

Introduction to Syntax, LINGUIST 401
Midterm Exam
October 19, 2007
Due: October 26, 2007

Midterm Exam
(200 points total)

1. Consider the following three conditions on coreference.

- (1) a. Anaphors: an anaphor must refer to a c-commanding NP within the smallest TP that contains the anaphor.
- b. Pronouns: a pronoun cannot refer to a c-commanding NP within the smallest TP that contains the pronoun.
- c. Names (and other NPs): if a pronoun c-commands a name, the pronoun cannot refer to that name.

a. Draw trees for the following examples. One tree can actually suffice for all five examples but for clarity you can draw individual trees. There are three NPs in this tree: (i) the NP corresponding to *John*, call this NP₁, (ii) the NP corresponding to *John's mother*, call this NP₂, and (iii) the NP corresponding to the object, call this NP₃. (12 pts.)

- (2) a. *John's mother adores himself.
- b. John's mother adores herself.
- c. John's brother adores himself.
- d. John's mother adores her.
- e. John's mother adores him.

(use the rules developed in class. Assume possessive NP's are introduced by the following rule: NP → (NP|D) (AP+) N. For now, we ignore the 's.)

b. Using your tree(s) for (2), fill out the following table. If NP_i c-commands NP_j, write *yes* in the box for (row i, column j), otherwise write *no*. (18 pts.)

Table 1: c-command relations in the tree for (2)

	NP ₁	NP ₂	NP ₃
NP ₁			
NP ₂			
NP ₃			

c. Using your tree(s) for (2) and the rules of coreference, answer the following questions. (12 pts.)

- (3) a. Why is (2a) ungrammatical?
- b. Why is (2b) grammatical?
- c. Why can't *himself* refer to *John* in (2c)?
- d. Why can't *her* refer to *John's mother* in (2d)?
- e. Why can *him* refer to *John* in (2e)?

d. We repeat the exercise but with a different structure. Draw trees for the following examples. One tree can actually suffice for all the examples but for clarity you can draw separate trees. There are three NPs in this tree: (i) the NP corresponding to the subject of *thinks*, call this NP₁, (ii) the NP corresponding to the subject of *adores*, call this NP₂, and (iii) the NP corresponding to the object of *adores*, call this NP₃. (10 pts.)

- (4) a. *John thinks that Mary adores himself.
 b. Mary thinks that John adores himself.
 c. *Himself thinks that John adores Mary.
 d. Mary thinks that John adores him.
 e. John thinks that Mary adores him.
 f. He thinks that John adores Mary.
 (use the rules developed in class.)

e. Using your tree(s) for (4), fill out the following table. If NP_i c-commands NP_j , write *yes* in the box for (row i, column j), otherwise write *no*. (18 pts.)

Table 2: c-command relations in the tree for (4)

	NP ₁	NP ₂	NP ₃
NP ₁			
NP ₂			
NP ₃			

f. Using your tree(s) for (4) and the rules of coreference, answer the following questions. (12 pts.)

- (5) a. Why is (4a) ungrammatical?
 b. Why is (4b) grammatical?
 c. Why is (4c) ungrammatical?
 d. Why can't *him* refer to *John* in (4d)?
 e. Why can *him* refer to *John* in (4e)?
 f. Why can't *him* refer to *John* in (4f)?

g. We repeat the exercise one final time with another structure. Draw trees for the following examples. One tree can actually suffice for all the examples but for clarity you can draw separate trees. There are three NPs in this tree: (i) the NP corresponding to the subject of *adore*, call this NP₁, (ii) the NP corresponding to the object of *adores*, call this NP₂, and (iii) the NP corresponding to the object of *annoys*, call this NP₃. (10 pts.)

- (6) a. *That Mary adores himself annoys John.
 b. That Mary adores him annoys John.
 c. That Mary adores her annoys John.
 d. That Mary adores John annoys her.
 e. *That Mary adores John annoys herself.
 f. *That Mary adores John annoys himself.
 g. That Mary adores John annoys him.
 (use the rules developed in class, recall that CPs can be subjects.)

h. Using your tree(s) for (6), fill out the following table. If NP_i c-commands NP_j , write *yes* in the box for (row i, column j), otherwise write *no*. (18 pts.)

Table 3: c-command relations in the tree for (6)

	NP_1	NP_2	NP_3
NP_1			
NP_2			
NP_3			

i. Using your tree(s) for (6) and the rules of coreference, answer the following questions. (12 pts.)

- (7)
 - a. Why is (6a) ungrammatical?
 - b. Why is (6b) grammatical?
 - c. Why can't *her* refer to *Mary* in (6c) but can in (6d)?
 - d. Why is (6e) ungrammatical?
 - e. Why is (6f) ungrammatical?
 - f. Why is (6g) grammatical?

2. Challenge Problem Set 3 on Irish on Pages 133-134 of your textbook. (5+5+5+5+5+15 pts.)

3. The following sentences are structurally ambiguous.

- (8)
 - a. The astronomer saw the student with a telescope.
 - b. John and Mary's friend might come for dinner.

a. Using the phrase structure rules developed in class (keep in mind: $NP \rightarrow NP$ and $NP; NP \rightarrow NP N$ (for possessives, ignoring the 's)), draw trees for the two readings of these sentences. Indicate which tree goes with which reading. (20 pts.)

b. Keeping the structure the same, it is possible to change the words in (8) to bring out one reading or the other. Try to change as few words as possible.

- (9) (5 pts. each, 20 pts. total)
 - a. Give a modification that favors the low attachment in (8a). Explain why your modifications favors the low attachment.
 - b. Give a modification that favors the high attachment in (8a). Explain why your modifications favors the high attachment.
 - c. Give a modification that favors the low attachment in (8b). Explain why your modifications favors the low attachment.
 - d. Give a modification that favors the high attachment in (8b). Explain why your modifications favors the high attachment.

c. Explain why the structural ambiguity disappears in the following closely related sentences.

- (10) (5 pts. each, 10 pts. total)
 - a. The astronomer with a telescope saw the student.
 - b. Mary's friend and John might come for dinner.