Remarks and Replies

VP-Ellipsis Is Not Licensed by VP-Topicalization

Lobke Aelbrecht
Liliane Haegeman

Starting from the observation that the constraints on VP-ellipsis (VPE) closely match those on VP-topicalization (VPT), Johnson (2001) proposes a movement account for VPE: in order for a VP to be deleted, it must first undergo topicalization. We show that although this proposal is attractive, making VPE dependent on VPT is problematic because VPE and VPT are not distributionally equivalent. While VPT targets the left periphery and consequently is subject to constraints on movement, VPE is not so restricted. We outline some alternatives for capturing the observed parallelism in the licensing of VPT and VPE.

Keywords: VP-ellipsis, VP-topicalization, left periphery, main clause phenomena, ellipsis licensing, restrictions on movement

1 Introduction: Aim and Scope of the Article

The phenomenon of English VP-ellipsis (VPE) has been widely studied in the generative literature (Zagona 1988a,b, Lobeck 1995, Johnson 2001, Kim 2003). It has been noted that the contexts in which VPE is allowed are constrained in two ways: (a) the content of the ellipsis site must be recoverable from the discourse (see Johnson 2001 for a survey), and (b) the ellipsis site must be syntactically licensed (Zagona 1988a,b, Saito and Murasugi 1990, Lobeck 1995, 1999). We will not be concerned with the former constraint; instead, we will 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 VPE 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; see (1d–f).¹

¹ For the seminal discussion of VPE in to-infinitives, see Lobeck 1995:165–191. We have simplified Johnson’s (2001) discussion somewhat for expository reasons. See also footnote 8 for more discussion.
In the absence of such licensing heads, VPE is illicit: a finite lexical verb such as started cannot license VPE in the absence of infinitival to, as (2c–d) illustrate.

(2) a. I can’t believe Holly Golightly won’t eat rutabagas. I can’t believe Fred won’t 0, either.
   b. *I can’t believe Holly Golightly won’t eat rutabagas. I can’t believe Fred 0, either.
   (Johnson 2001:439, (4))
   c. *Sally Tomato started running down the street, but only after José started 0.
   (Johnson 2001:440, (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, see the discussion in Johnson 2001 and also more recently in Aelbrecht 2010a.

In this article, we evaluate the (at first sight, attractive) proposal elaborated in Johnson 2001, which capitalizes on the parallelisms between VPE and VP-topicalization (VPT). Starting from the observation that the syntactic constraints on VPE closely match those on VPT, Johnson proposes a movement account for VPE: in order for a VP to be deleted, it must first undergo topicalization.

Our article is organized as follows. In section 2, we survey the similarities between the licensing of VPE and the licensing of VPT, which form the basis for Johnson’s (2001) movement account. In section 3, we discuss problems for the movement account, showing that VPE is available in a range of contexts in which VPT is unacceptable. In section 4, we present 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 summarize Johnson’s (2001) approach according to which VPE is derived through VPT. Johnson shows that the licensing condition on VPE displays striking parallelisms with the licensing conditions on the trace/copy of VPT (see Johnson 2001, Kim 2003, and Authier 2011 for extensive references).² This is illustrated by the contrasts between (3) and (4).³ As is

² For discourse conditions on VPT, see among others Ward 1988, 1990.
³ We represent the copy of movement by t for reasons of legibility.
the case for VPE, VPT is licensed by an auxiliary and by infinitival to; see (3). In the absence of such a licensing head, VPT is not allowed; see (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.
   d. eat rutabagas, Holly wants to t.
   (Johnson 2001:444, (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, (18))

Johnson concludes that “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). To account for the parallelism, Johnson proposes that the syntax of VPE be partly assimilated to the syntax of VPT. 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).

4 Observe that while VPT is ungrammatical in (ia), VPE in the same context seems at first sight licit.

   (i) a. ?*Eat rutabagas, Holly made me t.
       (Johnson 2001:444, (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 t me.
   b. Why did you not eat the rutabagas? He wouldn’t t me.

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

5 Two notes are in order here. First, the match is not perfect, as Johnson (2001:444) himself admits:

   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 and Authier 2011 for relevant discussion.

