

VP ellipsis is not licensed by VP topicalization

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1 Introduction: aim and scope of the paper

The phenomenon of English VP ellipsis (VPE) has been widely studied in the generative literature (Zagona 1988a,b; Lobeck 1995; Johnson 2001, Kim 2003). In this paper, we focus on one analysis of VPE which tries to capture the observed similarity in the licensing conditions of VPE and those of VP topicalization.

In the literature on VPE, it has been noted repeatedly that the contexts in which (VP) ellipsis is allowed are constrained in two ways: (i) the content of the ellipsis site has to be recoverable from the discourse (Johnson 2001 for a survey), (ii) the ellipsis site has to be syntactically licensed (Zagona 1988a,b, Saito and Murasugi 1990, Lobeck 1995, 1999). We shall not be concerned with the former constraint, but focus exclusively on the latter. Early discussion of the descriptive generalizations that will be the focus of the discussion are to be found in Bresnan (1976), and especially Lobeck (1995). The examples in (1) show that English VP ellipsis depends on the availability of an auxiliary as its licenser (see Lobeck 1995: 141-163, and also Zagona 1988a; Johnson 2001). VPE is also licensed by infinitival *to* (1d,e,f).²

- (1)
- a. Jane doesn't eat rutabagas and Holly doesn't \emptyset either.
 - b. Jane wouldn't eat rutabagas and Holly wouldn't \emptyset either.
 - c. Jane hasn't eaten any rutabagas and Holly hasn't \emptyset either.
 - d. John is considering eating rutabagas and Holly definitely wants to \emptyset .
 - e. Mag Wildwood wants to read Fred's story, and I also want to \emptyset .
(Johnson 2001: 440 (his 5d)).
 - f. John wants to go on vacation, but he doesn't know when to \emptyset .
(Johnson 2001: 441 (his 9a, from Zagona (1988a) (21): 101))

In the absence of such licensing heads, VP ellipsis is illicit: a finite lexical verb such as *started* cannot license VPE in the absence of infinitival *to* (2c-d):

- (2) I can't believe Holly Golightly won't eat rutabagas.
- a. I can't believe Fred won't Ø, either.
 - b. *I can't believe Fred Ø, either. (Johnson 2001: 439 (his (4)))
 - c. *Sally Tomato started running down the street, but only after José started Ø.
(Johnson 2001: 440 (his (7)))
 - d. Sally Tomato started running down the street, but only after José started to.

For a survey of the analyses put forward to account for the restrictions on VPE, we refer to the discussion in Johnson (2001) and also more recently in Aelbrecht (2010a). In this paper we evaluate the at first sight attractive proposal elaborated in Johnson (2001) which capitalizes on the parallelisms between VPE and VP topicalization. Based on the observation that the syntactic constraints on VPE closely match those on VP topicalization, Johnson proposes a movement account for VPE: in order for a VP to be deleted, it first has to undergo topicalization.

Our paper is organized as follows: section 2 provides a survey of the similarities between the licensing of VPE and VP topicalization, which form the basis for Johnson's movement account. Section 3 discusses problems for the movement account: it is shown that VPE is available in a range of contexts in which VP topicalization is unacceptable. Section 4 presents some alternative accounts that link the licensing of VPE to VP movement in different ways. We also outline one way in which Merchant's (2001) account of ellipsis licensing using an ellipsis feature can be adapted to capture the parallelisms. Section 5 is a brief conclusion.

2 VP ellipsis as VP topicalization: Johnson 2001

In this section we briefly summarize Johnson's (2001) approach according to which VPE is derived through VP topicalization. He shows that the licensing condition on VPE displays clear parallelisms with the licensing conditions on the trace/copy of VP topicalization (see his paper and Kim 2003 for extensive references).³ This is illustrated by the contrasts in (3) and (4). As was the case for VPE, VP topicalization is licensed by an auxiliary, and by infinitival

to, as (3) illustrates. In the absence of such a licensing head, VP topicalization is not allowed, cf. (4).

- (3) Madame Spanella claimed that...
- a. *eat rutabagas*, Holly wouldn't *t*.
 - b. *eaten rutabagas*, Holly hasn't *t*.
 - c. *eating rutabagas*, Holly should be *t*.
 - f. *eat rutabagas*, Holly wants to *t*. (Johnson 2001: 444, his (17))
- (4) Madame Spanella claimed that...
- a. **would eat rutabagas*, Holly *t*.
 - b. **hasn't eaten rutabagas*, Holly *t*.
 - c. ?**eating rutabagas*, Holly started *t*. (Johnson 2001: 444, his (18))⁴

Johnson concludes 'this is a pretty close fit, and it encourages thinking of the licensing condition on (VP) Ellipsis in terms of the licensing condition on traces' (2001: 444).^{5,6} To account for the parallelism observed Johnson proposes that the syntax of VPE be partly assimilated to the syntax of VP topicalization. He argues that 'for a VP to elide, it must first topicalize' (2001: 446) and says that '[t]his proposal, then, gives VP Ellipsis an analysis parallel to the Topic Drop phenomenon that Huang (1984), among others, discusses' (2001: 447).

As a consequence of this analysis, the VPE site is in fact the trace/copy of a moved VP and it will thus be syntactically licensed under the conditions that govern the licensing of copies/traces. Based on the observations in Lobeck (1995: 165-191), Johnson (2001) argues that VPE under infinitival *to* (5) and (6) provides further evidence for this proposal. In adjunct (5a) or subject (5b) infinitivals and in infinitival complements of N (5c,d,e,f), VPE is unacceptable⁷, in indirect questions (5g) its status varies, and in complement clauses VPE (6) is grammatical:

- (5) a. *Mag Wildwood came to read Fred's story, and I also came to \emptyset .
 b. *You shouldn't play with rifles because to \emptyset is dangerous.⁸
 (Johnson 2001: 445, (22a,b))

- c. *Lulamae Barnes recounted a story to remember because Holly had also recounted a story to \emptyset . (Johnson 2001: 445, (24b))
 - d. *?Madame Spanella questioned Mag's desire to eat rutabagas, but only after I had questioned Sally's desire to \emptyset .
 - e. *?Sally explained the attempt to arrest Holly, but only after I had denied the decision to \emptyset .
 - f. ??Ron wanted to wear a tuxedo to the party, but Caspar couldn't decide whether to \emptyset . (Johnson 2001: 445, (22c))
- (6)
- a. Mag Wildwood wants to read Fred's story, and I also want to \emptyset .
 - b. You shouldn't play with rifles because it's dangerous to \emptyset .
 - c. It's possible for you to play with rifles, and it's possible for me to \emptyset too. (Johnson 2001: 445, (23))

If VPE is derived through VP movement, VPE is predicted to be illicit in the same contexts in which VP movement is illicit. Johnson's data in (5) and (6) follow from a movement analysis of VPE because the contexts in (5) which are seen to be incompatible with VPE are syntactic islands (see Sag 1976, however; cf. section 3 below). On the movement derivation of VPE, the unacceptability of the examples in (5) is then parallel to that in (7) in which VP topicalization has illicitly extracted the VP from an island. These observations are also in line with the interpretation of VPE as Topic Drop, which is also derived by movement of a constituent to the left periphery. Raposo (1986: 381-384) shows that Topic Drop in European Portuguese is sensitive to islands.^{9, 10}

