The Unity of Extraposition and the A/A' Distinction*

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1 Overview

I will defend a traditional analysis of extraposition as rightward movement to a right-adjoined position.¹ This movement occurs in the narrow syntax and does not check any features (except perhaps an EPP feature). I begin in §2 by giving arguments against PF movement analyses. The lack of a featural motivation for extraposition has the consequence that it is underspecified with regard to its A/A′ status, given certain other assumptions outlined in §3. As a result, it is subject to Minimality effects in both the A and A′ domains. A number of predictions are thereby made regarding "freezing" effects and the adjunction height of extraposed phrases; these are worked out in §3.1 and §3.2. In §4, I consider the implications of the analysis for the constituent structure of vP/VP. I conclude with a brief look at heaviness effects (§5), the right roof constraint (§6), the Fox & Nissenbaum's (1999) analysis of extraposition (§7), and some apparent Condition C effects (§8).

Though I will treat extraposition as a unified phenomenon, there are of course many forms of extraposition with apparently diverse properties. Here, I will cover Heavy NP Shift, PP extraposition, and extraposition of finite clauses. These are exemplified in (1):

- (1) a. I gave t to Bill [a book that he bought two weeks ago.
 - b. I gave a book t yesterday [to the man I met two weeks ago].
 - c. I took [a picture t] yesterday [of John].
 - d. I said *t* yesterday [that John is intelligent].

If correct, the analysis might extend to extraposition of relative clauses and extraposition of both finite and non-finite noun complement clauses, but I do not have space to explore this possibility.

There is a gap in the presentation that should be mentioned here. Though I take extraposition to be a unified phenomenon across a wide range of constructions, I do not give any explicit argument for a unified analysis. It is, of course, rather difficult to argue on empirical grounds for a unified analysis over a multitude of construction-specific analyses, since construction-specific analyses can more easily be tailored to the facts. However, a number of properties common to all (or at least most) forms of extraposition will emerge in the following discussion. The sore

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¹ See for example Stowell (1981).

thumb here (as pointed out by Kyle Johnson in comments on the talk) is extraposition of verbal argument clauses. There is relatively little evidence that these have moved at all, whereas binding and other interpretative facts indicate quite strongly that extraposed DPs and PPs have undergone movement. Nonetheless, the "freezing effects" discussed in §3.1 do provide weak evidence for movement, and I know of no compelling evidence *against* treating extraposition of verbal argument clauses in the same manner as DP and PP extraposition.

2 Evidence for Narrow-Syntactic Movement

My analysis makes crucial use of Minimality in limiting the application of extraposition. Since Minimality is generally taken to hold of syntactic movement only (and not of PF movement), it behooves me to provide independent evidence that extraposition is not a PF movement.

The most serious problem for PF movement analyses is that extraposition has interpretative effects not reducible to prosody. For example, consider the interpretations of (2a) and (2b):

- (2) a. The picture of John was accidentally taken at his birthday party on Tuesday.
 - b. The picture *t* was accidentally taken [of John] at his birthday party on Tuesday.
 - (Can mean "A picture was deliberately taken in which John was accidentally included.")
- (2b) has a reading under which a picture was deliberately taken in which John was accidentally included, but this reading is not available for (2a). If extraposition of the *of* PP occured at PF, it would not be expected to have interpretative effects of this sort.

As shown in (3), extraposition is sensitive to definiteness effects (noted by Fox & Nissenbaum (1999)), but it seems unlikely that the definite/non-definite distinction should have any effect at PF:

- (3) a. Where did you see a picture on Friday of John?
 - b. ? Where did you see the picture on Friday of John?

There are also effects on binding (again, noted by F&N):

- (4) a. I gave a picture of $John_1$ as a small child to him_1 .
 - b. ?? I gave t to him₁ [a picture of John₁ as a small child].

