Final Exam Study Guide
(24.900 Fall 2001)

If we do our job well, the final exam should be neither particularly hard nor particularly easy. It will be a comprehensive exam on the points stressed and practiced in this class, but should have no tricks or nasty surprises. There may be a few questions designed to specially benefit those who faithfully attended class and paid attention, but that's as mean as it will get.

Expect problems and questions of the same general type as those you tackled on your problem sets and on the two quizzes. Thus, if there is any type of problem from one of the problem sets that you do not feel comfortable with, be sure to ask us (the instructor or either recitation leader) for help as you study.

Also expect some short answer questions and identification questions, and possibly some short paragraphs on concepts or issues discussed in class.

You are also not responsible for terms, topics or issues discussed in the textbook that were not also covered in class.

The converse is not true. You are responsible for all topics stressed in class lectures, even if they were not stressed in the readings. (This is in accordance with the general guidelines mentioned in the syllabus.) So if you missed classes, be sure and get notes from classmates. We are willing to help fill in some missing pieces if you've forgotten some concept or missed a class or two and need help interpreting a classmate's notes.

Special office hours will be scheduled before the exam, which you will learn about by e-mail. There will also be a special open review session next week, time and place to be announced. (Read your e-mail.)

Feel free to e-mail us with questions or ask for an appointment at any time before the exam.

1. Introduction
   1. Types of linguistic knowledge: semantics, syntax, morphology, phonology, phonetics
   2. Knowledge of language as an example of tacit (unconscious) knowledge.
   3. storage vs. computation in language use. The lexicon (storage) vs. grammar (computation).
   4. The logical problem of language acquisition, otherwise known as Plato’s problem [or the problem of poverty of the stimulus]: how we end up knowing so much for which we have so little evidence. An answer: language as a mixture of innate knowledge vs. learned knowledge.
   5. An example: knowledge of words (and morphemes) despite the absence of word boundaries in the speech signal. The Saffran, Aslin and Newport experiment.

2. Morphology
   1. Morpheme: bound vs. free, root vs., affix, base
   2. Types of affixes (by where they attach): prefix, suffix, infix
   3. Types of affixes (by source of their pronunciation): Affixes with their own phonological form vs. reduplication.
   4. Tips:
      • Avoid pitfalls like forgetting that a reduplicated morpheme may be a prefix, suffix or infix. Or forgetting that a word may contain a series of suffixes (industrializational) and that the internal suffixes are not infixes! (An infix is a morpheme that attaches inside another morpheme.)
      • For this topic, the textbook is a good guide to what you need to know. Terms not covered at all in class (e.g. ablaut) will not be on the exam. Other good guides are your problem sets and the data on the morphology handouts from class. You will have morphology problems just like the ones you had in class.
3. Phonetics

1. Be able to label the parts of the vocal tract you labeled on the phonetics quiz. Know the phonetic difference between a vowel, a consonant and a glide.

2. Consonants: know the same facts about place of articulation, manner of articulation and voicing that you learned for the phonetics quiz. Know the same IPA symbols you learned for the quiz.

3. Vowels: Know the English vowels as you learned them for the phonetics quiz, including their classification by height and front/back. Revive your memory of the relevant IPA symbols, e.g. know the symbol for the vowel in put and the vowel in but, and don't get them mixed up!

4. Hint: As should be obvious, good advice is to restudy your phonetics quiz and the materials you studied before taking it.

5. Acoustic phonetics: Consult your notes for the concept categorial perception and formant. We did not cover this topic in depth, and the textbook is shamefully inadequate, so this topic will not be stressed on the exam. But there may be a question about it.

4. Phonology

1. Best advice: Be able to do any phonology problem of the type presented in class and in your problem sets. In particular:
   - Given a set of forms, be able to determine if a group of sounds are in complementary distribution. Be able to conclude from your investigation whether the sounds in question are separate phonemes or allophones of a single phoneme.
   - Given a set of forms from a language, be able to discover the existence of phonological rules active in that language. Sometimes such rules will relate allophones to a common phoneme. At other times, the rules will relate two sounds that might also function as separate phonemes elsewhere in the language.

2. Examples: Turkish and Russian final devoicing. In such cases, you may be asked to discover the forms of the morphemes listed in the lexicon -- called the underlying or phonemic representation. [Warning: This concept and activity is tricky and sometimes difficult for students to master. Pay some attention to it as you study for the exam, and ask questions if you don't get it.]

3. Know the X --> Y / ___ A notation for phonological rules. You are not required to learn anything in particular about features except the concept. Use of articulatory labels like alveolar is fine in rules, for the purposes of this final exam.

4. Be able to look at a pair of rules that are crucially ordered and both (1) determine the correct ordering and (2) justify the ordering by showing how your ordering yields the right forms and the opposite ordering yields the wrong forms.

5. Syntax

1. For the topics covered in syntax there were 3 summary sheets passed out in class which summarized and supplemented the textbook and class lectures. These, plus your problem sets and class notes, are your definitive guide to the topics covered in syntax on the final exam. The book is also important, but what we did in class should take priority in your studying.

