Psy 642: Psycholinguistics Midterm
Spring 2003

Instructions: You are to write on two questions. One question must be selected from among questions 1-3. Everyone must answer question 4. In answering these question, you may use your class notes, your textbooks, the weekly readings, and if you wish, the in-depth readings. Your two essays together may not exceed 10 type-written, double-spaced pages. Font size may not be smaller than Times 10 pt, and margins must be 1" all around. You should cite appropriate references in your answers, but because space is at a premium, you may use abbreviations as long as their interpretation is clear from your bibliography. Your bibliography should be in APA format, and is not included in the 10-page limit for your essays. Your midterm is due no later than 4 pm Friday, February 28. It should be turned into to Mrs. Hoyer in Park 365.

Speech Perception

1. Theories of speech perception can be roughly divided into two camps, those that argue that there is a set of invariant features (e.g., Motor Theory) that can be used to extract phonetic representations from the speech signal, and those that argue that speech perception is a process of combining cues from multiple sources in a constraint-based fashion to identify phonetic representations (e.g., Fuzzy Logic Model, Trace). (1) Describe that main assumptions of these two approaches(you may do this within the context of specific models). (2) Select at least four of the following phenomena and use what is known about them to evaluate the claims/predictions made by these two approaches to speech perception (e.g., how do these approaches account for these phenomena, are the accounts plausible or problematic for these approaches, etc.)

    a.   categorical perception of stop consonants
    b.   perception of speech and non speech
    c.   McGurk Effect (cross-modal cue integration)
    d.   Ganong Effect
    e.   duplex perception
    f.   cue trading relations
    g.   top-down context effects

Spoken Word Recognition

Two of the hallmarks of spoken word perception are that it is early—i.e., often, you do not have to hear all of a word in order to accurately perceive it, and that it is even faster in context. Theories such as the Cohort and Trace models can accommodate these two findings, but they do so in different ways. Describe these two models in detail. How do they account for both the earliness of word recognition and faster recognition in a sentential context? Evaluate the empirical adequacy of these models (i.e., are there phenomena that pose problems for these models?) What are the strengths and weakness of these models?

Visual Word Recognition

3. The Dual Route and the Interactive-Activation Models of Visual word recognition differ suggest that visual word perception is accomplished by vastly different types of architectures and processes. What are the central architectural/processing differences between these two models? Critique these models. Select four of the following empirical phenomena and discuss how (and how well) they account for them. Finally, evaluate the strengths and weaknesses of these two models.

    a. frequency effects
    b. regularity effects (over all faster naming of regular than irregular words)
    c. frequency by regularity interaction
    d. Pattern of naming times for regular, exception/irregular words and nonwords
    e. consistency effects

     f. semantic priming
     g. acquired dyslexias

Sentence Processing

4. Some models of sentence comprehension suggest that we initially attend only to a restricted type of structural information and only later use other types of information to either confirm or reanalyze the structural analysis developed in the first stage of processing. Other models suggest that all sorts of structural and nonstructural information are used during a single, but dynamically changing processing stage. Describe the architecture and main predictions of these two models. Then, using data from ambiguity resolution studies (reduced relative/main clause, NP/S, prepositional phrase attachment, and syntactic category ambiguities) and unbounded dependencies, evaluate how well these data support these models. Finally, discuss some ways in which the architectural and processing assumptions exemplified by Garden Path and Constraint-based sentence processing models are similar to and different from the architectural and processing assumptions exemplified by the models you discussed in your first essay.