Moreover, "Freezing effects" (Wexler & Culicover (1980)) – which crucially are found both for overt *wh*-movement and *wh*-in-situ – suggest that extraposition interacts with other A' movements:

- (5) a. Who₁ did you give the picture that you bought in Italy to t_1 ?
 - b. * Who₁ did you give t_2 to t_1 [the picture that you bought in Italy]₂.
 - c. Who gave the picture that you bought in Italy to whom?
 - d. * Who gave t to whom [the picture that you bought in Italy]₁?

In addition to these interpretative effects, extraposition also displays sensitivity to subject islands:²

- (6) a. I saw a picture of John yesterday.
 - b. I saw [a picture t] yesterday [of John].
 - c. Pictures of John frighten people.
 - d. * [Pictures t] frighten people [of John].

However, these islands can be obviated if the surface subject begins lower than [Spec,vP] (allowing extraposition to occur before the containing constituent is in [Spec,TP], see Johnson (1985) for related observations):³

- (7) a. [Three pictures t] are discovered [of John] every day.
 - b. ?? [Three pictures t] are undiscovered [of John] to this day.
 - c. There are [pictures t] discovered [of John] every day.
 - d. ?? There are [pictures t] undiscovered [of John] to this day.

These data provide a weak argument against an analysis of the relation between the extraposed constituent and its associate as one of "construal" at LF.⁴ Given the Y-model of the derivation, one would not expect such construal relations to show evidence of cyclic application. However, with the development of cyclic spellout and the disappearance of LF as a unitary level of representation, argument along these lines becomes less straightforward, since the cyclic spellout model suggests that even construal relations may be subject to phase-based locality constraints. Nonetheless, it clearly cannot be the case that *all* LF construal relations are subject to such constraints (pronominal binding being the obvious counterexample).

² The sensitivity of extraposition to subject islands may be compatible with a PF-movement approach under certain assumptions about cyclicity and Spellout (see for example Uriagereka (1999)).

³ On the general properties of *of* PP extraposition, see also Chomsky (1977) and Chomsky (2005).

⁴ See Chomsky (1981:80-81) for general discussion of LF construal in the context of extraposition.

3 Minimality, Adjunction Height and Freezing

The following definitions/assumptions specify Minimality in a way that causes extraposition to be subject to intervention effects in both the A and A' domains. There are many technical details left out here; the intent is just to give a sufficiently clear set of assumptions to deal with the cases at hand.

A/A' status of formal features

Formal features (e.g. wh, Case, θ , ϕ) are specified either as A or A' features. EPP features, if they exist, are underspecified with respect to their A/A' status.

A/A' status of positions in a tree

For $\alpha \in \{A, A'\}$, a position is an α -position if the (re)merge operation which created it checked an α -feature.

Minimality (approximate definition)

 α -movement cannot cross an intervening α -position of the same category (where categories are D, P, C, etc.) (It is not obvious that "same category" is the relevant notion of likeness for Minimality, but I will adopt it as a working hypothesis.)

Underspecification

As extraposition checks neither A nor A' features, it is underspecified with respect to its A' status. Thus, it behaves as both an A and an A' movement. (This of course is not logically necessary, but it is hypothesized here.⁵)

The primary consequence of these assumptions is that an extraposed phrase (the movement of which checks at most an EPP feature) cannot cross either an A or an A' position of the same category. The converse also holds: other A/A' movements cannot cross the landing site of an extraposed phrase.

3.1 Minimality in the A'-Domain: Freezing Effects

There are essentially two kinds of freezing effect: the prohibition on A' movement out of a vP within which extraposition has occured, and the prohibition on A' movement from within the extraposed element itself.

⁵ In comments on the talk, Chris Kennedy asks whether we might not expect extraposition to be subject to intervention effects in *neither* the A nor A' domains if extraposition is not specified as either an A or A' movement. Here, it is important to bear in mind the distinction between "being specified as neither X nor Y" and "not being specified as either X or Y." It is the latter case we are dealing with. To give a concrete example, the noun *sheep* may not be specified as either singular or plural (i.e. it may be underspecified with respect to its number). We do not therefore expect it to be incapable of checking number features on a verb, but rather expect it to be capable of checking either singular or plural number features.