- (7)
- a. *You shouldn't play with rifles because [play with rifles] to *t* is dangerous.
 - b. *Lulamae Barnes recounted a story to remember because [remember] Holly had recounted a story to *t*. (Johnson 2001: 447, (29a,b))
 - c. *?Madame Spanella questioned Mag's desire to eat rutabagas, but only after [eat rutabagas] I had questioned Sally's desire to *t*.
 - d. *?Sally explained the attempt to arrest Holly, but only after [arrest Holly] I had denied the decision to *t*.
 - e. ??Ron wanted to wear a tuxedo to the party, but [wear a tuxedo to the party] Caspar couldn't decide whether to *t*. (Johnson 2001: 447, (29c))

Johnson concludes:

“So the island effects we’ve seen for VPs elided in infinitival clauses can now be traced back to the fact that VPs in infinitival clauses are forced to move out of that infinitival clause, and this movement is subject to island constraints. Moreover, the somewhat variable effects that we have seen in indirect questions – [...] – might be traced back to the fact that the *wh*-island constraint is itself quite variable.” (Johnson 2001: 447)

Observe that for (7b,c,d) there is no landing site for the moved VP inside the infinitival clause, as shown in (8). This is so because, to quote Johnson (2001: 446): ‘topicalized VPs cannot land inside an infinitival clause in the way that they can in finite clauses’, as shown in (9):¹¹

- (8) a. *Lulamae Barnes recounted a story to remember because Holly had recounted a story [remember] to *t*.
 b. *?Madame Spanella questioned Mag’s desire to eat rutabagas, but only after I had questioned Sally’s desire [eat rutabagas] to *t*.
 c. *?Sally explained the attempt to arrest Holly, but only after I had denied the decision [arrest Holly] to *t*.
- (9) a. ?Lulamae decided that *eating rutabagas*, she should be *t*.
 b. *Lulamae decided *eating rutabagas*, to be *t*. (Johnson 2001: 446, (27a,b))

Johnson does point out that, as it stands, the movement analysis does not fully cover the data. For instance, the acceptability of VPE in (10) goes unaccounted for and the analysis does not predict the ungrammaticality of VPE in the complement of *being* (see (11), see Bresnan 1976 for this observation):

- (10) a. Mag Wildwood came to introduce the barkeep but I came (precisely) not to \emptyset .
 b. You should unload rifles because not to \emptyset is dangerous.
 c. If Ron knows whether to wear a tuxedo, and Caspar knows whether not to \emptyset , do they know different things?

- d. Lulamae recounted a story to remember because Holly had recounted a story not to \emptyset . (Johnson 2001: 447, (30))
- (11) a. *Doc Golightly is being discussed and Sally is being \emptyset too.
 b. *I remember Doc being discussed, but you recall Sally being \emptyset .
 (Johnson 2001: 442 (his 12b))

In the next section we raise some additional problems for the movement derivation of VPE which shed doubt on its viability.¹²

3 VP Ellipsis vs. VP topicalization:

If VPE is to be derived by VP topicalization, then, following the logic of Johnson's own discussion of VPE in the context of infinitival clauses (cf. (5)-(7) above), we would expect VPE to be unacceptable in all contexts in which VP topicalization is disallowed, since the latter feeds the former. Put differently, contexts incompatible with VP topicalization are predicted to be incompatible with VPE. We will show that this prediction is incorrect, illustrating a range of contexts in English in which (VP) topicalization is illicit and in which VPE remains perfectly acceptable.

We first discuss island (in)sensitivity in both VP topicalization and VP ellipsis: the descriptive generalization there is that while VP movement out of an island is illicit, VPE is fully acceptable inside an island. Next, we look at (VP) topicalization *within* certain clauses and we show that, although there are clauses where such movement is not possible, VPE is still perfectly acceptable.

3.1 *Island (in)sensitivity*

As said, topicalization cannot extract a constituent from an island.¹³ As shown in (12), topic extraction from a wh-islands is ungrammatical:

- (12) a *I know that one of my students presented Johnson's article about VPE in my class but [that article], I cannot remember [which of my students presented *t*].
 b *I know that some students presented Johnson's article about VPE in my class but [that article], I cannot remember the students [who presented *t*].

In the same way, VP topicalization cannot extract a VP from such islands:

- (13) a *I knew that some students presented this article in my class but [present the article] I couldn't recall [which of the students didn't *t*].
 b *I know that some students presented this article in my class but [present the article] I can't recall the students [who didn't *t*].

However, VPE is unproblematic in *wh*-islands, as was also noted in Sag (1976):¹⁴

- (14) a I knew that some students presented this article in my class but I couldn't recall [which of the students didn't \emptyset].
 b I know that some students presented this article in my class but I can't recall the students [who didn't \emptyset].

The same holds in other types of syntactic islands, such as the complex DP island in (15). Here, the nominal head takes a clausal complement, which constitutes a strong island for argument topicalization (15a). Again, VP topicalization is also unacceptable (15b), as expected, but VPE is acceptable (15c):

- (15) a *[This article] he made [the claim that he had elaborated *t* on his own].
 b *[Elaborate the analysis on his own] he made [the claim that he did *t*].
 c He made [the claim that he did \emptyset].

3.2 *Topicalization within certain clauses*

3.2.1 *Topicalization inside a wh-clause*

A first type of clause in which VP topicalization is illicit in English could be broadly defined in terms of the domain of wh-extraction (see Emonds 1976 for the data).

The ungrammaticality of argument topicalization in (16a,b) is usually ascribed to an intervention effect: the fronted topicalized constituent *this article* blocks fronting of the wh-constituent. The example in (16a) illustrates this for an interrogative wh-clause, while (16b) displays a relative wh-clause.

- (16) a. * I couldn't recall which student [this article] would present *t* in my class.
 b. * I still remember the student who [this article] presented *t* in my class.

As (17) illustrates, VP topicalization within such a wh-clause is unacceptable as well: (17a) illustrates this for wh-interrogatives and (17b) for relatives.

- (17) a. *I knew that one student presented this article in my class but I can't recall now [which of the students [present this article] did *t*].
 b. *I know that one student presented this article in my class but I can't recall the student [who [present this article] did *t*].

Contrary to VP topicalization, ellipsis of the VP is allowed in both wh-interrogatives and wh-relatives (as was shown above as well):

- (18) a. I knew that some students presented this article in my class but I couldn't recall [which of the students didn't \emptyset].
 b. I know that some students presented this article in my class but I can't recall the students [who didn't \emptyset].

Such examples can be multiplied. Emonds (1976) cites the VP fronting in (19a) as unacceptable. The corresponding VPE pattern in (19b) is fully licit:

- (19) a. *John hoped that Mary would find his hat, but I wonder how [find it] she ever could *t*. (Emonds 1976: 32 (his (29)))
 b. John hoped that Mary would find his hat, but I wonder how she ever could \emptyset .

The examples of VPE in (20), taken from Johnson (2001, his (61a,b) and (72)), illustrate the same point. They too show that VPE is unproblematic in a wh-interrogative and a wh-relative:

- (20) a. I know which book Max read, and which book Oscar didn't Ø.
 b. This is the book of which Bill approves, and this is the one of which he doesn't Ø. (Fiengo & May (1994), (99a,c): 229)
 c. Dulles suspected everyone who Angleton did Ø.

It is impossible to create an acceptable VP topicalization source for these examples. We illustrate this in (21) for the example in (20a):

- (21) a. *I know which book Max read, and which book [read t_{wh}] Oscar didn't t .
 b. *I know which book Max read, and [read t_{wh}] which book Oscar didn't t .

The sentence in (22a), cited as marginally acceptable by Johnson (2001: his (116)), in which an active VP (*fired Max*) serves as an antecedent for an elided passive one, does not have a plausible VP-topicalization source either: clefting is incompatible with VP topicalization, cf. (22b).

