# Final Exam Study Guide
## (24.900 Fall 2012)

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 will 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 for help as you study.

Also expect short-answer questions and identification questions, as well as short paragraphs or mini-essays on concepts or issues discussed in class.

You are 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.)

## 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.

## 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*.

   *Note:* There will be no transcription *into* IPA, but there may be transcription *out of* IP into standard English spelling. That is, no one will say "deforestation" and expect you to write it in IPA, but wi majt æsk yu tu ɹiɹajt sʌmθɪŋ lajk ðɪs in normal English spelling.

5. Acoustic phonetics: Consult your notes and lecture notes (posted) for the concepts *categorial perception, formant, transition* (rapid fall or rise in a formant, which provides a cue for a consonant's place of articulaton). Recall the findings of the infant speech perception experiments discussed in class. What is the *McGurk effect*?

**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. (Remember: if you find a *minimal pair*, you know you are dealing with separate phonemes!)

   - 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 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 / ___ Z" 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. The book goes into much more detail than we did.

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. Writing systems**
- Writing systems as a technology for representing speech, not a form of language in its own right.
- Types of systems: pictographic, syllabary, alphabet (good to know an example or two of each)
- Origins of the Roman alphabet in Phoenecian and Greek alphabets.
- What alphabet did the missionaries Cyril and Methodius devise for the Slavs? (Hint: it wasn't Cyrillic!)
- phonemic vs. phonetic alphabetic writing systems

**6. Syntax**

1. For the topics covered in syntax there were lecture notes posted on the web site 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. The *Final over Final Constraint* (FOFC).

   - *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*.

- *Principle C*, *large small shirt* and other interactions between syntactic structure and meaning.

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

4. Do reread the textbook chapter on syntax. You are not responsible for those sections that were not discussed in class, in particular the analysis of relative clauses.

5. From Baker's book and what was supposed to be the final class on syntax (but actually was slipped into the acquisition class right before Thanksgiving): *Parameter*, *pro-drop* (subject/object), *incorporation*, *polysynthesis*.

---

## 7. Language Acquisition

- Know the standard wisdom about the stages of language acquisition, and the ages at which normally developing children tend to pass through them:
  - Babbling:                6-12 months (roughly)
  - 1-word:                  1 yr - 1.5 years
  - 2-word:                  1.5 years -2 years
  - telegraphic:             2 years - 2.5
  - approaching adult-like:  2.5-

- Production always lags behind perception/comprehension.

- *Plato's Problem*, *Universal Grammar*, Chomsky vs. Skinner (see overheads)

- Be prepared to discuss the course of acquisition (with some examples) in the various parts of language discussed in class, especially phonetics (infant speech perception work), phonology (sound substitutions, non-adult rules, is the child aware of them?), morphology (e.g. the *wug* test) and syntax (early pro-drop?, other topics shown in videos). I'd hoped to discuss root infinitives, but ran out of time - so that will not be on the exam.

- *Tip*: Review the acquisition lecture notes on the web, and make sure you know boldfaced or emphasized material.

---

## 8. Semantics

The slides are quite complete, and you are responsible for their contents, including:

- the *principle of compositionality* (and examples)
- semantics of *modification*, role of *connectives*

- basic modeling, modeling of determiner meanings (they denote *set relations*)
- A semantic universal: *conservativity*.
- meaning of the definite article *the*

---

## 9. Historical Change

1. Know how *linguistic change* arises (in part) as a by-product of the *Plato's Problem* (the fact that the information available to the child lacks word boundaries, trees, etc.). That is: language acquisition is close to perfect, but is never in fact actually perfect. (Another name for *Plato's Problem* is the "poverty of the stimulus", a more common term that I'm sorry I failed to stress.

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. 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 (e.g. Norwegian, Swedish and Danish). "A language is a dialect with an army and a navy."

4. The notion *sound change* as a phonological rule that enters the language (and might eventually leave it again!) Look over the Italian/Latin handout and understand the point of *florido/placare* and *bianco/schiavo*.

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. 320-324]. Call this idea juvenile, annoying, or lots of fun. I've been doing it for a decade or two and I'm not going to stop now. [*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*.

   - *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. 280-282 plus class notes and handout.]

6. *History of English*:

- Know conventional dates for *Old English* [450-1100 AD], *Middle English* [1100-1500], and *Modern English* [from 1500].

- *Great Vowel Shift*: Know what it is and learn the facts on pp. 258-259 of *CL*. It is not as hard as it looks, since the spelling of Modern English reflects the pre-GVS pronunciation.

- Be able to state why up to early Modern English we find the verb preceding negation (*He heard not that. My master seeks not me*. etc). [Answer: the verb moved to I, as it does in modern French. You might look at *CL* pp. 183-185 which discusses French. The Middle English counterpart was discussed only in class. Also, I got lazy and did not include this in my lecture notes, but did include it in the posted slides.]

[Not on the exam, since we did not get to it in class: non-Indo-European language families; Historical reconstruction.]

---

## 10. Dialects

1. Be prepared to discuss the rule-governed nature of language and what it tells us about dialect variation. You might want to have in mind some specific examples of the sort discussed in the very last class. I will post my slides immediately, and will try (but do not guarantee) to produce lecture notes by the weekend. The slides should be good enough, though.

2. From these slides, know some important features of AAVE syntax and semantics, at least well enough to write a short paragraph about it.

---

*Note:* There will not be any questions from the "myths" class (Pirahã, etc.).

24.900 Introduction to Linguistics

Fall 2012