2. The topics thus include:
   - Phrases and phrase structure: basic tree drawing, the notion head, the head-first/head-last parameter.
   - Subcategorization, Chomsky's locality condition on subcategorization, what was right and what was wrong about Chomsky's condition.
   - Movement motivated by apparent counterexamples to subcategorization. Know and be able to diagram the effects of topicalization, wh-movement and verb-second.

3. Pay attention to the technical terms boldfaced in these handouts.

4. Read the textbook chapter on syntax, remembering that the official theory of specifiers and complements is the one presented on p. 194 and called "Advanced", not the one used elsewhere in the chapter.
6. **Semantics**

1. Make sure you understand *c-command* and Binding Theory Principles A, B, C. Yes, you need to know which one was A, which was B, and which was C. You may be asked to draw a tree for a sentence like *Mary likes herself* or *Mary's brother likes herself* and comment on the sentence in light of Binding Theory.

2. Make sure you know about so-called Negative Polarity Items (NPIs) and the role of Downward Entailing environments in licensing them.

[Tip: As promised, you will have a question about Downward Entailing environments like question 1 on Problem Set 10, except this time the directions will make it clear that you have to actually display the valid entailments that show us we are (or are not) dealing with a Downward entailing environment.]

6. **History of English:**

- *Grimm’s law*: know what proto-Indo-European *p, t*, and *k* became in Germanic and be able to give English cognates for obvious examples from Latin or Greek, e.g. Latin *pater*/English *father*. [CL p. 332 plus class notes and handout]

7. **Historical linguistics**

1. Know how linguistic change arises (in part) as a by-product of the poverty of the stimulus (the fact that the information available to the child lacks word boundaries, trees, etc.). Another name for the “poverty of the stimulus” is Plato’s Problem.

2. Know how variation arises as a consequence of historical change (plus geographic or social isolation). [Class notes plus common sense.]

3. The notion dialect (vs. language) and the difficulties posed by this notion. [CL p. 348]

4. The notion sound change. Be able to list sound changes and figure out the order in which they occurred from data sets like those in Problem Set 11. There will be nothing as hard as the last xeroxed problem from that problem set, however. That one was my mistake!

5. Discovery of language families, especially Indo-European.

- *Final exam special!* Be able to name ten Indo-European languages from at least five different subfamilies (e.g. Germanic, Romance, Slavic, etc.), and say what subfamily each belongs to. [CL pp. 365-370. Discrepancy alert: Your book lists Baltic and Slavic as separate subfamilies, while others (e.g. my handout) group them together as Balto-Slavic. Either is fine.]

- The notion cognate. [CL p. 324]
8. Dialects

1. Examples of mutually unintelligible languages called "dialects of the same language" for political/sociological reasons (e.g. the Chinese "dialects" or the Arabic "dialects"). Examples of mutually intelligible languages called separate languages for similar reasons (Norwegian, Swedish and Danish; Serbian, Bosnian and Croatian).

2. Know the name William Labov (the NPR interview, and some of the work on African-American Vernacular English (AAVE) discussed in class. Know the rules and regularities of AAVE discussed in class, especially the material on contraction discussed Monday of the final week.

3. Know one important feature of Black English syntax and semantics: The semantic difference between "invariant be" (He be wild.) which indicates habitual aspect and the "zero copula" (She real nice.) which is the AAVE form otherwise used for be (alongside "Standard English" am, is, are). [class notes and the article at http://www.stanford.edu/~rickford/papers/SuiteForEbonyAndPhonics.html]

4. Know what the Ebonics controversy was. [Class notes and handouts.]

9. Humans / animals

1. Know the names of the three bee dances discussed in class (straight from CL 635-638); the term displaced reference

2. How is the pattern of acquisition of bird song among certain species (about 1/2 the song bird species) like the pattern of acquisition of human language?

10. Language Acquisition/Brain

1. Know the standard names for early stages of language production and approximate ages in which children normally go through these stages. [CL Chapter 10 and class notes.]

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babbling</td>
<td>6-12 months</td>
</tr>
<tr>
<td>1-word</td>
<td>1 yr - 1.5 years</td>
</tr>
<tr>
<td>2-word</td>
<td>1.5 years - 2 years</td>
</tr>
<tr>
<td>telegraphic</td>
<td>2 years - 2.5</td>
</tr>
</tbody>
</table>

2. Know that perception/comprehension is usually ahead of production, and be able to interpret results that show this from child phonology (e.g. the Japanese example given in class) and syntax (e.g. evidence that German children know verb-second while still in the telegraphic stage). [Class lecture.]

3. Know that in most people, language appears to be predominantly processed/stored in the left hemisphere. Know the term aphasia. Extra credit (whether we did it in class or not): be able to distinguish Broca's aphasia from Wernicke's aphasia.

11. Guest lectures

1. Know the names of the two guest lecturers in 24.900 this semester.

2. Know the name of the language that Norvin Richards is helping to revive (Wampanoag) and where it was spoken (Massachusetts and surrounding areas).

3. What did Noam Chomsky tell us about the study of linguistics, comparison with the natural sciences, and about language more generally?