- (22) a. ?John fired Max, although it was Bill who should have been Ø. (Fiengo & May (1994), p. 203 note 10)
 b. *John fired Max, although it was Bill who [fired] should have been t .

As a final example, English VP topicalization is also unacceptable in the context of argument fronting, as shown by the following. Plausibly this is also due to an intervention effect (cf. Emonds 1976; Haegeman 2010a,b; Haegeman and Ürögdi 2010a,b):

- (23) a. *and [increase in value] the old house he was sure would t . (Emonds 2004: 95, his (27e))
 b. *and the old house [increase in value] he was sure would t . (Emonds 2004: 95, his (27e))

Once again, VPE is allowed in this context:

- (24) She doubted whether the new house might increase in value, but [the old house] she was sure would \emptyset .

3.2.2 *Topicalization inside an adverbial clause*

(VP) topicalization is usually considered a root transformation (Emonds 1970, 1976, 2004) or main clause phenomenon (Hooper and Thompson 1973), from now on MCP. Various proposals have been put forward to account for the constraints on such phenomena, which we will not go into here, but there seems to be agreement that in English, MCP are banned from occurring inside temporal adverbial clauses (cf. Hooper and Thompson 1973: 496, their (251-255); Emonds 1970, 1976, 2004; Heycock 2006; and Haegeman 2006, 2010a,b for discussion and accounts). This is illustrated in (25) for argument topicalization – which is also an MCP – and in (26) for VP topicalization:

- (25) a. * After [this baker] I had discovered *t*, I never have gone anywhere else.
 b. * Before [this baker] I had discovered *t*, I always ate toast.
 c. * When [this baker] I discovered *t*, I was thrilled.
 d. *As soon as [this baker] I had discovered *t*, I never have gone elsewhere.
- (26) Mary wanted to move to London
 a. and [move to London] she did *t*.
 b. *and after [move to London] she did *t*, her life changed entirely.
 c. *Before [move to London] she did *t*, she was totally demotivated.
 d. *and when [move to London] she did *t*, her life changed entirely.
 e. *and as soon as [move to London] she did *t*, her life changed entirely.

While VP topicalization is unacceptable in such adverbial clauses, VP ellipsis is perfectly acceptable:

- (27) Mary wanted to move to London
 a. and eventually she did \emptyset .

- b. and after she did \emptyset , her life changed entirely.
- c. Before she did \emptyset , she had been totally demotivated.
- d. and when she did \emptyset , her life changed entirely.
- e. and as soon as she did \emptyset , her life changed entirely.

VP topicalization is also illicit in purpose clauses, while VPE is once again allowed:

- (28) a. *John intends to make a table, and I'll get the materials so that [make one] he can *t*. (Emonds 1976: 32, his (29))
- b. John intends to make a table, and I'll get the materials so that he can \emptyset .

Johnson (2001: 468) himself provides (29a), his (103a), which illustrates the acceptability of VPE in an adverbial clause which is incompatible with MCP. As shown by (29b) and (29c), it is impossible to devise a VP topicalization source for this example: in (29b) we front the VP inside the adverbial clause, in (29c) we extract it to the matrix clause, and in both cases the result is unacceptable.¹⁵

- (29) a. Rusty₁ talked about himself₁ only after Holly₂ did \emptyset .
- b. *Rusty talked about himself only after [talk about herself] Holly did *t*.
- c. *[Talk about herself] Rusty talked about himself only after Holly did *t*.

The sentences in (30) and (31), adapted from Johnson's (2001) examples (110) and (112), illustrate the same point: VPE is possible in a *before* clause and in a *when* clause (30), contexts in which VP topicalization is unacceptable (31):

- (30) a. Fred talked about the war before Rusty did \emptyset .
- b. David Begelman laughs very often, and when he does \emptyset , his eyes crinkle at you the way Lady Brett's did in the *The Sun Also Rises*.
- (31) a. *Fred talked about the war before [talk about the war] Rusty did *t*.
- b. *[Talk about the war] Fred talked about the war before Rusty did *t*.
- c. *David Begelman laughs very often, and when [laugh] he does *t*, his eyes crinkle at you.

- d. *David Begelman laughs very often, and [laugh] when he does *t*, his eyes crinkle at you.

It can be argued (Haegeman 2010a,b, Haegeman and Ürögdi 2010a,b) that adverbial clauses are derived by operator movement to the left periphery. Under this analysis, the incompatibility with (VP) topicalization will be ascribed to intervention and in fact follows from the incompatibility of (VP) topicalization with *wh*-movement discussed in section 3.2.1. This point is, however, tangential to our discussion.

3.2.3 *Factive complements*

A third kind of clause in which VP topicalization cannot occur, is the complement clause of a factive verb. It is well-known that such clauses resist MCP (see Haegeman and Ürögdi 2010a,b for recent discussion). Example (32a) from Emonds (1976: 32) shows that the ban extends to VP topicalization. Once again VPE is unproblematic (32b):

- (32) a. *John intends to make a table, and we're afraid that [make one] he will *t*.
 b. John intends to make a table, and we're afraid that he will \emptyset .

Haegeman and Ürögdi (2010a,b) propose that complements of factives be derived by operator movement to the left periphery. Under this analysis their incompatibility with (VP) topicalization will again be due to intervention and the data in this section are a further illustration of the effect of *wh*-movement in section 3.2.1. As before, this point is tangential to our discussion.

3.2.4 *Subject clauses*

Many authors have observed that subject clauses resist MCP.¹⁶ VP topicalization is equally unacceptable (33b), but VP ellipsis remains fully acceptable in subject clauses (34):

- (33) a. *That [Mary], our antics would upset *t*, I didn't expect.

(Alrenga 2005: 179 (15d))

- b. *I thought he might invite them but that [invite them] he actually *t* did surprised me.

(34) I thought he might invite them, but that he actually did \emptyset surprised me.

3.3 *Some additional contexts*

Sections 3.1 and 3.2 have illustrated a number of contexts in which VP topicalization is known to be excluded in English, while VPE remains freely available. In this section we provide some more environments which illustrate the same contrast. Our aim is not to provide an exhaustive list of such contexts, but merely to show that VPE is not subject to the constraints displayed by VP topicalization.

3.3.1 *Yes/no questions*

Just like the argument fronting in (35a), VP topicalization is degraded in root *yes/no* questions with subject auxiliary inversion (35b). VPE, on the other hand, is fine in the same context (36), given the appropriate discourse environment:¹⁷

- (35) a. *[That book about shrimp], did you actually read *t*? (cf. Sobin 2003: 194)
 b. *[Passed his exams], has he *t*?¹⁸

(36) “He found out today whether he has passed his exams.” – “And? Has he \emptyset ?”

3.3.2 *Imperative clauses*

Although the judgments are admittedly not as sharp, for many speakers argument fronting is degraded in the context of imperatives (cf. (37a), for discussion see Jensen 2007, Postma and Van der Wurff 2007) and so is VP topicalization, as is illustrated in (37b). The VPE example in (38), on the other hand, remains fully acceptable:

- (37) a. *[Your essay], leave *t* in my pigeon hole this afternoon.
 b. * You may want to paint my bedroom yellow but I tell you: ‘[Paint the bedroom yellow], don’t *t*.’

(38) “I’m going to paint the bedroom yellow!” - “Oh no! Please don’t \emptyset !”

3.3.3 Null complementizer-clauses

A further area in which topicalization is unacceptable for many speakers is when a complement clause lacks an overt complementizer (39a). Once again, VP topicalization is also unacceptable (39b), but VP ellipsis is not (40).

- (39) a. John believes *(that) [Bill], Mary doesn’t like *t*. (Nakajima 1995: 147, (8))
 b. John believes *(that) [talk to Mary] you shouldn’t *t*.