3.1.1 No A' Movement Out of vPs Where Extraposition Has Occured

Given the definitions in §3, is is predicted that *wh*-phrases cannot move over extraposed elements of a like category. Thus, as noted by Wexler & Culicover (1980), DP *wh*-phrases cannot cross an extraposed DP:

- (8) a. Who₁ did you give the picture that you bought in Italy to t_1 ?
 - b. * Who₁ did you give t_2 to t_1 [the picture that you bought in Italy]₂.

W&C observe that despite this prohibition, wh-PPs can cross DPs:

- (9) a. *Who₁ did you buy t_2 for t_1 [the picture that's not hanging on the wall]₂?
 - b. For whom₁ did you buy t_2 on Tuesday t_1 [the picture that's now hanging on the wall]₂?

As shown in (10), where a wh-DP crosses a PP, the converse also holds:

(10) a. What₁ did you give $t_1 t_2$ on Tuesday [to John]₂?

Unfortunately, the status of examples where a *wh* PP is moved over an extraposed PP is rather unclear:

- (11) a. About whom did John talk to Bill on Sunday?
 - b. ? About whom did John talk on Sunday to Bill?

It is possible that PPs with different heads are sufficiently different that they do not block each other under Minimality. The facts regarding extraposed clauses are also a little murky. Whereas PP wh-phrases can easily extract over extraposed clauses, as shown in (12), DP wh-phrases find it rather more difficult, as shown in (13):

- [To whom]₁ did you suggest t_2 t_1 on Tuesday [that John should leave]₂?
- (13) a. Who₁ did you suggest that John should leave to t_1 ?
 - b. ?? Who₁ did you suggest t_2 to t_1 [that John should leave]₂?

Though I have no good explanation for the unacceptability of (13b), it seems likely that the close connection between DPs and verbal argument CPs may have something to do with it. In support of this contention, note that extraposed noun complement clauses seem to yield a weaker blocking effect, leading to only a slight degradation in acceptability in (14b):

- (14) a. Who did you make the claim that John was an idiot to?
 - b. ? Who did you make the claim to that John was an idiot?

These facts may reflect a Case distinction between noun complement clauses and verbal argument clauses. NCCs presumably do not receive Case, since N is not a Case-assigner and there is no *of* preposition inserted. In contrast, it seems reasonably likely that verbal argument clauses do receive case, given their ability to undergo A-movement:

(15) [That John is an idiot]₁ seems t_1 to be obvious.

Thus, the intervention effects between DPs and verbal argument clauses might result from their both having unvalued Case features. However, since no Case features are actually valued by extraposition, it is not obvious that this should follow – much depends on the precise formulation of Minimality.

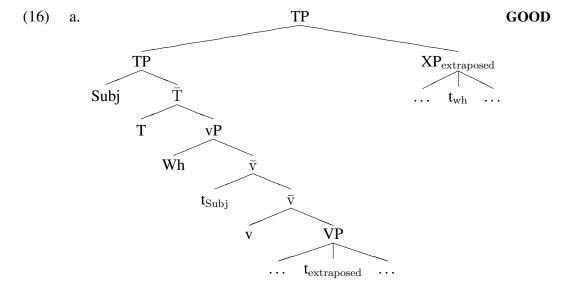
3.1.2 No A' Movement from Within the Extraposed Element

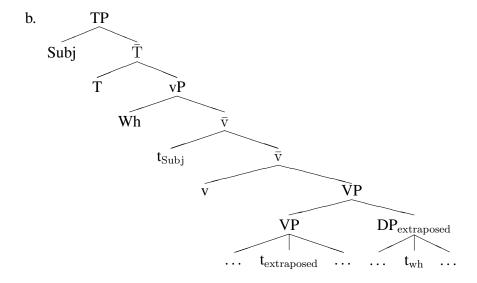
I will depend on the following assumptions in this section:

- (a) Adjunction is cyclic (contra Chomsky (1993), Lebeaux (1988)).
- (b) Extraction out of an adjoined position is degraded. (This may be taken as a mere descriptive generalization it is not necessary that there be an adjunct island condition as such.)
- (c) A' movement out of vP must proceed via the left edge of vP.

