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When Can You Save a Structure by Destroying It?*

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0. Introduction

In this paper, I explore several situations where a structure that would normally be expected to constitute a syntactic violation is unexpectedly acceptable if the violation is 'hidden' inside an ellipsis site. I argue that a PF deletion theory of ellipsis provides a natural way to account for such phenomena. There are two classes of such cases. In the first, a normally obligatory movement apparently need not apply if the item that normally moves is in the ellipsis site. I argue that Pseudogapping structures and matrix Sluicing structures fall into this pattern, with the normally obligatory movement being V Raising in the former case and Infl Raising to C in the latter. I also show that failure to apply an obligatory movement rule cannot always be remedied by ellipsis, and consider the implications of that failure. The second class of cases I examine involve island violations remediated by ellipsis in Sluicing constructions, as first noted by Ross (1969) and discussed in much more detail by Merchant (1999). Here, too, I consider

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certain apparent failures of remediation (discussed by Merchant (1999), but this time I suggest that the failures are only apparent.

1. Strong features, Defective PF Objects, and Ellipsis

1.1 Pseudogapping and V Raising

Pseudogapping is an ellipsis phenomenon that was first examined in detail by Levin (1978) and Levin (1979/1986). In simple cases, like the following from Levin (1978), it seems to involve simply omission of the main verb:

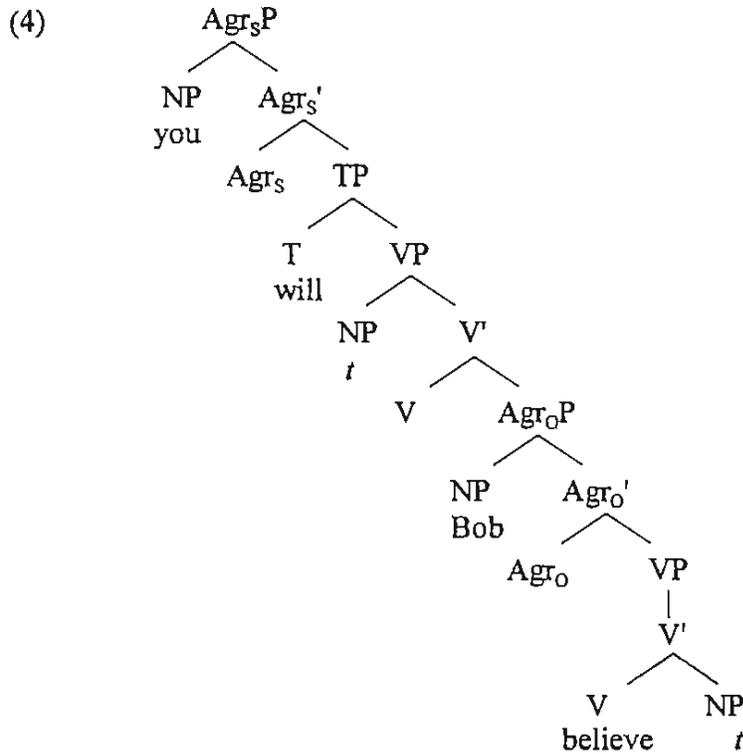
- (1)a If you don't believe me, you will \emptyset the weatherman
- b I rolled up a newspaper, and Lynn did \emptyset a magazine
- c Kathy likes astronomy, but she doesn't \emptyset meteorology

But, as massively documented by Levin, more than just the verb can be missing. The following examples, from Lasnik (1995a), illustrate this.

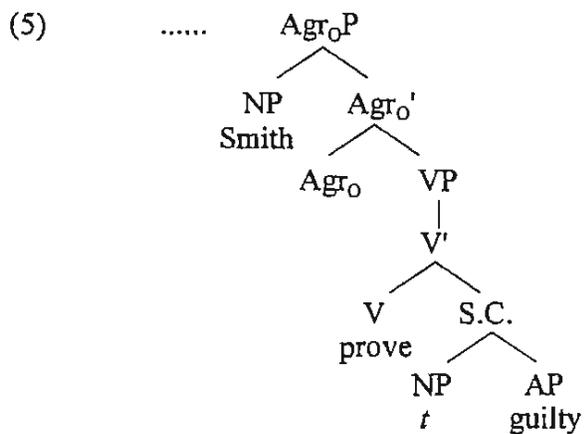
- (2)a The DA proved Jones guilty and the Assistant DA will ~~prove~~ Smith ~~guilty~~
- b ?John gave Bill a lot of money, and Mary will ~~give~~ Susan ~~a lot of money~~

Note that in these examples, the elided material does not seem to constitute a constituent, nor even a continuous portion of the structure. Jayaseelan (1990) insightfully analyzes Pseudogapping as involving movement of the survivor NP out of the VP followed by remnant VP ellipsis. In Lasnik (1995a) and Lasnik (1999) I follow Jayaseelan's basic line, except that I argue that the survivor-saving movement is raising to Spec of Agr₀ rather than Heavy NP Shift. I illustrate the analysis for the elliptical clause in (3) in (4).

- (3) You might not believe me but you will Bob



The analysis of the Agr_oP in the elliptical clause in (2)a, with its Small Clause ECM, is illustrated in (5).



Now an obvious question arises. Since the V need not raise to a position higher than the raised object in (3), why must it in the non-elliptical counterpart (6)?

(6) *You will Bob believe

Similarly for (2) and its ungrammatical non-elliptical counterpart (7).

