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AN ASYMMETRY IN VOICE  
MISMATCHES IN VP-ELLIPSIS  
AND PSEUDOGAPPING  
*Jason Merchant*  
*University of Chicago*

VP-ellipsis and pseudogapping in English show a previously unnoticed asymmetry in their tolerance for voice mismatch: while VP-ellipsis allows mismatches in voice between the elided VP and its antecedent, pseudogapping does not. This difference is unexpected under current analyses of pseudogapping, which posit that pseudogapping is a kind of VP-ellipsis. I show that this difference falls out naturally if the target of deletion in the two cases differs slightly: in VP-ellipsis, a node lower than [voi(ce)] is deleted, while in pseudogapping a node containing [voi] is deleted. Moreover, this analysis accounts for a new observation concerning the distribution of floating quantifiers in these two constructions.

### 1 Voice Mismatches

It is well known that VP-ellipsis in English tolerates mismatches between the voice of the elided constituent and that of its antecedent, in both directions. Typical examples are those in (1) and (2). (The (a) examples are from Kehler 2002:53; see also Sag 1976:17, 75, Hardt 1993, Johnson 2001, and Arregui et al. 2006 for further examples, discussion, and qualifications.)

- (1) *Passive antecedent, active ellipsis*
- a. This problem was to have been looked into, but obviously nobody did. ⟨look into this problem⟩
  - b. The system can be used by anyone who wants to. ⟨use it⟩
- (2) *Active antecedent, passive ellipsis*
- a. Actually, I have implemented it [= a computer system] with a manager, but it doesn't have to be. ⟨implemented with a manager⟩
  - b. The janitor must remove the trash whenever it is apparent that it should be. ⟨removed⟩

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What has escaped previous notice, however, is that pseudogapping contrasts in this respect with VP-ellipsis in not permitting such voice mismatches (aligning with sluicing, fragment answers, stripping, and gapping).<sup>1</sup>

- (3) *Passive antecedent, active ellipsis*
- a. \*Roses were brought by some, and others did lilies. (bring)
  - b. \*Klimt is admired by Abby more than anyone does Klee. (admire)
  - c. \*Hundertwasser's ideas are respected by architects more than most people do his work. (respect)
  - d. \*More people were invited to Beth's reception by her mother than Beth herself did to her wedding! (invite)
- (4) *Active antecedent, passive ellipsis*
- a. \*Some brought roses, and lilies were by others. (brought)
  - b. \*Abby admires Klimt more than he is by anyone else. (admired)
  - c. \*Laypeople respect Hundertwasser's work more than his ideas are by architects. (respected)
  - d. \*Beth's mother invited more people to her wedding than were by Beth herself! (invited)

This difference is the puzzle to be solved.

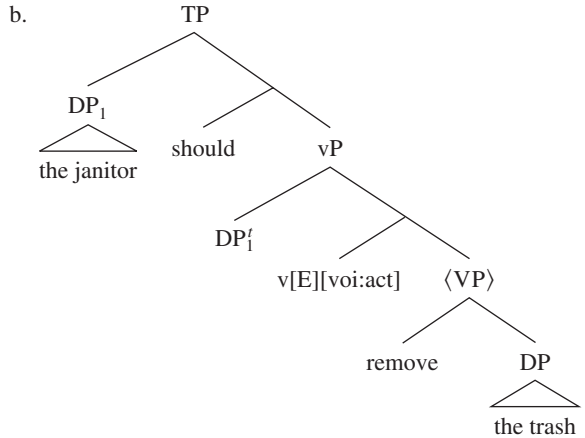
## 2 Voice Heads and Ellipsis Sites

### 2.1 Permitting Voice Mismatches in VP-Ellipsis

I propose that VP-ellipsis consists of deletion of the phrasal complement to the v head, which determines the voice properties of the clause (v[voi]; see Kratzer 1996 and Collins 2005 for discussion). Ellipsis is implemented as a result of a feature, [E], present on the head whose complement is elided; this [E] feature (taken from Merchant 2001) triggers PF nonparsing ("deletion") of the complement of its host head, and furthermore is the locus of morphosyntactic and semantic "identification" requirements. I will notate the presence of an [E] feature on a head by appending [E] (e.g., v[E]). For a simple example such as (5a), the structure is that shown in (5b), where angle brackets indicate the elided material, and the superscript *t* on a node indicates that that node is a "trace" copy of moved material.