(40) John believes (that) you shouldn’t \emptyset .

3.3.4 Subject Deletion in finite clauses

In finite clauses, subject ellipsis is available in two contexts. The first, illustrated in (41a), concerns coordinated clauses. As shown by (41b), argument fronting in the second conjunct of a finite coordinated clause is incompatible with subject ellipsis (see Wilder 1994 for discussion and an analysis, see also te Velde 2005 on coordination).

- (41) a. The Prime minister met the striking teachers last week and __ will meet the administrative staff tomorrow.
 b. *The Prime minister met the striking teachers last week and [the administrative staff] __ will meet *t* tomorrow.

Unsurprisingly by now, VP topicalization is also incompatible with subject deletion in the second conjunct (42a,b). VPE, on the other hand, remains available (42c):

- (42) a. John hasn't applied for the job at this point but [apply for it] he should *t* any day now.
- b. *John hasn't applied for the job at this point but [apply for it] ___ should *t* any day now.
- c. John hasn't applied for the job at this point but ___ should \emptyset any day now.

Subject deletion is also available in specific abbreviated registers such as diary writing, as illustrated by the attested examples in (43). See Thrasher 1977, Haegeman (1997, 1999, 2002, 2008) and Haegeman and Ihsane (1999, 2002) for extensive discussion and analyses.

- (43) a. ___ Finished, almost, story of Shadow. (*Diary of Sylvia Plath*, 287)
- b. ___ Have done 110 pages. (*Diary of Virginia Woolf*, p. 33; 11 November)
- c. Origo rather contorted: ___ says Italy is blind red hot devoted patriotic; ___ has thrown her wedding ring into the cauldron too. ___ Anticipates a long war...
(*Diary of Virginia Woolf*, p. 6, 10 January 1936)

When the subject is preceded by a fronted argument, as in (44) for (43a), no ellipsis is possible in English: such examples are unattested and native speakers reject them. See also Thrasher (1977) for the same observation.

- (44) *Story of Shadow, ___ finished last night.

In the same context VP topicalization is unacceptable as well (45a,b). VPE, however, remains fully licit, as expected.

- (45) a. ___ Refused to talk to the students.
- b. *Talk to the students, ___ refused to *t*.¹⁹
- c. Jim asked her to talk to the students again. ___ Didn't want to \emptyset .

3.3.5 Conclusion

This section has provided some additional contexts in English which disallow VP topicalization but allow for VPE. We conclude that in addition to the problems signaled by Johnson himself (2001) and pointed out at the end of section 2, a range of other issues arise if one amalgamates the derivation of VPE with that of VP topicalization: VP ellipsis cannot be derived by fronting the VP first.

4. Speculations

We have shown in some detail that the syntactic contexts licensing VPE are much wider than those licensing VP topicalization, which presents a challenge to Johnson's (2001) proposed movement analysis. It could be objected that, in fact, the violations incurred by VP topicalization are somehow undone or repaired as the result of VPE. However, this type of approach would destroy the symmetry between VP topicalization and VPE which Johnson underlines and it would in fact undermine Johnson's own argumentation (outlined in section 2) concerning the restrictions on VPE in infinitival clauses. If VPE repairs/undoes the problems raised for VP topicalization, then the contrast in acceptability of VPE in (5) and (6) is unexpected.²⁰

It is clear that VPE and VP topicalization do have some properties in common (see also Kim 2003, in a different theoretical framework), but it is not obvious that movement of the VP to the clausal CP is at the basis of VPE. We do not want to provide an full account for these similarities here, but we will sketch some possible ways of deriving the patterns. As a baseline, whichever account is elaborated will have to (i) bring out the commonality of the syntactic licensing between VP topicalization and VPE, while (ii) ensuring that the asymmetry in distribution between the two phenomena can be accounted for.

4.1. *Cliticization to INFL*

One way of preserving the movement analysis of VPE while avoiding the problems encountered by a VP topicalization analysis is to assume that "elided VPs are null clitics, which have moved to adjoin to the Infl associated with the licensing Aux. As a consequence,

VP Ellipsis invokes a trace in the position where we would expect to find the missing VP, thereby causing the Empty Category Principle's invocation." (Johnson 2001: 445).

An approach along these lines has been proposed by Lobeck (1999). She argues that VP ellipsis is licensed by a tensed auxiliary in T (as, for instance, also proposed in Lobeck 1995). The VP ellipsis site under her analysis is a null proform *pro*, which is minimal and maximal at the same time (following Chomsky 1995: 402-403) and this null VP *pro* has to move to [Spec, TP], assimilating it to clitics in French under her approach (Lobeck 1999: 117). Similarly, cliticization accounts of ellipsis are also found in Lightfoot (2006: 111-112) and Kim (2006). We do not go into the details of the different implementations here.

Under one interpretation of the cliticization view of VPE, i.e. if clitics leave traces, the ellipsis site is a copy/trace, hence the commonality with VP movement is expected. Differently from Johnson's proposal, however, the cliticization accounts do not lead to the prediction that VPE should be subject to the selfsame distributional restrictions as VP topicalization: for one thing, the latter targets the left periphery of the clause, while the former does not. We also observe that the contexts which are incompatible with VP topicalization listed above remain fully compatible with cliticization in Romance. To show this, we provide some examples from French. Firstly, (46) illustrates cliticization in wh-movement contexts: (46a) illustrates interrogatives and (46b) relatives. Cliticization is also compatible with clefting (46c) and with clitic left dislocation (46d):

- (46) a. Je ne sais pas qui l' a dit.
 I *ne* know not who CL have-3SG say-PART
 'I don't know who told me that.'
- b. Je ne connais pas l' étudiant qui l' a dit.
 I *ne* know not the student who CL have-3SG say-PART
 'I don't know the student who told me that.'
- c. C'est cet étudiant qui l' a dit.
 it is this student who it have-3SG say-PART
 'It's this student who told me that.'
- d. A Jean, je ne le lui conseille pas.
 to John I *ne* CL CL advise not
 'To John, I would not recommend it.'

Moreover, French clitic placement is not a main clause phenomenon, so it is freely available in adverbial clauses and in the complement of factive verbs:²¹

- (47) a. Quand il l' a dit, j' étais furieuse.
 when he CL have-3SG say-part I was furious-FS
 'When he told me that I was furious.'
- b. Je regrette que je ne l' aie pas vu.
 I regret that I *ne* CL have-SUBJ-1SG not seen
 'I regret that I haven't seen it.'

Similarly, *yes/no* questions and imperatives pose no problem for cliticization:

- (48) a. Le veux- tu?
 CL want-2SG you
 'Do you want it?'
- b. Dis- le !
 say-IMP CL
 'Tell me !'

Finally, cliticization is unproblematic in the second conjunct of coordinated clauses in which the subject has been deleted: (49a) illustrates subject ellipsis in French, while (49b) shows that cliticization remains available in that context. Cliticization is also compatible with diary style null subjects in French, (49c) is attested from Haegeman (1996):

- (49) a. Le Premier ministre a interrogé les instituteurs en grève hier
 the Prime minister has interview-PART the teachers on strike yesterday
 et __ rencontrera les professeurs la semaine prochaine.
 and __ meet-FUT-3SG the professors the week next
 'The Prime minister met the striking teachers yesterday and is meeting the professors next week.'
- b. Le Premier ministre a interrogé les instituteurs en grève hier
 the Prime minister has interview-PART the teachers on strike yesterday
 et __ les rencontrera aussi la semaine prochaine.

and __ CL meet-FUT-3SG also the week next

‘The Prime minister met the striking teachers yesterday and is meeting them also next week.’

