 – 44 Optional: Pinker, chap. 6
Wed 9/23	Speech Production	Traxler, chap. 2, pp 51 – 54 (skim 37 – 43)
Mon 9/28	No synchronous class (Yom Kippur)	
Wed 9/30	Speech Perception	Language File 9.4
Mon 10/5	Speech Perception	Traxler, chap. 2, pp 54 – 72
Wed 10/7	Speech Perception	Traxler, chap. 9, pp 325 - 344
Unit 3: Words		
Mon 10/12	Words & meaning	Traxler, chap. 3, pp 79 – 97; chap 9, pp 344 - 350
Wed 10/14	Lexical Access	Traxler, chap. 2, pp 37 – 51
Mon 10/19	Lexical Access	Traxler, chap. 3, pp 97 – 119
Wed 10/21	Lexical Access	Traxler, chap. 3, pp 97 – 119
Mon 10/26	Lexical Access Wrap-up & review	
Unit 4: Sentences: Syntax, Parsing & Production		
Wed 10/28	Sentences & Syntax	Fernandez & Cairns, pp 47 – 62
Mon 11/2	Sentences & Syntax	Stromswold's syntax handouts
Wed 11/4	Sentence Processing	Traxler, chap. 4, pp 141 – 183; Pinker chap. 7 – 8
Mon 11/9	Sentence Processing	Traxler, chap. 4, pp 141 – 183; Pinker chap. 7 – 8
Wed 11/11	Sentence Processing	Traxler, chap. 4, pp 141 – 183; Pinker chap. 7 – 8
Mon 11/16	Sentence Production	Re-read Traxler chap. 2, pp. 37-45; Fromkin 1973
Unit 5: Biological Bases of Language		
Wed 11/18	Neurolinguistics/Language Acquisition	Stromswold 2000
Mon 11/23	Neurolinguistics	Traxler chap. 13, (Optional: Pinker, chap. 10)
Wed 11/25	No Class (Friday classes being held)	
Mon 11/30	Neurolinguistics	Traxler chapter 14
Wed 12/2	Neurolinguistics	Traxler chapter 14
Mon 12/7	Genetics & Evolution of Language	Stromswold, 2010, Pinker, chap. 11
Wed 12/9	Sign Language: Wrap up & review.	Traxler chapter 12
????	Final Exam/Final Project	XX

READINGS (Do the readings in the order indicated in the Lecture Schedule)

REQUIRED TEXTBOOK: Traxler, M. 2011. *Introduction to Psycholinguistics: Understanding Language Science*, 1st edition. Wiley-Blackwell.

- Print: ISBN-10 1405198621, ISBN-13 9781405198622.
 - In August 2020, there were new and used copies available through Amazon affiliates ~ \$35.
 - Hard copy rental is about \$15 through Amazon affiliates
- eText: ISBN-10 1118296885, ISBN-13 9781118296882: Available for various platforms for ~ \$80.

Recommended book [Some Pinker chapters are required. These will be on Canvas]

Pinker, S. 2000/1994. *The Language Instinct: How the Mind Creates Language*. Harper Perennial Modern Classics. Any edition is fine

- Print: ISBN-10: 0060958332; ISBN-13: 978-0060958336. Available through Amazon for \$5-\$10.
- eText: ASIN: B0049B1VOU. Kindle: \$11
- Audio (MP3, CD, Audible Audio): ISBN-10: 1455839701; ISBN-13: 978-1455839704: \$15-\$17

Required articles & chapters (available on Canvas site)

Bergman, A., Hall K.C., Ross, S.M., 2007. Speech perception language file (9.4). *Language Files: Materials for an Introduction to Language and Linguistics, 10th edition*. Ohio State University Press. Columbus, Ohio.

Crystal, D. 1991. Language & other communication systems, pp. 396-398. In *The Encyclopedia of Language*.

Fernandez, EM. & Cairns, HS, 2010. *Fundamental of psycholinguistics*, John Wiley & Sons, pp 25-44

Fromkin, V. 1973. The nonanomalous nature of anomalous utterances. In V. Fromkin, *Speech errors as linguistic evidence*. Mouton, Paris.

