

WCO, ACD, and the positions of subjects

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August 7, 2007

Abstract

This paper presents a brief argument from the interaction of weak crossover (WCO), antecedent-contained deletion (ACD), and other facts of VP-ellipsis that subjects are base-generated in a predicate-internal position but move through an intermediate A-position on their way to their final landing site (the specifier of TP) and can take scope in this intermediate position.

The following example, from Evans 1988 (14), is a puzzle for standard accounts of VP-ellipsis and weak crossover:

- (1) Someone who shouldn't have kissed each man.

As Evans points out, this sentence is ambiguous, having among its possible readings the one given in (2), which will be of interest here.

- (2) $\forall x(\text{man}(x) \rightarrow \exists y[\text{person}(y) \wedge \text{kissed}(y, x) \wedge \text{shouldn't-have-kissed}(y, x)])$

The important thing to note in characterizing this reading is that the deleted VP in the relative clause adjoined to the subject DP contains a variable bound by the object quantifier. It is parallel, thus, to more familiar and often discussed examples like (3a), which has a reading like that of (3b) (see Sag 1976, Dalrymple et al. 1991, Hardt 1999, among many others):

- (3) a. John greeted each arriving guest after Mary did.
b. John greeted [each arriving guest]₁ after Mary greeted him₁.

In one influential strand of analyses of VP-ellipsis (Sag 1976, Fiengo and May 1994, Fox 2000 etc.), the reading in (2) would be generated by giving (1) the structure in (4a) (see Merchant 2001 for extensive justification that A'-traces can license the deletion of pronouns, in line with Fiengo and May 1994 and pace Safir 1998). At LF, after QR has applied to the object *each man*, the pronoun is bound and gives rise to the attested reading:

- (4) a. Someone who shouldn't have <kissed him₂> kissed each man₂.
 b. [each man]₂ [someone who shouldn't have <kissed him₂> kissed t₂]

The puzzle arises because the movement of *each man* in (4b) is expected to give rise to a WCO violation, assuming that WCO effects derive from the constraint like the one in (5) or more refined versions with an equivalent effect in the present cases (Chierchia 1995, Hornstein 1995, Ruys 2000):

- (5) Weak crossover (WCO):
 An antecedent of a bound pronoun must be in an A-position.

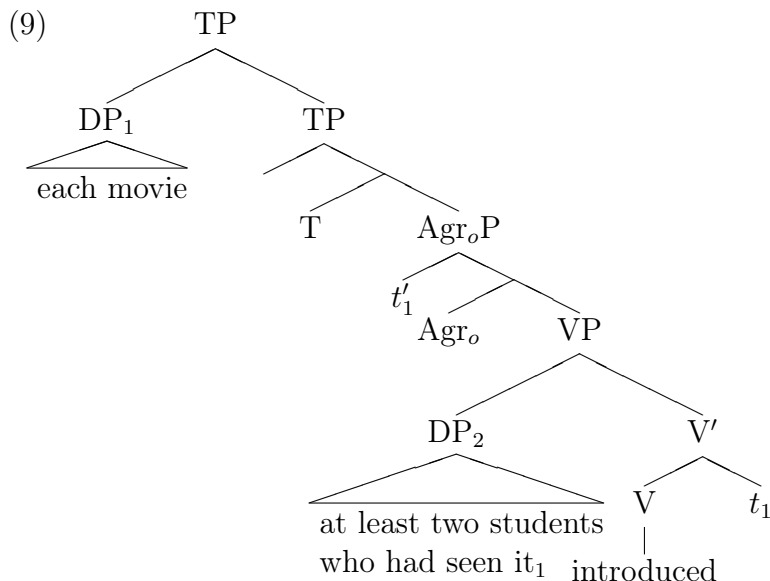
In (4b), neither *each man* nor its trace can bind the pronoun and satisfy (5): QR is A'-movement, so *each man* is in an A'-position, hence unable to antecede the pronoun (though *each man* does c-command *him*) without violating (5), while the trace *t₂*, although in an A-position, does not c-command *him* and therefore cannot bind it. (The pronoun also precedes the trace, on the Leftness theory of WCO originating in Chomsky 1976). Of course, one should note that such apparent violations of WCO are routine for pronouns in relative clauses attached to subjects, including, unsurprisingly, for the nonelliptical counterpart to (1) in (8), whose LF is in all relevant respects identical to that in (4b) (though further constraints limit the availability of this backward binding):

- (6) At least two students who had seen it₁ introduced each movie₁.
 (7) People who don't like them₂ usually regret renting most horror movies₂.¹
 (8) Someone who shouldn't have kissed him₃ kissed each man₃.

