

## 1 Binding domains

This continues the problem from the previous homework, in a sense. It at least makes some sense of what use the particular sentences you were devising might have.

An anaphor doesn't have reference of its own, it needs to get its reference from something else. For an anaphor like *themselves* to be allowed, there must be something that c-commands the anaphor that provides it with a reference. So, (1) is ok because *they* c-commands *themselves* and provides reference (which we indicate by the co-subscripting). We will refer to this relationship as a “binding” relationship. The antecedent *binds* the anaphor. If two elements have the same subscript (“index”), then they necessarily refer to the same individual.

- (1) They<sub>i</sub> saw themselves<sub>i</sub>.

**Binding.** *An element  $x$  binds  $y$  iff  $x$  c-commands  $y$  and they are co-indexed.*

But the antecedent must be **close** to the anaphor. If it is too far away (like, in a different clause), the anaphor is no longer allowed (cannot get a referent over such a long distance) (2b).

- (2) a. I said [<sub>CP</sub> (that) they<sub>i</sub> saw themselves<sub>i</sub> ].  
b. \* They<sub>i</sub> said [<sub>CP</sub> (that) I saw themselves<sub>i</sub> ].

We will call what counts as “close” as being within the **binding domain** of the anaphor. Let's codify this as a principle. Let's call it principle “A.” These are anaphors, after all.

**Principle A.** *An anaphor must be bound by an antecedent within its binding domain.*

But what are the actual boundaries of the binding domain? The example above indicates that, at least to a first approximation, the binding domain is something equal to or smaller than the smallest CP containing the anaphor.<sup>1</sup> That is, (2b) shows us that if the (intended) antecedent is outside the (smallest) finite CP that contains the anaphor, then they are too far apart.

**Hypothesis 1.** *The binding domain of an anaphor is the smallest CP containing it.*

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<sup>1</sup>“Smallest” is worth saying here because they are both inside the big CP that contains the whole sentence. Just having both contained within *any* CP is not good enough.

Hypothesis 1 is a start, but we will try to refine it. In the examples in (3), the anaphor has been put inside a DP. In both (3a) and (3b), the antecedent is within the smallest CP containing the anaphor. So, while Hypothesis 1 predicts that (3c) is ungrammatical, it does not predict that (3b) would be.

- (3) a. I saw [DP their<sub>i</sub> picture of themselves<sub>i</sub> ].  
b. \* They<sub>i</sub> saw [DP my picture of themselves<sub>i</sub> ].  
c. \* They<sub>i</sub> said [CP (that) I saw [DP my picture of themselves<sub>i</sub> ]].

There is a pretty obvious revision we can make to Hypothesis 1 to capture the facts we have so far:

**Hypothesis 2.** *The binding domain of an anaphor is the smallest CP or DP containing it.*

But this new Hypothesis incorrectly predicts that (4a) and (4b) would be ungrammatical. And yet they're fine. That is, it seems like the binding domain is larger in (4a) than it is in (3a) and (3b). Think about how (4a) and (3b) differ, and how (4b) and (4c) differ.

- (4) a. They<sub>i</sub> saw [DP a picture of themselves<sub>i</sub> ].  
b. They<sub>i</sub> saw [DP a copy of [DP a picture of themselves<sub>i</sub> ]].  
c. \* They<sub>i</sub> saw [DP my copy of [DP a picture of themselves<sub>i</sub> ]].  
d. \* They<sub>i</sub> said [CP (that) I saw [DP a picture of themselves<sub>i</sub> ]].

**TASK 1:** Propose a Hypothesis 3 that will predict the grammaticality or ungrammaticality of the sentences in (3) and (4). This will require a slight revision to Hypothesis 2.

In the previous homework, you were tasked with coming up with sentences like those below. My judgment is that (5) is fine. And (6) is ungrammatical if the answer is understood to be something like (3b) (that is, where we are asking about the possessor, and the pictures are not pictures of the possessor).

- (5) [Which picture of themselves<sub>i</sub>] did they<sub>i</sub> see?  
(6) \* [Whose picture of themselves<sub>i</sub>] did they<sub>i</sub> see? (Answer: Mine.)

It is important that the antecedent c-command the anaphor, and yet *they* in (5) does not c-command *themselves*. But, before *which picture of themselves* moved to the specifier of CP, *they* **did** c-command *themselves*. So the explanation for why (5) is grammatical is that, before *wh*-movement, it starts off relevantly similar to (4a). This must be sufficient

to satisfy the condition we have described in Hypothesis 3. And then after that the *wh*-phrase *which picture of themselves* is moved into SpecCP.

**TASK 2:** Very briefly explain how your Hypothesis 3 predicts that (6) is ungrammatical.

In the previous homework, you were also tasked with coming up a sentence like (7). This seems to me to be grammatical.

(7) [Which picture of themselves<sub>i</sub>] did they<sub>i</sub> say he saw?

**TASK 3:** Propose a Hypothesis 4 by revising your Hypothesis 3 so that it predicts that (7) is grammatical, while still predicting that (4d) is ungrammatical. This is a maybe a little bit challenging, you will need to consider how *wh*-movement works in (7), and to assume that Hypothesis 4 can be satisfied based on any position the *wh*-phase occupies.

## 2 Passives, Unaccusatives, and Raising

Here are some sentences. Draw a tree for each sentence. They are likely to have a passive verb, raising verb, unaccusative verb, or some combination of these.

- (8) The loose coins were quickly stolen.
- (9) The loose coins vanished.
- (10) Who was persuaded to confess?
- (11) What did Mary seem to have been given?
- (12) Who were you introduced to?