- c. __ Me dit que l' architecte Perret est désireux de passer un
 __ CL says that the architect Perret is desirous of spend a
 moment avec moi.
 moment with me

‘Says that the architect Perret wishes to spend a moment with me.’

(Paul Léautaud, *Journal particulier*, p. 44: 6.2.133, from Haegeman 1996, her (5b)).

The property that crucially distinguishes cliticization (in French) from argument fronting and VP topicalization in English, is that cliticization does not target the clausal left periphery and hence can freely apply regardless of the properties of the CP layer.

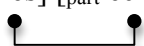
One obvious disadvantage of the cliticization approach, however, is that it takes the VP ellipsis site to be a null clitic, i.e. a proform.²² Because extraction from a VPE site is possible in English (for discussion, see Schuyler 2002, for instance), VPE has been analyzed as involving deletion of a full-fledged syntactic verb phrase (cf. Johnson 2001; Merchant 2001, 2008; Aelbrecht 2010a). A proform analysis such as in Lobeck (1995, 1999) will not easily capture the extraction facts.²³

4.2. VP movement to a low periphery?

In this section we speculate about a different take on the cliticization analysis of VPE in which we pursue one particular approach to the syntax of cliticization. In some analyses, cliticization is taken to be derived by a two-step procedure: first the constituent that is to be cliticized moves leftward as a maximal projection (presumably a DP) to a specifier position in a low functional domain (SpecAgrP, or Spec,PartP), and then the head of the moved XP (presumably the D head) undergoes head movement to the INFL position.

This two-step derivation of cliticization was invoked among others to account for the agreement between the past participle and the object clitic (Kayne 1989, Rizzi 2000, Belletti 2001a. For problems, see Rocquet 2010). Consider (50). When the complement of *écrit*

‘written’ is postverbal (50a,c), the participle has the non-agreeing form. When the object is cliticized (50b,d), the participle agrees with the clitic (50b,d): the clitic on the finite auxiliary *ai* ‘have’ triggers agreement on the participle: *écrite* ‘written’ is feminine singular, whereas *écrites* is feminine plural. The agreement is related to the movement of the clitic: in (46a,c), in which there is no movement, the participle appears as the unmarked form *écrit* in spite of it having a feminine complement. A schematic derivation is given in (50e): The clitic on the finite auxiliary in (50b,d) originates as a DP complement in the VP which first attains a specifier-head relation with the participial head hosting the participle, and this specifier-head relation triggers the agreement between clitic and participle.

- (50) a. J’ ai écrit la lettre.
 I have-1SG written-PART the-FEM-SG letter
- b. Je l’ ai écrite.
 I it have-1SG written-PART-FEM-SG
 ‘I have written it.’
- c. J’ ai écrit les lettres.
 I have-1SG written-PART the-PL letters
- d. Je les ai écrites.
 I them have-1SG written-PART-FEM-PL
 ‘I have written them.’
- e. [_{PartP} [_{DP} les] [_{part} écrit es] t_{DP}]
- 

In a slight adaptation of these approaches to cliticization, one might reinterpret the proposed intermediate landing site of the first step of the movement in (50e) as a TopP in a lower vP periphery, along the lines of Jayaseelan (2001) and Belletti (2001b, 2004, 2009).

The movement analysis of VPE could then be reconciled with the intuition that VPE is similar to cliticization if one were to assume that VPE shares with cliticization the first step of the movement, illustrated in (50e). One might reinterpret this approach to mean that VPE is derived via VP movement to a discourse related vP periphery, rather than the left periphery of the clause. This proposal would exploit movement to the low periphery along the lines of Johnson’s own (1996, 2009) proposal for gapping. Movement to the low periphery has been proposed, among others, by Jayaseelan (2000, 2001), Belletti (2004, 2009), Butler (2004), Lopez and Winkler (2004), Konietzko and Winkler (2010), Molnár and Winkler (2010) etc. If

the latter movement targets a lower TopP (Belletti 2001b, 2004), the derivation would syntactically encode the discourse-givenness of the deleted VP, much along the lines of recent work in the cartographic framework (Belletti 2001b, 2004, 2009). One might thus propose that VPE is VP topicalization, in agreement with Johnson (2001), but that contrary to his proposal, the relevant topicalization does not target the ‘high’ CP periphery, but rather a ‘low’ vP-related periphery.²⁴

VP movement to the low periphery has been proposed for English in different contexts. In an antisymmetric perspective (Kayne 1994, Cinque 1999) it has, for instance, been proposed that the variation in position of the adjunct *recently* and the VP in (51) is derived through leftward VP movement (see also Cinque 1999, 2004, Schweikert 2005, Belletti and Rizzi to appear, among others):

- (51) a. John has recently [joined the department].
 b. John has [joined the department] recently [~~joined the department~~].

Adopting and adapting Johnson (2001)’s approach, VPE could be analyzed as involving (low) VP movement, followed by deletion. See also Kayne (2005: 296) for similar suggestions.

- (51) c. John has [~~joined the department~~] recently [~~joined the department~~].

The kind of VP movement to the lower periphery illustrated in English (51b) does not interfere with wh-movement (52a) and is generally available in all clause types (52b,c):

- (52) a. The student who finished this text recently...
 b. The fact that he finished this text only recently....
 c. When he contacted me more recently, ...
 d. That he contacted me recently was quite a surprise.
 e. I believe (that) he contacted her recently.

However, for this approach to work, the contexts in which low VP movement is licit should be the same as those of VP topicalization to the left periphery. At first sight, this is not the case and the parallelisms captured by Johnson’s account between VP topicalization and VPE are lost. Recall from (2) and (4) that VPE and VP topicalization are illicit in the absence of an

auxiliary. As shown in (53b), VP movement across an adjunct is licit in the absence of an auxiliary.

- (53) a. John recently [joined the department].
 b. John [joined the department] recently [~~joined the department~~].

At this point it is not clear to us how rephrasing Johnson's proposal in terms of low VP movement analysis can rescue the movement account of VPE in a straightforward way. While the locality problems are solved, the problems with licensing re-emerge. We intend to explore this avenue in future work.

4.3. *VP ellipsis and AGREE*

An alternative account for capturing the similarity between VPE and VP topicalization would be to return to the intuition initially captured by the Empty Category Principle as implemented in Rizzi (1986). An ECP account for ellipsis, and in particular for VPE, was developed by Lobeck (1995)²⁵ and by Zagana (1998a,b). According to Rizzi (1986) the same syntactic constraints apply to all null categories, movement traces, *pro* and ellipsis sites alike. Indeed, assuming that (i) traces are lower copies that are not spelt out, and (ii) VP ellipsis is analyzed as deletion of the VP, the unpronounced lower copy of a moved VP is in fact a VP ellipsis site. Such an account turns around Johnson's (2001) proposal: instead of regarding ellipsis sites as traces of movement, movement traces are considered to be ellipsis sites. This hypothesis has recently been put forward by Aelbrecht (2010b), who argues that VP topicalization and VP ellipsis are syntactically licensed by the same mechanism.

