INTD0111A/ARBC0111A: The Unity and Diversity of Human Language

Take-home Midterm Exam (due on Thursday October 26 by 4:15pm in class (recommended), or by 5pm by e-mail. Delay policy applies. No extensions will be given. So, start working on the exam early!)

Unlike with assignments, you are NOT allowed to discuss questions on this exam with your classmates or anyone else. You have to work individually on the exam. So, please make sure you write and sign the <u>Honor Code pledge</u> "I have neither given nor received unauthorized aid on this assignment," in the box below:

Instructions: This take-home midterm exam consists of <u>10</u> exercises, many of which have subquestions (typically named A, B, C, etc.). Read each exercise carefully and make sure you answer <u>ALL</u> the questions.

The whole assignment is worth <u>200</u> points (and 20% of your overall grade in this course, so please turn in "neat" work). The number of points each question is worth is given next to the question/subquestion. If you add these up, you'll notice, however, that the total is 210 points, which means that there are <u>10 extra credit points</u> on the exam. So, try to take advantage of that.

Also please notice that, unlike with assignments 1 and 2, you have to <u>answer the questions in the provided empty table cells</u> on this exam sheet. Answers given in any other form will NOT be accepted. Should you need extra space for your answers, I suggest you use single-sided printing (rather than the default double-sided printing of the College computers), and use the blank reverse side for any additional space needed. Of course, if you intend to type your answers directly in the .doc file of the exam, then you should not encounter any problem.

Good luck!

Exercise #1: Sadly enough, W is not endangered any more; it's gone!

Consider the following sentence from a language that we will call Language W:

(1)   eephi   mansana   paʔukh   hak'sheʔ   heʔ
         she   apple   eat   like   question-marker
         "Does she like to eat apples?"

Now, answer the following question:

State two "surface" grammatical differences between language W and English. (10 points)

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Exercise #2: Meet Y, from Africa!

Consider the following sentence from a language that we will call Language Y:

(2)   mo   mú   ìwé   wá   ilé
         I   take   book   come   home
         "I brought a book home."

Now, answer questions A, B, C, and D, below:

A. Based on this one example from language Y, is this likely to be an isolating or a synthetic language? If synthetic, is it agglutinative or fusional? (5 points)

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B. What is the head directionality of language Y? (5 points)

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C. What is the setting of the subject side parameter in language Y? (5 points)

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D. Based on this sentence and on what we discussed in class, do you think this language has attraction of V to Aux? Provide evidence to support your answer.

(10 points)

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Exercise #3: Stopping by Central America for some linguistic diversity!

Consider the following sentence from a language that we will call Language J:

(3)   xa   ix   te'   hum wet an
       gave she the book to   me
       "She gave the book to me."

Now, answer questions A, B, C, D, and E, below:

A. What is the head directionality of language J? (5 points)

B. What is the setting of the subject side parameter in language J? (5 points)

C. If sentences in the language typically follow the word order in this sentence, then what do you think is the basic word order in this language? (5 points)

D. Based on just the sentence in (3), and on your answer to Question C, what is likely to be the setting of the subject placement parameter in this language?

(5 points)

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E. Draw a tree for the sentence in (3), showing with arrows (if needed) how the "surface" word order is derived.   (10 points)

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Exercise #4: And now to the Pacific!

Consider the following data from a language that we will call Language S:

(4) a. Na   fa'atau   e   le   tama   le   pua'a
Past   sell   case-marker   the   boy   the   pig
"The boy sold the pig."

    b. Na   fa'atau-pua'a   le   tama
Past   sell-pig   the   boy
"The boy sold pigs."

Now, answer questions A, B, C, and D, below:

A. Based on the two sentences in (4), what is likely to be the basic word order in this language?   (5 points)

B. What kind of grammatical operation that we talked about in class derives (4b) from (4a)? (5 points)

C. You should be able to see that this language poses a problem to the parametric analysis of languages with this type of basic word order as we presented it in class. State briefly what this problem is. (5 points)

D. Suggest a potential solution to the problem you mentioned in part C of this question. (5 points)

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Exercise #5: In danger!

