

October 17, 2006

CLASS 7: BINDING THEORY

BT IN GB

(1) **Binding Theory**

(i) *Principle A*

An anaphor (e.g. a reflexive or reciprocal) must be bound in its domain.

(ii) *Principle B*

A pronoun must be free (not bound) in its domain.

(iii) *Principle C*

An R-expression (e.g. a name, a variable) must be free (everywhere).

(2) **Domain**

α is the domain for β iff α is the smallest IP (TP) containing β and the governor of β .

(3) **Binding**

α binds β iff α c-commands and is coindexed with β .

- (4) a. *[Mary_i said that [TP Joe liked these pictures of herself_i]]
 b. [Mary_i said that [TP Joe liked these pictures of her_i]]
 c. *[He_i said that Mary likes these pictures of Joe_i]

BT PRINCIPLE A

- (5) *John_i wondered which woman liked which pictures of himself_i.
 (6) LF: [TP John_i wondered [[which pictures of himself_i]_k+ [which woman]_j [TP t_j liked t_k]]]
 (7) LF: *[TP John_i wondered [which_k+ [which woman]_j [TP t_j liked [t_k pictures of himself_i]]]]]

If we replace the embedded *wh*-subject by a non-*wh*-phrase, an interesting **ambiguity** arises:

- (8) a. **John_i** wondered which picture of **himself_{i/k}** **Fred_k** liked.
 b. DS: [TP John_i wondered [CP [TP **Fred_k** liked [**which picture of himself_{i/k}**]]]]
 c. SS/LF: [TP **John_i** wondered [CP [**which picture of himself_{i/k}**]_m [TP Fred liked t_m]]]
 (9) The students asked what attitudes about each other the teachers had.
 (10) [TP [**the students**]_k asked [**what attitudes about [each other]_{i/*k}**]_m
 [TP [**the teachers**]_i had t_m]]

BT PRINCIPLE B

- (11) **John_i** wondered which picture of **him_{i/*k}** **Fred_k** liked.
- (12) a. DS: [TP **John_i** wondered [CP [TP **Fred_k** liked [which picture of **him_{i/k}**]]]]
 b. SS/LF: [TP **John_i** wondered [CP [which picture of **him_{i/k}**]_m [TP **Fred_k** liked **t_m**]]]
- (13) a. N = {**John₁**, **T₁**, **wondered₁**, **Q₁**, Fred₀, liked₀, which₀, picture₀, of₀, him₀}
 b. [TP **Fred** liked [which picture of **him**]]
- (14) a. N' = {**John₁**, **T₁**, **wondered₁**, Q₀, Fred₀, liked₀, which₀, picture₀, of₀, him₀}
 b. [CP [which picture of **him**]_i Q [TP **Fred** liked **t_i**]]
- (15) a. N'' = {John₀, T₀, wondered₀, Q₀, Fred₀, liked₀, which₀, picture₀, of₀, him₀}
 b. [TP **John** wondered [CP [which picture of **him**]_i Q [TP **Fred** liked **t_i**]]]

BT PRINCIPLE C

- (16) He wondered which picture of John he liked.
- (17) a. DS: [TP **he** wondered [CP [TP **he** liked [which picture of **John**]]]]
 b. SS/LF: [TP **he** wondered [CP [which picture of **John**]_m [TP **he** liked **t_m**]]]

COPY THEORY!

- (18) **John_i** wondered which picture of **himself_{i/k}** **Fred_k** liked.
- (19) [TP John wondered [CP [**which picture of himself**]
 [TP Fred liked [**which picture of himself**]]]]
- (20) LF: [TP John wondered [CP [**which picture of himself**]
 [TP Fred liked ~~[which picture of himself]~~]]]
- (21) John wondered **which x**, x a picture of himself, **Fred liked x**
- (22) LF: *[TP John wondered [CP ~~[which picture of himself]~~
 [TP Fred liked [**which picture of himself**]]]]

(23) **French**

Combien_i a-t-il consultés [**t_i** de livres]?
how-many has-he consulted of books
 'How many books did he consult?'

(24) **German**

Was_i hast du [**t_i** für Bücher] gelesen?
what have you for books read
 'What books did you read?'

