

Copies and Spell-Out

1 Overt vs covert movement

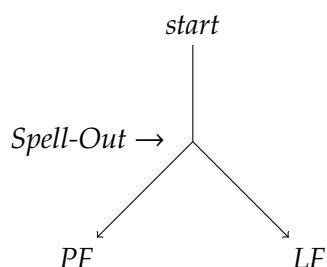
Previously: Some *wh*-in-situ (Japanese *wh-the-hell*) is sensitive to Ross's islands, even though nothing visibly moves. This motivates the idea of *covert movement*.

Two ways of thinking about overt vs covert movement:

- **LF movement** (May, 1977, 1985, a.o.):

Some movements occur for interpretation but without affecting word order/pronunciation.

Consider the *Y-model* of syntax: (this is a flow chart, not a tree)



If movement happens in the *stem/narrow syntax*, it will affect both *Logical Form (LF)* and *Phonological Form (PF)*. Most syntactic operations that we've considered happen here.

Covert movement is often called *Logical Form* or LF movement: The idea is that it happens after Spell-Out, only affecting the LF representation.

- **Copy theory** (Chomsky, 1995, a.o.):

Movement is actually copying structure in the *stem/narrow syntax*, and then we decide how to pronounce these *chains* later.

- (1) a. Narrow syntax: *What* did Alex read *what*?
 ↑
 b. English PF: *What* did Alex read *what*?
 ↑
 c. Hypothetical *wh*-in-situ PF: ~~*What*~~ (did) Alex read *what*?

Under this view, overt and covert movements differ only at PF:

- Overt movement = pronouncing the highest copy
- Covert movement = pronouncing the lowest copy

Under this perspective, Spell-Out refers to the process of deciding, at PF, how to pronounce the result of the narrow syntax.

2 Multiple *wh*-fronting in Slavic

What happens if you have multiple *wh*-phrases in a question? Consider English:

- (2) Alex will give some book to some friend.
- (3) a. *Which book* will Alex give ___ to *which friend*?
b. *Which friend* will Alex give *which book* to ___?
- (4) a. * *Which book which friend* will Alex give ___ to ___?
b. * *Which friend which book* will Alex give ___ to ___?

English requires exactly one *wh*-phrase to move to the beginning of the question.

- (5) a. *What* will Alex give ___ to *who(m)*?
b. * *Who(m)* will Alex give *what* to ___?

If there are two *wh*-words (not *wh*-phrases), the higher must move.

(Recall: This is Superiority, an NP asymmetry.)

In contrast to English, Bulgarian, Serbo-Croatian, Romanian, and Russian are all *multiple wh-fronting* languages. All data here is Bulgarian, mostly from Bošković 2002.

- (6) a. *Koj kakvo e kupil?*
who what PAST bought
'Who bought what?'
- b. * *Koj e kupil kakvo?*
- c. * *Kakvo koj e kupil?*

(6) shows that Bulgarian requires both *wh*-phrases to move to the beginning of the question.

- (6b) shows that the lower *wh*-phrase cannot be in-situ;
- (6a) shows that the order of *wh*-phrases must obey Superiority.

(7) shows that the same holds for long-distance movement.

- (7) a. *Koj kakvo misli Ivan [če ___ obuslavlja ___]?*
who what thinks Ivan that conditions
'Who does Ivan think conditions what?'
- b. * *Koj misli Ivan [če ___ obuslavlja kakvo]?*
who thinks Ivan that conditions what
Intended: 'Who does Ivan think conditions what?' =(a)

But something strange happens if the two *wh*-words are identical. Only one *wh*-word moves!¹

- (8) a. **Kakvo kakvo* obuslavlja?
what what conditions
b. *Kakvo* obuslavlja *kakvo*?
what conditions what
'What conditions what?'
- (9) a. **Kakvo kakvo* misli Ivan *če* obuslavlja?
what what thinks Ivan that conditions
Intended: 'What does Ivan think conditions what?'
b. *Kakvo* misli Ivan *če* obuslavlja *kakvo*?

Bošković 2002 argues that this data is best explained by the Copy Theory: *wh*-phrases all move, but then their pronunciation (highest or lowest copy) is decided at PF, after everything is built. In general, the highest copies are pronounced (all overt movements) but this is blocked if the result would have two homophonous *wh*-words right next to each other.

- (10) *Kakvo* postojanno *kakvo* obuslavlja?
what always what conditions
'What always conditions what?' (Snejana Iovtcheva, p.c.)

Example (10) shows that multiple *wh*-fronting returns if an adverb can be added to break up the two identical *wh*-words.

References

- Bošković, Željko. 2002. On multiple *wh*-fronting. *Linguistic Inquiry* 33:351–383.
- Chomsky, Noam. 1995. *The minimalist program*. MIT Press.
- May, Robert Carlen. 1977. The grammar of quantification. Doctoral Dissertation, Massachusetts Institute of Technology.
- May, Robert Carlen. 1985. *Logical form: Its structure and derivation*. Number 12 in Linguistic Inquiry Monographs. MIT Press.

¹Snejana Iovtcheva (p.c.) tells me that the facts in Bulgarian are more complicated than described in Bošković 2002; in particular, examples such as (8) is grammatical for Snejana and some other Bulgarian speakers. I present judgments reported by Bošković here.