A possible solution to these, building on Johnson and Tomioka 1998 and Hornstein 1995, is to analyze them as involving reconstruction of the subject

¹This example is only relevant of course on the reading where *them* co-varies with individual horror movies, not on the kind reading where *them* simply refers to the kind 'horror movie'.

to a VP-internal position, with wide scoping of the object, and further assuming that object movement proceeds first by movement to an A-position, such as the specifier of an agreement projection. For (6), for example, this yields the LF in (9) (the further movement of *each movie* to adjoin to TP is irrelevant; the same result holds if its scopal position is in SpecAgr_oP, as long as this position is an A-position). In this structure, I illustrate the idea with the most conservative structural assumptions compatible with Hornstein’s and Johnson and Tomioka’s ideas, namely one of the ‘traditional’ instantiations of the VP-internal subject hypothesis (see McCloskey 1997 for an excellent early survey).

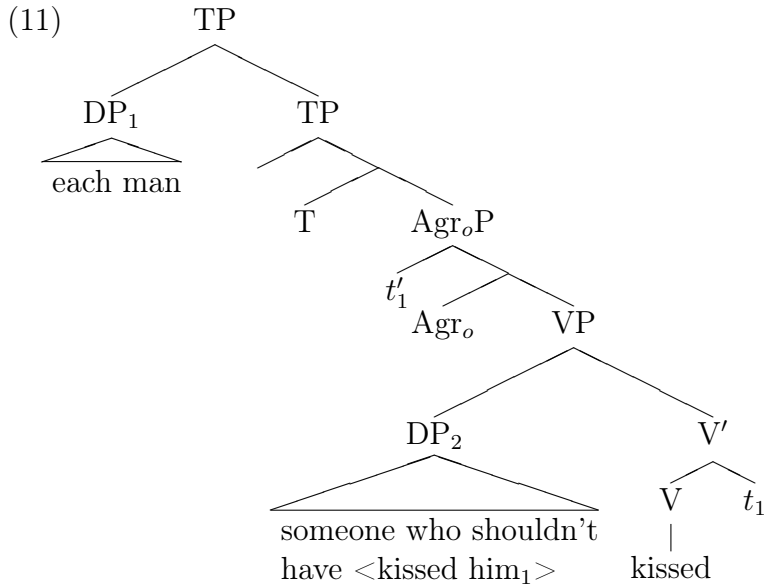


In this structure, the subject-internal pronoun *it*₁ is bound by *t*₁' . Because *t*₁' is in an A-position, in SpecAgr_oP, this structure does not trigger a WCO violation. This general solution follows Hornstein’s 1995 discussion of examples like *Mark read every book before reviewing it*, where he argues that A-movement of *every book* to SpecAgr_oP allows binding of *it* in the VP-adjoined adverbial without triggering a WCO violation. It further builds on Johnson and Tomioka’s 1998 account of object > subject scoping in assuming that when objects outscope subjects, the subject is interpreted in a VP-internal position. We can see the same amelioration in examples like the following.

- (10) Sally wanted every man₃ to marry the same woman his₃ mother did
<want him₃ to marry>.

In such an example, *every man* must raise to an A-position above the A'-landing site of the ACD-containing DP *the same woman his mother did*, in order to allow the binding of the pronouns *his* and *him* at LF. (Note that further A'-movement is sometimes necessary to resolve the ACD; see Kennedy 1997 for extensive reasons why A-movement cannot alone account for the full range of data. Crucial here is only the initial A-movement which repairs the WCO violation.)