(7) *The Assistant DA will Smith prove guilty

Let us assume, following Lasnik (1995a), that the object NP raises to satisfy an EPP

requirement of Agr, and that V raises in order for some strong feature to be checked. Let us assume further the theory of strong features of Chomsky (1995) whereby an attracting head, rather than a moving item, possesses (or doesn't) a strong feature. The V of the higher 'shell' VP then has a relevant V-attracting strong feature. In this theory, a strong feature must be eliminated virtually as soon as it appears in a structure:

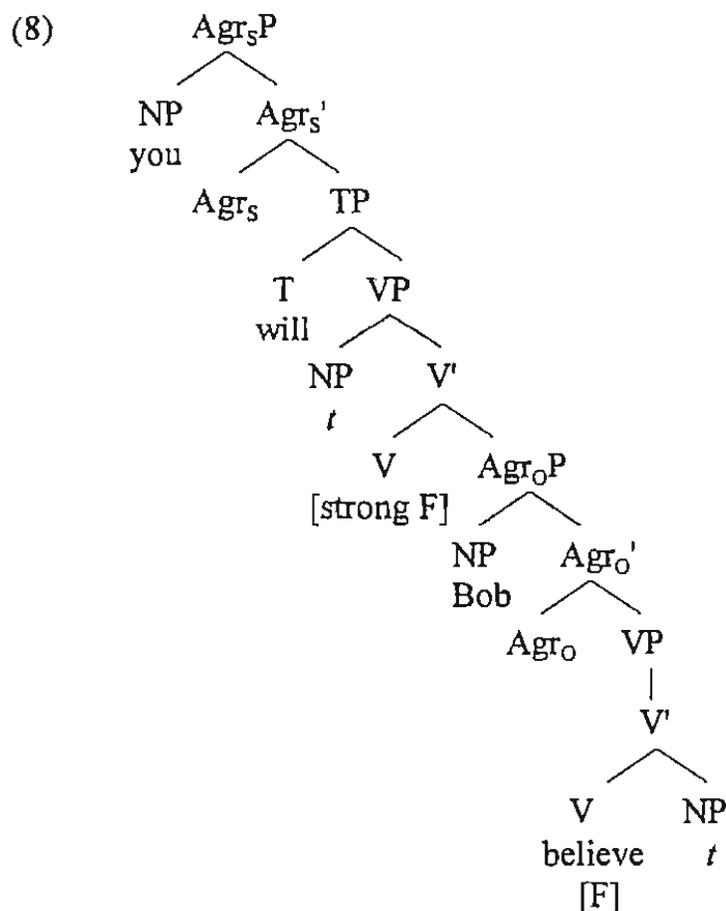
"[we] simply define a strong feature as one that a derivation 'cannot tolerate': a derivation $D-\Sigma$ is canceled if Σ contains a strong feature...A strong feature thus triggers a rule that eliminates it: [strength] is associated with a pair of operations, one that introduces it into the derivation...a second that (quickly) eliminates it." [p.233]

(6) and (7) are then straightforwardly excluded. Consider (6). Either there was no raising of the features of believe, in which case the relevant unchecked strong feature of the higher shell V causes the derivation to terminate. Or else the features of believe were attracted, but pied-piping did not take place, resulting in a PF crash. Chomsky speculates that in principle there could be movement without pied-piping, depending on morphological factors.

"For the most part - perhaps completely - it is properties of the phonological component that require pied-piping. Isolated features and other scattered parts of words may not be subject to its rules, in which case the derivation is canceled; or the derivation might proceed to PF with elements that are 'unpronounceable,' violating FI." [pp.262-263]

"Just how broadly considerations of PF convergence might extend is unclear, pending better understanding of morphology and the internal structure of phrases. Note that such considerations could permit raising without pied-piping even overtly, depending on morphological structure..." [p.264]

Ellipsis, regarded as PF deletion, could be just such a morphological factor, since material that is deleted is rendered invisible at the PF interface. Consider the structure of (6), with feature movement, so that the strong feature of the higher V is satisfied, but without pied-piping:



Suppose, following the modification of Ochi (1999) of Chomsky's theory, that once the matching feature of the lower lexical V is 'attracted', it is just the lower V that becomes phonologically defective. There are then two ways to avoid a PF crash. The 'normal' way is by pied-piping the entire V, giving standard VO word order. But now there is an alternative form of salvation. If a category containing the defective V is deleted, the defect will be obliterated as far as PF is concerned. On my account, that is precisely what happens in Pseudogapping: the VP headed by the defective V deletes by VP ellipsis. This complementarity between normally obligatory movement and ellipsis thus receives a straightforward account: Deletion saves the defective structure by 'destroying' it.

1.2 Sluicing and Infl Raising

Certain instances of Sluicing have the same abstract property as Pseudogapping, in that a normally obligatory movement is rendered optional in the context of ellipsis. Sluicing was first investigated by Ross (1969), who regarded it as an embedded WH-question phenomenon. He gave examples such as (9).

- (9) Speaker A: Mary will see someone.
 Speaker B: I wonder who ~~Mary will see~~.

The construction is very plausibly analyzed as WH-movement followed by IP ellipsis. This was

essentially Ross's account, taken up again by Saito and Murasugi (1990).¹ It will be important for the argument I am about to develop to see that Sluicing is not limited to embedded questions. It can evidently also occur in matrix WH-questions:

- (10) Speaker A: Mary will see someone.
 Speaker B: Who ~~Mary will see~~?