Inspired by Merchant's (2001) analysis of ellipsis according to which ellipsis is triggered by the presence of an [E] feature, Aelbrecht (2010a) develops an account in which VPE is licensed by an AGREE relation between the [E] feature on an ellipsis licensing head and the head selecting the ellipsis site as its complement.²⁶ To express the commonality between VPE and VP topicalization, Aelbrecht (2010b) proposes that VP topicalization is licensed by this AGREE relation as well. The underlying intuition is that the same AGREE relation triggers non-pronunciation of either the original VP – in the case of ellipsis – or the lower copy of a moved VP – in the case of VP topicalization. Only in environments where the

AGREE relation can be established, i.e. when there is a licensing auxiliary or infinitival *to*, can ellipsis or topicalization take place. The account thus captures the similarities between VPE and VP topicalization mentioned by Johnson (2001). The differences between the two phenomena are due to the fact that, unlike under Johnson's (2001) approach, VPE does not involve movement. Consequently, VPE is not restricted in the same way as VP topicalization, which does involve movement to the left periphery. For instance, intervention effects which are relevant for the movement component of VP topicalization will not be relevant for VPE. We refer to Aelbrecht (2010b) for full analysis.

5. Conclusion: VP ellipsis is not VP topicalization

The goal of our remark was to evaluate the VP topicalization derivation of VPE as proposed in Johnson (2001). We hope to have shown that, although it has its merits in capturing the similarities between VPE and VP topicalization, an analysis of VPE in terms of VP topicalization raises several problems. A central consideration in any account in terms of movement must be the observation that while VP topicalization targets the left periphery and as a consequence is subjected to various constraints on movement to the left periphery, VPE is not so restricted. Any syntactic derivation of VPE has to account for this asymmetry.

References

- Aelbrecht, Lobke. 2010a. *The Syntactic Licensing of Ellipsis*. Amsterdam/New York: John Benjamins.
- Aelbrecht, Lobke. 2010b. VP ellipsis and VP fronting: The common core. Talk presented at the Colloquium on Generative Grammar, Barcelona, 18-20 April, 2010.
- Akmajian, Adrian, Susan Steele, and Thomas Wasow. 1979. The category AUX in universal grammar. *Linguistic Inquiry* 10: 1-64.
- Alrenga, Peter. 2005. A sentential subject asymmetry in English and its implications for complement selection. *Syntax* 8: 175-207.
- Authier, Jean.-Marc. 1992. Iterated CPs and embedded topicalisation. *Linguistic Inquiry* 23: 329-336.
- Belletti, Adriana. 2001a. (Past) Participle Agreement, Ms. University of Siena.

- Belletti, Adriana. 2001b. Inversion as focalisation. In Aafke Hulk and Jean-Yves Pollock (eds), *Subject inversion in Romance and the theory of Universal Grammar*, 60-90. Oxford/Boston: Oxford University Press.
- Belletti, Adriana. 2004. Aspects of the low IP area. In *The structure of CP and IP*, ed. Luigi Rizzi, 16-51. Boston/Oxford: Oxford University Press.
- Belletti, Adriana. 2009. *Structures and Strategies*, New York: Routledge.
- Belletti, Adriana and Luigi Rizzi. To appear. Moving verbal chunks. To appear in Laura Brugé, Anna Cardinaletti, Giuliana Giusti, Nicolà Munaro and Cecilia Poletto (eds), *Functional Heads*. Oxford: Oxford University Press.
- Bresnan, Joan. 1976. On the form and interpretation of syntactic transformations. *Linguistic inquiry* 7, 3-40.
- Butler, Jonny. 2004. *Phase structure, phrase structure and quantification*. Ph.D. Diss. University of York. http://semanticsarchive.net/Archive/WY4ZDQ4N/butler_thesis.pdf
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.
- Cinque, Guglielmo. 2004. Issues in adverbial syntax. In *Adverbs across frameworks*, ed. Artemis Alexiadou. *Lingua* 114:, 683-710.
- Davies, William and Stan Dubinsky. 1999. Sentential subjects as complex NPs: New reasons for an old account of subjacency. *Chicago Linguistic Society* 34: 83-94.
- Davies, William and Stanley Dubinsky. 2000. Why sentential subjects do so exist. Paper presented at Southeastern conference on linguistics (SECOL).
- Dikken, Marcel den. 2006. Either float and the syntax of co-ordination. *Natural Language and Linguistic Theory* 24: 689-749.
- Emonds, Joseph. 1970. *Root and structure-preserving transformations*. PhD dissertation, MIT Cambridge, Massachusetts.
- Emonds, Joseph. 1976. *A transformational approach to English syntax*. New York: Academic Press.
- Emonds, Joseph. 2004. Unspecified categories as the key to root constructions. In David Adger, Cécile De Cat & Georges Tsoulas (eds), *Peripheries*, 75-121. Dordrecht:Kluwer.
- Green, Georgia. 1996. Distinguishing main and subordinate clause: the ROOT of the problem. Ms. University of Illinois.
- Haegeman, Liliane. 1996. Verb second, the split CP and null subjects in early Dutch finite

- clauses. *GenGenP*. Available on <http://ling.auf.net/lingBuzz/001059>.
- Haegeman, Liliane. 1997. Register variation, truncation and subject omission in English and in French. *English Language and Linguistics* 1: 233-270.
- Haegeman, Liliane. 1999. Adult null subjects in non *pro*-drop languages. In Marc-Ariel Friedemann and Luigi Rizzi (eds), *The acquisition of syntax*, 129-169. London: Addison, Wesley and Longman.
- Haegeman, Liliane. 2002. Non-overt subject pronouns in written English. In Sybil Scholz, Monika Klages, Evelyn Hantson and Ute Römer (eds), *Language, context and cognition. Papers in honour of Wolf Dietrich Bald's 60th Birthday*, 135-149. München: Langenscheidt, Longman.
- Haegeman, Liliane. 2006. Argument fronting in English, Romance CLLD and the left periphery. In Raffaella Zanuttini, Héctor Campos, Elena Herburger and Paul H. Portner (eds), *Cross-linguistic research in syntax and semantics: negation, tense and clausal architecture*, 27-52. Georgetown: University Press.
- Haegeman, Liliane. 2007. Operator movement and topicalization in adverbial clauses. *Folia Linguistica* 41: 279-325.
- Haegeman, Liliane. 2008. Subject omission in present-day written English. On the theoretical relevance of peripheral data. *Rivista di Grammatica Generativa (RGG)* 32, 2007, 91-124
- Haegeman, Liliane. 2010a. The internal syntax of adverbial clauses. In Kleantes Grohmann and Ianthi Tsimpli (eds), *Exploring the left periphery*, *Lingua* thematic issue, 628-648.
- Haegeman, Liliane. 2010b. The movement derivation of conditional clauses. *Linguistic Inquiry* 41: 595-621.
- Haegeman, Liliane and Tabea Ihsane. 1999. Subject ellipsis in embedded clauses in English. *Journal of English Language and Linguistics* 3: 117-45.
- Haegeman, Liliane and Tabea Ihsane. 2002. Adult null subjects in the non-*pro* drop languages: two diary dialects. *Language Acquisition* 9: 329-346.
- Haegeman and Urogdí 2010a. Referential CPs: an operator movement account. *Theoretical Linguistics* 36 (2): 111-152.
- Haegeman and Urogdí 2010b. Operator movement, referentiality and intervention. *Theoretical Linguistics* 36 (2): 233-246.

