

Cataloguing reconstruction effects

LING 252 · Ethan Poole · 30 March 2020

1 Setting the stage

- Moved elements exhibit a special CONNECTIVITY with their premovement positions:

(1) **Thematic connectivity**

[Which book] did Alex read ____? (which book = IA of read)

(2) **Case connectivity**

a. Who(*m) did you say [____ saw Alex]? subject extraction

b. Who(m) did you say [Alex saw ____]? object extraction

⇒ This connectivity can manifest in more subtle and interesting ways in what are called RECONSTRUCTION EFFECTS:

(3) [Someone from Duluth] is likely [____ to win the lottery].

a. **Surface scope (= wide)** someone >> likely
 There is a (particular) person from Duluth who is likely to win the lottery.

b. **Reconstructed scope (= narrow)** likely >> someone
 It is likely that there is a person from Duluth who will win the lottery.

- Syntax-centric approach (SynR)**

Reconstruction effects are derived by placing the moved element back in its pre-movement position at LF:¹

(4) LF: ____ is likely [[someone from Duluth] to win the lottery]



¹ Chomsky (1976, 1993, 1995); May (1977, 1985); Cinque (1990); Heycock (1995); Romero (1998); Fox (1999)

- Semantics-centric approach (SemR)**

Reconstruction effects are derived using traces of higher-semantic types:²

(5) LF: [someone from Duluth] [$\lambda Q_{\langle et,t \rangle}$ [is likely [$Q_{\langle et,t \rangle}$ to win the lottery]]]



² von Stechow (1991); Cresti (1995); Rullmann (1995)

* **Putting it all together**

There are (in principle) three means of interpreting a movement dependency:³

(6) a. **Ordinary trace**

LF: [someone from Duluth] [λ_1 [is likely [t_1 to win the lottery]]]

b. **SemR**

LF: [someone from Duluth] [λ_1 [is likely [T_1 to win the lottery]]]

c. **SynR**

LF: is likely [[someone from Duluth] to win the lottery]

³ The 'big T' notation:
 $[[t_i]]^g \in De$
 $[[T_i]]^g \in D_{\langle et,t \rangle}$

- **Terminology**

- ‘reconstruction effects’ = the empirical phenomenon
- ‘ α syntactically reconstructs’ = α is interpreted via SynR
- ‘ α semantically reconstructs’ = α is interpreted via SemR
- ‘ α reconstructs for β ’ = α is evaluated for β in its premovement position
- ‘trace’ = λ -bound variable
- ‘premovement position’ = base or intermediate position

2 Quick background: *Wh*-question semantics

- Questions denote sets of answers (i.e. sets of propositions = sets of sets of worlds):⁴ ⁴ Hamblin (1973); Karttunen (1977)

$$\begin{aligned}
 (7) \quad \llbracket \text{which cat did Alex adopt} \rrbracket (w_0) &= \left\{ \begin{array}{l} \lambda w . \text{ Alex adopts Hobbes in } w, \\ \lambda w . \text{ Alex adopts Salem in } w, \\ \lambda w . \text{ Alex adopts Garfield in } w, \\ \vdots \end{array} \right\} \\
 &= \{ p : \exists x [x \text{ is a cat} \wedge p = \lambda w . \text{ Alex adopts } x \text{ in } w] \} \\
 &= \lambda p_{st} . \exists x [x \text{ is a cat} \wedge p = \lambda w . \text{ Alex adopts } x \text{ in } w]
 \end{aligned}$$

- To more conveniently represent question interpretations, we can use paraphrases like the following:

- (8) a. For what x : Alex adopts the cat x .
 b. For what x : Alex adopts x , where x is a cat.
 c. For what cat x : Alex adopts x .

3 Reconstruction effects

3.1 Quantificational scope

- * SCOPE RECONSTRUCTION is when a moved quantificational expression takes scope in its launching site, rather than its landing site.⁵

⁵ For example, (3) above with A-movement.

- **A quick primer on ‘how many’ questions**

To probe scope reconstruction with \bar{A} -movement, in English, it is necessary to look at *how many* questions.

