LING 100: Introduction to Linguistics

Due Monday, October 23, before 12:10pm

Instructions

Put your name on top of every page in your response!
This is an open book, open notes, take-home exam. You may consult any of the course materials (and other outside materials if you wish, though they will probably not be as much help) in figuring out the answers to the questions.

However, you may NOT discuss the exam with ANYONE, whether they are taking the class or not. If you have any questions, direct them to me or the T.A.s, either in our office hours, or by e-mail. We will not answer questions that are too specific and would give you an unfair advantage in taking the exam, but will be happy to give clarification on what is meant by a question. If you are at all uncertain about what sort of answer I am looking for, think you've found an error or typo, please ask me about it.

Exams should be typed (exceptions: you may write in phonological transcriptions by hand, if IPA symbols are a problem; you may draw syntactic trees by hand, if drawing is a problem) and are due at the beginning of class on Monday, October 23rd. If you do not turn in your exam at this time, you will lose 10% for each day it is late. If for some reason you must miss class, you can leave the exam in my mailbox in the Anthropology department, 208 Brown, or you can submit the exam electronically. Send it to me as an e-mail attachment in .pdf format, NOT WORD FORMAT. If you don't know how to create a .pdf file using your word processor, ask me about it! It's easier than you think.

When you finish the exam, indicate somewhere at the top approximately how long it took you to complete it. This will have no effect on your grade. It is just to help me gauge things for future exams.

Again, if you have any questions or are uncertain about any of this, talk to me or e-mail me. Good luck!

Prescriptive vs Descriptive Grammar

1. [4pts] Consider the following list of rules for American English. For each, provide an example that violates the rule, and indicate whether it would be part of a prescriptive grammar or a descriptive grammar (that is, is the example just dispreferred by those who write style manuals, or is it actually ungrammatical in the sense we've discussed in class)?

a) Do not dangle modifiers - a participle-based modifier phrase occurring in the beginning of a sentence, like “Walking down Fifth Avenue, …” or “Riding a bike,…” should refer to the subject of the sentence that follows.
b) In a double-object construction, like “I gave Mary the book”, do not put any adverbs in between the two objects.

c) Do not use passive voice when a corresponding active sentence exists.

d) In an answer to the question “Who is it?” (e.g. It’s John), use the nominative form of the pronouns (i.e., I, he, she).

**Language Instinct.**

2. [4pts] a. In your own words explain the role of Universal Grammar (UG) in first language acquisition.
   b. What role does UG play in constraining crosslinguistic variation?

3. [4pts] Name two arguments that suggest that Behaviorism falls short of providing an explanation for the human linguistic ability

**Subfield recognition**

4. [4pts] Below is a series of titles of papers on some linguistic subject. What subfield of linguistics is each paper about? (Hint: there's one each of syntax, morphology, phonology, phonetics, semantics, and pragmatics.) Don't worry about whether you would understand the paper, just think about what subfield is (most) concerned with the terms and concepts that are mentioned in the title.

   a) An absorption theory of infixation

   b) Kinyarwanda sibilant harmony and coronal opacity

   c) Word order, clause structure, and movement operations in Basque

   d) How Discourse Adjectives Synchronize the Speaker and the Hearer's Beliefs

   e) A Compositional Analysis of Anti-Quantifiers as Quantifiers

   f) Acoustic and aerodynamic evidence for the distinction between /i/ and /j/ as triggers for stop assimilation
Phonetics

Vowels

5. [4pts] Give the transcription symbols for the descriptions of the following vowels, and give one example of an English word containing this vowel (underline or highlight the vowel). Use the bracket notation, e.g. mid back rounded tense [o], home:

a. high front unrounded tense
b. low front unrounded lax
c. mid central unrounded lax, [can be stressed]
d. high front unrounded tense
e. mid front unrounded tense
f. high back rounded tense

Natural classes

6. [1pt] To articulate one class of speech sounds, the tongue tip makes contact with:

a. Uvula.
b. Teeth.
c. Larynx.
d. Epiglottis

7. [4pts] Do the following sounds form a natural class? If not, add just enough sounds to make a natural class. In any case, state the narrowest possible natural class that the following sounds belong to:

a. [n], [m], [ŋ], [j], [w], [l], [r]
b. [i], [u], [i]
c. [s], [z], [ʃ], [ʒ], [č], [ʃ]
d. \([ɛ], [ɛ̝], [ɔ] \) [\∧]