However, since Sluicing is generally regarded as an embedded question phenomenon, it is conceivable that (10) doesn't display Sluicing at all, but rather, is just some sort of sentence fragment. I think this alternative is unlikely, as there are no obvious differences between (10) and classic cases of Sluicing. Further, there is one striking similarity between matrix and embedded instances, a similarity not shared by any other construction in English, as far as I know. Ross (1969) first observed that there is a curious prepositional phrase word order inversion possible in certain instances of Sluicing:

- (11)a Lois was talking, but I don't know to whom
 b Lois was talking but I don't know who to

Merchant (1999) notes that just this same inverted word order is available in the matrix construction:

- (12)a Lois was talking. To whom?
 b Lois was talking. Who to?

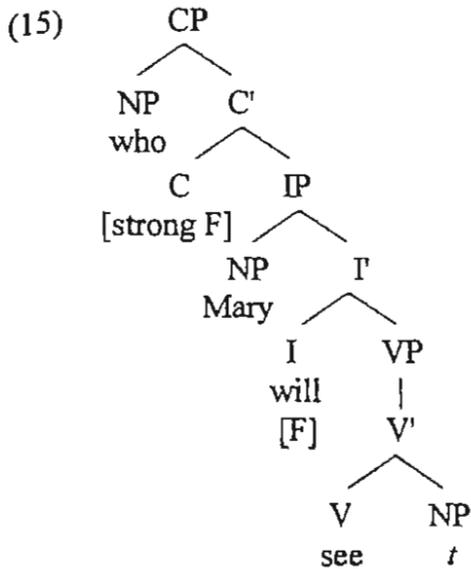
I cannot go into possible analyses of this inversion here, but the fact that it shows up in these two constructions, and only these, is strong evidence that the constructions are the same. Since the embedded instances are uncontroversially Sluicing, the null hypothesis is that matrix instances are too.

The same line of analysis presented with respect to Pseudogapping seems appropriate for matrix Sluicing as well. The WH-phrase raises and the IP is elided. And here too, the question is why the normally obligatory raising of Infl to C (in matrix interrogatives) does not apply.

- (13) *Who Mary will see?
 (14) Who will Mary see?

The same answer is available. Assume, as is standard, that matrix interrogative C contains the relevant strong feature, with the matching feature of Infl (presumably a tense feature) raising overtly to check it. This leaves behind a phonologically defective Infl, which will cause a PF crash unless either pied-piping or deletion of a category containing that Infl (Sluicing) takes place. (15) illustrates the latter option.

¹ At this point, I abstract away from 'split-Infl' details for ease of exposition.



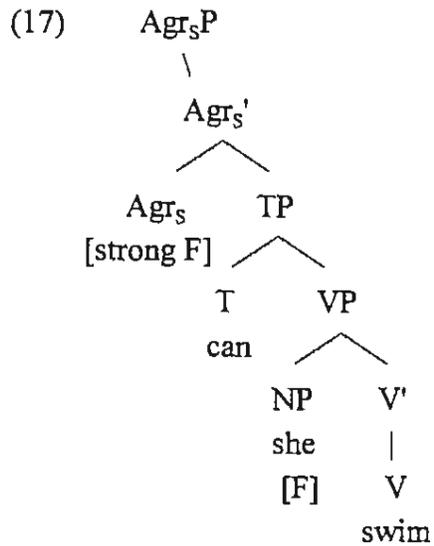
2. Failure of Repair: The EPP

The analyses of Pseudogapping and Sluicing presented above have a surprising consequence for the EPP. The original formulation, in Chomsky (1981)² is, roughly, that certain heads demand specifiers. Chomsky (1995) suggests a different interpretation of the EPP requirement. A head with a strong feature must have that feature checked in overt syntax (in, fact, almost immediately after the introduction of the head into the structure³). Given this, the Extended Projection Principle reduces to a strong feature of a functional head high in the clausal structure (causing the relevant feature to raise), combined with a PF based generalized pied-piping requirement (causing the residual constituent to raise). Since we have seen that when features move in overt syntax, deletion is an alternative to pied-piping, we now have a testing ground for comparing these two approaches to the EPP. Suppose, that the EPP is instantiated by a strong feature in 'Infl', perhaps, as Chomsky suggested, a D feature, with a matching feature in nominal expressions. For concreteness, I will assume that it is in Agr_S, though whether in Tense or Agr_S is immaterial to this part of the discussion. Consider then an example like (16), with an underlying structure roughly as in (17).

(16) Mary said she can't swim, even though she (really) can swim

² Though not given the name EPP until Chomsky (1982).

³ See Lasnik (1999) for discussion of the mechanics of feature strength.



When the strong feature of Agr_S attracts the matching feature of she, we obtain (18), via standard VP ellipsis, if pied-piping obtains.

(18) Mary said she can't swim, even though she (really) can **swim**

But, analogous to the alternative ellipsis possibilities seen with Pseudogapping and Sluicing, we might expect to be able just to raise the relevant features of she if the residue can be deleted.⁴ However, contrary to this expectation, VP ellipsis without prior pied-piping of the subject is impossible for the structure in (17), as seen in (19), where the unraised VP-internal subject is elided along with the rest of the VP.