The following are some verb forms in an endangered language of the Muskogean family. Study the data, then answer the questions that follow.

(5)

Verb form	Meaning in English
sachaaha	"I am tall."
chaaha	"He/She is tall."
chichaaha	"You are tall."
hoochaaha	"They are tall."
satikahbi	"I am tired."
chitikahbitok	"You were tired."
chichchokwa	"You are cold."
hopobatok	"He was hungry."
hoohopobatok	"They were hungry."
sahopoba	"I am hungry."

Based on the data in (5), now answer the questions from A to J:

	Question	Answer
A.	What is the root morpheme meaning "to be tall" in this language? (2 points)	
B.	What is the root morpheme meaning "to be hungry" in this language? (2 points)	
C.	What is the root morpheme meaning "to be tired" in this language? (2 points)	
D.	What is the morpheme meaning "I"? (2 points)	
E.	What is the morpheme meaning "past tense"? (2 points)	
F.	What is the morpheme meaning "you"? (2 points)	
G.	What is the morpheme meaning "he/she"? (2 points)	
H.	If the root for "to be old" in this language is *sipokni*, then how would you say "You are old"? (2 points)	
I.	If the root for "to be old" in this language is *sipokni*, then how would you say "He was old"? (2 points)	
J.	If the root for "to be old" in this language is *sipokni*, then how would you say "They are old"? (2 points)	

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Exercise #6: So, how does your language mark subjects and objects?

Consider the data from the two languages below, and answer the questions that follow each one. Make sure you provide evidence from the data supporting your answer. Remember that CM stands for "case marker".

Language A

    (6) a.   Na'e   tāmate'i   'e   Tēvita   'a   Kōlaiate
               Past   kill   CM   David   CM   Goliath
               "David killed Goliath."
        b.   Na'e   lea   'a   Tolu
               Past   speak   CM   Tolu
               "Tolu spoke."

Now, answer the following questions A and B:

   A. Is this language nominative-accusative, or ergative-absolutive?   (2 points)

   B. State the evidence from the data for your answer here: (3 points)

Language B

    (7) a.   Puer   vēnit
               boy-CM   came
                "The boy came."
        b.   Puer   puellam   amat
               boy-CM   girl-CM   loves
                "The boy loves the girl."

Now, answer the following questions A and B:

   A. Is this language nominative-accusative, or ergative-absolutive?   (2 points)

   B. State the evidence from the data for your answer here: (3 points)

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Consider the following sentence from a language that we will call Z:

> (8)   Ngarrka-ngku   ka   wawirri   panti-rni
> man-erg   Aux   kangaroo spear-Non-past
> "The man is spearing the kangaroo."

(**Note**: "erg" = ergative)

Now, it turns out that in addition to (8), Z can also express the meaning of that sentence in any one of the following ways:

> (9)   a. Wawirri ka pantirni ngarrkangku
>
>   b. Pantirni ka ngarrkangku wawirri
>
>   c. Ngarrkangku ka pantirni wawirri
>
>   d. Pantirni ka wawirri ngarrkangku
>
>   e. Wawirri ka ngarrkangku pantirni

Without providing you with glosses for the sentences in (9), you should be able to tell which word in Z means what in English by studying the example in (8). For the purposes of this exercise, assume that all these six sentences mean roughly the same thing. Meaning should have no bearing on your answer this exercise.

Now, on the basis of the sentences in (8) and (9), answer the following questions A, B, C, D, and E:

   A. How do you characterize word order in Z?   (5 points)

   B. What parameter(s) is/are relevant for Z?   (5 points)

   C. Based on just this set of sentences in (8) and (9), is Z a head-marking language or a dependent-marking language? Support your answer with evidence from the data.
                                                       (5 points)

D. In class, we developed a syntactic analysis for Mohawk. Can you extend this analysis to Z? If yes, draw a tree to the sentence in (9e) to illustrate how the analysis works. If not, then explain why not. (10 points)