Second, 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 “nonbare VPE,” which is derived by in-situ deletion of destressed material and is available in English. Since Szczegielniak assumes that VPE in English is not derived by VPT, 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 VPT.

6 Authier (2011) builds on Johnson’s proposal in his analysis of French modal ellipsis (i) and derives ellipsis of the complement of modal verbs by VPT followed by PF deletion.
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. On the basis of observations in Lobeck 1995:165–191, Johnson (2001) argues that VPE under infinitival to (see (5)–(6)) provides further evidence for this proposal. In adjunct (5a) or subject (5b) infinitivals and in infinitival complements of N (5c–e), VPE is unacceptable;\(^7\) in indirect questions (5f), its status varies; and in complement clauses (6), VPE is grammatical.

(5) a. *Mag Wildwood came to read Fred’s story, and I also came to \(\emptyset\).  
   (Johnson 2001:445, (22a))
   
   b. *You shouldn’t play with rifles because to \(\emptyset\) is dangerous.\(^8\)  
   (Johnson 2001:445, (22b))
   
   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 \(\emptyset\).  
   (Johnson 2001:445, (24c))
   
   e. ?*Sally explained the attempt to arrest Holly, but only after I had denied the decision to \(\emptyset\).  
   (Johnson 2001:445, (24d))
   
   f. ??Ron wanted to wear a tuxedo to the party, but Caspar couldn’t decide whether to \(\emptyset\).  
   (Johnson 2001:445, (22c))

(i) Elle joue avec qui elle peut.
   she play.3SG with who she can.3SG
   ‘She plays with whoever she can.’
   (Authier 2011:177, (3b))

For reasons of space, we do not go into this point in detail here; for a full discussion of the data, see Authier’s article.

In relation to his topicalization analysis of French modal ellipsis, in his section 4.2 Authier briefly addresses some of the intervention effects that we discuss here in section 3.2 in relation to English. Using Bošković’s (2011) rescue-by-PF-deletion approach, Authier (2011:212) proposes that the asymmetry between VPE and VPT is accounted for if one assumes that an illicit fronting of the FP is rescued by ellipsis. Anticipating the discussion below, the rescue-by-PF-deletion approach hinges on syntactic intervention; such an approach is not at first sight easily applicable to the domains discussed in sections 3.3.3 (null complementizer clauses) and 3.3.4 (subject deletion in finite clauses), which also display an asymmetry between VPE and VPT. For problems with a movement analysis of subject deletion, see Haegeman 2008.

See Aelbrecht 2010a for an alternative account of modal ellipsis (in Dutch) that does not necessitate a movement derivation.

\(^7\) Philip Miller (pers. comm.) also points out that there may be variation in judgments. For instance, for him (5d) is “fine” and (5e) is not completely unacceptable.

\(^8\) As Lobeck (1995:173, (22a)) has already shown, the negative counterpart of (5b) would be acceptable.

(i) Mary wants to try to get a raise, because not to \(\text{[VP e]}\) would be silly.

See Lobeck 1995:174 and Johnson 2001:447, (30). Thanks to Philip Miller (pers. comm.) for drawing our attention to these data.
(6) a. Mag Wildwood wants to read Fred’s story, and I also want to 0.
b. You shouldn’t play with rifles because it’s dangerous to 0.
c. It’s possible for you to play with rifles, and it’s possible for me to 0 too.
   (Johnson 2001:445, (23))

If VPE is derived through VP-movement, then 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) that are seen to be incompatible with VPE are syntactic islands (see Sag 1976, however, and section 3 below). On the movement derivation of VPE, the unacceptability of (5a–f) is then parallel to that of (7a–c) in which VPT 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

(7) a. *You shouldn’t play with rifles because [play with rifles] to t is dangerous.
   (Johnson 2001:447, (29a))
b. *Lulamae Barnes recounted a story to remember because [remember] Holly had recounted a story to t.
   (Johnson 2001:447, (29c))
c. ?*Madame Spanella questioned Mag’s desire to eat rutabagas, but only after [eat rutabagas] I had questioned Sally’s desire to t.10
d. ?*Sally explained the attempt to arrest Holly, but only after [arrest Holly] I had denied the decision to t.