8. **[4pts]** a. List all the members of the natural class of the English fricatives

   b. Lists all the members of the natural class of the tense vowels in English

   c. What sounds form the natural class of nasals in English

**Phonology**

**Distribution of sounds**

9. **[7pts]** Basing your answers on the following data from Ukrainian, examine the distribution of the sounds \([s] [s'] [š] \) and \([š']\). (apostrophe indicates palatalization of the consonant)

\[
\begin{array}{ll}
\text{lIš} & \text{fox} \\
\text{mIška} & \text{bowl} \\
\text{sapka} & \text{little hoe} \\
\text{lIš'} & \text{sheen} \\
\text{sIla} & \text{strength} \\
\text{sum} & \text{sadness} \\
\text{s'}uđI} & \text{hither} \\
\text{lIš} & \text{lest} \\
\text{sosna} & \text{pine} \\
\text{mIška} & \text{little mouse} \\
\text{šapka} & \text{hat} \\
\text{šIla} & \text{she sawed} \\
\text{poš'adu} & \text{1 will occupy} \\
\text{šum} & \text{rustling} \\
\text{sudI} & \text{trials} \\
\text{mIš'ì} & \text{mice} \\
\text{š'ist'} & \text{six} \\
\text{koš'ì} & \text{baskets} \\
\text{s'omIj} & \text{seventh} \\
\text{šostIj} & \text{sixth} \\
\text{posadu} & \text{job position (accusative)}
\end{array}
\]

a. What are the minimal pairs in this data, with respect to \([s] [s'] [š] \) and \([š']\)?

b. Are there any minimal triples?

c. What do we call the distribution of \([š] \) and \([š']\)? Are they different phonemes or allophones of the same phoneme? If they are allophones of the same phoneme, which is the phoneme \([š] \) or \([š']\)? Describe the environment which triggers the change.
E.g., in English, [p] and [pʰ] are allophones of the same phoneme. The phoneme is /p/. The environment for change to [pʰ]: when /p/ occurs syllable-initially and it is followed by a stressed vowel (rápid, rapʰídity); & word-initially regardless of stress (pʰoᵗʰáto)

d. What are the different phonemes among these four sounds [s] [s’] [š] and [š’]?

11. [4pts] Consider the following pairs of words. Explain using the syllable structure diagram why native speakers perceive the first pair as not rhyming and the second as rhyming:

[ston] [stov] [mIlk] [sIlk]

12. [4pts] Transcribe and syllabify the following words. Base your transcription on the pronunciation on the class schedule page.

Fragmentation Phenomenology

13. [4pts] Why does the word bottle have two syllables? Why does bolt have just one? Use diagrams as necessary.

Morphology

14. [4pts] In the following short passage, find two examples of each of the following categories of morpheme.

a. bound function morpheme

b. bound content morpheme

c. free content morpheme

d. free function morpheme

e. a clitic

The management of hearer's (reader's) attention is an integral part of cooperative communication in any language. Discourse is thus structured in a way that allows the hearer to focus his attention on various entities evoked in the discourse (topic-structure), and to ensure that information about them is entered into his knowledge-store in a coherent way (information packaging)
15. **[4pts]** Consider the following words: “unbelievable” “undoable”. Using tree structures explain why one of them is ambiguous and the other is not. State which one is ambiguous.

16. **[4pts]** *antidisestablishmentarianism*

The word given in the heading above has frequently been reported as the longest word in the English language. (If you've read your Pinker, you know that this is a meaningless claim.) It means something like "an ideology which is against the view that certain institutions should have their authority removed". Split this word up into the morphemes it is made out of, and give a step-by-step description of how these morphemes are put together, noting the part of speech of each intermediate word.

The order in which you put the pieces together should reflect the meaning of the word. Recall, for example, that *unlockable* has two meanings, "able to be unlocked", if we first combine *lock* with *un-* but "not lockable" if we first combine *lock* with -*able*.

17. **[8pts]** Consider the following transcription data from English.

a. Using Harris’s Condition I in this data, check whether the final –s and the final –t are potential morphemes in (1-6). (that is, based on the tests for the data, give a yes or no for 1, 2, 3, 4, 5, and 6). Show your work (what’s A,B,C,D, etc.)!

b. Using Harris’s Condition II in this data, check whether the final –s and the final –t are actual morphemes in (1-6). (that is, based on the tests for the data, give a yes or no for 1, 2, 3, 4, 5, and 6). Show your work (what’s Set α, Set β, etc.)!