(19) *Mary said she can't swim, even though (really) can ~~she swim~~

The obvious way to exclude (19) is to demand that the entire subject raise. And that is the original version of the EPP. Interestingly, Chomsky (2000) arrives at the same conclusion, but for very different reasons. He rejects feature-based movement entirely, replacing feature checking via movement with a relation of long distance agreement, Agree. On this conception, the EPP has nothing to do with feature checking in the sense of Chomsky (1995). Rather, in a return to the earliest view, it is the requirement that certain functional heads demand a specifier.⁵

⁴ Note that Case checking should not be at issue, since Case can surely be checked at a distance, either by feature movement or by Agree.

⁵ Chomsky (2000) suggests that the obligatoriness of overt WH-movement in languages like English is also an EPP phenomenon. All else equal, we might then expect that here, too, the requirement cannot be evaded by feature movement and ellipsis. There is some evidence that the prediction is correct. In Sluicing constructions, the WH-phrase evidently cannot be left in situ, as part of an ellipsis site:

(i) Mary will see someone. Tell me who ~~Mary will see~~.

(ii) Mary will see someone. *Tell me ~~Mary will see who~~.

This argument is, however, less than overwhelming since Sluicing, in addition to its syntactic requirements, has an array of discourse requirements as well, one of them demanding focus on the WH-phrase. But if it has not been pied-piped and is instead part of a deletion site, there is no way it can be focused. A reviewer for Lasnik

(continued...)

Even though I have implicitly argued for feature movement, that very argument has ultimately led to the conclusion that Chomsky arrived at based on the **rejection** of feature movement: that the EPP is not feature driven movement.

Why the EPP should be different in this way from the other instances of movement considered here is an important question, but one that I am not prepared to answer at this point. For one thing, so few cases have been considered that trying to discern a pattern is a risky business. However, I suspect that Boeckx and Stjepanovic (In press) are onto something in suggesting that the true generalization involves head movement, where ellipsis does provide an alternative to raising, vs. XP movement, where it doesn't.⁶ They offer the tantalizing suggestion that this dichotomy might follow from the proposal of Chomsky (2000) that head movement is a PF process, rather than a true syntactic one. They reason that the derivational decision to pied-pipe involves considerable 'look-ahead' since the adverse effects of bare feature movement are not evident until PF, where deletion operates. If head movement is a PF process, the interaction is at least confined to one component. Conversely, if XP movement is syntactic,⁷ potential interaction between full movement and deletion would be across the Spell-out divide thus involving look-ahead of a much greater degree, and hence plausibly much more computationally complex.

An alternative possibility also suggests itself. It is reasonable to think that head movement, such

³(...continued)

(In press) gives another argument, which might circumvent this interfering factor, that mere feature movement does not obviate the need for WH-movement. VP ellipsis is possible in (iii) but not in (iv), where one might a priori imagine that feature movement of who would suffice to satisfy the requirements of the +WH complementizer:

(iii) I know you cannot trust Bob, but I wonder who you can

(iv) *I know you cannot trust Bob, but I wonder you can

⁶Jim McCloskey (personal communication) points out an exception to the fledgling generalization that in the case of head movement, deletion is an alternative to pied-piping. He observes that in languages where V raises to T, one should now expect that VP ellipsis can leave just the subject as a remnant. But this is, in fact, not possible. Even English provides such a situation, since auxiliary verbs raise to T. Consider the following:

(i) Mary isn't here even though John is [_{VP} ~~is here~~]

Now suppose just the features of is were to raise, with the residue remaining in situ. VP deletion ought to salvage the sentence, but it doesn't:

(ii) *Mary isn't here even though John T [_{VP} ~~is here~~]

[F] [F]
| |

This particular example is not actually very damaging to the hypothesis, since VP ellipsis is known to obey a kind of head government constraint, demanding a morphologically realized head as the licensor of its null VP complement. Versions of this constraint have been discussed by Zagana (1988) and Lobeck (1990), among others. In (ii), head government fails, since is didn't raise. A harder version of this problem is seen in (iii)-(iv).

(iii) Mary is here even though John is not ~~there~~

(iv) *Mary is here even though John not ~~is here~~

As Baltin (1993) and Merchant (1999) point out, not is a possible ellipsis licensor. In subjunctives, VP ellipsis is normally impossible, but with negation, it becomes reasonably acceptable:

(v) *I desire that John be here and that Mary ~~be here~~ also

(v) I desire that John be here and that Mary not ~~be here~~

I will have to leave this as an open problem.

⁷As it presumably must be, given its clear syntactic consequences for binding, licensing, etc.

such as V-raising, can repair the defective V left behind by feature movement because the raised features and the raised V are all amalgamated in one head, the one that is the landing site of the movement. Plausibly, XP movement, such as NP raising, can't repair a defective NP, since the NP will raise to Spec of IP and will not amalgamate with its lost features located in I. Given current limited understanding, all of these possibilities remain mere speculations.

3. Ellipsis and Island Violation Repair

Ross (1969), the classic study of Sluicing, contains the very interesting observation that island violations are significantly improved when Sluicing takes place. Ross gives the following examples, with (20) as baseline data involving no island. The '??' judgment for the Sluicing examples is Ross's. Many speakers find them perfect or virtually so. I will base my discussion on the assumption that such examples are grammatical.