- In addition to its *wh*-meaning component, *how many* carries existential quantification over entities.
- This quantification may vary in scope. Thus, when *how many* moves over another scope-bearing expression, it gives rise to a scope ambiguity.⁶

⁶ Kroch (1989); Cinque (1990); Cresti (1995); Rullmann (1995); Frampton (1999)

⇒ To illustrate, consider the following, where *how many* moves over a modal:

- (9) $\left[\text{How many books} \right] \text{ should Alex read } \underline{\quad} \text{ this summer?}$
 how many >> should; should >> how many

- **Surface-scope reading (= wide scope)**

(10) **Wide-scope reading of (9)** how many >> should
 For what number n : There are n -many (particular) books x such that it is necessary that Alex read x this summer.

- Assumes that there is a certain set of books that Alex should read and asks how many such books there are.
- *Possible context*: Alex has a summer English assignment to read a handful of specific literary classics before the start of the school year.
- The books being asked about are constant across the modal alternatives.

⇒ Corresponds to surface word order \rightsquigarrow surface-scope reading

- **Reconstructed-scope reading (= narrow scope)**

(11) **Narrow-scope reading of (9)** should >> how many
 For what number n : It is necessary that there be n -many books x such that Alex reads x this summer.

- Assumes that there is a particular number of books that Alex should read, without having any particular books in mind.
- *Possible context*: Alex's summer English assignment is to read ten books before the start of the school year, but it does not matter which ten books those are.
- The books being asked about may vary across the modal alternatives.

⇒ Corresponds to premovement position \rightsquigarrow reconstructed-scope reading

- **More examples**

(12) [How many people] should [___ bring dessert]?

a. **Surface-scope reading** how many >> should
 For what number n : There are n -many (particular) people x such that it is necessary that x bring dessert.

b. **Reconstructed-scope reading** should >> how many
 For what number n : It is necessary that there be n -many people x such that x bring dessert.

(13) [How many books] does Alex want [to read ___]?

a. **Surface-scope reading** how many >> want
 For what number n : There are n -many (particular) books x such that in all of Alex's bouletic alternatives, Alex reads x .

b. **Reconstructed-scope reading** want >> how many
 For what number n : In all of Alex's bouletic alternatives, there are n -many books x such that Alex reads x .

3.3 Referential opacity

* REFERENTIAL-OPACITY RECONSTRUCTION is when a moved element is interpreted opaquely with respect to an intensional operator that it crosses over:

(18) [**Which criminal**]₁ does Alex *want* to date ___₁?



a. **Opaque interpretation**

For what x : In all of Alex's bouletic alternatives w' in w_0 , Alex dates x in w' , where x is a criminal in w' .

b. **Transparent interpretation**

For what x : In all of Alex's bouletic alternatives w' in w_0 , Alex dates x in w' , where x is a criminal in w_0 .

- **Opaque reading (de dicto)**: The person who Alex wants to date is a criminal in Alex's bouletic alternatives, but not necessarily in the evaluation world.
- **Transparent reading (de re)**: The person who Alex wants to date is a criminal in the actual world, but not necessarily in Alex's bouletic alternatives.
- **Reminder about de re vs. de dicto**
 - It is in principle possible for the opaque and transparent readings to be identical.
 - For example, in (18), the referent of *which criminal* could be a criminal in both the actual world and in Alex's bouletic alternatives.
 - In such contexts, one cannot detect a difference between the two readings.
 - In order to detect the ambiguity in (18), Alex needs to be wrong or ignorant about the identity of the referent of *which criminal*.

4 Condition C connectivity

- It is fairly common to see talk of "Condition C reconstruction". It is invoked to explain contrasts like the following:

(19) [Which picture of **Alex**₁] does **she**_{*1/2} like ___ ?

⇒ The basic story:

- From its surface position, *Alex* is not c-commanded by *she*. Nevertheless, the two cannot corefer.
- If *Alex* were evaluated for Binding Theory in the base position of *which picture of Alex*, it would violate Condition C, and thus the result would be ungrammatical.
- Thus, the reason why (19) is ungrammatical with coreference is because the *wh*-phrase is necessarily evaluated for Condition C in the launching site of movement.
- Therefore, there is "reconstruction for Condition C", and it is obligatory.

- **A rant**

Personally, I do not subscribe to that last conclusion of this story. The terminology of "Condition C reconstruction" is, at best, misleading. It makes no sense to talk about an element "reconstructing" to yield an ungrammatical structure.

- * The appropriate term—and the one that was used in the earlier literature—is CONDITION C CONNECTIVITY.
- As we will see next week, Condition C connectivity is relevant for understanding reconstruction, but it is not itself a reconstruction effect.

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