Johnson (2001:475ff.) suggests that the licensing ability of negation may be related to other environments in which negation can license ellipsis—for example, predicate ellipsis, illustrated in (ii). For the difference between VPE and predicate ellipsis, see also Lobeck 1995.

(ii) Mag left, and *(not) Sally.
   (Johnson 2001:474n12, (i)–(iii))

An anonymous reviewer points out that adding negation is not the only way to render (5b) acceptable. Insertion of for + SUBJ would also lead to an acceptable VPE sentence; see (iiiia). The counterpart with VP-fronting, on the other hand, remains unacceptable, whether this places the VP to the right (iiib) or to the left (iiic) of the complementizer for.

(iii) a. For adults to play with guns is just stupid, but [CP for kids to 0] is downright dangerous.
b. *For adults to play with guns is just stupid, but [CP for [play with guns] kids to t] is downright dangerous.
c. *For adults to play with guns is just stupid, but [CP [play with guns] for kids to t] is downright dangerous.

The reviewer points out that the contrast between the VPE examples with negation or for + SUBJ and the ones without might be due not to a restriction on VPE itself; rather, it could arise if to is a [+aux] clitic that needs a host. Ellipsis in the subject clause would then only be possible if such a host were present—that is, in the presence of negation or the ECM (exceptional case-marking) subject (see Baker 1971 for more on the effects of stress on auxiliary behavior and ellipsis; also see Zagona 1988a,b, Lobeck 1995, Johnson 2001, and Aelbrecht 2010a for more discussion of such an account).

9 Raposo himself discusses the difference between European Portuguese topic drop, which is island-sensitive, and VPE, which is not. See the cited paper for discussion.
10 Examples (7c) and (7d) have the added problem that topicalization in a temporal adverbial clause is also excluded; see section 3.2.2.
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, (29b))

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–d) there is no landing site for the moved VP inside the infinitival clause, as shown in (8). This is so because, as Johnson states (2001:446), “topicalized VPs cannot land inside an infinitival clause in the way that they can in finite clauses,” as in (9).

(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 role of negation in rendering VPE acceptable (see (10)) goes unaccounted for (see footnote 9), and the analysis does not predict the ungrammaticality of VPE in the complement of \( being \) (see (11), and see Bresnan 1976 for this observation).

(10) a. Mag Wildwood came to introduce the barkeep but I came (precisely) not to \( 0 \).
   b. You should unload rifles because not to \( 0 \) is dangerous.
   c. If Ron knows whether to wear a tuxedo, and Caspar knows whether not to \( 0 \), do they know different things?
   d. Lulamae recounted a story to remember because Holly had recounted a story not to \( 0 \).

(Johnson 2001:447, (30))

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11 A relevant observation here is that in terms of Hooper and Thompson’s (1973) proposal, VP topicalization patterns with main clause phenomena (MCP), which are not available in what they call ‘‘reduced clauses’’ (p. 485), that is, nonfinite clauses that 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, (155) and (156))

See Emonds 1970, 1976, 2004 for discussion of the syntax of such MCP (or root transformations, as he labels them). See also Haegeman 2010a,b for recent discussion.
(11) a. *Doc Golightly is being discussed and Sally is being ∅ too.
b. *I remember Doc being discussed, but you recall Sally being ∅.

(Johnson 2001:442, (12a–b))

In the next section, we raise additional problems for the movement derivation of VPE that cast doubt on its viability.12

3 VP-Ellipsis versus VP-Topicalization

If VPE is to be derived by VPT, then, following the logic of Johnson’s (2001) own discussion of VPE in the context of infinitival clauses (see (5)–(7)), we would expect VPE to be unacceptable in all contexts in which VPT is disallowed, since the latter feeds the former. Put differently, contexts incompatible with VPT 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 VPT and VPE; the descriptive generalization there is that where VP-movement out of an island is illicit, VPE is fully acceptable inside the 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 just mentioned, topicalization cannot extract a constituent from an island.13 As shown in (12), topic extraction from a wh-island is ungrammatical.