(20) I believe that he bit someone, but they don't know who (I believe that he bit)

(21)a *I believe the claim that he bit someone, but they don't know who I believe the claim that he bit [Complex NP Constraint, noun complement]
 b (??)I believe the claim that he bit someone, but they don't know who

(22)a *Irv and someone were dancing together, but I don't know who Irv and were dancing together [Coordinate Structure Constraint]
 b (??)Irv and someone were dancing together, but I don't know who

(23)a *She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends she kissed a man who bit [Complex NP Constraint, relative clause]
 b (??)She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends

(24)a *That he'll hire someone is possible, but I won't divulge who that he'll hire is possible [Sentential Subject Constraint]
 b (??)That he'll hire someone is possible, but I won't divulge who

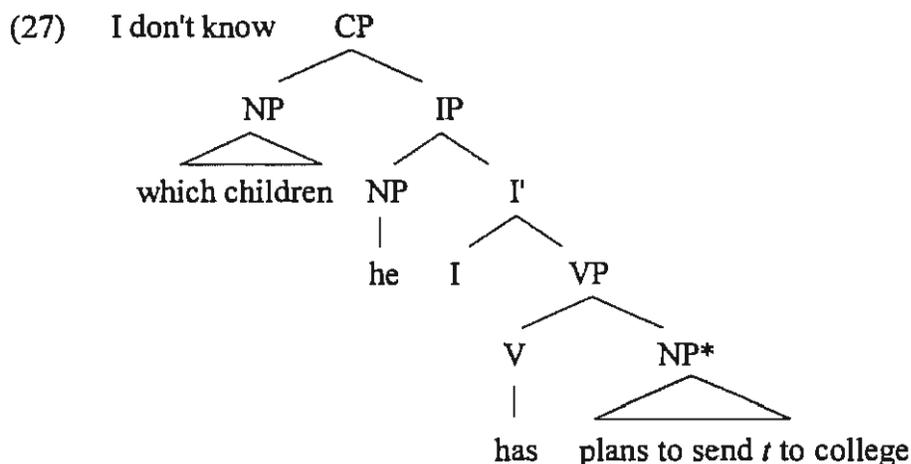
Ross argues that the phenomenon of island violation repair provides "evidence of the strongest sort that the theoretical power of [global] derivational constraints is needed in linguistic theory..." [p.277] By this, he means that transformational derivations cannot be limited in Markovian fashion; rather, at a given step in a derivation, access must be available to (all) other derivational steps to determine applicability of a particular operation. Ross offers the following as a possible formulation of the derivational constraint relevant to the examples in (21)-(24).

(25) If a node is moved out of its island, an ungrammatical sentence will result. If the island-forming node does not appear in surface structure, violations of lesser severity will (in general) ensue. [p.277]

Chomsky (1972) presents a similar example, involving amelioration of extraction out of a noun complement (quite a weak violation for many speakers, but marked with * by Chomsky):

- (26)a (*)I don't know which children he has plans to send to college
 b He has plans to send some of his children to college, but I don't know which ones

Chomsky rejects global derivational constraints (on the grounds of the difficulty they raise for explanatory adequacy), and suggests that * (# in Chomsky's presentation) is assigned to an island when it is crossed by a movement operation.⁸ An output condition forbidding * in surface structures accounts for the deviance of standard island violations. Chomsky's analysis is illustrated in the following representation (put in more modern phrase structure terms):



If a later operation (Sluicing in this case) deletes a category containing the *-marked item, the derivation is salvaged. For Chomsky (1972), the condition banning * applies at surface structure. The results are the same if, instead, it is a PF condition, as suggested by Lasnik (1995b), Lasnik (2001).

Much more recently Chung et al. (1995) argue that the amelioration of island effects with Sluicing follows from their account of Sluicing, in which there is no movement or deletion involved, but a type of LF copying. Under the assumptions that island effects follow from Subjacency and Subjacency is specifically a constraint on the operation of movement, this conclusion is direct. However, Merchant (1999), following Ross (1969), provides strong evidence that syntactic movement and deletion are involved in Sluicing constructions. The evidence is of two sorts. First, there is 'Case matching': In overtly Case inflected languages (such as German), the Case of the remnant is just what the Case of the fronted WH expression would have been in the non-elliptical form, and this is true even in the island violation configurations. This is illustrated in the following examples:

- (28) Er will jemandem schmeicheln, aber sie wissen nicht,
 he wants someone.DAT flatter but they know not
 *wer / *wen / wem
 who.NOM who.ACC who.DAT
 'He wants to flatter someone, but they don't know who.'

⁸ See also Baker and Brame (1972), and, for an opposing view, Lakoff (1970) and Lakoff (1972).

- (29) Sie will jemanden finden, der einem der Gefangenen geholfen hat,
 she wants someone find who one.DAT of the prisoners helped has
 aber ich weiss nicht *welcher / *welchen / welchem
 but I know not which.NOM which.ACC which.DAT
 'She wants to find someone who helped one of the prisoners, but I don't know which.'

Merchant reasons that these correlations are straightforward under a movement analysis, but somewhat obscure on the LF copying alternative.

The second argument is based on preposition stranding under WH-movement. In languages that allow P-stranding (such as English), the residue of Sluicing can be the bare object of a preposition; in languages that don't (such as Greek), it can't, and this is true even in the island violation configurations. (30)-(31) contrast with (32)-(33) in this way.

