

**What is elided in English  $v_bP$  ellipsis, and when?**

**Overview.** In this paper, I argue a novel derivational approach to ellipsis in English. In support of this, I discuss an instance of ellipsis of  $vP$  which is headed by the copula verb selecting a predication phrase (PredP) and selected by T, exemplified in (1) (see Mikkelsen 2005). I will call this  $v_bP$  ellipsis.

(1) John might be proud of his father, and [<sub>TP</sub> Bill<sub>1</sub> [<sub>T'</sub> might [<sub>v<sub>b</sub>P</sub> be [<sub>PredP</sub> *t<sub>1</sub>* proud of his father]]]], too. (I will not discuss elliptical sentences whose ellipsis site contains progressive *be*, because they have different syntactic structures from  $v_bP$  ellipsis; see Sailor 2014) I propose that XP ellipsis occurs as soon as all the featural requirements of the licenser of XP ellipsis are satisfied during the derivation in overt syntax. In addition, I suggest that ellipsis is a syntactic operation that deletes the phonological features ( $\beta$ -features) of lexical items inside the ellipsis site XP, but preserves their formal features. As a result, the lexical items deprived of their  $\beta$ -features inside XP are eligible for further formal operations occurring after deletion, contra Aelbrecht (2010) and Baltin (2012) (cf. Abels 2012).

**Extraction Puzzle.** When  $v_bP$  in the embedded clause is elided, a *wh*-element base-generated inside the ellipsis site cannot be extracted from the ellipsis site, as illustrated in (2).

(2) ??/\*I don't know what Tom shouldn't be proud of, but I have a good idea about what<sub>1</sub> [<sub>TP</sub> he should [<sub>v<sub>b</sub>P</sub> be [<sub>PredP</sub> proud of *t<sub>1</sub>*]]].

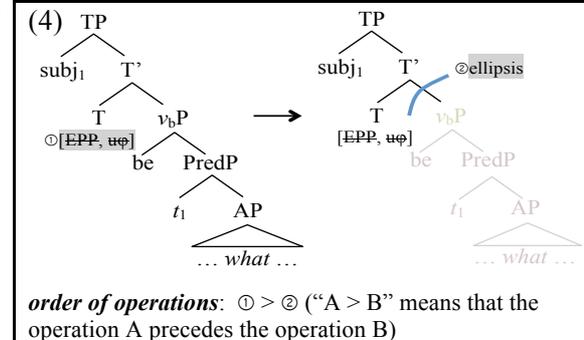
However, this restriction disappears when  $v_bP$  in the matrix clause is elided, as shown in (3).

(3) (?)What shouldn't Bill be proud of, and what<sub>2</sub> should<sub>3</sub> [<sub>TP</sub> he *t<sub>3</sub>* [<sub>v<sub>b</sub>P</sub> be [<sub>PredP</sub> proud of *t<sub>2</sub>*]]]? (The grammaticality of each example sentence in this paper is based on the result of a grammaticality judgment task conducted with twelve native speakers. All my informants prefer (3) to (2).)

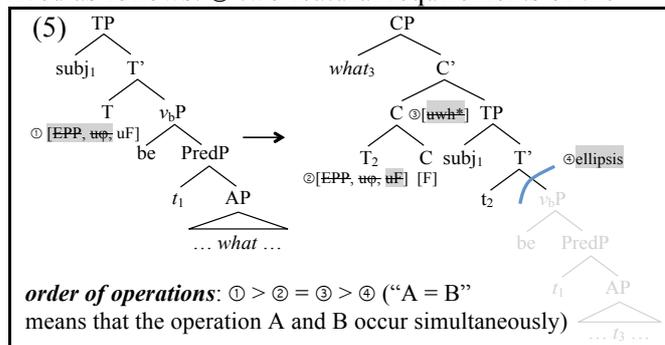
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**When does ellipsis occur?** In order to resolve the puzzle mentioned above, I suggest that XP ellipsis occurs as soon as all the featural requirements of the licenser of XP ellipsis are satisfied. Assuming (i) that  $v_bP$ , headed by the copula verb selecting PredP, is selected by T (Mikkelsen 2005), as illustrated in (1), and (ii) that the licenser of verbal domain ellipsis in English is an auxiliary verb (Potsdam 1996, Adger 2003, a.o.),  $v_bP$  ellipsis occurs as soon as operations triggered by all the features of the auxiliary verb on T are completed. If an element base-generated inside  $v_bP$  were moved out of the ellipsis site when  $v_bP$  ellipsis occurs, then it could be pronounced outside the ellipsis site. Otherwise, the  $\beta$ -features of the element would be deleted inside  $v_bP$ , and thus, the element could never be pronounced outside the ellipsis site. This can explain the ungrammaticality of (2) as follows:

① the two featural requirements of the embedded T (i.e.,  $\phi$ -feature Agree and the EPP) are satisfied, and then ②  $v_bP$  ellipsis occurs. At the point of  $v_bP$  ellipsis, *what* fails to be located outside the ellipsis site. As a result, the  $\beta$ -features of *what* are deleted when  $v_bP$  ellipsis occurs. Thus, (2) is ungrammatical, since the *wh*-element that has already been deprived of its  $\beta$ -features is pronounced outside the ellipsis site. This is represented in (4). On the other hand, in (3), the matrix auxiliary verb undergoing head movement has one more featural requirement besides what the embedded auxiliary verb in (2) has. It is a strong (or an uninterpretable) feature [uF]. (see Lasnik 1999, Aelbrecht and Harwood 2015) This feature is checked against/agrees with its matching (interpretable) feature [F] on C after T-to-C *syntactic* head movement. Based on this, the sentence (3) is derived as follows: ① two featural requirements of the



matrix T (i.e.,  $\phi$ -feature Agree and the EPP) are satisfied. Then, ② deletion of [uF] on T (after head movement) and ③ internal merge of *what* in [Spec,CP] occur simultaneously (since both operations are triggered by the same head C). At last, ④  $v_bP$  ellipsis occurs. Since *what* in (3) can be located outside the ellipsis site when  $v_bP$  ellipsis occurs, *what* can be pronounced outside the ellipsis site. This is illustrated in (5).



