WCO, ACD and QR of DPs

1. Introduction

In this paper I point out an interaction between weak crossover (WCO) and antecedent-contained deletion (ACD) that provides another piece of evidence for an LF A-bar movement account of ACD, and contra the A-movement account proposed in Hornstein 1994, adding to the case made in Kennedy 1997.

2. Quantifier raising vs. case-checking accounts of ACD

Syntactic treatments of antecedent-contained deletion since May 1985 have proposed that at LF, the containment relation evident in (1)a is eliminated by applying Quantifier Raising, resulting in a structure along the lines of (1)b. The offending DP is no longer contained within its antecedent, and the structure can be straightforwardly interpreted along the lines proposed in Sag 1976.

(1)   a.   [$_{IP}$ Wakko [$_{VP}$ attacked [$_{DP}$every mogul Dot did [$_{VP}$ e]$_i$]]$_i$] .
        b.   [$_{IP}$ [$_{DP}$ every mogul Dot did [$_{vp}$ e]$_i$]$_j$ [$_{IP}$ Wakko [$_{VP}$ attacked t$_j$]$_i$]]

Hornstein 1994 proposes an alternative account of ACD repair, according to which the elimination of the containment structure is not produced by quantifier movement of the DP to an A-bar position. Rather, the containment relation is eliminated by movement of the object DP outside the VP to check case (either in Spec-AgrO, or under more recent assumptions, by adjunction to vP).

3. ACD in definite DPs and optionality

Movement to check case, of course, is not restricted to quantificational DPs. ACD is not restricted to obviously quantificational DPs either, assuming a non-quantificational account of definites like that in Heim and Kratzer 1998:

(2)   I read the book that John did.

A standard QR account of ACD has to claim that *the book that John did* raises to an A-bar position to repair the containment, with the theoretical implication that either defintes can behave quantificationally, or that the QR operation is available optionally to all DPs, quantificational or not. Heim and Kratzer 1998 make the latter assumption (p. 210), although they are not addressing this construction specifically.

Such an assumption is not compatible with standard Minimalist Program constraints, however: movement is never optional, as it is motivated by the need to check features. If features are left unchecked at LF, the derivation crashes. Hornstein, on the other hand, can adopt the more usual non-optional treatment of QR and still account for the ACD repair in (2), because on his account ACD repair is not an instance of QR.

4. ACD-repairing movement of definite DPs must be optional

Contra Hornstein, however, and like Kennedy 1997, I argue here that the movement repairs the containment in (2) must be both A-bar movement and optional.

Non-quantificational DPs are usually assumed not to undergo LF A-bar movement, as the standard Weak Crossover (WCO) paradigm illustrates.

(3)   a.   His$_i$ mother loves John$_i$.
        b.   *Who$_i$ does his$_i$ mother love t$_i$?
        c.   *His$_i$ mother loves [every boy]$_i$

In (3)a), the pronoun *his* can corefer with *John*, but in (3)b) it cannot. Similarly, in (3)c), *his* cannot corefer with *every boy*. The large literature dealing with this phenomenon contains many different analyses (for a summary see Huang 1995), but they agree that the violations in (3)b) and (3)c) are parallel; in (3)c) the DP *every boy* raises at LF by QR, resulting in the same configuration that Wh-movement creates in (3)b). Indeed, the ungrammaticality of (3)c) is one of the primary arguments for QR at LF, as it allows a unified treatment of (3)b) and (3)c).

It is clear, however, that the DP *John* in (3)a), or the DP *the girl in the corner* in (4) below, cannot be undergoing QR at LF, or a WCO violation should result. The self-evident reason that they don't undergo QR is that these DPs are not, in fact, quantificational, and hence don't need to move to be appropriately interpreted.

(4)   Her$_i$ mother loves [the girl in the corner]$_i$.

If QR is not available for definite DPs, then Hornstein's account of ACD repair looks promising for (2). WCO will provide the litmus test, however: the DPs in (3)a) and (4) must certainly be moving for case-checking purposes. If Hornstein is right, a definite DP in a WCO *and* an ACD configuration will not trigger a WCO violation, because ACD repair is accomplished by the usual A-movement for case. If such a DP does trigger a WCO violation, then ACD repair is A-bar movement even for non-quantificational DPs.

In (5), an ACD site is contained within a definite DP that is coindexed with a possessive pronoun in the subject, and a WCO violation does indeed result[1]:

(5)　　　*His$_i$ mother [$_{VP}$ loves [the boy that Sue does [$_{VP}$ e$_j$]]$_i$]$_j$

ACD repair is therefore accomplished by A-bar, not A-movement, contra Hornstein. The question then becomes, how can an ACD structure trigger such movement in definites, when it is obvious from (4) that such movement does not occur without an ACD structure?

5.　Optionality or quantificational ACD definites?

It appears from the contrast between (4) and (5) that definite DPs may QR when needed for Full Interpretation (as in (5)), but do not QR otherwise (as in (4)). Given Minimalist Program assumptions[2], however, this cannot be the correct characterization of the facts. The "Last Resort" economy principle (Chomksy 1995), presented here as formulated by Collins 1997, rules out any movement that does not satisfy a feature of the moving element:

(6) *Last Resort*
　　　An operation OP involving　　may apply only if some property of　　is satisfied.

Movement of ACD definite DPs cannot therefore be triggered by the fact that Full Interpretation will fail, but rather must be triggered by some property peculiar to such DPs. Let us assume in general that QR is triggered by the quantificational nature of the moving DP. Then to capture the contrast between (4) and (5), we must propose that DPs containing ACD structures are quantificational, but that DPs without such structures are not quantificational.

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[1] Irene Heim (p.c.) points out that while WCO provides an account of the ungrammaticality of the sentence if binding of the pronoun *his* is assumed, there should also be a possible reading under which *his* is not bound but merely accidentally coreferential with the DP *the boy that Sue (loves)*. Some restriction on coreferential readings like that of Reinhart 1986, which proposes that speakers avoid coreference when binding is syntactically available, would account for this particular case, but as that account has independently shown to be unviable (see, e.g. Lasnik 1986), the unavailability of accidental coreference in this reading remains unexplained.

[2] ACD structures can only be repaired by movement of the whole DP at LF, as it is crucial to get the contained VP-ellipsis site out of the containing VP; movement of just the head D or just the features of the DP will not accomplish this. More recent Minimalist Program proposals that all LF movement involves just the features of the DP seemingly cannot provide an adequate account of ACD repair, and hence I do not consider them here.

We will get the facts right if we assume that both types are available for definites in general. Then there will be two possible Numerations that can generate the string in (4), one with and one without a quantificational type for the DP *the girl in the corner*; only the one without a quantificational DP will converge. Similarly, there will be two possible Numerations for the string in (2), one with and one without a quantificational type for *the book that John did*; only the one with a quantificational DP will converge. In (5), neither possibility will converge, as the quantificational DP will trigger movement and produce a WCO violation and the non-quantificational DP will result in no movement and make the ACD structure uninterpretable. An investigation of the general consequences of this type of flexible approach to definites is beyond the scope of this squib and is left for future work.

6. Conclusions

In this squib I have introduced a new piece of evidence in favor of the A-bar account of ACD repair, and argued that given the assumptions of the Minimalist Program, a flexible-type approach to definite DPs provides a way to account for the constellation of facts produced by the interaction of WCO and ACD.

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