<sup>1</sup> Stump (1977), to whom we owe the term *pseudogapping*, did note that voice mismatches are disallowed in pseudogapping. However, following the widely accepted judgments of the day, he also claimed that voice mismatches were ruled out in VP-ellipsis; for him, there was no contrast to be explained.

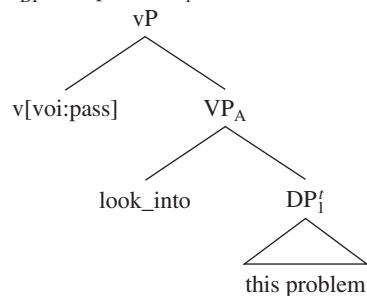
- (5) a. Bill shouldn't remove the trash—the janitor should.

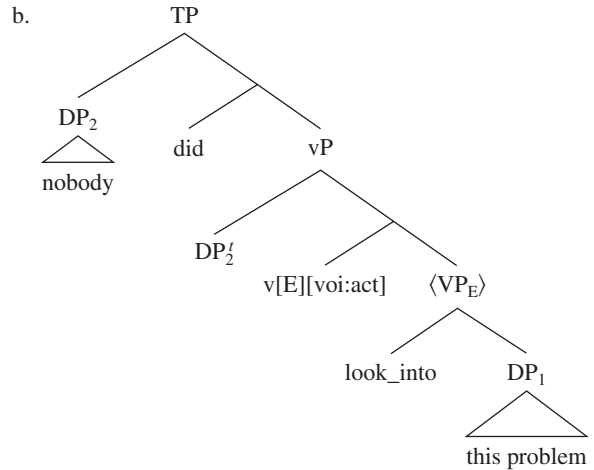


One major research tradition posits that ellipsis is subject to a syntactic identity condition (possibly in addition to semantic and other containment conditions) requiring that an elided XP have a syntactically identical antecedent XP', modulo contrastive elements; works in this general approach include Sag 1976, Kitagawa 1991, Fiengo and May 1994, Chung, Ladusaw, and McCloskey 1995, Fox 2000, Chung, to appear, and many others (works that argue against a syntactic isomorphism requirement include Dalrymple, Shieber, and Pereira 1991, Hardt 1993, Prüst, Van den Berg, and Scha 1994, Ginzburg and Sag 2000, Merchant 2001, Culicover and Jackendoff 2005, and Potsdam, to appear). If VP-ellipsis is in fact ellipsis of VP, and if the head that determines voice alternations (and ultimately is responsible for the voice morphology on the verbal head) is external to VP, then we are in a position to understand the fact that voice mismatches are permitted in VP-ellipsis.

Consider first the case of a passive antecedent and ellipsis in an active clause. The two clauses in an example like (1a) will have the structures given in (6a) and (6b).

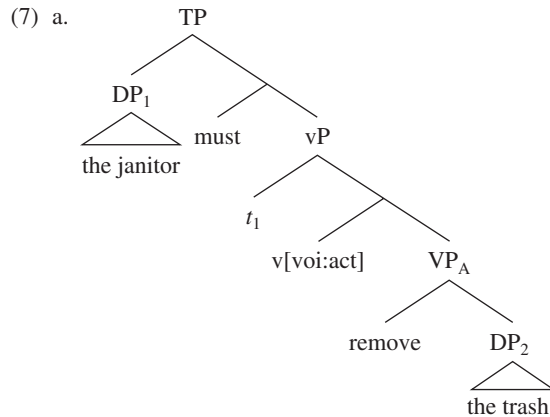
- (6) a. [
- <sub>DP</sub>
- This problem]
- <sub>1</sub>
- was to have been





In these structures, the antecedent VP,  $VP_A$  in (6a), is identical to the VP targeted by ellipsis,  $VP_E$  in (6b), assuming that the copy theory of movement applies to A-traces as well: the ‘trace’ of the moved passive subject is identical to the object of the elided VP.<sup>2</sup>

The account is the same for the opposite case, with an active antecedent and ellipsis in a passive clause, as seen in (7a) and (7b).

