

## Spelling out intermediate copies

In this talk, I propose a novel account for the successive-cyclic movement operation in long-distance (LD) wh-movement constructions, taking as a point of departure the medial wh-constructions wh-copying and partial wh-movement. I argue that in both medial and LD wh-movement constructions, Q-feature checking takes place in intermediate CPs and that as a result, these constructions do not involve one A'-movement chain, but multiple A'-movement chains. I furthermore claim that the spelling out of intermediate copies in medial wh-movement constructions is due to a PF requirement to spell out the head of a chain. I discuss some interesting solutions this approach offers for a number of problematic issues concerning the implementation of LD wh-movement in current minimalism.

1 and 2 below show examples of wh-copying and partial wh-movement in German. In these constructions, an overt copy of the wh-phrase is in the intermediate CP, while the highest CP is filled by either another copy (in 1) or a scope marker (in 2). Medial wh-constructions contrast with standard LD wh-movement in 3, which has only an overt copy of the wh-phrase in the matrix CP.

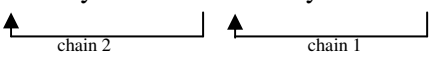
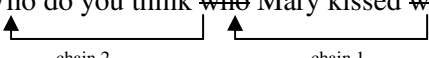
1. [<sub>CP1</sub> *Wen meinst du* [<sub>CP2</sub> *wen Marie geküsst hat?*]]  
     Who think you      who Marie kissed has
2. [<sub>CP1</sub> *Was meinst du* [<sub>CP2</sub> *wen Marie geküsst hat?*]]  
     What think you      who Marie kissed has
3. [<sub>CP1</sub> *Wen meinst du* [<sub>CP2</sub> *dass Marie geküsst hat?*]]  
     Who think you      who Marie kissed has

‘Who do you think Marie has kissed’

The three constructions above have often been analyzed as structural variants to each other, the difference being which elements are spelled out in the movement chain (cf. the collection of papers in Lutz et al., 2000). However, a question which has not been answered thus far is: why are copies only spelled out in intermediate CPs and not in other positions in the chain (phase edges and the gap position)? Specifically, under the common assumption that the highest copy checks the Q-feature of C, the most natural thing would be for other copies to remain in situ, as in multiple questions.

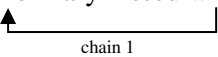
The fact that copies of the wh-phrase show up in intermediate CPs therefore suggests that they are there for a feature checking requirement. I propose this is indeed the case. In line with Pesetsky & Torrego (2004) and Stepanov & Stateva (2007), I assume that in both matrix and subordinate CPs, a Q-feature is checked, and furthermore that a wh-phrase may value a feature more than once.

The assumption that wh-movement to the intermediate CP results in feature checking suggests this position is the head of a chain, and that movement may in principle stop there. However, under the assumption that a wh-phrase may enter in multiple checking operations, the wh-phrase may be attracted again and move higher up, if there is a higher CP where a Q-feature must also be checked. As a result, medial copies are both the head and the tail of separate A'-movement chains. I argue that it is because of this dual nature of the medial copies that wh-copying is possible. Namely, a general assumption is that in PF chains, there is a preference for retaining the head of a chain (cf. Franks, 2000, amongst others). Because in the current approach, the medial wh-phrase is both the head and the tail of a chain, a spell out conflict arises. It is therefore “safer” not to delete the medial wh-phrase at all, which results in wh-copying (4). If the choice is being made to delete the medial wh-phrase anyway (and hence the head of the first chain), LD wh-movement results (5):

4. Who do you think who Mary kissed ~~who~~  

5. Who do you think ~~who~~ Mary kissed ~~who~~  


In partial wh-movement constructions, on the other hand, no conflict arises. Depending on the particular analysis one adopts for partial wh-movement, the scope marker is either inserted (direct

dependency approach) or moved from within a position in the matrix clause (indirect dependency approach), but crucially, the scope marker is not moved from out of the embedded CP. Hence, spelling out the medial wh-phrase causes no conflict because it is not the tail of a chain.

6. What do you think who Mary kissed ~~who~~
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Importantly, the approach correctly predicts that in none of the cases in 4–6 above, base copies or other intermediate copies (in vP) are spelled out, because they are never the head of a chain.

Note that the current approach suggests that wh-copying is more closely related to LD wh-movement than partial wh-movement. Specifically, wh-copying is a type of secondary strategy for LD wh-movement. This observation indeed seems to be corroborated by crosslinguistic patterns: partial wh-movement and LD wh-movement are often in complementary distribution (cf. Stepanov & Stateva, 2007), while wh-copying only appears to show up in languages that also have LD wh-movement. This is also corroborated by grammaticality judgment data from Dutch, an LD wh-movement language, which shows that wh-copying is much more acceptable than partial wh-movement in this language and even preferred over LD wh-movement by some speakers (Schippers, 2008). Furthermore, it has been noted that wh-copying is frequently used by children in various languages (cf. Jakubowicz & Strik and references therein). It is not surprising that especially in these populations the conflicting spell out requirements force spell out of the medial copy.

The current approach also has some interesting ramifications for some of the problems concerning the analysis of LD wh-movement in current minimalism. One of these problems is that it is unclear what triggers movement to intermediate positions. As a solution, Chomsky (1998) proposed EPP-features may optionally be added to intermediate heads, obviously a rather ad-hoc solution. Another problem concerns look ahead, since the wh-phrase has to move before the feature that it has to check enters the derivation (cf. Bošković, 2007). These two problems are partially solved in the current approach, since there is a feature checking requirement in intermediate CPs that forces movement of the wh-phrase. Another problem that is solved by the current approach is what Felser (2004) dubs the convergence problem. That is, phases are sent off to spell out once the next higher phase is completed and at that point, there may be no uninterpretable features left (cf. Chomsky 2001). But a wh-phrase which has to be LD-moved still carries an uninterpretable feature once it leaves the first CP phase (specifically: its copies do, too). In the current approach, however, feature checking takes place in every intermediate CP. Hence, no uninterpretable features remain in the lower vP phase that is sent off to spell out at that point.

## References

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