In §3.2, I will argue that Minimality in the A domain forces extraposed DPs to adjoin lower than extraposed phrases of other categories. Bearing this in mind, suppose that we want to extrapose a DP containing a *wh*-phrase. If prior to extraposition the *wh*-phrase moves to the edge of vP, then cyclic adjunction of DP will be impossible, since the DP must adjoin lower than vP. Other extraposed constituents can adjoin higher than vP, so they can extrapose cyclicly following *wh*-movement to the edge of vP.

The prediction is that whereas extraction out of extraposed DPs is bad, extraction out of extraposed phrases of other categories (i.e. PP, CP) is good.





COUNTERCYCLIC MOVEMENT

or

ADJUNCT ISLAND VIOLATION

This prediction is confirmed for DPs and CPs:

- (17) a. Who did you take a picture of yesterday?
 - b. * Who did you take yesterday a picture of?
 - c. Who did you suggest that Bill should marry yesterday?
 - d. Who did you suggest yesterday that Bill should marry?

But PPs present an apparent counterexample:

- (18) a. Who did you talk about yesterday?
 - b. ?* Who did you talk yesterday about?
 - c. Who did you talk to yesterday?
 - d. ?* Who did you talk yesterday to?

The data in (18) may have an independent explanation connected to that for the similarly unacceptable passive in (19b):

- (19) a. John was (much) talked about yesterday.
 - b. * John was (much) talked yesterday about.

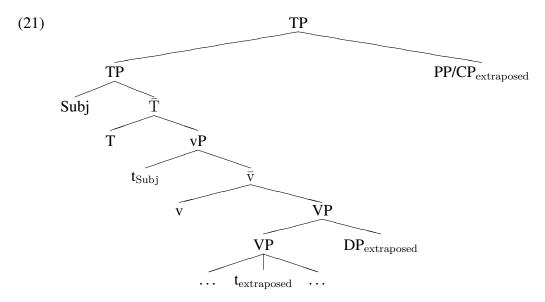
In support of this hypothesis, note that when an additional PP is added, extraction from the second PP is relatively acceptable:

- (20) a. * John was (much) talked to Bill about.
 - b. Who did John talk to Bill about yesterday.
 - c. ? Who did John talk to Bill yesterday about?

It may be that "reanalysis" (Hornstein & Weinberg (1981)) is required prior to whmovement as well as A-movement, and it is reanalysis which allows preposition stranding. Since only one preposition can be reanalyzed (the one closest to the verb), it follows that (20d) should be better than (18b/d). Alternatively, it may be that the reanalysis analysis of pseudopassives is just wrong (see Baltin & Postal (1996) for arguments to this effect) and some other explanation is required for (18), (19) and (20). Either way, what is relevant here is that there are probably independent constraints which rule out (18b/d), so the theory of extraposition itself need not block these sentences.

3.2 Minimality in the A-Domain: Adjunction Height Restrictions

If extraposed DPs are subject to Minimality in the A domain, it follows that they cannot extrapose past the vP-internal subject (i.e. they cannot adjoin higher than VP). In contrast, PPs should be able to extrapose further:



Data from vP/VP ellipsis seem to bear out this prediction. Ellipsis can strand the extraposed constituent only if it adjoins higher than vP/VP, implying that extraposed DPs can't be stranded by vP/VP ellipsis:⁶

⁶ See Baltin (1981) for an alternative treatment of the adjunction height of extraposed phrases. An anonymous reviewer notes that examples such as (22d) can be improved for some speakers by stressing *did* or the heavy DP. However, this sort of adjustment is not necessary for (22a-c). This is a somewhat mysterious fact for which I have no explanation.