E. You should have noticed that in all the examples from Z in (8) and (9), the auxiliary "ka" is always in second place. Does your answer from Part D account for this "Aux-second" fact about Z? If yes, explain how. If not, can you modify your solution from D to account for this Aux2 effect? Explain your answer.
(10 points)
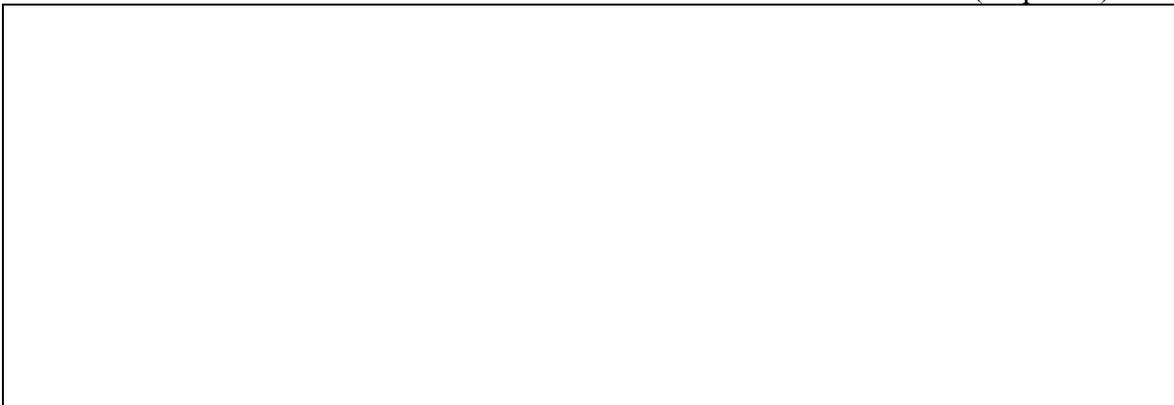
Now, consider this one further sentence from Z:

(10) Maliki-rli-ji   yarlku-rnu   wiri-ngki
      dog-erg-1sgObj   bite-Past   big-erg
      "A big dog bit me."

Now, answer questions F and G:

F. Based on this sentence, what is one syntactic property we discussed in class that Z has, but Mohawk does not?   (5 points)

G. In terms of parametric variation, which of the parameters we talked about explains this difference between Z and Mohawk?   (5 points)

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Exercise #8: Any Questions!

In our discussion of verb placement in English, French, Welsh, and German, the picture that evolved was as follows:

(11) a. English moves Aux down to V.

      b. Welsh and French move V up to Aux.

      c. German moves V up to Aux and then to C (though only in main, but not embedded, clauses)

As you should have probably noticed, this cannot be the whole story for English. In particular, there are sentences in English where a verbal element actually precedes the subject, as in yes-no questions, for example:

(12) a. Can you speak Sinhalese?

      b. Have you read this book?

Now, answer question A:

A. What simple modification to the analysis of English is needed so we can derive the surface word order in yes-no questions such as those in (12)? Draw a tree for the sentence in (12b), making sure to use arrows to indicate any changes that take place in the structure to derive the surface word order, if needed. (*Important note (repeated)*: Remember that heads can only move to head positions, while phrases can only move to specifiers.)   (10 points)

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Next, consider the following wh-question in English;

(13) What will John buy?

Now, answer questions B and C:

B. State what parameter is relevant for wh-questions in human language, and what the setting of that parameter is for English?   (5 points)
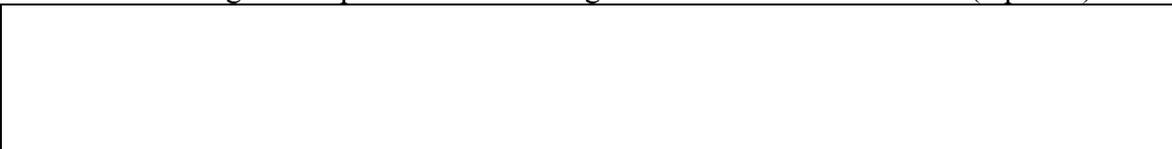
C. Combine the analysis you have come up with in Part A, with the parameter from Part B, to draw a syntactic tree for the wh-question in (13). As usual, make sure to use arrows to indicate any changes that take place in the structure to derive the surface word order, when relevant. (*Important note (repeated)*: Remember that heads can only move to head positions, while phrases can only move to specifiers.)
                                                                                        (10 points)
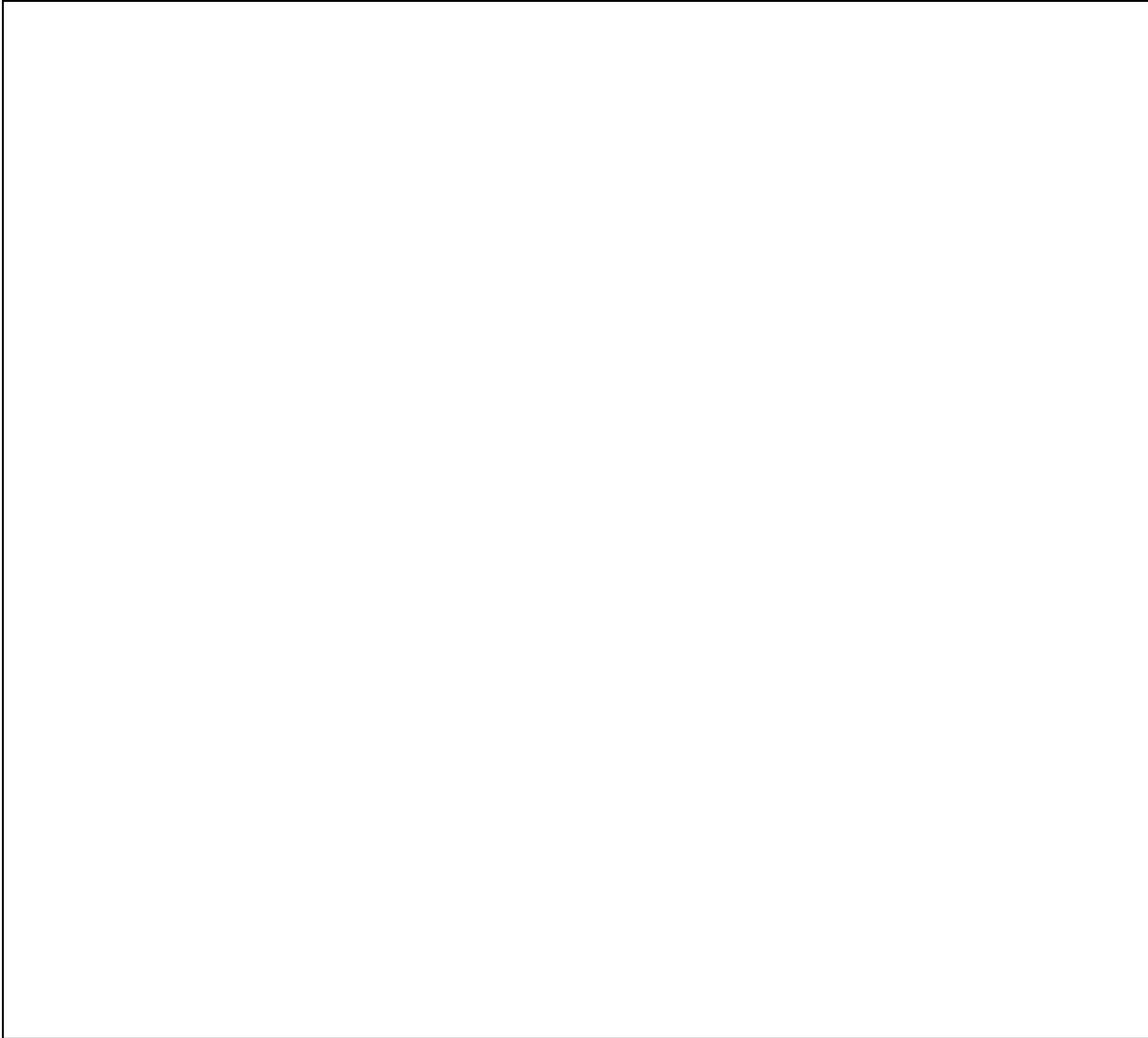
Exercise #9: Malagasy revisited

