

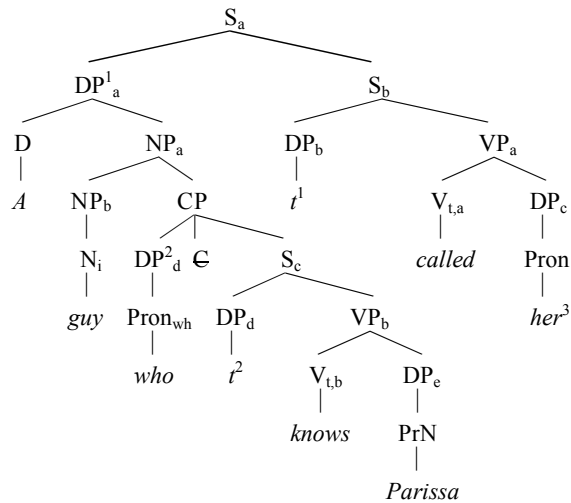
Ling 320: Semantics. Final Exam. Dec 5th, 2007.

- Directions:**
- Due Tues, Dec. 11th, by 5PM, in the mailbox outside of H-663.
 - Write your name, ID, and professor (me) on your exam.
 - Do *not* discuss the exam with others.

- Do Parts 1-3. The Bonus is optional.
- There are three derivations.
- In doing your derivations, apply at most 3 rules at a time, and use the class grammar from the last day of class (Nov. 29th).
- The derivations provided in the solution to Assignment 11 and the lecture notes from the last day of class (use the corrected version posted online) should help as models.

Part 1. Derive the truth-conditions for (1); that is, calculate for any s, g , $\llbracket S_a \rrbracket^{s,g}$.

(1)



Assume that $\llbracket a \rrbracket^{s,g} = \{ \langle A, B \rangle \mid A \cap B \neq \emptyset \}$.

Part 2. Bound and Referential Pronouns.

The following sentence is ambiguous, due to the pronoun *her*:

(2) Every woman who married her cousin is a little crazy.

On one reading --the referential reading of *her*-- the sentence is true just in case every woman who married some contextually salient woman's cousin is a little crazy. (This interpretation implies that the cousin has had several wives, which is maybe weird, but it's a possible interpretation for this sentence).

On a second reading --the bound variable reading-- the sentence is true just in case every woman who married her own cousin is a little crazy.

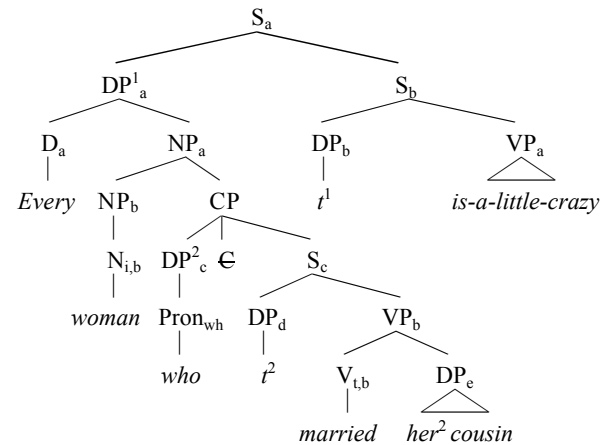
Our grammar correctly accounts for this ambiguity by assigning this sentence the two distinct tree structures in (3) and (4) below.

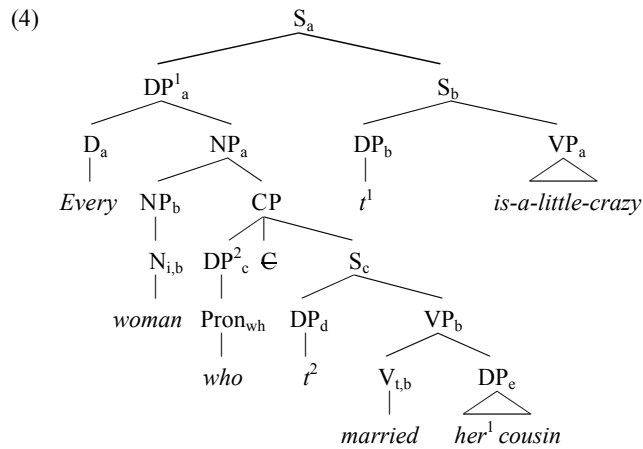
(i) Calculate $\llbracket S_a \rrbracket^{s_0, [1 \rightarrow S(\text{abina})]}$ for both (3) and (4).

