Binding theory and *wh*-movement (Inspired by a problem from Roberts 1997, will continue on a future homework)**.** Under certain circumstances, anaphors can be bound inside DPs. So, (1) is grammatical.

(1)   John$_i$ likes [$_{DP}$ songs about himself$_i$].

Part A: Draw a tree for (2) (same ground rules as in problem #1)

(2)   Who did Mary give a song about herself to?

Part B: Draw a tree for (3).

(3)   [$_{DP}$ Which song about himself$_i$] does John$_i$ like?

Part C: (3) is grammatical, so it must satisfy Principle A. It doesn't *look* like it does, though. Assume Principle A is correct as it is (anaphors must be bound within their binding domain). Briefly explain how (3) satisfies Principle A. *Hint*: Think about what we write as "<DP>"—that's just a shorthand, really. "Movement" is a process of making a copy of the thing we're moving and then Merging/Adjoining the copy at the top. You can assume that when you make a copy of an anaphor, only one of the copies needs to be bound.

Part D: Briefly explain why *she* in (4) cannot be *Mary*.

(4)   [$_{DP}$ Which song about Mary$_i$] does she$_i$ like?

Part E. We've not so far been very explicit about what the binding domain (for Principles A and B) is exactly—it's just been "the clause." That could mean either TP or CP. But, we're in a position now to make this determination. Consider (1), where *himself* can refer either to *David* or to *Nigel*. This is predicted, but it also indicates that an anaphor like *himself* need not be bound by the closest possible binder—it just has to be something within the binding domain. Both *David* and *Nigel* are inside the binding domain.

(1)   David$_i$ gave Nigel$_j$ a picture of himself$_{i/j}$.

Now, consider (2)—in (2), *himself* can be *Derek*, but it can't be *David*.

(2)   David$_i$ believes Derek$_j$ to have taken a picture of himself$_{j/*i}$.

So here's the question: **What is the binding domain for Principle A (TP or CP)?**

Part F. Go back to homework #10 and remind yourself about what you said about why *Which song about himself$_i$ does John$_i$ like?* was grammatical. Then, consider (3). **Draw a tree for (3)**.

(3)   [$_{DP}$ Which songs about himself$_{i/j}$] did Nigel$_i$ say that Derek$_j$ likes ?

Part G. Explain how it is possible in (3) for *himself* to refer to *Nigel*, and how it is possible for *himself* to refer to *Derek*.

Part H. (inspired partly by Adger 2003, ex. 9.6). **What seems to be the problem with (4)?** There's no easy solution to this problem, the traditional solution has been to significantly complicate the definition of "binding domain." More recent solutions often involve altering the means by which accusative case is checked. For now, you just need to **identify what it is about (4) that would have led us to predict that it should be ungrammatical.**

(4)   Derek believes himself to have the role of lukewarm water.