Introduction

Theoretical linguistics is concerned with how language is organized in the abstract, creating models of linguistic competence, typically with less concern for language performance. In contrast, psycholinguistics addresses how language might be realized as a component within the general cognitive system: specifically, how language is comprehended, produced, and represented. It is an interdisciplinary effort, drawing on research and techniques from linguistics, psychology, neuroscience, and computer science, and utilizes a variety of methods to investigate the underlying representations and mechanisms that are involved in linguistic computations.

The core areas of psycholinguistics include language acquisition, language perception, language production, language comprehension, language and the brain, and language disorders and damage. This course emphasizes depth over breadth, and so we will not delve into all of these topics. Instead, we will be focusing on just two areas of research: mental representations and processing of lexical units, and sentence comprehension. We start with the basics of lexical access and decision, exploring various models of the processes involved. We then move to an overview of classic models of sentence processing which vary according to a number of related properties such as the modularity/interactionism of information channels and the serialism/parallelism of processing. Finally, we discuss several topics in current and classical language research, including the filler-gap dependencies, semantic processing, and prosodic phrasing.

Crucially, psycholinguistics does more than simply describe the facts. It attempts to weave what is known about how humans produce and process language into a coherent cognitive model, with enough structure so that we can study its composition in a rigorous, hypothesis-driven way. An important theme of this course involves elements of model building and assessment, emphasizing explicit and concrete hypotheses that make testable, and linguistically informative, predictions.

The aims for this course include:

• Identifying the major choice points of classic and current psycholinguistic models, as well as the essential arguments for and against them;
• Creating and assessing explicit and concrete experimental hypotheses that develop aspects of a model;
• Learning how to generate testable predictions from experimental hypotheses;
• Acquiring practical experience with experimentation and design;
• Presenting results and interpretations in clear and accessible way.

The course is likely to change as the quarter progresses. Please check the course website often:

https://ccle.ucla.edu/course/view/19W-LING213C-1
Assessment

Credit options. What follows is a description of the **four-unit** version of the course. There is also a **two-unit** version, currently in the form of a LING 596 or 597 course, the requirements of which will be determined on an individual basis. Minimally, the two-unit version involves attendance and participation in discussion. Requirements can be adjusted according to the student’s needs.

**Participation (10%).** I’m hoping for much lively discussion and participation. Some portion of each class session will be designated for open conversation. Please come prepared. On occasion, you will be asked to post questions, reactions or responses on CCLE, usually due by 8AM before class. The first of these will be an open-ended response due before the second week; responses will be discussed as part of the quantitative methods debate that week.

**Paper presentations (20%).** Each student will present one paper to the class from a list of assigned papers. Alternative papers will be permitted on a case-by-case basis. Presentations should be approximately 30-40 minutes long, accompanied by handouts or slides.

**Research proposal and squib (20%).** The assignments below are ‘scaffolded’ in that each successively helps you prepare you for the final project. First, you will submit a research proposal (1-2 pp. single spaced) that addresses the following:

1. What is the theoretical model that you are assuming?
2. What is the *concrete experimental hypothesis* that you will be exploring in your study?
3. What is the *central empirical prediction* of this hypothesis?
4. What is a plausible alternative hypothesis? How would evidence for the alternative hypothesis impact the character of the human language processing or production system?
5. What would the design of your experiment be? What conditions would you test and why? Please give examples, and work through those examples enough to illustrate how they are relevant to the predictions and the hypothesis of the study.
6. What concerns do you have, practical or otherwise, that you’d like me to address?

The proposal does not commit you to a topic – you can even submit more than one if you’re having trouble settling on an area. We will meet to discuss it in detail. After settling on a topic, you will submit a research squib (4-5 pp. single spaced) on the topic. In the squib, you should:

1. Clearly determine an empirical area of study with examples.
2. Articulate a plausible, concrete hypothesis, which (a) has viable alternatives, (b) can be tested, and (c) is of interest to language processing research or language research generally. The hypothesis should intersect with a processing or production model discussed in class or in consultation.
3. Show what predication(s) this hypothesis generates.
4. Briefly propose a method for testing those prediction(s).
5. Discuss the importance of the results for psycholinguistic research through discussion of plausible alternatives.