- Heycock, Caroline. 2006. Embedded root phenomena. In Martin Everaert and Henk van Riemsdijk (eds), *The Blackwell companion to syntax*, Vol. II, 174-209. Oxford/Boston: Blackwell.
- Hooper, Joan and Sandra Thompson. 1973. On the applicability of root transformations. *Linguistic Inquiry* 4: 465-497.
- Huang, C.-T. J. (1984). On the Distribution and Reference of Empty Pronouns. *Linguistic Inquiry* 15, 531-574.
- Jayaseelan, K. A. 2000. A Focus Phrase above vP. In Yasuaki Abe, Hiroshi Aoyagi, Masatake Arimoto, Keiko Murasugi, Mamuro Saito and Tatsuya Suzuki (eds), *Proceedings of the Nanzan GLOW*, 195–212. Nagoya, Japan: Nanzan University.
- Jayaseelan, K. A. 2001. IP-internal topic and focus phrases. *Studia Linguistica* 55: 39–75.
- Jensen, Britta. 2007. In favour of a truncated imperative clause structure: evidence from adverbs. *Working Papers in Scandinavian Syntax* 80: 163-185.
- Johnson, Kyle. 1996. In search of the English middle field. Amherst. Ms.
- Johnson, Kyle. 2001. What VP-ellipsis can do, and what it can't, but not why. In Mark Baltin and Chris Collins (eds), *The handbook of contemporary syntactic theory*. Oxford and Boston: Blackwell, 439-479.
- Johnson, Kyle. 2009. Gapping is not VP ellipsis. Johnson, *Linguistic Inquiry* 40.2, 289-328.
- Kayne, Richard. 1989. Facets of Romance Past Participle Agreement. In Benincà Paola (ed.), *Dialect Variation on the Theory of Grammar*, 85-104, Dordrecht: Foris.
- Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, Massachusetts: MIT Press.
- Kayne, Richard; 2005. On parameters and principles of pronunciation. In Broekhuis, Hans, Norbert Corver, Riny Huybregts and Ursula Kleinhenz (eds), *Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk*. Oxford and Boston. 289-299.
- Kim, Jong-Bok. 2003. Negation, VP ellipsis and VP fronting in English. A construction HPSG analysis. *The Korean Generative Grammar Circle*, Hankwuk Publishing Co., Seoul, 271-282.
- Kim, Young-Sun. 2006. Deletion as Cliticization and Stress in English VP-Ellipsis Construction. *Studies in Generative Grammar* 16:3, 535-553.
- Konietzko, Andreas and Suzanne Winkler. 2010. Contrastive ellipsis: Mapping between syntax and information structure. *Lingua*, 120, 6: 1436-1457
- Larson, Richard. 1985. On the syntax of disjunction scope. *Natural Language and Linguistic Theory* 3: 217-264.

- Lightfoot, David. 2006. Minimizing government. Deletion as cliticization. *Linguistic Review* 23: 97-126.
- Lobeck, Anne. 1995. *Ellipsis. Functional heads, licensing and identification*. Oxford: Oxford University Press.
- Lobeck, Anne. 1999. VP Ellipsis and the Minimalist Program: Speculations and Proposals. In Shalom Lappin and Elabbas Benmamoun (eds), *Fragments: Studies in Ellipsis, Conjunction and Gapping*. Boston/New York: Oxford University Press: 98-123.
- Lopez, Juan and Susanne Winkler 2000. Variation at the Syntax-Semantics Interface: Evidence from Gapping. In Kerstin Schwabe and Susanne Winkler (eds), *The Interfaces: Deriving and Interpreting Omitted Structures*. Amsterdam/Philadelphia: John Benjamins, *Linguistik Aktuell* 61, 227-248.
- Maki, Hideki, Lizanne Kaiser and Masao Ochi. 1999. Embedded topicalization in English and Japanese. *Lingua* 109: 1-14.
- Merchant, Jason. 2001. *The Syntax of Silence. Sluicing, Islands and the Theory of Ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason. 2008. An Asymmetry in Voice Mismatches in VP-Ellipsis and Pseudogapping. In *Linguistic Inquiry* 39(1): 169-179.
- Molnár Valéria, and Susanne Winkler. 2010. Edges and gaps: Contrast at the interfaces. *Lingua*, 120, 6: 1392-1415
- Nakajima, Heizo. 1996. Complementizer selection. *The Linguistic review*, 13: 143-164.
- Plath, Sylvia. 1982. *The journals of Sylvia Plath*. T. Hughes and F. McCollough (eds). New York: Ballantine (Random House).
- Postma, Gertjan and Wim van der Wurff. 2007. How to say *no* and *don't*. In Wim van der Wurff (ed), *Imperative clauses in generative grammar*, 205-249. Amsterdam/Philadelphia: John Benjamins.
- Raposo, Eduardo. 1986. On the Null Object in European Portuguese. *Studies in Romance Linguistics* ed. by Osvaldo Jaeggli & Carmen Silva-Corvalan, 373-390. Dordrecht: Foris.
- Rizzi, Luigi. 1986. Null Objects in Italian and the Theory of *pro*. *Linguistic Inquiry* 17(3): 501-557.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed), *Elements of grammar*, 289-330. Dordrecht: Kluwer.

- Rizzi, Luigi. 2000. Reconstruction, Weak Island Sensitivity, and Agreement. Ms. University of Siena.
- Roberts, Ian. 1990. Some notes on VP-fronting and head government. In Juan Mascaro and Marina Nespors (eds), *Grammar in progress. Festschrift for Henk van Riemsdijk*, 387-396. Dordrecht: Foris.
- Rocquet, Amélie. 2010. Past-Participle Agreement in French: a Matter of Phases and Case-Accessibility. Ms. GIST, Ghent University.
- Sag, Ivan. 1976. *Deletion and Logical Form*. PhD Dissertation, MIT.
- Saito, Mamoro and Keiko Murasugi. 1990. N' deletion in Japanese. *UConn Working Papers in Linguistics* 3, 87-107.
- Schuyler, Tamara. 2002. Wh-movement out of the site of VP Ellipsis. MA Thesis, UCSC.
- Sobin, Nicolas. 2003. Negative inversion as nonmovement. *Syntax* 6: 183-222.
- Schweikert, Walter. 2005. *The order of prepositional phrases in the structure of the clause*. Amsterdam/Philadelphia: John Benjamins.
- Szczegielniak, Adam. 2004. VP ellipsis and topicalisation. In Leah Bateman and Cherlon Ussery (eds), *Proceedings of the Thirty-Fifth Annual Meeting of the North East Linguistic Society*, 615-630. Graduate Students Linguistic Association, University of Massachusetts.
- Thrasher, Randolph 1977. *One Way to Say More by Saying Less. A Study of so-called Subjectless Sentences*, Kwansai Gakuin University Monograph Series Vol. 11, Tokyo: The Eihosha Ltd.
- Velde, John R. te. 2005. *Deriving coordinate symmetries*. Amsterdam/New York: John Benjamins.
- Ward, Gregory. 1988. *The semantics and pragmatics of preposing*. New York/London: Garland Publishing.
- Ward, Gregory. 1990. The discourse functions of VP preposing. *Language* 66(4), 742-763.
- Wilder, Chris. 1994. Some properties of ellipsis in coordination. *Geneva Generative Papers* 2: 23-61.
- Woolf, Virginia. 1985. *The diary of Virginia Woolf*, Volume 5: 1936-1941. A. Olivier Bell (ed), assisted by A. McNeillie. Middlesex: Penguin Books. First published by Chatto and Windus: The Hogarth Press. (1984).

Zagona, Karen. 1988a. Proper Government of Antecedentless VPs in English and Spanish. *Natural Language and Linguistic Theory* 6, 95-128.

Zagona, Karen. 1988b. *Verb Phrase Syntax: A Parametric Study of English and Spanish*. Dordrecht: Kluwer Academic Publishers.

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² For the seminal discussion of VPE in *to* infinitives, see Lobeck (1995: 165-191). We have simplified Johnson's discussion somewhat for expository reasons. See for instance the discussion of (3) below.

³ For discourse conditions on VP topicalization, see among others Ward 1988, 1990.