12 Kim (2003:278) discusses the difference between the constituent that undergoes movement in VPT and the one that is elided under VPE. He observes that while VPE is grammatical in (i), VPT 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, (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, (36), citing Akmajian, Steele, and Wasow 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.

(ii) (They’ll ask him to sign the contract.) I wonder whether he will ∅.
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(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 it].
   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 it].

In the same way, VPT 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].
   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].

However, VPE is unproblematic in wh-islands, as also noted by 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 /null].
   b. I know that some students presented this article in my class but I can’t recall the students [who didn’t /null].

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, VPT is also unacceptable (15b), as expected, but VPE is acceptable (15c).

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

3.2 Topicalization within Certain Clauses

3.2.1 Topicalization inside a Wh-Clause  A first type of clause in which VPT 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.

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14 Sag (1976) also discusses a movement derivation of VPE and discards it in the light of the island insensitivity of VPE, in contrast to VP-movement. The examples in (i) 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.
   (Sag 1976:13)
(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, VPT within such a \( \text{wh} \)-clause is unacceptable as well. (17a) illustrates this for \( \text{wh} \)-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 \( t \)].

Unlike VPT, VPE is allowed in both \( \text{wh} \)-interrogatives and \( \text{wh} \)-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 VPT 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, (29))
   b. John hoped that Mary would find his hat, but I wonder how she ever could \( \emptyset \).

The examples of VPE in (20) illustrate the same point. They too show that VPE is unproblematic in a \( \text{wh} \)-interrogative and a \( \text{wh} \)-relative.

(20) a. I know which book Max read, and which book Oscar didn’t \( \emptyset \).
   b. This is the book of which Bill approves, and this is the one of which he doesn’t \( \emptyset \).
   (Fiengo and May 1994:229, (99a,c); cited in Johnson 2001:457, (61a–b))
   c. Dulles suspected everyone who Angleton did \( \emptyset \).
   (Johnson 2001:459, (72))

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

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

The sentence in (22a), cited as marginally acceptable by Johnson, in which an active VP (\textit{fired Max}) serves as an antecedent for an elided passive one, does not have a plausible VPT source either: clefting is incompatible with VPT (see (22b)).

(22) a. ?John fired Max, although it was Bill who should have been \( \emptyset \).
   (Johnson 2001:470, (116); based on Fiengo and May 1994:203n10)
   b. *John fired Max, although it was Bill who [fired] should have been \( t \).
As a final example, English VPT is also unacceptable in the context of argument fronting, as shown by (23a–b). Plausibly this is also due to an intervention effect (see Emonds 1976, Haegeman 2010a,b, Haegeman and Üröldi 2010a,b).15

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

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 θ.

3.2.2 Topicalization inside an Adverbial Clause (VP) topicalization is usually considered a root transformation (Emonds 1970, 1976, 2004) or an instance of main clause phenomena (MCP; Hooper and Thompson 1973). 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 (see Hooper and Thompson 1973:496, (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 instance of MCP—and in (26) for VPT.

(25) a. *After [this baker] I discovered t, I never went anywhere else.
   b. *Before [this baker] I discovered t, I always ate toast.
   c. *When [this baker] I discovered t, I was thrilled.
   d. *As soon as [this baker] I discovered t, I stopped going 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 unmotivated.
   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.

15 An anonymous reviewer points out another problem for an analysis according to which ellipsis is licensed through movement: namely, cases where a constituent that resists topicalization or displacement altogether can undergo ellipsis. In English, for instance, TP-ellipsis is quite an acceptable and widespread phenomenon; under Merchant’s (2001) analysis, sluicing involves ellipsis of the TP in the complement of a wh-C head (see (ia)).

However, English does not allow TPs to topicalize (see (ib)). Moreover, wh-clauses resist topicalization, as discussed in section 3.2.1 (see especially (16a–b)).

   (i) a. I have forgotten something, but I don’t know what [TP I have forgotten].
   b. *[TP He will come] he told me [CP that [TP he will come]].