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's syntax handouts (syntax primer, case theory, theta theory)

Stromswold, K. 2000. The cognitive neuroscience of language acquisition. M. Gazzaniga (ed.),

The new cognitive neurosciences, second edition, 909-932. Cambridge, MA: MIT Press.

Stromswold, K. 2010. Genetics and the evolution of language: What genetic studies reveal about the evolution of language, pp. 176-190. In RV Larson, V. Deprez, and H. Yamakido (eds.), *The Evolution of Human Language: Biolinguistic Perspectives*. Cambridge University Press.

Additional required and recommended 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)**

Lecture quizzes: Worth ~25% of grade

Weekly online quizzes: Worth ~50% of grade

EITHER final exam or final project: Worth ~25% of grade.

The class will vote on whether to have a final project or final exam

A. FINAL EXAM: Cumulative, 3-hour, on-line multiple choice test

B. FINAL PROJECT: Students will create and record a 3 - 5 minute presentation on one of the following topics.

1. Mondegreens (and what they reveal about speech perception)
2. Speech errors (and what they reveal about lexical access)
3. Garden path & ambiguous sentences
4. Neurolinguistics (analysis of aphasic's speech)

(Topics will be assigned to students at random)

MAKEUPS: If you know you are going to miss a quiz or exam because of a legitimate conflict (e.g., family, religious or work obligation), let me know ahead of time! **Unscheduled make up quizzes and exams will only be given for unforeseen legitimate reasons (health, family emergencies or events, etc.).**

Students with accommodations for disabilities: If you are given accommodations, talk to me during the first 2 weeks of the course. In order to receive exam accommodations, you must provide me written documentation regarding the accommodations no later than 7 days before an exam. At this point, we will make specific arrangements about when and where you will take the exam.

LECTURE QUIZZES

Content: Covers material in that day's lecture

Format:

- Between 2 - 5 questions (multiple choice, true/false, matching etc.)
- Untimed, but must be taken during the period the lecture quiz is "live"
- Open book & notes
- **All work must be done independently!**
 - No copying, photographing or recording the questions
 - No collaborations or consultations with anyone else
 - No posting or discussing questions/answers with anyone else
 - **Anyone caught GIVING or RECEIVING help on a quiz will get a zero for ALL quiz grades**

Mechanics

- How: Quizzes will be online via Canvas's quizzes section
- When: Quizzes will generally be "live" for two days after the lecture (i.e., Monday's lecture quiz due by Wednesday night, Wednesday's lecture quiz due by Friday night)
- How many: ~ 2 per week

Benefits:

- Tests your basic understanding of material presented in the lecture
- Helps you prepare for that week's quiz
- Incentive for attending the lecture!
- Spaced learning is more effective than cramming!

WEEKLY ONLINE QUIZZES

Content. covers material in that week's lectures and reading assignments

Format:

- Approx. 10 – 20 questions (multiple choice, true/false, matching etc.)
- Untimed (but only available for a 24-hour period)
- Open book & notes
- **All work must be done independently! (See above)**

Mechanics

- How: Quizzes will be online via Canvas's tests/quizzes section
- When: Quizzes will generally be "live" on Sunday from 12 am to 11:55 pm
- How many: ~13 (plus an extra credit "trial run" quiz. See below).

Benefits:

- Can monitor progress/understanding of material
- Can test your understanding of material you need to know to understand subsequent material
 - The material in this course builds on itself, just like in a math class, so it is important to keep up
 - Weekly quizzes reduce the temptation to procrastinate
- Can use the questions to review for the final exam

"Dry Run" Extra Credit quiz

- Time: Thur 9/3 @ 12:00 am – Thur 9/10 @ 11:55 pm
- Value: worth 1 extra credit point
- Material covered: mechanics of the course & quizzes (e.g., exam dates, listening to files, viewing pictures)
- Goals
 - Successfully access the system, take the quiz & save the results
 - Learn what the interface is like
 - Learn if you have technical problems (software/hardware incompatibility, internet issues, etc.)