- (22) a. I haven't talked as of yet to the President, but I might to the Vice President.
 - b. I haven't painted pictures yet of celebrities, but I might of politicians.
 - c. I haven't said officially that I will resign, but I might that I'm planning on it.
 - d. ?* John hasn't kissed as of yet the girl in his class, but he might the girl who he met in a book store.

(22d), if possible at all, is pseudogapping. For most speakers, (22d) is pretty bad because pseudogapping happens to be quite bad with *have/might* pairs:⁷

- (23) a. ?* John has tried peas and Mary might beans.
 - b. ? John tried peas and Mary did beans.

Pseudogapping is also difficult when the remnant is in a preposed adjunct (Sag (1976)):

- (24) a. John eats peas but he doesn't beans.
 - b. * Although John doesn't peas, he does eat beans.

Recasting (22) in this form seems to give the right results:

- (25) a. Although John hasn't to the President, he might talk to the Vice President.
 - b. Although John hasn't very often of celebrities, he might paint pictures of politicians.
 - c. ? Although John hasn't that he's going to resign, he might deny that he's going to do it soon.
 - d. ?* Although John hasn't the girls on his course, he might kiss the girls he meets in book stores.

⁷ Pseudogapping is generally considered marginal in English, which is why (23b) has a single question mark, despite being the "acceptable" one of the pair.

4 The Constituent Structure of vP/VP

The analysis of extraposition presented here has implications for the constituent structure of vP/VP. As is well known, the combination of the assumption that c-command is an essential ingredient in binding dependencies with the assumption that only constituents can move leads to a number of apparent paradoxes. In this section, I will sketch a possible solution to these paradoxes based on the following assumptions:

- (a) vP is fundamentally right-branching.
- (b) vP/VP adjuncts are either right-adjoined to projections relatively low in the vP (e.g. AgrOP, if it exists) or are perhaps merged into a Larsonian shell structure (Larson (1988)).
- (c) Left-branching vP structures arise from extraposition (except perhaps in the case of certain base-generated adjuncts).

With these in mind, consider the constituency paradox illustrated in (26):

- (26) a. John said would bake a cake, and bake it he did on Thursday.
 - b. John gave the boys cakes on each other's birthdays.⁹

Given the assumption that vP is fundamentally right-branching, the binding relation in (26b) is easily accounted for. The more interesting fact is that partial vP-fronting possibilities seem to correspond to extraposition possibilities (with the possible exception of CP arguments):

- (27) a. * John said he would kiss someone, and kiss he did the first woman to walk into the room.
 - (DPs cannot be extraposed high enough.)
 - b. * John said he would give someone a book, and give a book he did John.
 - (The first object in a double object construction can't be extraposed at all.)
 - c. ? John said he would give Bill something, and give Bill he did a book. (The second object in a DO construction can extrapose and may well be a null-headed PP, allowing it to extrapose over [Spec,vP]. 10)
 - d. ? John said he would talk to someone, and talk he did to the first woman to walk into the room.
 - (PPs can extrapose high enough.)
 - e. ? John said he would take pictures of someone, and take pictures he did of Bill. (Ditto.)
 - f. ?* John said he would announce something, and announce he did that Bill was getting married.
 - (*Unexpected exception the CP should be able to extrapose high enough.*)

Regarding (27f), much depends on the status of (25c). If (25c) is in indeed ungrammatical, as I tentatively assume, it may simply be that verbal argument CPs behave

⁸ See for example Barss & Lasnik (1986), Pesetsky (1995), Phillips (1996).

⁹ Possessive anaphors in English may however be logophors; Pollard & Sag (1992).

¹⁰ See for example Pesetsky (1995).