It is therefore highly implausible that sluicing as in (ia) can be derived through movement of the TP prior to deletion: topicalization of the TP itself is illicit, and even if the problem could be circumvented, the required topicalization of the TP I have forgotten inside the what-clause would be unacceptable (see (7)), and extraction out of the what-clause will lead to an island violation (see section 3.1). Johnson (2001) himself acknowledges that extending the topicalization approach to other types of ellipsis, such as NP-ellipsis or sluicing, poses a challenge, and he mentions Saito and Murasugi’s (1999) attempt to solve this problem (see also Aelbrecht 2010b).
While VPT is unacceptable in such adverbial clauses, VPE is perfectly acceptable.

(27) Mary wanted to move to London
   a. and eventually she did 0.
   b. and after she did 0, her life changed entirely.
   c. Before she did 0, she had been totally unmotivated.
   d. and when she did 0, her life changed entirely.
   e. and as soon as she did 0, her life changed entirely.

VPT 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, (29))
   b. John intends to make a table, and I’ll get the materials so that he can 0.

Johnson (2001:468) himself provides (29a), his (103a), which illustrates the acceptability of VPE in an adverbial clause that is incompatible with MCP. As (29b–c) show, it is impossible to devise a VPT source for this example: in (29b), the VP is fronted inside the adverbial clause; in (29c), it is extracted to the matrix clause; and in both cases, the result is unacceptable.16

(29) a. Rusty talked about himself only after Holly did 0.
   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 examples in (30) and (31), adapted from Johnson’s (2001) (110) and (112), illustrate the same point: VPE is possible in a before-clause and in a when-clause (see (30)), contexts in which VPT is unacceptable (see (31)).

(30) a. Fred talked about the war before Rusty did 0.
    b. David Begelman laughs very often, and when he does 0, his eyes crinkle at you the way Lady Brett’s did in 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 Ürödgi 2010a,b) that adverbial clauses are derived by operator movement to the left periphery. Under this analysis, the incompatibility

16 Johnson uses example (29a) in discussing binding possibilities. As the grammaticality of (i) shows, this point is tangential to our discussion.

(i) Rusty started the linguistics course only after Holly did 0.
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 VPT cannot occur is the complement clause of a factive verb. It is well-known that such clauses resist MCP (see Haegeman and Úrödgi 2010a,b for recent discussion). Example (32a) shows that the ban extends to VPT. Once again, VPE is unproblematic (32b).

(32) a. *John intended to make a table, and we were glad that [make one] he did \(t\).\(^{17}\) 
   (Emonds 1976:32)
   b. John intended to make a table, and we were glad that he did \(t\).\(^{17}\)

Haegeman and Úrödgi (2010a,b) propose that complements of factives be derived by operator movement to the left periphery. Under this analysis, the incompatibility with (VP) topicalization is again due to intervention and these data further illustrate the effect of \(wh\)-movement noted 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.\(^{18}\) VPT is equally unacceptable in subject clauses (33b), but VPE remains fully acceptable (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 \(t\) surprised me.

3.3 Some Additional Contexts

In sections 3.1 and 3.2, we have illustrated a number of contexts in which VPT is known to be excluded in English, while VPE remains freely available. In this section, we note some more environments that 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 same constraints as VPT.

3.3.1 Yes/No Questions Just like the argument fronting in (35a), VPT 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.\(^{19}\)

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\(^{17}\) Thanks to an anonymous reviewer for help with these data.

\(^{18}\) There actually is a debate about whether subject clauses exist. We do not go into this issue here, as it is tangential to our discussion. See Alrenga 2005 for a survey of the arguments, and also Davies and Dubinsky 1998, 2000.

\(^{19}\) Observe that if yes/no questions involve movement of a question operator to the left periphery (Larson 1985), then these cases fall under the patterns discussed in section 3.2.1.
(35) a. *[That book about shrimp], did you actually read it? (Sobin 2003:194)  
   b. *[Passed his exams], has he t?20

(36) ‘‘He found out today whether he has passed his exams.’’ – ‘‘And? Has he 0?’’

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 (see (37a); for discussion, see Jensen 2007, Postma and Van der Wurff 2007) and so is VPT (see (37b)). The VPE example in (38), on the other hand, remains fully acceptable.

(37) a. *[Your essay], leave t in my pigeonhole this afternoon.  
   b. *You may want to paint the 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 0!’’