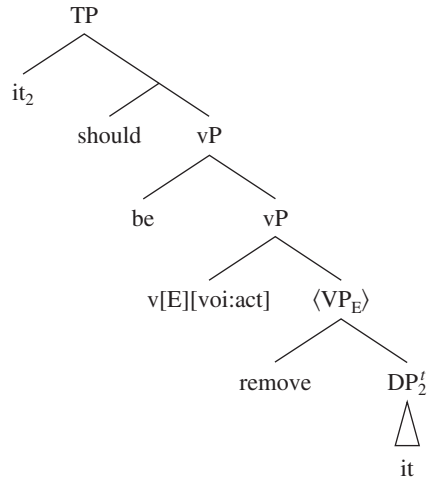


<sup>2</sup> Passive subjects across VP-ellipsis need not be identical, of course, provided that they contrast.

(i) John needs to be hired and Mary<sub>F</sub> does, too.

The elided VP,  $\langle need\ to\ be\ hired\ t_{Mary_F} \rangle$ , is identical to the antecedent VP,  $need\ to\ be\ hired\ t_{John}$ , modulo the contrasting material marked by the subscript F. This tolerance for contrastive material is orthogonal to the voice question examined here: contrastive subjects are also allowed in voice mismatch cases (*They fired Sheila<sub>F</sub>, though really Amanda<sub>F</sub> should've been (fired  $t_{Amanda_F}$ )*), as Fiengo and May (1994) note.

b. ...whenever it is apparent that



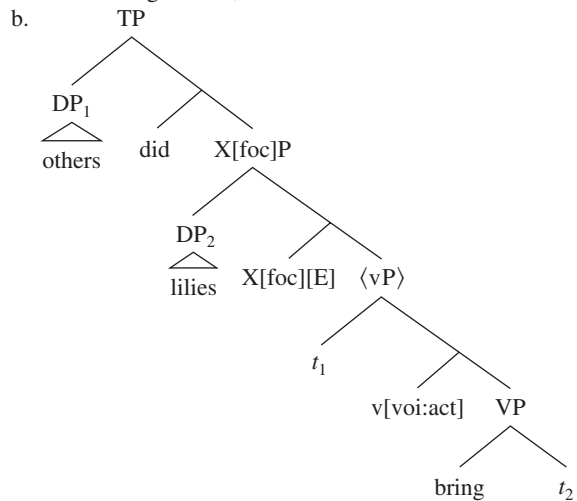
The elided VP in (7b) is identical to the antecedent VP in (7a), assuming that the passive subject pronoun *it* is structurally equivalent to the antecedent *the trash* (see Elbourne 2005 and Kratzer 2006 for recent defenses of this analysis of pronouns).

## 2.2 Ruling Out Voice Mismatches in Pseudogapping

The majority of analyses of pseudogapping (see, e.g., Kuno 1981, Jayaseelan 1990, 2001, Lasnik 1995, 1999, Johnson 2001, Baltin 2002, 2003) argue that it involves ellipsis of some verbal projection supplemented by prior movement of some subconstituent of the VP—prototypically an argument DP or PP—to a position external to the target of the ellipsis; they vary mostly in the landing site they posit, the type of movement, and how to account for the cooccurrence restriction with ellipsis (see Takahashi 2004 for a review, and Levin 1978, 1986, Miller 1991, Hardt 1993, Agbayani and Zoerner 2004, and Culicover and Jackendoff 2005:292ff. for dissents). For concreteness, I will follow the particular proposals made by Jayaseelan (2001) and Gengel (to appear) in analyzing movement of the remnant as movement to a clause-internal focus position (see Kuno 1981, Kim 1997, Depiante 2000, López and Winkler 2003, and Winkler 2005 for related proposals), though for present purposes it is immaterial whether the focus position is the result of the projection of a designated Focus head or whether some other clause-internal head is co-opted into hosting a specifier because of the optional addition of a [foc(us)] feature to its feature matrix. For this reason, I will represent this head agnostically as X[foc]. This focus position is, by hypothesis, equivalent to that found in Hungarian focus movement, with the difference that in English, it is present only in elliptical structures; that is, clause-internal overt focus movement does not occur in English except in such cases. This is conceptually equivalent to the claims made by Takahashi

