

Crossover ⁱ

Patrick D. Elliott² & Martin Hackl³

March 9, 2020

¹ 24.979: Topics in semantics

Getting high: Scope, projection, and evaluation order

² pdell@mit.edu

³ hackl@mit.edu

1 Setting the stage

2 The phenomenon

2.1 Weak crossover and overt movement

The simplest form of the Weak Crossover (wco) paradigm⁴ is illustrated below:

- (1) a. Who^x t_x likes his_x mother?
- b. *Who^x does his mother like t_x ?

⁴ The term “crossover” was originally coined by Paul Postal.

Add actual reference

At first blush, it looks like the *wh*-quantifier can only bind a pronominal if the base-position of the *wh* c-commands the pronoun.

Why is this a problem? It is fairly standard to assume that scope feeds binding; in fact, according in semantics 101, it's often assumed that scope is *necessary* for binding – moving the *wh* creates an abstraction index.

The following LF should be perfectly legitimate from the perspective of the semantics:

- (2) who 1 [his₁ mother likes t_1]?

Since both traces and pronouns are interpreted as variables, there is no reason why the representation above shouldn't result in a sensible reading.

2.2 Strong crossover

- (3) a. *Who^x did he_x say Mary saw t_x ?
- b. Who^x said Mary saw him_x.

2.3 *wco and quantificational scope*

This constraint on variable binding extends beyond configurations involving overt *wh*-movement to those involving quantificational scope.⁵

⁵ This was first observed by Chomsky (1976)

- (4) a. Everyone^x loves his_x mother.
b. *His_x mother loves everyone^x.

Add proper reference

2.4 *A- vs. A'-dependencies*

- (5) Everyone seems to his mother to be a genius.

- (6) Who seems to his mother to be a genius.

3 *Weakest crossover*

Cite Lasnik and Stowell

- (7) Who did you stay with before his wife had spoken to?

Idea: the pronominal is bound by the *wh*-expression, NOT the parasitic gap.