⁴ Observe that while VP topicalization is out in (ia), VPE in the same context seems at first sight licit:

- (i) a. *?*Eat rutabagas*, Holly made me *t*. (Johnson 2001: 444, his (18))
 b. Why did you eat those rutabagas? Holly made me.

In such examples VPE seems to be licensed by a lexical verb. A similar instance is given in (ii):

- (ii) a. *?*Eat rutabagas*, he wouldn't let me.
 b. Why did you not eat the rutabagas? He wouldn't let me.

Thanks to Philip Miller (p.c.) for bringing these data to our attention. We have nothing to say about these cases here.

⁵ The match is not perfect, as admitted by Johnson (2001: 444) himself:

“What's left unmatched is the prohibition on ellipsis following an *ing* form, a prohibition that is not recapitulated in VP topicalization [see (i)], and the ability of a small clause to elide following *not*, an ability not shared by VP topicalization [see (ii)].

[i] Madame Spanella claimed that...

- a. *?discussed widely*, Holly is being *t*.
 b. *?discussed widely*, I remember Holly being *t*.

[ii] **Madame Spanella claimed that intelligent*, I consider Holly not *t*.”

See also Kim (2003: 278).

⁶ For Russian and Polish VPE Szczegielniak (2004) distinguishes ‘bare VPE’, which is derived by topicalization of a VP and is not available in English, from ‘non-bare VPE’, which is derived by in situ deletion of distressed material and is available in English. Since he assumes that VPE in English is not derived by VP topicalization, his findings are in line with our discussion. We have nothing to say about the possibility that ‘bare VPE’ in Russian and Polish is derived by VP topicalization.

⁷ Philip Miller (p.c) points out that there may be variation in judgments. For him (5d), for instance is ‘fine’ and (5e) is not completely out.

⁸ As already shown in Lobeck (1995: 173, her (22a)), the negative counterpart would be acceptable:

- (i) Mary wants to try to get a raise, because not to [VPe] would be silly.

We do not go into the role of negation here. See Lobeck (1995: 174), and also Johnson (2001: 447, (30)). Thanks to Philip Miller (p.c.) for drawing our attention to the data.

⁹ Raposo himself discusses the difference between European Portuguese Topic Drop, which is island sensitive and VPE, which is not. We refer to his paper for discussion.

¹⁰ We represent the copy of movement by *t* for reasons of legibility.

¹¹ A relevant observation here is that in terms of Hooper and Thompson's (1973), VP topicalization patterns with Main Clause Phenomena (MCP), which are not available in what they call 'reduced clauses' (1973: 485), i.e. non-finite clauses which are incompatible with fronting operations such as topicalization:

- (i) a. *It bothers me that big cigar, for the mayor to smoke it.
- b. *That book for me to read would be impossible.

(Hooper and Thompson 1973: 485, their (155) and (156))

See Emonds (1970, 1976, 2004) for discussion of the syntax of such MCP or Root transformations as he labels them. See Haegeman (2010a,b) for recent discussion.

¹² Kim (2003: 36) observes that while VPE is grammatical in (i), VP fronting is not, as shown in (ii):

- (i) Lee might have been taking heroin, and
 - a. Sandy might have been ___ too.
 - b. Sandy might have ___ too.
 - c. (?) Sandy might ___ too. (Kim 2003: 280 his (44)).

(ii) They swore that Lee might have been using heroin, and

- a. using heroin he might have been ___!
- b. *been using heroin he might have ___!
- c. *have been using heroin he might ___!

(Kim 2003: 278, his (36), citing Akmaijan et al 1979).

See Kim (2003) for additional discussion.

¹³ This is a simplification: weak islands may allow for topic fronting:

- (i) a. ?This paper, I wonder whether they will accept.
- b. ? Fix the car, I wonder whether he will. (Den Dikken 2006: 709)

Observe that the difference between strong and weak islands has no effect on VPE: VPE remains equally acceptable in both contexts, suggesting that the phenomenon does not interact with extraction.

- (i) c. (They'll ask him to sign the contract.) I wonder whether he will \emptyset .

¹⁴ Sag (1976) also discusses a movement derivation of VP ellipsis and discards it in the light of the island insensitivity of VPE, in contrast to VP movement. The examples in (i) are taken from Sag (1976: 13) and serve to show that VPE can occur within an island.

- (i) a. John didn't hit a home run, but I know a woman who did _.
- b. That Betsy won the batting crown is not surprising, but that Peter didn't know she did _ is indeed surprising.

¹⁵ Johnson uses text example (29a) for the discussion of binding possibilities. As shown by the grammaticality of (i), this point is tangential to our discussion:

(i) Rusty started the linguistics course only after Holly did \emptyset .

16 There actually is a debate about whether subject clauses exist. We will not go into this here, which is tangential to our discussion. See Alrenga's (2005) discussion for a survey of the arguments and also Davies and Dubinsky (1999, 2000).

17 Observe that if *yes/no* questions involve movement of a question operator to the left periphery (Larson 1985) then these cases would fall under the patterns discussed in 3.2.1.

18 Note that this example has an acceptable reading in which *has he* is the tag to a sentence with null subject and auxiliary:

(i) (He has) passed his exams, has he?

This reading is not relevant to the discussion.

19 As remarked by Peter Matthews (p.c.), (45b) is possible if the fronted VP is reinterpreted as an independent utterance. But this only goes to confirm the observation that (i) be an example of VPE:

(i) Talk to the students? __ Refuses to \emptyset .

20 As also pointed out by Philip Miller (p.c.), once one assumes that in some cases VPE repairs problems raised by VP topicalization, the hypothesis that VPE is based on VP topicalization becomes entirely unfalsifiable, and hence with no empirical content at all.

21 Incidentally, since the embedded verb *ai* 'have' is a subjunctive, (47b) also illustrates a context which is part of Hooper and Thompson's (1973) reduced clauses and hence incompatible with MCP.

22 This was already the position of Lobeck (1995), who takes the ellipsis site to be a null pronominal.

23 It might be tempting to try to assimilate the derivation of VPE to that of CLLD in French (see (ia)), which implicates a constituent in the left periphery. However, this is not the right direction to take. Though French CLLD does have a wider distribution than argument fronting in English (Haegeman 2006, 2010a,b) and is also available, for instance, in imperatives (cf. (ib)), it is degraded with subject ellipsis in abbreviated registers (cf. (ic)) and incompatible with subject ellipsis in coordination (as in (id)):

(i) a. Ce livre- ci, je ne le veux pas.

this book here I ne CL want-1sg not

'This book, I don't want.'

b. Ce livre- ci, ne l' achète pas.

this book here, ne CL buy not

'Don't buy this book here!'

c. ? Rencontre avec mes parents.

meeting with my parents

Ma mère, l' ai trouvée triste.

my mother, her have found-FSG sad-FSG.

'Meeting with my parents. Found my mother sad.'

e. * Le Premier ministre a interrogé les instituteurs en grève hier

the prime minister has interview-PART the teachers on strike yesterday

et les professeurs, __ les rencontrera la semaine prochaine.

and the professors __ them meet-FUT-3SG the week next

‘The Prime minister met the striking teachers yesterday and is meeting the university professors next week.’

²⁴ Depending on the precise articulation of the functional domains of the clause, which are not fully explicit in the paper, Lobeck’s (1999) proposal that VPE involves movement to SpecTP might also be reinterpreted in terms of such VP movement to the middlefield.

²⁵ As mentioned, Lobeck (1995) assumes that the deletion site is a null proform, but since the ECP applies both to traces and to proforms, her approach could be reinterpreted in terms of the deletion account sketched here.

²⁶ The AGREE relation between heads could be seen as replacing the head government relation.