(2004) that object shift occurs only in pseudogapping, by Johnson (2001) that Dutch-like scrambling occurs only in pseudogapping, and by Lasnik (1999, 2001) that verb movement to a position above Agr<sub>O</sub> fails to occur only in pseudogapping, though the details differ in immaterial ways.<sup>3</sup> The requirement that movement to the specifier of X[foc]P be concomitant with ellipsis is most straightforwardly captured in a minimalist framework—where syntactic differences are posited to be solely the result of differing feature combinations in the lexicon—if this X[foc]<sup>0</sup> head is listed in the English lexicon as having an [E] feature (akin to the [E] on the head that licenses fragment answers in the analysis in Merchant 2004). [E] on X[foc] will therefore cause deletion of the vP complement to X[foc]. A typical pseudogapping example such as (8a) will have the structure in (8b).

(8) a. Some brought roses, and others did lilies.



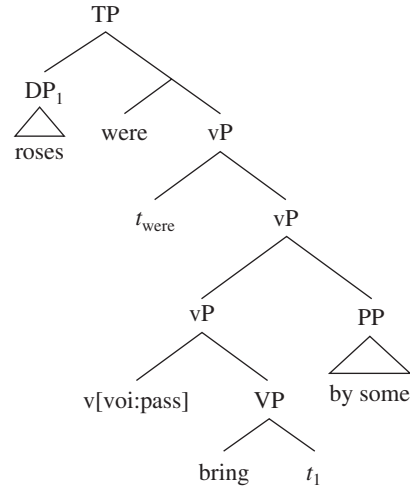
Like most previous researchers, I therefore take pseudogapping to be similar to VP-ellipsis in involving deletion of a verbal projection; I claim that pseudogapping is *dissimilar* to VP-ellipsis in that it involves deletion of the vP sister to X[foc]<sup>0</sup>, not of the VP sister to v as is the case in VP-ellipsis. This structural difference explains why voice mismatches are impossible in pseudogapping: in such cases, the

<sup>3</sup> Kim (1997) in fact claims that the English clause-internal FocP projects its specifier to the *right*, not the left, and that heavy XP shift (HXPS) is movement into this position. If this is true, overt focus movement is well attested in English, and there is a clear connection to Jayaseelan's (1990) and Takahashi's (2004) claim that HXPS can move pseudogapping remnants. But as a reviewer points out, the problem with such claims is that they lead us to expect that HXPS should feed ellipsis of VP and *permit* voice mismatches with pseudogapping, contrary to fact. They fail to account for the absence of voice mismatches with pseudogapping, since they piggyback the movement of the remnant on an otherwise attested movement (HXPS) that can equally occur without ellipsis.

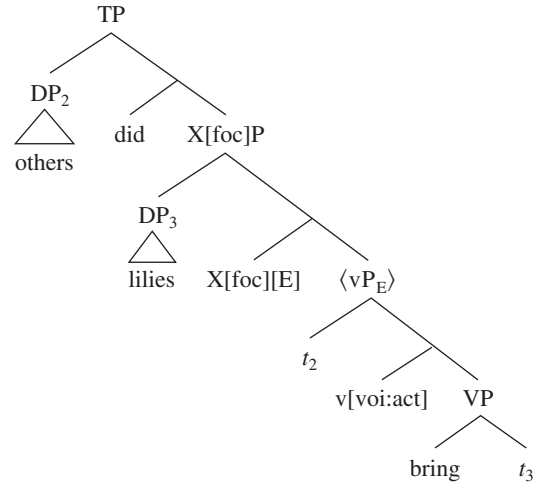
antecedent vP and the elided vP are not identical—one has v[voi:act] and the other has v[voi:pass].<sup>4</sup> The example in (3a) will have the structures in (9b–c), and similarly for (3b–d).