**Consequence** The following sentence is an instance of predicate ellipsis.

(6) John might be fond of Bill, and Mary might be ~~fond of Bill~~, too.

Assuming that the ellipsis site in (6) is PredP, the lowest possible licenser is the copula selecting PredP. (One might claim that the ellipsis site is AP selected by Pred. I will argue that, even in this case, the lowest possible licenser is the copula.) On the current proposal, predicate ellipsis occurs after all the featural requirements of the copula are satisfied. Given that  $v_b$  where the copula is base-generated is a subtype of unaccusative  $v$  (Mikkelesen 2005), and that unaccusative  $vP$  is a phase (Legate 2003), it is predicted that *wh*-extraction would be possible in predicate ellipsis, regardless of whether predicate ellipsis occurs in embedded clauses or in matrix clauses. This is because a *wh*-element can be located in [Spec, $v_bP$ ] at the point of predicate ellipsis in both cases. This prediction is borne out, as illustrated in (7).

- (7)a. (?)I don't know what Bill shouldn't be proud of, but I have a good idea about what he should be.  
 b. (?)What shouldn't John be proud of, and what should he be?

**What is elided?** Though different in detail, Aelbrecht (2010) and Baltin (2012), who propose a derivational approach to ellipsis, argue that once XP is elided, everything inside XP becomes frozen for further formal operations. In contrast, I propose here that ellipsis deletes only the  $\beta$ -features of lexical items inside the ellipsis site during the derivation in overt syntax. Thus, an element that is deprived of its  $\beta$ -features and phonologically null elements base-generated inside the ellipsis site can be eligible targets/goals for syntactic operations that occur after deletion.

**a. Relative clauses.** Hulsey and Sauerland (2006) argue that restrictive relative clauses in which the relative CP has been extraposed must be analyzed with the matching analysis. Given this, the following asymmetry supports the proposal advanced in this paper.

- (8) a. Tom will be fond of the same book next year [which ~~book~~]<sub>1</sub> Mary<sub>2</sub> will \*([ $v_bP$  be [ $P_{\text{PredP}}$   $t_2$  fond of  $t_1$ ]).  
 b. Tom will be fond of the same book next year [*Op* ~~book~~]<sub>1</sub> that Mary<sub>2</sub> will ?([ $v_bP$  be [ $P_{\text{PredP}}$   $t_2$  fond of  $t_1$ ]).

In (8), the non-elliptical sentences are grammatical, even if the non-elliptical sentence in (8b) is slightly better than the non-elliptical sentence in (8a) (Four out of twelve informants did not sense any difference in grammaticality at all). However, when  $v_bP$  is elided in both sentences, there is a sharp contrast in grammaticality between (8a) and (8b). The reason for this sharp contrast is as follows: When the  $\beta$ -features of lexical items inside  $v_bP$  are deleted, the operator *which* and the internal head *book* in (8a) fail to be located outside the ellipsis site, and thus, the  $\beta$ -features of *which* and *book* must be deleted inside the ellipsis site. Thus, (8a) where *which* is pronounced outside the ellipsis site, is ruled out. However, in (8b), the relative operator is null and *that* is a complementizer. When  $v_bP$  ellipsis occurs, the  $\beta$ -features of the internal head *book* are deleted. Nonetheless, the constituent consisting of the null operator and the internal head, which is deprived of its  $\beta$ -features, is eligible for further syntactic operations. Then, the null operator and the internal head, which lacks the  $\beta$ -features, move further to relative [Spec,CP]. If everything deleted inside the ellipsis site is frozen for further operations, as Aelbrecht and Baltin suggest, both (8a) and (8b) are predicted to be ungrammatical, since the operator fails to move to relative [Spec,CP].

**b. Topicalization.** Chomsky (1981) and Lasnik and Stowell (1991) argue that a topicalized element is base-generated in the surface position and binds a null operator moved from its base-position to Comp (in modern terms, [Spec,CP]). I will call this the base-generation approach. Now, let us consider (9).

- (9) (?)The portrait of John<sub>1</sub>, he<sub>1</sub> dislikes.

It is widely accepted that an  $\bar{A}$ -moved element containing an R-expression must be interpreted in its base position (Lebeaux 1988, Chomsky 1995, *inter alia*). If the topicalized element in (9) were moved from the complement position of *dislikes* to its surface position, it is predicted that (9) would be ungrammatical, due to Binding condition C. This implies that the base-generation approach is an available option in generating English topicalization. Bearing this in mind, let us consider (10).

- (10) His brother, Bill shouldn't be proud of, but his sister, he should.

The fact that (10) is grammatical indicates that the null operator can be moved out of the ellipsis site to [Spec,CP] after  $v_bP$  ellipsis. Otherwise, the null operator could not be moved to [Spec,CP], and thus, (10) would be ungrammatical.

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