We are now in a position see why the example in (1) is a puzzle: in order to avoid the WCO violation, it should have an LF parallel to (11):

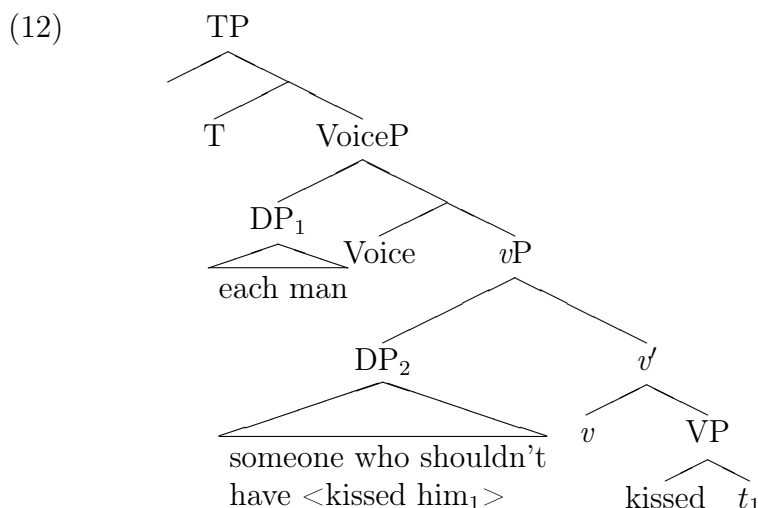


But under many recent theories of VP-ellipsis (such as Fiengo and May 1994, Fox 2000), the LF in (11) does not provide an appropriate antecedent to license the deletion of the VP <*kissed him*>. These theories require that there be a VP which is structurally isomorphic (identical in LF structure) to the deleted VP. In (11), however, because the subject has reconstructed, there is at best a V'.

There are several possible ways out of this dilemma. One possibility is to abandon the claim that ellipsis targets only maximal projections, claiming instead that in (11) what is deleted is a V' which is LF-identical to the

matrix V' ; such a solution would require re-thinking the original reasons for postulating this requirement and a re-analysis of subject-sensitivity facts like those discussed in Kennedy 1994. A second possibility would be to abandon the strict LF-identity condition and allow deletion of VPs based on semantic equivalence to possibly non-isomorphic syntactic structures (here, for example, deletion of VP based on the semantics of an antecedent V'); exactly this move is made in Merchant 2001, 2002, and Yoshida 2005 for unrelated cases. Reconciling these less strict theories of elliptical identity with the evidence that syntactic isomorphism is required (Chung 2005, Merchant 2007, to appear *a*) would be the urgent project for researchers traveling this path.

The final possibility is to retain the strict syntactic identity requirement but to adopt a more refined syntax for the base position of subjects and for the VP-external A-position to which objects can move. Both ingredients to this solution have been extensively explored in the recent literature. Here I will follow Kratzer 1996, Bowers 2002, Collins 2005, Merchant 2007, and many others in claiming that (transitive) subjects are base-generated in the specifier of a vP headed by a transitive v , v_{trans} . The second ingredient is an A-position specifier external to vP to which the object can move, binding potential pronouns inside the subject; this has been proposed most notably by Johnson 1991, who calls the head whose specifier is the landing site μ , and is taken up in various forms in Runner 1994, Ramchand 1997, Basilico 1998, Hallman 2004, and many others. Here I will simply adopt the specifics of Merchant 2007, to appear *b* in assuming that the object can move to the specifier of VoiceP, whose specifier crucially is not the origin site for subjects (following Collins 2005 and pace Kratzer 1996; see Ramchand 2006, Alexiadou et al. 2006, and Harley 2007 for important contributions to this issue). These two ingredients combine to yield the following LF, in which the quantificational object moves to specVoiceP and the subject hosting the ellipsis site reconstructs to its base position.



This structure is compatible with the assumption that what is traditionally termed VP-ellipsis is in fact ellipsis of VP (or of v' , a possibility I know of no work that explores), not of vP or of VoiceP. While this is consistent with the data seen so far, and is also adopted in Merchant to appear *a*, it encounters serious difficulties in accounting for a fuller range of facts. The primary difficulties come from data insightfully discussed in Johnson 2004 (and reiterated in Merchant 2007, on which the following discussion builds). As is well known, certain transitives (causatives) alternate with intransitives (unaccusatives), as in the examples in (13).