5 Heaviness

Only DP extraposition is subject to a heaviness requirement:

- (28) a. ?* I met on Tuesday a man.
 - b. I met on Tuesday a man who would later become my arch nemesis.
 - c. I talked on Tuesday to a man.
 - d. I said on Tuesday that he did.
 - e. I took a picture yesterday of John.

This may be a consequence of a prosodic difference between DPs and PPs. In contrast to DPs, PPs and CPs form prosodic units (Idsardi (1989), Neeleman & Reinhart (1998)). There is plausibly a greater cost incurred at the PF interface in interpreting movement of a non-prosodic-unit, and we might suppose that in the case of Heavy NP shift, this cost has to be counterbalanced by a correspondingly large prosodic improvement in other areas.

If this account of (28) is on the right track, we might also expect PP extraposition to be preferred to DP extraposition when both operations give more-or-less equivalent results at PF. This would explain why (29b) is better than (29a):

- (29) a. * I talked to t on Tuesday [the man who I met last week].
 - b. I talked *t* on Tuesday [to the man who I met last week].

As expected under this hypothesis, it seems that it is possible to extrapose non-DPs out of PPs:

- (30) a. I talked yesterday to a friend of John's.
 - b. I talked to a friend yesterday of John's.
 - c. I talked yesterday to a man who I've known for ten years.
 - d. I talked to a man yesterday who I've known for ten years.

A different approach to ruling out (29a) is outlined in Hornstein *et al.* (2009), based on the theory of cyclic linearization in Fox & Pesetsky (2004). H. *et al.* note that the derivation of (29a) may plausibly be taken to create an ordering paradox given F&P's system, on the assumption that *wh*-movement out of PPs must precede via [Spec,PP] (which is obligatorily on the left edge of PP, perhaps because specifiers are always on the left). As PP is a linearization domain, this will generate a linearization in which P follows the DP. Any operation that subsequently moves the DP to the left in another phase is therefore barred, as this would generate an inconsistent set of linearization statements. On the face of it, the H. *et al.* approach would predict the examples in (30) to be unacceptable (if these do indeed involve rightward A' movement).

6 The Right Roof Constraint

The Right Roof Constraint remains something of a mystery, and I have no really satisfactory account of it to offer here. I take the facts to be explained (for English at least) to be (a) that extraposition is always to the right and (b) that extraposition is clause-bounded. These facts would follow if (i) adjoined positions in English are always on the right and (ii) escape hatches are always on the left. Regarding (ii), Saito & Fukui (1998) present an interesting theory of phrase structure which has this consequence. If (i) and (ii) hold, cyclic extraposition would have to involve movement from the base position, through one or more specifiers, and then onto a right-adjoined position. This would arguably be a form of improper movement, since the resulting chain would not be one of those permitted at LF by Chomsky & Lasnik (1993). Alternatively, following Fox & Pesetsky (2004), it may be that movement to a series of left escape hatches followed by movement to the right creates an ordering paradox.

As an alternative to (i), the possibility might be explored of a functional account of why extraposition is always to the right in English. There are of course well-known functional motivations for displacing heavy phrases to the right (e.g. parsing, discourse, prosody). To my mind, the primary difficulty for any such account is to explain why extraposition moves heavy phrases to the right rather than "light" phrases to the left. Both options would seem to be equally sensible means of getting the desired results in functional terms.

To my knowledge, the Right Roof Constraint remains somewhat mysterious for all theories of extraposition except that of Larson (1988), which only applies to Heavy NP Shift and has a number of other problems (see Rochemont & Culicover (1997)). The antisymmetric proposals of Kayne (2005), Kayne (2000), and den Dikken (1995) do not in and of themselves explain why these movements should be clause bounded. For example, consider the following simplified Kayne-style derivation of HNPS:

- (31) a. [VP gave [a book] [to Bill]]
 - b. $[a book]_1^{+FOC}$ [gave t_1 [to Bill]]
 - c. [gave t_1 [to Bill]]₂ [a book]₁+FOC t_2

There is no particular reason to think that the movement of the heavy DP to a focus position in (31b) should be clause-bound. On the face of it, the heavy DP should be able to raise to a focus position in a higher clause where VP preposing subsequently applies.