3.3.3 Null Complementizer Clauses A further context in which topicalization is unacceptable for many speakers is the case of a complement clause that lacks an overt complementizer (39a). Once again, VPT is also unacceptable (39b), but VPE is not (40).

(39) a. John believes *(that) [Bill], Mary doesn’t like t. (Nakajima 1996:147, (8))  
   b. John believes *(that) [talk to Mary], you shouldn’t t.

(40) John believes (that) you shouldn’t 0.

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 (41b) shows, argument fronting in the second conjunct of a finite coordinated clause is incompatible with subject ellipsis (see Wilder 1994 for discussion and 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, VPT 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 0 any day now.

20 Note that this example has an acceptable reading in which has he is the tag to a sentence with null subject and auxiliary; see (i). This reading is not relevant to the discussion.

(i) (He has) passed his exams, has he?
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.  
(Plath 1982:287)
b. ____ Have done 110 pages.  
(Woolf 1985:33)
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 . . .  
(Woolf 1985:6)

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, VPT is unacceptable as well; see (45a–b). VPE, however, remains fully licit, as expected; see (45c).

(45) a. ____ Refused to talk to the students.  
b. *Talk to the students, ____ refused to r.21  
c. Jim asked her to talk to the students again. ____ Didn’t want to θ.

3.3.5 Conclusion  In this section, we have provided some additional contexts in English that disallow VPT but allow VPE. We conclude that in addition to the problems signaled by Johnson (2001) himself and pointed out at the end of section 2, other issues arise if one amalgamates the derivation of VPE with that of VPT: VPE cannot be derived by fronting the VP first.

4 Speculations

We have shown that the syntactic contexts licensing VPE are much wider than those licensing VPT, a finding that presents a challenge to Johnson’s (2001) proposed movement analysis. It could be objected that in fact, the violations incurred by VPT are somehow undone or repaired as the result of VPE (see Authier 2011:212 for an analysis of French along such lines). However, this type of approach potentially destroys the symmetry between VPT and VPE that Johnson underlines, and it would also undermine Johnson’s own argument (outlined in section 2) concerning the restrictions on VPE in infinitival clauses. If VPE repairs/undoes the problems raised for VPT, then the contrast in acceptability of VPE in (5) and (6) is unexpected. An account in which

21 As Peter Matthews remarks (pers. comm.), (45b) is possible if the fronted VP is reinterpreted as an independent utterance. But this only goes to confirm the observation that (i) is an example of VPE.

(i) Talk to the students? ____ Refuses to θ.
VPE repairs problems of extraction thus needs to be able to distinguish between cases in which ellipsis does repair illicit patterns and those in which it does not (see also footnote 6).

It is clear that VPE and VPT 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 a 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 (a) bring out the commonality of the syntactic licensing between VPT and VPE, while (b) 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 VPT 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 VPE is licensed by a tensed auxiliary in T (as, for instance, also proposed in Lobeck 1995). Under her analysis, the VPE site is a null proform pro, which is minimal and maximal at the same time (following Chomsky 1995:402–403); and this null VP pro must move to Spec,TP, thus being assimilated to clitics in French under her approach (Lobeck 1999:117). 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, namely, if clitics leave traces, the ellipsis site is a copy/trace, and the commonality with VP-movement is expected. Differently from Johnson’s (2001) proposal, however, the cliticization accounts do not lead to the prediction that VPE should be subject to the same distributional restrictions as VPT; for one thing, the latter targets the left periphery of the clause, while the former does not. We also observe that the contexts listed above that are incompatible with VPT remain fully compatible with cliticization in Romance. To show this, we provide some examples from French. First, (46) illustrates cliticization in wh-movement contexts: (46a) illustrates interrogatives and (46b) relatives. Cliticization is also compatible with clefting, as in (46c), and with clitic left-dislocation, as in (46d).

(46) a. Je ne sais pas qui l’ a dit.
   I NE know not who CL has said
   ‘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 has said
   ‘I don’t know the student who told me that.’

c. C’ est cet étudiant qui l’ a dit.
   it is this student who CL has said
   ‘It’s this student who told me that.’
d. À Jean, je ne le lui conseille pas.
   ‘To Jean, I would not recommend it.’

