Phases in the Derivation of Elliptical Coordinate Constructions in Germanic

German and English, among other Germanic languages, share syntactic properties which allow the derivation of coordinate constructions with certain types of ellipsis in various configurations:

1. The Object-Gap Construction (OGC)
   a. [this book]$_i$ Peter$_j$ has not read t_i yet and e_i e_j will probably never read t_i
   b. [dieses Buch]$_i$ hat P. noch nicht gelesen und e_i wird er wohl nie t_i lesen
2. "Across-the-board" (ATB) wh-gaps
   a. [which book]$_i$ has Peter not read t_i , e_i will Katie never buy t_i and e_i does Frank not like t_i
   b. [welches Buch]$_i$ hat P. nicht t_i gelesen, e_i wird K. nie t_i kaufen und e_i mag Frank nicht t_i
3. "Gapping" constructions
   a. [Peter has$_i$ read the book] and [Katie e_i recently bought it]
   b. [Peter hat$_i$ das Buch gelesen] und [Katja e_i es neulich gekauft]

Chomsky (1998: 18) discusses four kinds of "complexity considerations" which enter into the derivation of any construction. Three of these apply directly to (1) - (3), leading, as I will argue here, to the conclusion that, as indicated, across-the-board movement cannot occur in any of them because 1) it is preempted by a simpler operation, 2) search space is limited to the first of the two clausal conjuncts; and 3) computation is local and does not allow "look-ahead".

My proposal solves the problems that arise with across-the-board and other movement operations which conflict with these complexity considerations. It suggests how coordinate structures can, if derived in phases (cf. Chomsky 1999) meet these complexity considerations, and is thereby able to explain why 1) the OGC in German does not allow an additional subject gap, but English does; 2) why both English and German permit parallel wh-gaps (across-the-board) and finite-verb gaps (Gapping) without any movement. Though each of the three types of ellipsis presented has its own unique properties, each does not have the same configuration in all Germanic languages (more contrasts possible when more languages considered). The difference between the OGC in English and German can be derivationally explained if approached in phases, as can the differences between Germanic languages in the other forms of ellipsis.

A central property of coordinate constructions that guides my proposal I refer to as Matching. The fact that Matching occurs in elliptical coordinate structures is illustrated in (4):

4. Carl [loves visiting relatives]$_i$ and so does Susie e_i

In (4) the gap in the second conjunct must be rendered semantically equal to its antecedent in the first conjunct. Though "visiting relatives" can mean either 1) going to visit relatives or 2) relatives coming to visit, there is no choice allowed between the two possible meanings in the interpretation of the gapped conjunct in (4). The only logical explanation for this restriction is the "identity requirement" on coordinate structures with ellipsis: matching elements must minimally be rendered semantically/interpretively identical.

Matching, a feature-driven operation, can be shown to occur in coordinate constructions at the level of syntax as well as at other levels. Given this fact, Matching enters into the Merge phase of derivation: if a coordinating conjunction is selected, the element(s) merged with it must match the element(s) preceding the coordinating conjunction. Key features must be identified,

not the entire feature matrix. Assuming the operations Merge, Match and Move and the principles regarding complexity which guide them outlined above, we must come to the conclusion that in the derivation of (1), the first clause (C1) undergoes the Move operation 'topicalization' before the second clause (C2) is merged with it. The principle barring "look-ahead" does not allow topicalization in C1 to wait just because topicalization in C2 will need to move "across-the-board" into C1 in order to get (1) and (2), if the allowed search space for this kind of operation does not bar it anyway. Moreover, Matching, shown to occur in coordinate constructions, is a simpler operation for deriving the gaps in the post-initial conjuncts. Matching identifies the features that can be marked for non-spell-out, rendering the elements phonologically null in PF. Matching can proceed on a syntactic, semantic or phonological basis, depending on the configuration of the structure. Because the deletion site(s) in the OGC and other ATB constructions are left-peripheral, they are syntactically non-ambiguous; only semantic identify remains to be established.

Derivation in phases can, therefore, avoid the restrictions placed on Move. The phases required for (1) and (2) are outlined in (5):

(5) Phases in the Derivation of the OGC and across-the-board wh-gaps
   A. Lexical array selected for conjunct 1; subject raising to Spec,TP; object raising to Spec,CP.
   B. '&' selected; conjunct 2 merged and matched (Merge followed by the operations in A).
   C. Matching elements (all left-peripheral) marked for non-spell-out according to conditions on such marking.
   D. For conjunct 3 in (2): the operations in B and C are repeated, with the additional marking of the initial '&' for non-spell-out.

A Gapping construction like (3) differs from ATB wh-gap constructions in one significant way: the gap is not left-peripheral, and it must be a gap of the finite verb (and optionally a non-finite verb, and optionally one of its complements). Matching in Gapping proceeds on a syntactic-semantic basis (phonological identity not required) and, being a simpler operation, preempts any movement operation, contrary to what is proposed in Johnson 1999a and 1999b.

The proposal outlined here has the following advantages: 1) it meets the minimalist challenge of being derivationally more optimal than previous proposals because it exploits Merge and Match in phases, using Move only in its proper domain; 2) it utilizes principles of syntax independent of coordination; 3) it accounts for the facts of coordinate ellipsis and thereby has independent support.

References

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