The status of the Right Roof Constraint as an accurate descriptive generalization has been called into question. For example, Kayne (2000:251) gives the sentence in (32), which his theory of HNPS predicts to be grammatical:

(32) ? She has been requesting that he return ever since last Tuesday the book that John borrowed from her last year.

Howard Lasnik (2007 course handout) gives the example of extraposition out of a clause in (33):

(33) ? Mary wanted to go until yesterday to the public lecture.

I have nothing to say about (32), other than that its level of acceptability – which perhaps merits more than one question mark – seems consistent both with grammaticality and ungrammaticality (we are entitled to "let the theory decide," as Newmeyer (1983) puts it). Regarding (33), it may be that it is only to finite clauses that the right roof constraint applies in full force. To put this in Fox & Pesetsky's terms, it may be that only finite CPs are linearization domains.

7 A Brief Note on the Fox/Nissenbaum Analysis of Extraposition

The analysis given here is largely compatible with the theory of extraposition in Fox & Nissenbaum (1999). F&N propose that extraposition of complements is derived by ordinary rightward movement, whereas extraposition of adjuncts to DP is derived via adjunction to the (covert) QR'd DP. All of the cases considered here are plausibly taken to be cases of complement extraposition (though in the case of of PPs, it seems likely that these are at least optionally adjuncts).

The F&N analysis, together with the analysis given here, predicts that extraposed adjunct clauses ought to adjoin at the same height as extraposed DPs (since the movement operation involved is QR of a DP). This prediction may in fact be correct:

- (34) a. ? Although John didn't that he was intelligent, he did make claims that he was successful.
 - b. * Although John didn't that Bill had already made, he did make claims that JOHN had already made.

Though (34a) is appreciably more degraded than a single question mark might be taken to indicate, it is also appreciably better than (34b). Similarly, *wh*-movement of DPs is subject to rather more robust freezing effects for extraposition of adjunct clauses than it is for extraposition of complement clauses:

- (35) a. ? Who did you make the claim t to on Thursday [that John is an idiot]?
 - b. * Who did you make the claim *t* to on Thursday [that John had already made]?

8 Condition C or Weak Crossover?

The contrast between (36a) and (36b) may appear to be a Condition C violation:

- (36) a. I gave a picture of John₁ as a small child to him₁.
 - b. ?? I gave t to him₁ [a picture of John₁ as a small child].

But if the extraposed of PP adjoins to TP, it should not be c-commanded by him. Note that an analysis of extraposition in which the extraposed phrase has in fact remained "stranded" in a low position, though it would account for (36b), would be unable to explain the contrast in (37), which is easily accounted for under the assumption that the extraposed phrase has moved to a higher position but can still reconstruct to its base position:

- (37) a. * I gave its₁ author every book₁ that I bought in the sale.
 - b. I gave t to its₁ author every book₁ that I bought in the sale.

A possible analysis of (36b) is that it involves a Weak Crossover violation rather than a Condition C effect. The extraposed DP is analogous to a *wh*-phrase which "crosses over" a pronoun. This analysis explains the rather weak character of the (apparent) Condition C violation in (36b). With the antecedent more deeply embedded in the extraposed DP, this is seen more clearly:

(38) ? I gave t to him₁ [the picture that Mary said John liked the best].

I will not attempt any further justification of the weak crossover analysis here, but would like to note that these apparent Condition C effects have rather profound theoretical consequences, in the sense that something has to give. Either we are wrong about Condition C and binding in general, or we are wrong about phrase structure and c-command, or we are wrong about extraposed phrases being right-adjoined, or we are wrong about the status of these cases as Condition C violations. It is not easy to find a palatable combination of assumptions.

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