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

(47) a. Quand il l’a dit, j’étais furieuse.
   ‘When he told me that, I was furious.’

b. Je regrette que je ne l’aie pas vu.
   ‘I regret that I didn’t see it.’

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

(48) a. Le veux-tu?
   ‘Do you want it?’

b. Dis-le!
   ‘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, as (49c) shows.

(49) a. Le premier ministre a interrogué les instituteurs en grève hier
   ‘The prime minister interviewed the striking teachers yesterday and will meet the
   university professors next week.’

b. Le premier ministre a interrogué les instituteurs en grève hier
   ‘The prime minister interviewed the striking teachers yesterday and will also meet
   them next week.’

c. Me dit que l’architecte Perret est désireux de passer un moment avec moi.
   ‘Says that the architect Perret wishes to spend a moment with me.’

(Paul Léautaud, Journal particulier, p. 44: 6.2.133; from Haegeman 1996:136, (5b)).
The property that crucially distinguishes cliticization (in French) from argument fronting and VPT 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 VPE site to be a null clitic, that is, a proform. 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 (see Johnson 2001, Merchant 2001, 2008, Aelbrecht 2010a). A proform analysis such as Lobeck’s (1995, 1999) will not easily capture the extraction facts.

4.2 VP-Movement to a Low Periphery?

In this section, pursuing one particular approach to the syntax of cliticization, we speculate about a different take on the cliticization analysis of VPE. In some analyses, cliticization is taken to be derived in two steps: 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 (Spec,AgrP 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 to account for (among other things) the agreement between the past participle and the object clitic in French (Kayne 1989, Rizzi 2000, Belletti 2001b; for problems with this approach, see Rocquet 2010). Consider (50): when the complement of écrit ‘written’ is postverbal (50a,c), the participle has the nonagreeing form. When the object is cliticized (50b,d), the participle agrees with the clitic. The clitic on the finite auxiliary ai ‘have’ triggers agreement on the participle: écrite ‘written’ is feminine singular,

\[22\text{ This was already the position of Lobeck (1995), who takes the ellipsis site to be a null pronominal.}\]
\[23\text{ It might be tempting to try to assimilate the derivation of VPE to that of clitic left-dislocation in French (see (ia)), which implicates a constituent in the left periphery. However, this is not the right direction to take. Though French clitic left-dislocation does have a wider distribution than argument fronting in English (Haegeman 2006, 2010a,b) and is also available, for instance, in imperatives (see (ib)), it is degraded with subject ellipsis in abbreviated registers (see (ic)) and incompatible with subject ellipsis in coordination (see (id)).}\]
whereas *écrites* is feminine plural. The agreement is related to the movement of the clitic: in (50a,c), in which there is no movement, the participle appears as the unmarked form *écrit* despite 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; it enters into 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 written the.FEM.SG letter
b. Je l’ ai *écrite*.
    I CL have written.FEM.SG
   ‘I have written it.’
c. J’ ai *écrit* les lettres.
    I have written the.PL letters
d. Je les ai *écrites*.
    I CL have written.FEM.PL
   ‘I have written them.’
e. [PartP [DP les] [part écrit es] tDP]

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 the specifier of a TopP in a lower vP periphery. Movement to the low periphery has been proposed by, among others, Jayaseelan (2000, 2001), López and Winkler (2000), Belletti (2001a, 2004, 2009), Butler (2004), Konietzko and Winkler (2010), and Molnár and Winkler (2010).

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 to the clausal left periphery. This proposal would exploit movement to the low periphery along the lines of Johnson’s (1996, 2009) proposal for gapping. If the latter movement targets a lower TopP, the derivation would syntactically encode the discourse-givenness of the deleted VP, along the lines of recent cartographic work (Belletti 2001a, 2004, 2009). One might thus propose that VPE *is* VPT, in agreement with Johnson (2001), but that contrary to his proposal, the relevant topicalization does not target the “high” CP periphery—rather, it targets 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), for instance, it has been proposed that

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 Spec,TP might also be reinterpreted in terms of such VP-movement to the middle field.
the variation in position of the adjunct *recently* and the VP in (51) is derived through leftward VP-movement (see also, e.g., Cinque 1999, 2004, Schweikert 2005, Belletti and Rizzi, to appear).  