- (30) Peter was talking with someone, but I don't know who
 (31) Peter's mom will get angry if he talks with someone from his class, but I don't remember who
- (32) I Anna milise me kapjon, alla dhe ksero *(me) pjon
 the Anna spoke with someone but not I.know with who
 'Anna spoke with someone but I don't know who'
- (33) I mitera tou Giannis tha thimosi an milisi me kapjon
 the mom of Giannis FUT get.angry if he.talks with someone
 apo tin taksi tou, alla dhe thimame *(me) pjon
 from the class his but not I.remember with who
 'Giannis's mom will get angry if he talks with someone from his class, but I don't remember who.'

Again, this strongly suggests that the derivational histories of the Sluicing examples are very similar to those of the non-elliptical counterparts. And if that is so, the Chung et al. (1995) account of island amelioration under Sluicing is unavailable. However, there are potential and actual objections to Chomsky's approach also. I turn to some of those now.

Kitahara (1999), in a slightly different context, offers a technical objection that would be expected to extend to the Chomsky (1972) analysis summarized above. Kitahara's concern is the Chomsky and Lasnik (1993) account of argument-adjunct asymmetries with island-violating movement. That account relies on traces being *-marked when their creation involves 'Minimal Link Condition' violations. This is claimed to yield some degree of deviance. Then, under certain circumstances, intermediate traces can be deleted. Under those circumstances, if the only *-marked traces were intermediate ones, the result is a chain with no *'s. In the Chomsky-Lasnik theory, this is only possible with WH-movement of an argument. Thus, when an adjunct undergoes WH-movement and a *-marked trace is created, it can never be eliminated. This approach, if extended to all island effects, provides the basis for an account of the extra deviance of 'long' adjunct movement, vis-à-vis argument movement discussed by Huang (1982). Kitahara observes that any such account runs afoul of the Inclusiveness Condition of Chomsky (1995):

"... a *-feature, which is not a lexical feature – since it appears nowhere in the lexicon – ... enters into a derivation as the output of certain movements. ...this assumption violates the Inclusiveness Condition." p.79

It seems clear that this objection would carry over unchanged to the Chomsky (1972) analysis of island effects under consideration, since it too introduces a * into a derivation. Kitahara, like Chomsky and Lasnik, is specifically concerned with the extra degree of deviance of long adjunct movement, and does not offer any formal account of the deviance of long argument movement. Kitahara merely offers (34) as, I assume, a descriptive generalization.

(34) An expression is marginally deviant if its derivation employs an MLC-violating application of Attract.

(34) is itself in need of explanation, of course. And something along the lines of Chomsky (1972) still remains a reasonable possibility. Whether Inclusiveness ought to be relevant here I will leave as an open question.⁹

4. (Apparent) Failure of Island Violation Repair

While accepting, indeed arguing strongly for, Ross's and Chomsky's position that Sluicing involves movement and deletion, Merchant (1999) explicitly rejects Chomsky's (1972) approach to island violation amelioration, on new empirical grounds. In particular, Merchant presents cases where other kinds of ellipsis do not seem to repair island violations. For example, while in (35), we get the now familiar repair by Sluicing, in (36) VP ellipsis doesn't ameliorate the deviance at all.

(35) They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [_{IP} ~~they want to hire someone who speaks t~~]

(36) *They want to hire someone who speaks a Balkan language, but I don't know which they do [_{VP} ~~want to hire someone who speaks t~~]

⁹ Lakoff (1972) presents an early criticism of Chomsky's analysis. Like Kitahara, Lakoff objects to the introduction of a special marker in the course of a derivation. Lakoff's specific objection concerns properties of deletion under identity. He observes that the introduced element "must be 'invisible' with respect to deletion under identity, since when Sluicing applies, the deleted portion of the tree will contain this element, while the deleting portion will not." [p.81] It is not clear how much weight to attribute to this argument. The concept behind recoverability of deletion is that information should not be lost, but it is far from obvious that the deleted * carries information in a relevant sense. But even if one takes Lakoff's criticism to heart, there is a way to restate Chomsky's analysis so that is consistent with recoverability, as formulated in Chomsky (1965), where nondistinctness, rather than identity, is the requirement. That is, the antecedent and the deletion target may depart from identity if the antecedent is specified for some feature that the target is unspecified for. Given that, suppose that the island violation marker is reconstrued in the following way: Instead of * being added, imagine that every phrase is marked with ✓ 'at birth'. Then, when an island violation occurs, the ✓ is erased. The surface (or PF) violation would then be signaled by lack of ✓ rather than by *. In the Sluicing examples at issue, the target would be lacking ✓ in some position or positions where the antecedent has ✓. This situation is compatible with nondistinctness. Interestingly, on this reconstrual of Chomsky's account, it is also no longer incompatible with Inclusiveness.

Note that here, as in the Sluicing situation, the island that is crossed (the relative clause and/or the NP containing it) does not show up at the end of the derivation. If the marker of deviance is on the island, and if the island is deleted, there is no obvious way to capture the difference in status between (35) and (36).

In fact, Chung et al. (1995) had already claimed that Sluicing and VP ellipsis diverge in this way, implying that the latter, unlike the former, is an instance of deletion. They offer no detailed analysis, but they suggest that island constraints follow from Subjacency, which is specifically a constraint on the operation of movement. Thus, deletion would not be able to repair violations. They give the following example, which involves an adjunct island, as illustration:

- (37) We left before they started playing party games.
 *What did you leave before they did [_{VP} start playing t]?

