NEUROLINGUISTICS AND COGNITIVE NEUROSCIENCE
(PSYCH 637 - SECTION 2)

Instructor:  Karin Stromswold
Time:  Spring 1996, Mondays 4 pm - 6:40 pm
Place:  Psychology Building (Busch), Room 301
Ways of reaching me:  email to karin@ruccs.rutgers.edu, phone (445-2448)
Content:  This seminar will cover the neural bases of language.  Topics will include:

* the relationship between language development and neural development, including evidence from normal language acquisition
* acquired and developmental language disorders
* language acquisition outside the critical period.
* the genetics of language disorders such as dyslexia, stuttering and developmental aphasia
* recent research using functional brain imaging techniques (PET, ERP, MEG, and fMRI)

Open to:  Graduate students with backgrounds in psychology, linguistics, philosophy, cognitive science or neuroscience.  Others may enroll with special permission.

Requirements for everyone (including auditors):

¥ Attend class regularly and participate in class discussions
¥ Do each week’s assigned readings (approx. 50- 100 pp/wk)
¥ To help focus and foster class discussion, prior to each class, students must submit at least one question about each of the week’s assigned readings.  I will try to incorporate students’ questions into the class discussions.

Additional written requirement for people taking the course for credit:

Write one long paper (15-20 pp) OR
Write two medium-length papers (8-10 pp) OR
Write short (1-2 pp) commentaries on each week’s readings
## SCHEDULE

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<th>Unit 1: Neuroanatomy, Neurodevelopment &amp; Neural Plasticity</th>
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UNIT 1: NEUROANATOMY, NEURODEVELOPMENT & NEURAL PLASTICITY

Week 1 Introduction/Overview


Week 2 Basic neuroanatomy & neurodevelopment


[Optional -- Kandel, Schwartz and Jessel, chapters 57 & 58, pp. 887-929]

Week 3 Normal development of cortical language areas


Week 4: Language development in the absence of experience


Week 5: Childhood brain injuries


Week 6 Adulthood aphasias Cognitive studies


Week 7 Adulthood aphasia: Functional & neuroanatomic studies


**Week 8**  Specific language impairment, dyslexia, & hyperlexia

**Everyone will read the following 2 articles:**


**Each student will be assigned 2 of the following articles**


**Week 9: Genetics of language and language disorders**


**Week 10: Cortical stimulation & recording**


**Week 11: ERP**


**Week 11: MEG**


Week 13: PET


Week 14 fMRI