We have argued in class, following Baker's proposal, that VOS languages like Malagasy are possible because the subject side parameter allows subjects to occur either initially (as in English) or finally (as in Malagasy). However, we faced the problem of explaining why VOS languages are rare (about 3% of human languages). To account for this fact, we used Baker's parameter hierarchy to show that the parametric options available to subject-final languages are limited compared to subject-initial languages. But if you think about it, this just does not seem right. After all, these same parametric options are not available for SOV languages, either, but SOV is one of the two the most frequent word orders in human languages. Even more seriously, why is it that a parametric option exists

only for 3% of human languages? Suppose, then, we assume that there is no subject side parameter in UG. What would be a viable alternative analysis of Malagasy-type languages that (a) derives the VOS order, and (b) provides a reasonable account for the rarity of VOS languages? Make sure to illustrate your answer with a tree diagram showing how the VOS word order is derived. (Important note: Remember that heads can only move to head positions, while phrases can only move to specifier positions.)

(10 points)
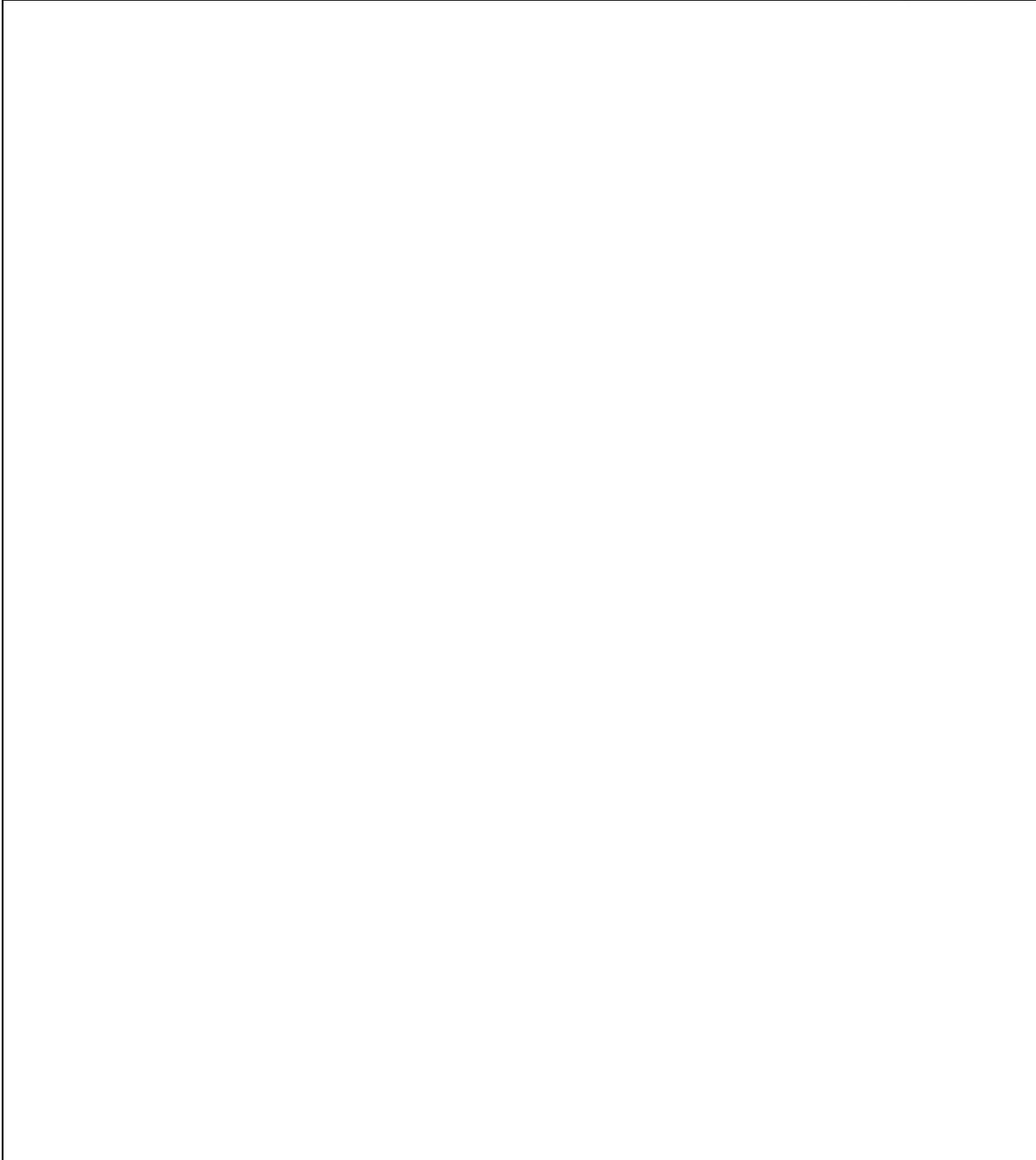
In class we talked about binding of anaphors like –*self* pronouns in English (i.e., *himself, itself, themselves*, etc.). We mentioned that interpretation of reflexives is subject to Binding Condition A, which says:

(14) An anaphor must be bound within the minimal clause it is in.

This explains to us why "*himself*" in (15) below can only be bound by the NP "*Barry*", and not by the NP "*John*" (remember subscripts signal coreference, whereas a "*" indicates ungrammaticality):

(15) John$_i$ says that [$_{minimal\ clause}$ Barry$_j$ likes himself$_{*i/j}$].

Now consider the following example:

(16) [[John]$_i$'s father]$_j$ likes himself$_{*i/j}$.

As you should probably agree, the only possible interpretation for the reflexive "*himself*" is to refer to the NP "*John's father*," and not to the NP "*John*". Bracketing is given to help you see that there are two NPs, one inside the other.

Now, answer the following questions A and B:

    A. How does the sentence in (16) pose a problem to our Binding Condition A in (14)?

                                          (5 points)

    B. Assuming that abandoning Binding Condition A is not an option (after all, it does seem to be working in the majority of cases), suggest a reformulation of Binding Condition A, using the following extra information on the next page, to account for why the reflexive in (16) can only be bound by the NP "*John's father*," and not by the NP "*John*". Make sure, though, that your reformulation would still account for the facts in (15).   (10 points)

Extra information for solving Question 10B:

To solve this problem, you will need to use a new syntactic notion (called "c-command"; see below) that is based on some of the notions we introduced in our discussion of syntax in class. In particular, we talked about the structural relations "*mother of*", "*daughter of*",

and "*sister of*". So, for example, in the abstract tree in (17), the relations in (18) hold, as you should be able to verify:

(17)

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            A
          /   \
        B       C
        |      / \
        D     E   F
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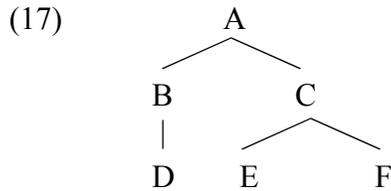
(18) a. A is a mother of B and C, and C is a mother of E and F.

　　　b. B and C are sisters, and so are E and F.

　　　c. B and C are daughters of A, and E and F are daughters of C. D is a daughter of B.

One structural relation between elements in a syntactic tree that we have not made use of so far is called "*c-command*," which we will define here simply as being "a structural relation between a node and its sister as well as any daughter(s) of that sister". For example, in the abstract tree in (17), we say that "*B c-commands C, E and F*," because C is a sister of B, and E and F are daughters of C. Similarly, we say that "*C c-commands B and D*," because B is a sister of C, and D is a daughter of B. The relation is thus transitive: A node c-commands its sister and all the daughters of that sister. So, in the tree in (17), if E has daughters, then B would still c-command these daughters of E.

Now, armed with this notion of "c-command", reformulate Binding Condition A, to explain why the reflexive in (16) can only be bound by the NP "John's father," and not by the NP "John". (*Note*: It doesn't really matter what the "c" in "c-command" means, but if you are really dying to know, it stands for "constituent".)

GOOD LUCK!