They do not discuss the Chomsky (1972) account, but unlike Chomsky (1972), they evidently take island violations to be determined strictly online, rather than (in part) by an output condition. However, interestingly, the one example they provide in support of their suggested distinction, (37) above, is actually consistent with Chomsky's account, as the island is not eliminated. The adjunct, headed by *before*, is outside of the VP ellipsis site. Merchant's example (36) is much more problematic, since the island is part of the ellipsis site.

Merchant, like Chomsky and unlike Chung et al. (1995), takes all ellipsis to be PF deletion (as far as I can tell).¹⁰ He argues that the relevant distinction is not between IP ellipsis and VP ellipsis, then. Rather, he proposes that only some islands represent PF effects. Others, especially including relative clause islands, do not, and their violation therefore cannot be repaired by ellipsis, unlike PF islands, which can be repaired by ellipsis.¹¹ (36) is then correctly ruled out. Its derivation involved some non-PF violation, so PF deletion could not rescue it. The acceptable Sluicing example (35) is now once again apparently problematic. But Merchant argues that the problem is, in fact, only apparent. He proposes that (35), with its relative clause island violation, is not the correct analysis. Instead, the actual source is as in (38).¹²

- (38) They want to hire someone who speaks a Balkan language, but I don't know which
 (Balkan language) [_{IP} she should speak t]

A similar reanalysis obtains for matrix instances:

¹⁰ Merchant (personal communication) confirms that this is his point of view, and I concur. If some ellipsis phenomena are PF deletion, the null hypothesis is surely that they all are.

¹¹ Hiromu Sakai (personal communication) observes that this entails that P-stranding violations, as in (32) and (33), are not PF effects. There actually seems to be some question about whether Sluicing always fails to repair P-stranding. Perhaps P-stranding is not a unified phenomenon, with some instances being PF effects and other not. I hope to explore this issue further in work in progress.

¹² See Baker and Brame (1972) for a similar proposal.

- (39) They hired someone who speaks a Balkan language –
Guess which [~~she speaks t~~]

Merchant supports this proposal that there is no extraction out of relative clauses even in Sluicing constructions by presenting evidence that when the non-island violating source is unavailable¹³ Sluicing is also unacceptable:

- (40) They hired (*no/??few) people who spoke a lot of languages – guess how many they spoke!
(41) They hired (*no/??few) people who spoke a lot of languages – guess how many!
(42) *They didn't hire anyone who speaks a Balkan language, but I don't remember which she speaks.
(43) *They didn't hire anyone who speaks a Balkan language, but I don't remember which.

However, this parallelism does not always hold. (44) is completely out but (45) seems reasonably acceptable.

- (44) *Noone had a student who worked on a certain Balkan language, but I can't remember which Balkan language she worked on.
(45) Noone had a student who worked on a certain Balkan language, but I can't remember which (Balkan language)

Even (43) is considerably improved with *certain* added:

- (46) ?They didn't hire anyone who speaks a certain Balkan language, but I don't remember which (Balkan language).

And examples like these without *certain* are markedly degraded even when there is no island at all:

- (47) ?*They don't speak a Balkan language, but I don't remember which
(48) ?*No student speaks a Balkan language, I don't remember which

Another Sluicing example that Merchant gives also seems to degrade without *certain*:

- (49) No-one moved to a certain town – guess which! p.267
(50) ??No-one moved to a town – guess which!

Thus, the argument based on (40)-(43) that Sluicing out of a relative clause does not really exist turns out to be inconclusive.

There are also cases where structure that includes the island apparently must exist in the Sluicing site in order to license an item in the Sluicing residue. Consider the following examples, with the pronoun in the WH-phrase reasonably acceptable as a bound variable, even

¹³ For reasons having to do with the licensing of E-type pronouns.

though the quantifier binding the pronoun is outside of the relative clause island:

- (51) Every linguist_i met a philosopher who criticized some of his_i work, but I'm not sure how much of his_i work [~~every linguist_i met a philosopher who criticized t_i~~]
- (52) Every linguist_i met a philosopher who criticized some of his_i work.
Tell me how much of his_i work [~~every linguist_i met a philosopher who criticized t_i~~]

These contrast with parallel examples lacking the relative clause:

- (53) ??Every linguist_i met a philosopher who criticized some of his_i work, but I'm not sure how much of his_i work the philosopher criticized t_i
- (54) ?*Every linguist_i met a philosopher who criticized some of his_i work.
Tell me how much of his_i work the philosopher criticized t_i.

The *each...the other* construction shows similar behavior:

- (55) Each of the linguists met a philosopher who criticized some of the other linguists, but I'm not sure how many of the other linguists
- (56) ?*How many of the other linguists did the philosopher criticize

Thus, there is substantial evidence that Sluicing does repair relative clause island violations. In Merchant's terms, relative clauses do seem to be PF islands. But what of the failure or repair of relative clause islands by VP ellipsis, as in (36), repeated here as (57)?

- (57) *They want to hire someone who speaks a Balkan language, but I don't know which they do [~~VP want to hire someone who speaks t~~]

Before trying to answer that question I would like to briefly consider some of the island phenomena that Merchant classifies as PF islands (in contrast to his classification of relative clause islands). First, there are COMP-trace effects, as in the following two examples, which are fine with Sluicing but severely degraded without ellipsis.:

- (58) It appears that a certain senator will resign, but which senator [~~it appears that t will resign~~] is still a secret [adapted from Merchant p.219]
- (59) Sally asked if somebody was going to fail Syntax One, but I can't remember who [~~Sally asked if t was going to fail Syntax One~~] Merchant p.219, from Chung et al. (1995)

Next, there are 'derived positions', including topicalized phrases and subjects.¹⁴ (60) and (61)

¹⁴ See Takahashi (1994) for important discussion, in an early minimalist framework, of why derived positions are islands. I should point out that while Merchant explicitly includes derived positions in his list of PF islands on pp.190-191, in a later discussion beginning on p.219, he proposes that the sources of the
(continued...)

illustrate Sluicing repairing a topic island violation and (62) illustrates Sluicing repairing a subject island violation.