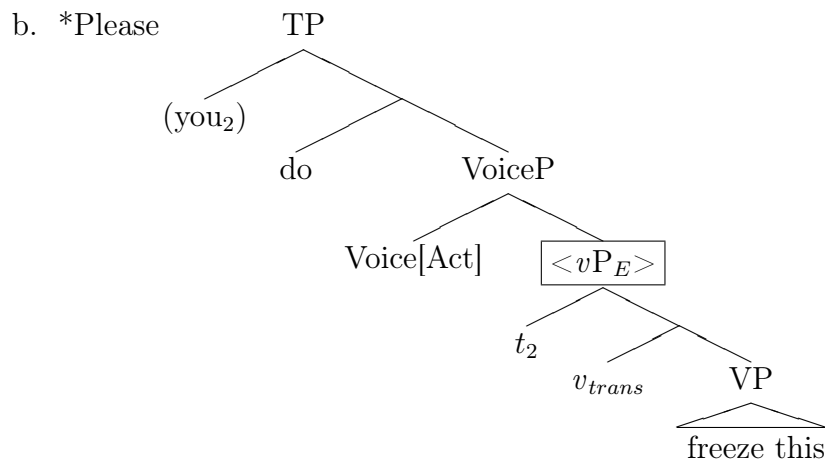
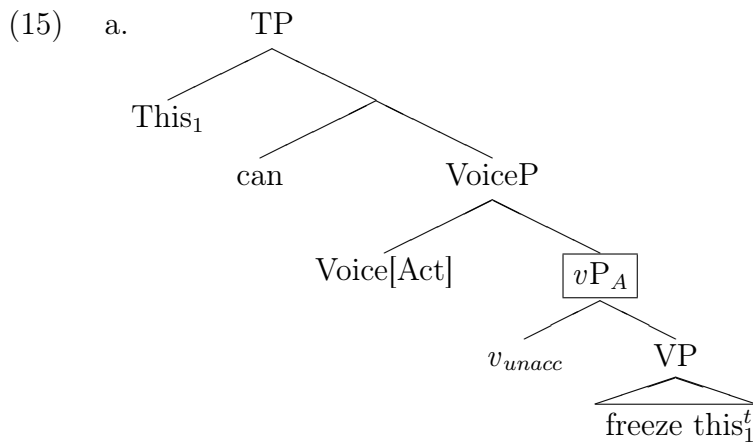
- (13) a. This can freeze. Please freeze this.
 b. Bill melted the copper vase, and the magnesium vase melted, too.
 c. Maria still tried to break the vase even though it wouldn't break.

As Johnson stresses, such alternations are not found under VP-ellipsis (see also Merchant 2007 for parallel evidence from sluicing).

- (14) a. This can freeze. *Please do. (Johnson 2004:7)
 b. *Bill melted the copper vase, and the magnesium vase did, too.
 (Sag 1976:160 (2.3.48))
 c. *Maria still tried to break the vase even though it wouldn't.
 (Houser, Mikkelsen, and Toosarvandani 2007)

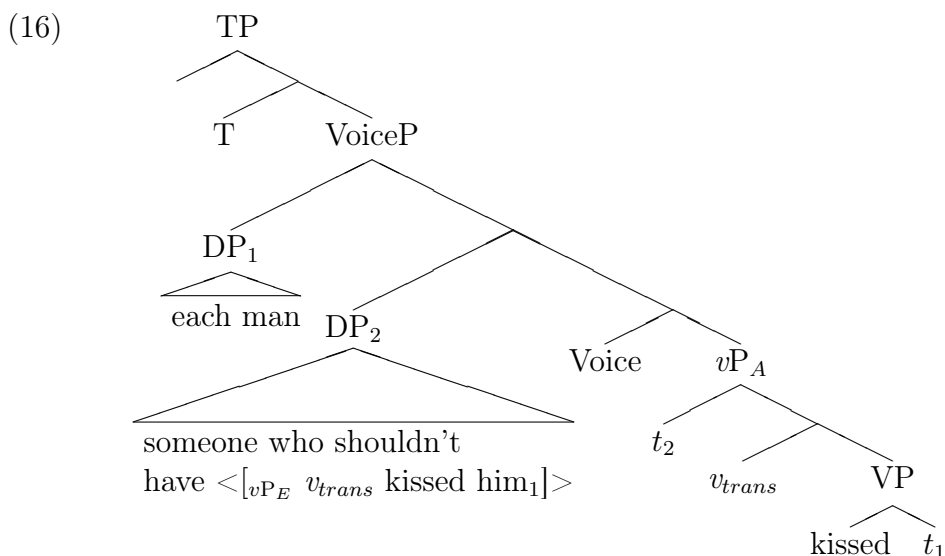
If causative and anticausative/unaccusatives differ in their v , then Voice takes as its complement the vP which may introduce the external argument.

