

Second (Final) Take-Home Exam

You will have until December 18th to complete the questions below. Some of these questions can be answered very quickly, while others will require more thought (and writing). Please bear this in mind when planning how to make the most effective use of your time.

You may talk with me in person or over e-mail about any questions you might have on any of these problems (within reason).

(1) **The Big Question** [5 points]

What is the over-arching question that the field of semantics seeks to answer? How does it seek to answer this question?

(2) **The Principle of Compositionality** [5 points]

Please explain what the following statement means: “The meaning of a complex linguistic expression is usually *compositional*.” What is the evidence for this claim?

(3) **Our Theory of ‘Informational Content’** [10 points]

a. **QUESTION:** [5 points]
What are the three main sub-types of ‘informational content’?

b. **QUESTION:** [5 points]
For each of the three sub-types of informational content, describe how the theory developed in our class models the computation of that type of content.

(That is, if the three main sub-types of informational content are ‘jelly beans’, ‘lollipops’, and ‘gumdrops’, answer the following three questions:

*How does our theory model the way that **jelly beans** are computed?*

*How does our theory model the way that **lollipops** are computed?*

*How does our theory model the way that **gumdrops** are computed?*

(4) **The Possible Semantic Types of DPs** [5 points]

Please explain what is wrong with the following statement. **Provide evidence against it. That is, explain *how we know that this claim is false*.**

Every DP refers to some particular entity. For example, a proper name like “Seth” refers to the entity that bears that name (i.e., Seth). A pronoun like “he” refers to the entity being pointed at. A definite DP like “the president” refers to the unique entity satisfying the NP complement (i.e. “president”). All DPs are like this, in that their extension is some particular entity.

(5) **Applying Our Theory to a Complex Example** [30 points]

In addition to its asserted content (truth-conditions), the sentence in (a) below carries the presupposition in (b) and the implicature in (c).

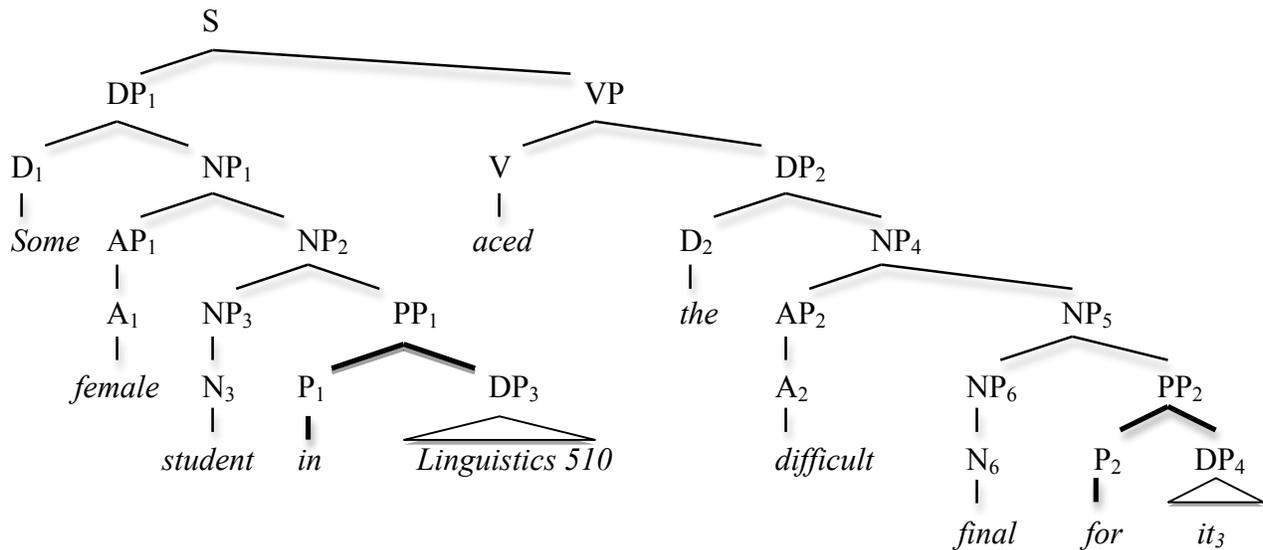
- a. Some female student in Linguistics 510 aced the difficult final for it.
- b. Presupposition of Sentence (5a):
There is exactly one y such that y is a difficult final for Linguistics 510.
- c. Implicature of Sentence (5a):
Not *every* female student in Linguistics 510 aced the difficult final for Linguistics 510.
- d. **QUESTION 1:** [5 points]
Please review Section 2.1 of our first handout *The Conceptual Foundations of Truth-Conditional Semantics*. Please pay careful attention to the ‘test’ for whether something is a presupposition of a sentence S or not. **Now, use that test to show that (5a) indeed does have the presupposition in (5b).**
- e. **QUESTION 2:** [5 points]
Please review Section 2.1 of our first handout *The Conceptual Foundations of Truth-Conditional Semantics*. Please pay careful attention to the ‘test’ for whether something is a implicature of a sentence S or not. **Now, use that test to show that (5a) indeed does have the implicature in (5c).**

Let us assume that the prepositions *in* and *for* have the type $\langle e, \langle e, t \rangle \rangle$ extension in (5f) and (5g). Let us also assume that *Linguistics 510* is a type e expression with the extension in (5h).

- f. $[[\text{in}]]$ = $[\lambda y_e : [\lambda x_e : x \text{ is in } y]]$
- g. $[[\text{for}]]$ = $[\lambda y_e : [\lambda x_e : x \text{ is for } y]]$
- h. $[[\text{Linguistics 510}]]$ = Linguistics 510

Let us also assume that the sentence in (5a) has the syntax in (5i) below:

i. The Syntax of Sentence (5a):



j. **QUESTION 3:** [10 points]
Show how our system can compute the truth-conditions of sentence (5a), assuming the syntax in (5i) and the lexical entries in (5f)-(5h).

- To do this, you'll need to provide lexical entries for the adjectives “*female*” and “*difficult*”. **Make sure to be careful to distinguish the subjective adjective from the intersective one!**
- You'll also need to provide lexical entries for the nouns “*student*” and “*exam*”, as well as the transitive verb “*aced*”.
- With these lexical entries, provide a truth-conditional derivation making use of the syntax in (5i).

j. **QUESTION 4:** [5 points]
Explain how our system predicts that sentence (5a) will have the presupposition in (5b). **Please make explicit reference to the lexical entry we have for “*the*”.**

k. **QUESTION 5:** [5 points]
Explain how our ‘Gricean’ theory of implicature predicts that sentence (5a) will have the implicature in (5c). **Please sketch out explicitly how the implicature can be deduced from (i) the truth-conditions of (5a) and (ii) the assumption that the speaker is following the conversational maxims.**