In essence, the squib is a better-articulated version of the proposal that clearly develops the logic of the experiment and justifies the design. The proposal is the first step in generating project ideas; the squib is similar to a small grant application. Be sure to include an adequate
bibliography, and, if possible, a few additional items in an appendix beyond those discussed in the prose.

**Final project (50%).** The final project consists of two parts. First is a short 10-15 minute presentation, again with handouts or slides, of the project in the final week of the course. Second is the final paper due a week after the last day of class. Topics will vary, and may be related to research outside of the class. I encourage you to meet with me early and often to develop a project. Remember, I’m here to help!

Final papers can be of one of two types:

*Option A: Pilot research.* You will test the predictions of your squib in a pilot experiment, which we will design together. The experiment should be the length of a short report (6-7 pp. single spaced) and resemble the format of original research papers we have reading during the quarter, clearly reporting the method, design, the basic results, and the conclusions that might be drawn from the results. Include your items in an Appendix.

*Option B: Conceptual research.* You will develop your squib into a longer paper that includes additional background, a strong connection to psycholinguistic theory, and a well-articulated proposal for an experiment. This paper will focus on establishing the background and logic of the experiment, and should be approximately 10-12 pages single spaced. Include proposed items in an Appendix.

**Schedule.**

Readings are listed in the order in which they should be read. Readings will be available on the course website. In general, each week has a theme.

**Note:** This schedule is tentative and subject to change. Please keep your calendars updated according to course announcements.

**Key:**

- [R] Required
- [S] Student Presentation
- [O] Optional
- [A] Activity

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**Week 1 – What is psycholinguistics? Course overview.**

*Tuesday: Introduction.*

*Thursday: Methods overview, questionnaire design.*

[A] **Short response due on Thursday January 10 by noon on CCLE.**

*Quantitative methods discussion on 3 readings:*


Week 2 – Methods.

Tuesday: Methods crash course.


Thursday: Conducting Internet experiments: Ibex Farm tutorial.

[A] Go to [http://spellout.net/ibexfarm/](http://spellout.net/ibexfarm/) and take a look at the documentation. You can create experiments in the class account (un: ucla.213C; pw: campbellhall)


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Week 3 - Lexical processing.

Tuesday: The mental lexicon and visual word perception.


Thursday: Ambiguity and decomposition


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**Week 4 - Syntactic processing**

*Tuesday: The Garden Path Model and Reanalysis*


*Thursday: The Referential Model.*


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**Week 5 - Syntactic processing II**

*Tuesday: Constraint-based models.*


*Thursday: Lexicalist and underspecified models.*


Week 6: Syntactic processing III
Tuesday: Filler-gap dependencies.


Thursday: Relative clause processing and gaps in islands.


Week 7: Semantic processing
Tuesday: Current topics in semantic processing.


Thursday: Interpreting quantifiers


Week 8: Prosody and sentence processing
Tuesday: Prosodic grouping and the implicit prosody hypothesis


*Thursday: Pitch accents*


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**Week 9: Memory and surprisal**

*Tuesday: Memory and interference.*


*Thursday: Surprisal*


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**Week 10: Wrapping up.**

*Tuesday: Retrospective / Prospective.*


*Project presentations*

*Thursday: Project presentations continued*

**Important dates**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Tuesday, Jan 10</td>
<td>Position on quantitative standards debate [CCLE]</td>
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<tr>
<td>Tuesday, Feb 14</td>
<td>Proposal due [in class]</td>
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<tr>
<td>Tuesday, Feb 28</td>
<td>Squib due [in class]</td>
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<tr>
<td>Thursday, Mar 21</td>
<td>Final paper due [email]</td>
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