- (25) [which portrait]_i did **he** buy [t_i that **Harry** likes]
- (26) a. *Which man said **he**_i liked which picture that **Harry**_i bought?
 b. LF: *[_{CP} which_k+ [which man]_m [_{TP} t_m said he_i liked [t_k picture that Harry_i bought]]]
- (27) a. ***John**_i wondered which woman liked which pictures of **himself**_i.
 b. LF: *[_{TP} John_i wondered [which_k+ [which woman]_j [_{TP} t_j liked [t_k pictures of h_s_i]]]]
- (28) [_{TP} John wondered [_{CP} [which picture of ~~himself~~] [_{TP} Fred liked [~~which~~ picture of **hs**]]]]
- (29) John wondered **which x**, Fred liked **x picture of himself**
- (30) a. Whose mother did you see?
 b. SS: [_{CP} [**whose mother**]_i did [_{TP} you see t_i]
- (31) a. To who(m) did you talk?
 b. SS: [_{CP} [**to who(m)**]_i did [_{TP} you talk t_i]]
- (32) a. I saw **Bill's** mother and **Frank's** mother.
 b. I talked to **Bill** and I talked to **Frank**.
- (33) a. **who**_x you saw **x's** mother
 b. **who**_x you talked to **x**
- (34) a. I saw Mary.
 b. I talked about Fred.
- (35) a. SS: [_{CP} [**whose mother**]_i did [_{TP} you see t_i]]
 b. LF: [_{CP} **whose**_j did [_{TP} you see [t_j **mother**]]]
- (36) a. SS: [_{CP} [**to who(m)**]_i did [_{TP} you talk t_i]]
 b. LF: [_{CP} **who(m)**_j did [_{TP} you talk [to t_j]]]
- (37) a. [_{CP} [**whose mother**] did [_{TP} you see [**whose mother**]]]
 b. LF: [_{CP} [~~whose mother~~] did [_{TP} you see [~~whose~~ mother]]]
- (38) a. [_{CP} [**to who(m)**] did [_{TP} you talk [**to who(m)**]]]
 b. LF: [_{CP} [~~to who(m)~~] did [_{TP} you talk [to ~~who(m)~~]]]
- (39) a. *[it seems to **them**_i that [**John and Mary**]_i were angry]
 b. [[**John and Mary**]_i seem to [**each other**]_i to have been angry]
- (40) a. [_{TP} [**J&M**] seemed to [**each other**] [_{TP} [**J&M**] to have been angry]]
 b. LF: [_{TP} [**J&M**] seemed to [**each other**] [_{TP} [~~J&M~~] to have been angry]]

THE PREFERENCE PRINCIPLE

- (41) a. **John_i** wondered which picture of **him_{i/*k}** **Fred_k** liked.
 b. **He_{i/*j}** wondered which picture of **John_j** **he_{i/k/*j}** liked.
- (42) a. [TP John wondered [CP [which picture of him] [TP Fred liked [which picture of him]]]]
 b. [TP he wondered [CP [which picture of John] [TP he liked [which picture of John]]]]
- (43) a. [TP John wondered [CP [which ~~picture of him~~] [TP Fred liked [~~which~~ picture of him]]]]
 b. [TP he wondered [CP [which ~~picture of John~~] [TP he liked [~~which~~ picture of John]]]]
- (44) a. John wondered **which x** Fred liked **x picture of him**
 b. he wondered **which x** he liked **x picture of John**
- (45) a. [TP John wondered [CP [which picture of him] [TP Fred liked [~~which picture of him~~]]]]
 b. [TP he wondered [CP [which picture of John] [TP he liked [~~which picture of John~~]]]]

(46) **Preference Principle**

Try to minimize the restriction in the operator position.

- (47) **John_i** wondered which picture of **himself_{i/k}** **Fred_k** liked.
- (48) a. [TP John wondered [CP [which picture of **himself**]
 [TP Fred liked [~~which picture of himself~~]]]]
 b. [TP John wondered [CP [which ~~picture of himself~~]
 [TP Fred liked [**which** picture of **himself**]]]]
- (49) [TP John wondered [CP [which picture of **himself**]
 [TP Fred+**himself** liked [which picture of **himself**]]]]
- (50) a. [TP John wondered [CP [which ~~picture of himself~~]
 [TP Fred+**himself** liked [~~which~~ picture of **himself**]]]]
 b. [TP John wondered [CP [which ~~picture of himself~~]
 [TP Fred+**himself** liked [~~which~~ picture of **himself**]]]]
- (51) [TP John+**himself** wondered [CP [which picture of **himself**]
 [TP Fred liked [which picture of **himself**]]]]
- (52) LF: *[TP John+**himself** wondered [CP [which ~~picture of himself~~]
 [TP Fred liked [~~which~~ picture of **himself**]]]]
- (53) a. [TP John+**himself** wondered [CP [which picture of **himself**]
 [TP Fred liked [~~which picture of himself~~]]]]
 b. LF: [TP John+**himself** wondered [CP [which picture of **himself**-]
 [TP Fred liked [~~which picture of himself~~]]]]