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

Adopting and adapting Johnson’s (2001) approach, VPE could be analyzed as involving (low) VP-movement, followed by deletion (as in (51c)). 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–e).  

(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 for VPT to the left periphery. At first sight, this is not the case, and the parallelisms captured by Johnson’s account between VPT and VPE are lost. Recall from (2) and (4) that VPE and VPT are illicit in the absence of an auxiliary. As shown in (53b), VP-movement across an adjunct is fine without an auxiliary. This means that if “middle field” VP-movement licensed VPE, it would be a necessary but not sufficient licensing condition.  

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

The same conclusion can be drawn on the basis of the data in (54): while middle field VP-movement would be required to derive the sentence-final position of the adjuncts in the infinitival subject clauses, VPE in the infinitival subject clauses would still not be licensed.25  

(54) a. [To brush too frequently] can cause gum damage.  
   b. [To eat rapidly] is dangerous.

At this point, it is not clear to us that rephrasing Johnson’s proposal in terms of the low VP-movement analysis will be able to rescue the movement account of VPE in a straightforward way.26 While the locality problems are solved, the problems with licensing reemerge. We intend to explore this avenue in future work.

25 This point was brought to our attention by an anonymous reviewer.  
26 Combining Johnson’s proposal with the suggestion we make here, Funakoshi (2012) develops an account of ellipsis involving VP-fronting either to Spec,CP or to Spec,vP. See Funakoshi’s article for his solution to the specific problems of implementation that we raise.
4.3 VP-Ellipsis and Agree

An alternative account for capturing the similarity between VPE and VPT would be to dispense with a movement account of VPE as such and 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) and by Zagona (1988a,b). According to Rizzi (1986), the same syntactic constraints apply to all null categories, movement traces, pro, and ellipsis sites alike. Indeed, assuming that (a) traces are lower copies that are not spelled out, and (b) VPE is analyzed as deletion of the VP, the unpronounced lower copy of a moved VP is in fact a VPE site. Such an account turns Johnson’s (2001) proposal around: instead of regarding ellipsis sites as traces of movement, it considers movement traces to be ellipsis sites. This hypothesis has recently been put forward by Aelbrecht (2010b), who argues that VPT and VPE are syntactically licensed by the same mechanism.

Inspired by Merchant’s (2001) analysis of ellipsis according to which it 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. To express the commonality between VPE and VPT, Aelbrecht (2010b) proposes that VPT is licensed by this Agree relation as well. The underlying intuition is that the same Agree relation triggers nonpronunciation of either the original VP—in the case of ellipsis—or the lower copy of a moved VP—in the case of VPT. Only in environments where the Agree relation can be established (i.e., where there is a licensing auxiliary or infinitival to) can ellipsis or topicalization take place. The account thus captures the similarities between VPE and VPT 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 VPT, which does involve movement to the left periphery. For instance, intervention effects that are relevant for the movement component of VPT will not be relevant for VPE. For the complete analysis, see Aelbrecht 2010b.

5 Conclusion: VP-Ellipsis Is Not VP-Topicalization

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

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

28 The Agree relation between heads could be seen as replacing the head government relation.
References


Quantificational Binding Does Not Require C-Command

Chris Barker

Some version of the following claim is almost universally assumed: a quantifier must c-command any pronoun that it binds. Yet as I show, the evidence motivating this claim is not particularly strong. In addition, I gather here a wide variety of systematic counterexamples, some well-known, others new. I conclude that c-command is not relevant for quantificational binding in English (nor is any refinement or extension of c-command).

Keywords: c-command, binding, quantification, scope, Reinhart’s Generalization

1 Introduction

At least since Reinhart 1983, the standard wisdom has been that a quantificational expression must c-command any pronoun that it binds.

(1) Everyone₁ loves his₁ mother.

For instance, on the indicated interpretation, the quantificational expression *everyone* in (1) both binds and c-commands the pronoun *his*. Usually there is an additional requirement that a quantificational expression can only bind from an A-position. Since the subject position in (1) is an A-position, the binding in (1) is correctly predicted to be grammatical.