The account Johnson gives for these cases makes sense on the more articulated structure only if vP , not merely VP, elides; since on this articulated hypothesis $v_{trans} \neq v_{unacc}$, the examples in (14) will be ruled out. For (14a), for example, the boxed antecedent vP_A in (15a) will not license the deletion of vP_E in (15b) (where the subscripts A, E mark the antecedent and elided phrases, respectively).



We therefore have good reason to conclude that what is eliding in ‘VP-ellipsis’ is in fact vP , under a strict syntactic identity condition with an antecedent vP . Accepting this conclusion means refining the account of (1) given in (12), however. (12) depicts the subject as reconstructing to spec vP in order for its bound pronoun to be c-commanded by the raised quantificational

object. But then the antecedent-containment problem has not been resolved: the antecedent, matrix, vP now again contains the actual subject which hosts the elided vP , so $vP_E \neq vP_A$. To resolve the antecedent-containment, we need to be able to reconstruct the subject to an A-position *outside* vP but inside the c-command domain of the raised object. This is easily done if the subject passes through specVoiceP on its way to specTP. Recall that specVoiceP is assumed to be an A-position, as it hosts the object as well (here, in an outer specifier). The full resulting tree for the LF of (1) is the following.



Finally, we need to consider the question why (1) is acceptable, but (17a), from Harley 2002, and (17b,c), are not.

- (17) a. *His₂ mother loves [the boy that Sue does]₂.
 b. *The woman who accompanied him₃ ended up ditching every guy₃.
 c. *His₄ friends who promised to will help each man₄.

Harley argues that (17a) is unacceptable because it displays a WCO violation: the definite DP *the girl that Sue does* QRs in order to resolve the ACD, and in so doing, it crosses over the bound pronoun *his* in the subject. Harley concludes that the movement involved in resolving the ACD must be movement to an A'-position, assuming as is standard that movement to an A-position would not trigger a WCO violation. The most salient difference

between (1) and the examples in (17) is in the nature of the subject: in (1) the subject is an indefinite, but the subjects of (17) are definite. If definites must remain high in the structure (as in Merchant to appear *b*'s interpretation of Aissen's 1999, 2003 analysis; cf. Diesing 1992), we have an explanation for why the subjects in (17) cannot reconstruct. Since they cannot reconstruct, the bound variable reading is unavailable (assuming as above that object > subject scopings are derived through subject reconstruction as Johnson and Tomioka 1998 argue). Strictly speaking, then, the sentences in (17) are unacceptable on a bound variable reading because the relevant pronouns in the subject cannot be *c*-commanded by the object, not due to a WCO violation *per se*.

If this speculation is on the right track, we might expect to find amelioration in Harley-style examples by varying the nature of the subject. In fact, Harley herself provides such an example, given here in (18a), and (18b) illustrates another.

- (18) a. Even her₂ mother dislikes [the girl that Sue does]₂.
 b. A friend of his₃ had already warned [the same man that you did]₃.

Such indefinite or quantificational² subjects are, unlike usual definites, allowed to reconstruct to a lower A-position, below an A-position for the moved object, permitting both bound-variable anaphora and ACD resolution.

In sum, the only way to make compatible what is commonly assumed about WCO and licensing VP-ellipsis in ACD is to posit two lower positions for subjects: the first its base-position in the specifier of the head that determines the valency of the predicate and the second in the specifier of VoiceP.

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²Assuming that the modifier *even* here added to the definite makes it 'quantificational' enough to take lower scope—in other words, it allows for variation in its domain, as in standard analyses of such focus particles; see Giannakidou 2007 for a recent overview.

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