- (60) *Which Marx brother did she say that [a biography of ___], she refused to read?
(61) A: A biography of one of the Marx brothers, she refused to read.
B: Which one? Merchant p.220
- (62) She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which [~~she said that a biography of t is going to be published this year~~] [adapted from Merchant p.220]

But now a surprising fact emerges. Recall the apparent failure of island violation repair by VP ellipsis with Merchant's non-PF island, shown in (57) above. Contrary to expectation, we find the same apparent failure of repair with Merchant's PF islands:

- (63) *It appears that a certain senator will resign, but which senator it does [~~appear that t will resign~~] is still a secret [that-trace]
(64) *Sally asked if somebody was going to fail Syntax One, but I can't remember who she did [~~ask if t was going to fail Syntax One~~] [if-trace]
(65) *She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which she did [~~say that a biography of t is going to be published this year~~] [subject condition]

Note that all of these are fine with Sluicing:

- (66) It appears that a certain senator will resign, but which senator is still a secret
(67) Sally asked if somebody was going to fail Syntax One, but I can't remember who
(68) She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which

Stranger still, parallel 'failure of repair' obtains even when there is no violation in the first place. Extraction out of an embedded clause is typically fine and Sluicing is just as good, but VP ellipsis is bad:

- (69) They said they heard about a Balkan language, but I don't know which Balkan language they said they heard about
(70) They said they heard about a Balkan language, but I don't know which Balkan language
(71) *They said they heard about a Balkan language, but I don't know which Balkan language they did

Similarly for extraction out of an object NP:

¹⁴(...continued)

relevant examples might not involve island violations at all. At the moment, I will be considering the former possibility. Ultimately, the difference will be immaterial for the issue at hand, as I will show below.

- (72) They heard a lecture about a Balkan language, but I don't know which Balkan language they heard a lecture about
 (73) They heard a lecture about a Balkan language, but I don't know which Balkan language
 (74) *They heard a lecture about a Balkan language, but I don't know which Balkan language they did

Even short movement of a direct object shows very similar behavior:¹⁵

- (75) They studied a Balkan language but I don't know which Balkan language they studied
 (76) They studied a Balkan language but I don't know which Balkan language
 (77) ??They studied a Balkan language but I don't know which Balkan language they did

Thus, the ungrammaticality of (57), repeated here as (78), is completely independent of island constraints, and therefore has no bearing on whether relative clauses are PF islands or not. I will continue to tentatively assume that they are.

- (78) *They want to hire someone who speaks a Balkan language, but I don't know which they do [_{VP} ~~want to hire someone who speaks t~~]

This leaves the mystery of why all of these VP ellipsis examples are so bad. In considering another ellipsis puzzle, Merchant (1999, p. 70) suggests something that might be relevant here: "a prohibition on eliding less than possible". Recall that every one of the bad VP ellipsis examples had a corresponding good Sluicing version, and in the Sluicing versions, more was deleted. Perhaps, then, VP ellipsis is generally blocked when Sluicing is available. But that constraint is evidently too strong. The VP ellipsis version of (79), while not perfect, is far better than (71), (74), and (77), even though a Sluicing version is also possible.

- (79) Someone solved the problem.
 Who (?did)?

Another possibility to consider is a constraint on ellipsis put forward by Williams (1977) that conceivably could have the effect of ruling out these examples. Williams proposes that distinct operators may not bind into an ellipsis site. But as Merchant (1999) points out, Williams's constraint would incorrectly rule out examples like the following:¹⁶

- (80) I know what I like and what I don't

The mysterious limitation on ellipsis seen in (71), (74), (77), and (78) seems to be specific to VP ellipsis, and, given the grammaticality of (80), seems limited specifically to circumstances where an indefinite antecedes a WH-trace in the VP ellipsis site.¹⁷ An indefinite

¹⁵ Below, I will briefly discuss the slightly improved status of (77) vis-à-vis (71) and (74).

¹⁶ Fiengo and May (1993) had also challenged Williams on this point. It should be noted that Williams calls a similar example ungrammatical, but all of my informants agree with Fiengo and May and with Merchant that such examples are fine.

¹⁷ If the generalization is as stated, then the somewhat improved status of (77) is not unexpected, as
 (continued...)

antecedent a WH-trace is fine with IP ellipsis; it is virtually the hallmark of the construction. Why should this not be possible with VP ellipsis? The nature of the constraint remains obscure.¹⁸

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¹⁷(...continued)

the WH-trace might not be in the elided VP. Rather, we might be dealing with Pseudogapping instead of standard VP ellipsis, with the WH-trace outside of the ellipsis site (in Spec of Agr_O on the analysis of Pseudogapping of Lasnik (1995a) and Lasnik (1999)). In none of the very bad VP ellipsis examples could the WH-trace be outside the ellipsis site, since the A-movement needed to get it outside would not be possible.

¹⁸Danny Fox and I are currently exploring this problem, but we do not yet have a solid result to report.

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