TENTATIVE SCHEDULE OF QUIZZES

Dates	TENTATIVE Topic
Week 1: Available Sept 3 – Sept 10)	Extra Credit: Dry run quiz (mechanics of course)
Week 2: Sunday Sept 13	Language & Communication
Week 3: Sunday Sept 20	Language & Thought
Week 4: Sunday Sept 27	Phonology & Speech Production
Week 5 Sunday Oct 4	Speech Production & Perception
Week 6 Sunday Oct 11	Speech Perception
Week 7 Sunday Oct 18	Words & Lexical Access
Week 8 Oct 25	Lexical Access
Week 9 Nov 1	Lexical Access
Week 10: November 8	Morphology & Syntax
Week 11: November 15	Sentence Processing
Week 12: November 22	Sentence Processing
Week 13: Available Nov 24- Nov 29	Sentence Production/Neurolinguistics
Week 14 December 12/6	Neurolinguistics

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

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.

What appears on StudyBlue is often inaccurate, out-of-date etc.

LECTURE SLIDES/RECORDED LECTURES

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 no substitute for attending class/watching the lecture.
2. Because I post the slides BEFORE the lectures, they are subject to change. I recommend that you check the Canvas 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 serious typo, send email to kstrom@rutgers.edu

After each class, I will attempt to post recordings of the lecture. I **strongly** recommend you attend the synchronous class because sometimes technical glitches happen and recordings fail.

UNGRADED EXERCISES

Periodically, I may 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.

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.

Some hints for doing well in this class:

1. **Attend every class and take good notes.** If you do miss a class, watch the video. 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. **Come to my office hours!**
10. Use the chat room! Chances are if you have a question, someone can answer it.
11. Form a study group and quiz each other on key concepts. Study groups can be physical or virtual.
12. Create a group study document
13. The quizzes are designed to assess whether you have learned the material in a unit. Even though the quizzes are open book and untimed, you will get more out of them if you have done the readings and reviewed your notes and the slides BEFORE you take a quiz.
14. **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.

Student-Wellness Services:

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and

provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

Academic Integrity Policy

<http://academicintegrity.rutgers.edu/academic-integrity-policy/>

Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity.

General Academic Integrity Link:

<http://academicintegrity.rutgers.edu/>

The Camden Plagiarism Tutorial (INTERACTIVE):

<http://library.camden.rutgers.edu/EducationalModules/Plagiarism/>

Consult Don't Plagiarize: Document Your Research! For tips about how to take notes so that you don't plagiarize by accident. http://www.libraries.rutgers.edu/avoid_plagiarism

<http://academicintegrity.rutgers.edu/resources-for-students>

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your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

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KEY CONCEPTS

(Please see the Key Concepts given on lecture slides)

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/thinktand/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 thought 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

Author: Keith Johnson & J. Alex Becker

Institution: Harvard Medical School

The Whole Brain Atlas: Images, scans, movies etc. of normal & disordered brains

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

Author: John W. Sundsten

Institution: University of Washington, Seattle.

2-D and 3-D views of the brain from cadaver sections, MRI scans, and computer reconstructions.

<http://www9.biostr.washington.edu/cgi-bin/DA/PageMaster?atlas:Neuroanatomy+ffpathIndex:Splash^Page+2>

Sundsten & Mulligan's interactive neuroanatomy syllabus:

[http://www9.biostr.washington.edu/cgi-](http://www9.biostr.washington.edu/cgi-bin/DA/PageMaster?atlas:NeuroSyllabus+ffpathIndex:Splash^Page^Syllabus+2)

[bin/DA/PageMaster?atlas:NeuroSyllabus+ffpathIndex:Splash^Page^Syllabus+2](http://www9.biostr.washington.edu/cgi-bin/DA/PageMaster?atlas:NeuroSyllabus+ffpathIndex:Splash^Page^Syllabus+2)

Talking Brains

<http://www.talkingbrains.org/>

National Institute of Deafness and Other Communication Disorders

<http://www.nidcd.nih.gov/Pages/default.aspx>

National Institute of Neurological Disorders and Stroke

<http://www.ninds.nih.gov/>

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

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