Binding theory. Conditions B and C, binding and co-reference

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1 Reinhart’s approach

1.1 Binding theory: complicated condition B

(1) Complicated condition B: A (non-reflexive) pronoun P cannot be bound by or be co-referential with an expression E if E c-commands P and E belongs to P’s local domain.

1.2 Reinhart’s proposal

(2) a. Condition B: A pronoun P cannot be bound by an expression E which belongs ot P’s local domain

b. Rule I: Two expressions A and B cannot co-refer if it is possible to replace B with a variable bound by A without changing the meaning of the sentence.

(3) Peter likes him

a. Co-reference: Peter likes himi, with context assigning PETER to index i.

**→ ruled out by rule I because the following LF gives rise to the same reading:**

Peter [1 [t1 likes PRONi]]

b. Binding: Peter [1 [t1 likes himi]]

**→ ruled out by condition B**

- Rule I also covers condition C effects

(4) *Hei likes Peter [with g(i) = PETER, g being the contextual assignment function]*

**→ ruled out by rule I because the following structure has the same reading:**

Hei [1 [t1 likes PRON1]]

(5) More generally: whenever a pronoun c-commands a name, co-reference will be ruled out by rule I (except in some cases where co-reference gives rise to a reading which cannot be obtained otherwise, see below). Hence condition C follows as a consequence.

- Predicts exceptions to conditions B and C

(6) He is John [but Condition C could be formulated in terms of “presupposed coreference”, in which case this is not an exception to condition C]

(7) Only Max himself voted for him

**→ ok with the reading: Max voted for Max and nobody else voted for Max**
With binding, we would have gotten: ...nobody else voted for himself.
(Exercise: show this)

(8) I know what John and Mary have in common. John hates Mary and Mary hates her too.

• VP-ellipsis

(9) Jack called his mother. Peter did too
   a. sloppy: Peter too called his own mother
   b. strict: Peter too called Jack’s mother

How do we get the strict reading?

According to rule I, the only available LF for the first sentence is one where the pronoun is bound. Then how is the strict reading possible? Reinhart’s original view: precisely because a co-referential construal in the first sentence (instead of variable binding) gives rise to a strict reading for the second sentence, co-reference is allowed in this case (leads to a different interpretation).

However, this predicts that the following should be ok, under a co-referential reading

(10) Jack likes him, and Peter does too
     \(~\) Predicted ok: Jack likes himself, and Peter likes Jack too.

Hence one needs to adopt a somewhat stipulative rule regarding the interpretation of pronouns in ellipsis:

(11) DP parallelism in ellipsis [Fox, Büring]
     Corresponding determiner phrases in the antecedent and the elided VPs must either:
     - have the same referential value, or
     - be bound in parallel

2 Problems for this approach. Heim’s notion of “co-determination”

(12) Every man said he voted for him

The following structure is not ruled out:

(13) Every man [1. [t1 said he1 voted for him1]]
     a. Rule I does not apply because every pronoun is bound
     b. Condition B is not violated because both pronouns are bound from outside their local domain

(14) Codetermination (Heim)
     A and B are co-determined if either
     a. A binds B, or
     b. A and B co-refer, or
     c. there is a third DP C which is co-determined with A and B

(15) Principle B: A pronoun P cannot be codetermined with an element E which c-commands P and belongs to P’s local domain.

(16) Exceptional Codetermination Rule
     An LF in which a pronoun P is co-determined with, but not bound by, an element E which c-commands it in its local domain, is licensed if it is semantically distinct from what would result if P were bound by E.
3 Locality of variable binding: rule H

3.1 Dahl’s puzzle - cf. Fox

(17) Max said that he called his mother, and Bod did too
   a. and Bob too said that Max called Max’s mother [strict-strict]
   b. and Bob too said that Bob called Bob’s mother [sloppy-sloppy]
   c. and Bob too said that Bob called Max’s mother [sloppy-strict]
   d. *and Bob too said that Max called Bob’s mother [strict-sloppy]

3.2 Fox’s locality of variable binding

(18) Locality of variable binding [Fox]: A pronoun P can be bound by an element A only if there is no closer element B such that B could bind P and the resulting interpretation would be the same.

(19) Possible structures for (17), ignoring the co-reference rule
   a. Max [1 [t_1 said that he_1 [2 [t_2 called his_2 mother]]]]. ⊳ sloppy-sloppy
   b. Max said that he_〜_MAX called his_〜_MAX mother. ⊳ strict-strict
   c. Max [1 [t_1 said that he_1 called his_〜_MAX mother]]. ⊳ sloppy-strict
   d. Max said that he_〜_MAX [1 [t_1 called his_1 mother]] ⊳ strict-strict
   e. *Max [1 [said that he_〜_MAX called his_1 mother]] ⊳ strict-sloppy
   f. *Max [1 [said that he_1 called his_1 mother]] ⊳ sloppy-sloppy

Exceptions to locality of variable binding

(20) Chaque homme pense que lui seul aime son fils
   a. Chaque homme pense: j’aime mon fils et personne d’autre n’aime mon fils
   b. Chaque homme pense: j’aime mon fils et personne d’autre n’aime son propre fils

(21) a. Chaque homme [1 [t_1 pense que lui_1 seul aime son_1 fils]]
   b. Chaque homme [1 [t_1 pense que lui_1 seul [2 [t_2 aime son_2 fils]]]]

3.3 Büring: Have local binding

Fox’s locality constraint never rules out co-reference. Hence cannot do the job of rule I or the co-determination rule. Büring proposes the following unification

(22) Have local binding!
   For any two determiner phrases A and B, if A is in a position to bind B (i.e. if A c-commands B and B is not bound by another element), then A must bind B, unless that changes the interpretation.