1. mIst i. aydIÎntmlIshIm ii. *aydIÎntkoshIm iii. *əklIUhænæntu
2. mIts iv. aydIÎntklIshIm v. *əmlIsgrl vi.kIlt
3. kIst vii. əkIsthuænæntu viii. *əkIIsgrl ix. *hæpI
t
4. kIs x. əkottuhænæntu xi. *aydIÎntmlIthIm xii. əhæpIgrl
5. kost xiii. əmlItuænæntu xiv. *aydidntkothIm¹ xv. *aydIÎnthæpIhIm

**Syntax**

18. **[4pts]** State the rule for forming a yes/no question from a sentence that has an auxiliary (a form of *be*, *can*, *will*, etc.) in the main clause.

That is, what is the rule for going from “This dog *is* named Rex” to “Is this dog named Rex?”, and from “The girl who is wearing the red dress *can* dance” to “Can the girl who is wearing the red dress dance?”

Please use syntactic notions like “constituent” or “movement”.

¹ Actually, this happens to be an ok sentence of English (if a bit nonsensical). But for the purposes of this exercise, pretend it isn’t.
19. **[1pt]** Which of the following sentences does **not** help to test the constituency of *eat the apples* in the sentence *John could eat the apples*?

a. What could John do? Eat the apples!

b. John could eat them

c. John could do it

d. Eat the apples John certainly could!

20. **[6pts]** X-language phrase structure

A made-up language differs from English in the usual order of its words in the sentence. Thus while English is generally SVO, X is generally VOS. Consider the following "X-language" sentences. (The sentences have X-language syntax, but they use English words so that they are easier to understand. Beside each is a translation with normal English syntax.)

a) Ate pizza John = "John ate pizza"

b) Biked to school Mary. = "Mary biked to school."

c) Danced yesterday that man. = "That man danced yesterday."

d) Read that book often Peter. = "Peter often read that book."

Draw the **syntactic tree** for each of the "X-language" sentences (that is, the sentences on the left, with X-language word order). Then, write a set of **phrase structure rules** that can derive all of these "X-language" sentences. Try to do so with the smallest number of rules possible, and do not give me a separate list of rules for each sentence. Rather, give me one set of rules to apply to all four sentences.

For example, for English we only had to write the rule S \(\rightarrow\) NP VP one time, even though it is needed for every sentence (remember, you are trying to come up with a single grammar that can derive all four sentences, not a separate grammar for each sentence). Make sure that you give me both **trees** and **rules**, and make sure that your rules derive the **X-language** word orders, **not** the English ones. Treat *yesterday* and *often* as adverbs, and *that* as a determiner.

One more note: your rules and trees should make syntactic/semantic sense. E.g., don’t make “John loves” a constituent to the exclusion of “Mary” in “John loves Mary!”
Semantics

21. [5pts] Consider the following sentences. Does A entail B? As a test, think about the **truth conditions** for the sentences: A entail B only if every situation in which A is true also makes B true. If not, give an example where A is true and B is false.

(a) A: Fido is a dog.
   B: Fido is a spaniel.

(b) A: Homer has 3 children
   B: Homer has 2 children

(c) A: You get five dollars if you clean my garage
   B: If you don’t clean my garage, you will not get 5 dollars

(d) A: You get 5 dollars if you clean my garage
   B: If you didn’t get 5 dollars, you hadn’t cleaned my garage

(e) A: I took my suit to the dry cleaners.
   B: My suit was dirty.

22. [4pts] Do Exercise 4 on p.24 of Partee et al. Ch. 1 (on WebCT)

23. [4pts] What kind of set-theoretic object is the denotation of the verb **give**? the noun **girl**? the verb phrase **give Mary a kiss**? Give both a description in words, and in set-theoretic notation. For example, the adjective **red** denotes a set of individuals in a world, in set-theoretic notation $[[\text{red}]]_w = \{x | x \text{ is red in } w\}$

24. [4pts] Based on our discussion of the meaning of **some**, **every**, and **most**, state the denotation for the word **no** as it is used in the following sentence (state the general rule for the use of **no** as a part of a subject, and state how it applies in the sentence):

   **No ostrich flies.**

Pragmatics

25. [4pts] Consider the following made-up exchange between two people at a bus stop
A. Do you have the time?
B. Yes.
A. (after a pause, to herself) What’s wrong with you?!

B has answered the question, yet A perceives that something is wrong. Discuss how this situation demonstrates the difference between semantics and pragmatics, and explain what are A’s expectations from the exchange and how does A arrive to the conclusion that something is wrong with B. Please refer to A’s use of his implicit knowledge of Gricean Conversational Maxims.

THE END. CONGRATULATIONS!