For simplicity, assume that for any s, g , $\llbracket VP_a \rrbracket^{s,g} = \{ x \mid x \text{ is a little crazy in } s \}$.

(ii) Identify which structure produces the referential interpretation of *her*, and which produces the bound variable interpretation. You should be able to tell from the truth-conditions you derived in (i).

(3)





Part 3. Lack of Bound Variable Readings.

Consider now the following example, which is like (2), only *wife of* is used in place of *woman who married*.

(5) Every wife of her¹ cousin is a little crazy.

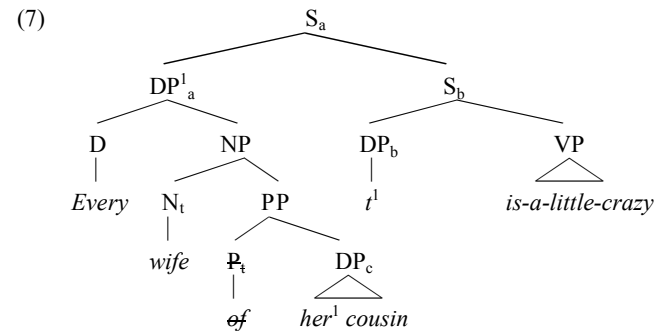
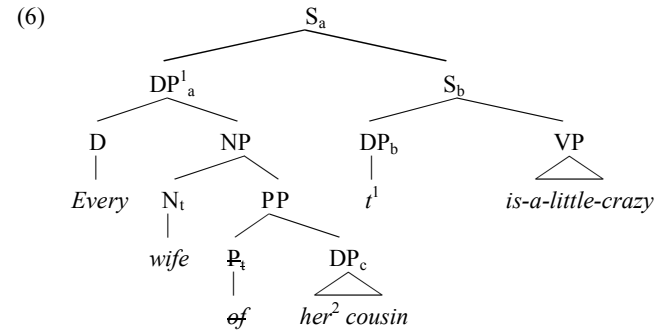
Interestingly, even though *wife of* and *woman who married* are very close in meaning, if not truth-conditionally equivalent, (5) is judged (by some native speakers) to be *unambiguous*: In this case, it is only possible to understand *her* as referring to some contextually salient individual, that is, only the referential reading is possible. The bound variable reading is lacking: The sentence cannot mean that every wife of her own cousin is a little crazy.

Even if you yourself do not have these intuitions, assume they are accurate for some native speakers, and that we want to model the grammar of those speakers.

It turns out that our semantic system actually already correctly rules out a bound variable interpretation of *her* for (5). Your task is to explain why. Specifically:

(i) Explain clearly, thoroughly, and succinctly why our grammar correctly predicts that *her* **cannot** be interpreted as a bound variable in (5), while it can be in (2).

To see the answer, it should help you to look at the two trees for (5) below, which are just like (3) and (4) in terms of the indexing on *her*. Can *her* be interpreted as a bound variable in either of these trees?



It may also help you to calculate $\llbracket S_a \rrbracket^{s^0, [1 \rightarrow S^{(abina)}]}$ for both examples, and compare the results with your derivations from (i) above. But you need not turn in any derivations for this problem.

Assume that for any s, g , $\llbracket wife \rrbracket^{s,g} = \{ \langle x, y \rangle \mid x \text{ is the wife of } y \text{ in } s \}$

Bonus (Optional).

While *no man* may antecede *his* in (8a), it may not antecede *his* in (8b) (by some native speaker's intuitions):

- (8) a. No man should mistreat his friends. *no man* can antecede *his*
b. His friends should mistreat no man. *no man* cannot antecede *his*

Similarly with (9a) and (9b):

- (9) a. Every girl loves a boy near her. *every girl* can antecede *her*
b. A boy near her loves every girl. *every girl* cannot antecede *her*

Assume that these judgments are accurate.

Our grammar presently *incorrectly* predicts that in (8b), *no man* should be able to antecede *his friends*, and in (9b), *every girl* should be able to antecede *her*.

Explain why. To illustrate your point, construct a tree for (8b) in which *his* is co-indexed with *no man*, and derive the truth-conditions for that tree.

Assume that $[[his^i friends]]^{s,g} = g(i)$'s friends.

These examples are problematic for our grammar as it stands; feel free to propose some revision to account for them.