- (9) a. \*Roses were brought by some, and others did lilies.

b.



c.



<sup>4</sup> It has sometimes been claimed that voice mismatches in pseudogapping structures are possible in certain circumstances. In particular, Miller (1991:94, (55)) gives one example he claims is unremarkable (*The arms were hidden by the rebels as a woman would (do) her most precious jewels*), and Coppock (2001:135, (4c)) gives one example she marks with “?” and calls “marginal” (*?That should be explained to individual students by the TA, but the professor will to the class in general*). To the extent that these judgments reflect true variation, we might attribute it to a variable target of deletion; that is, grammars that allow such structures allow VP to be targeted in pseudogapping as well.

The intended target of ellipsis,  $vP_E$ , has no identical antecedent, regardless of how one wishes to represent the *by*-phrase, since it will necessarily require some corresponding  $v[voi]$  head, and the available antecedent does not match its value for  $[voi]$ . In short, voice mismatches in pseudogapping are impossible because the  $[voi]$  head is inside the ellipsis site, triggering a failure of identity.

### 3 Floating Quantifiers

Support for the above-positd structural difference in the target of deletion in VP-ellipsis versus pseudogapping comes from the distribution of floating quantifiers in the two constructions. Floating quantifiers may cooccur with VP-ellipsis.<sup>5</sup>

- (10) *Many* of them have turned in their assignment already, but they haven't yet *all*.

Floating quantifiers are impossible in pseudogapping, however, either before or after the remnant.

- (11) *Many* of them have turned in their take-home already, but they haven't yet (*\*all*) their paper (*\*all*).

This state of affairs is expected on the analysis presented above, if the floating quantifier *all* is situated in the specifier of (or adjoined to)  $vP$ : in such a position, it will survive VP-ellipsis, but not  $vP$ -ellipsis.

### 4 Conclusion

Despite first appearances, voice mismatches are uniformly impossible under ellipsis: ellipsis requires identity of syntactic structure, including that of  $[voi]$  heads. Apparent mismatches arise under VP-ellipsis only because what is elided in those cases is in fact something smaller than a verbal projection containing  $[voi]$ : it is merely VP. In pseudogapping, however,  $vP$  is targeted, and so the identity condition cannot be satisfied. It is this structural difference in the height of ellipsis that accounts for the attested asymmetry in voice “mismatches” in the two kinds of verbal projection ellipsis.

The fact that voice mismatches have an apparently uneven distribution across different ellipsis types constitutes a problem for theories that claim that ellipsis is uniformly licensed by semantic identity of some sort: if voice is irrelevant for VP-ellipsis, why should it be relevant for pseudogapping (and sluicing, etc.)? Only an analysis that posits syntax in the ellipsis site and identity of syntactic structure can

<sup>5</sup> Sag (1976:42) marks as ungrammatical his example *My brothers have all left, and my sisters have all, too*, which indeed seems worse than (10), presumably because the second *all* fails to contrast in quantity with the first *all*.



capture the fact that larger ellipsis sites will be sensitive to voice, while smaller ones will not be.

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P-STRANDING UNDER SLUICING  
IN A NON-P-STRANDING  
LANGUAGE?

Sandra Stjepanović

West Virginia University

Merchant (2001) formulates the following generalization, based on a survey of twenty languages:

- (1) A language L will allow preposition stranding under sluicing iff L allows preposition stranding under regular *wh*-movement. (p. 92)

One language included in his survey is Serbo-Croatian (SC). The SC data he provides as evidence for the generalization in (1) are these (p. 97):

- (2) a. Sa kim je Ana govorila?  
with whom.INST is Ana spoken  
'Who did Ana speak with?'  
b. \*Kim je govorila Ana sa?  
whom.INST is spoken Ana with

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