

## Stripping and topless complements

This squib shows that, contrary to previous claims, stripping in English is possible in embedded clauses, however, only when the complementizer is absent. While these facts are problematic for earlier accounts of stripping, I argue that the combination of a zero spell-out view of ellipsis and a particular approach to phasehood and the structure of embedded root clauses derives the distribution of stripping in English. I then briefly consider stripping in other languages and show that the analysis has the flexibility to accommodate cross-linguistic differences in the distribution of stripping.

### 1. A restriction on stripping

Stripping refers to constructions such as (1) in which an entire clause except one constituent is elided (Hankamer and Sag 1976, Lobeck 1995, Merchant 2003). Following Merchant (2003), who provides several arguments against a structure involving movement of the remnant from a conjoined phrase, I assume that stripping involves a structure with clausal conjunction (to be specified below) and clausal ellipsis.<sup>1</sup>

- (1) a. *Jane gave presents to John, but not to Geoff.* [Lobeck 1995: 27, (66a)]
- b. *Jane loves to study rocks, and geography too.* [Lobeck 1995: 27, (66b)]
- c. *Abby speaks passable Dutch, and BEN, too.* [Merchant 2003: (1)]
- d. *Abby speaks passable Dutch, AND Ben.* [Merchant 2003: (2)]
- e. *Abby can speak passable Dutch, and Ben, too.*

Stripping is claimed to be restricted to coordinate structures and impossible in subordinate clauses as in (2a-c). Corresponding VP-ellipsis constructions, on the other hand, are

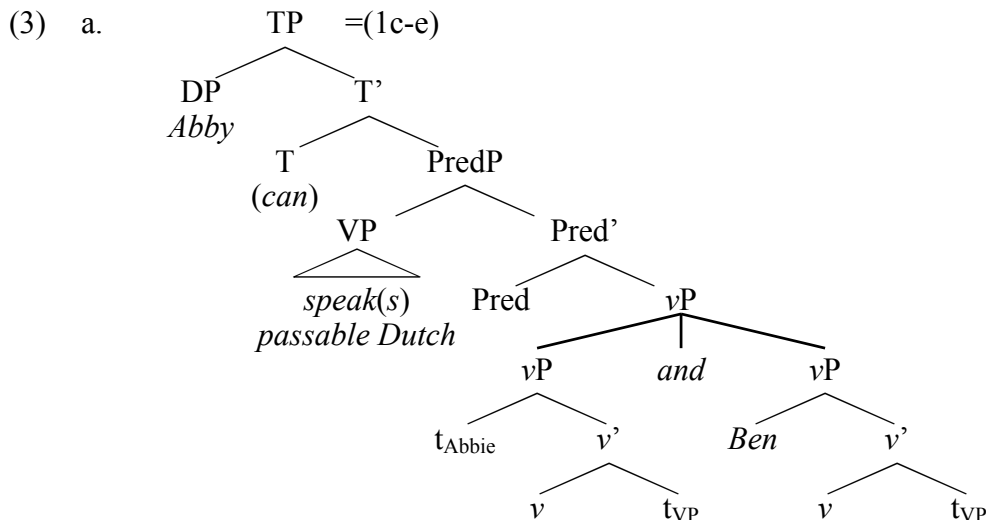
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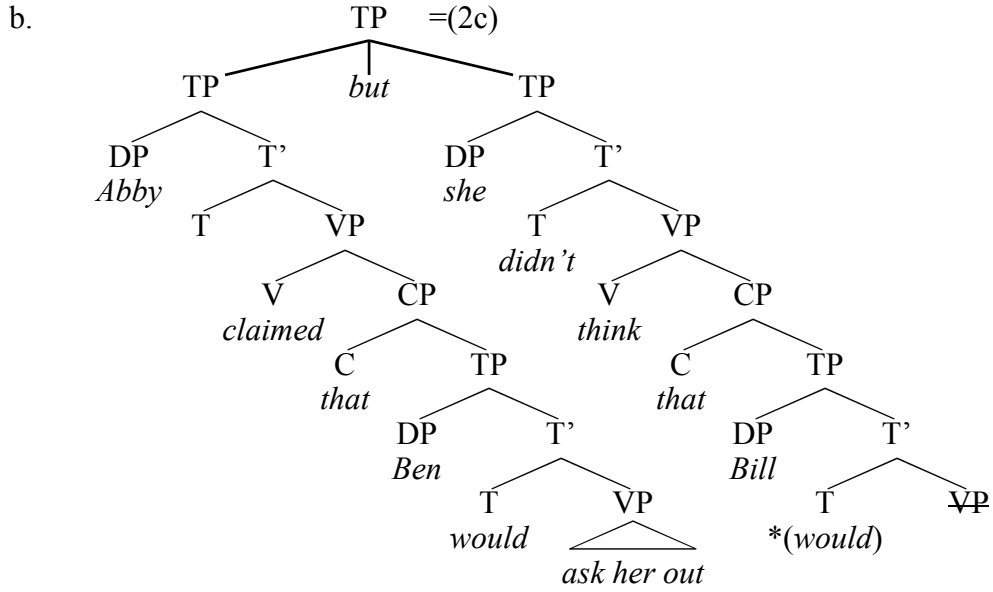
<sup>1</sup> Thanks to Jonathan Bobaljik, Jon Gajewski, Jason Merchant, Troy Messick, and Peter Smith for providing English examples.

possible in embedded contexts (cf. (2d,e).

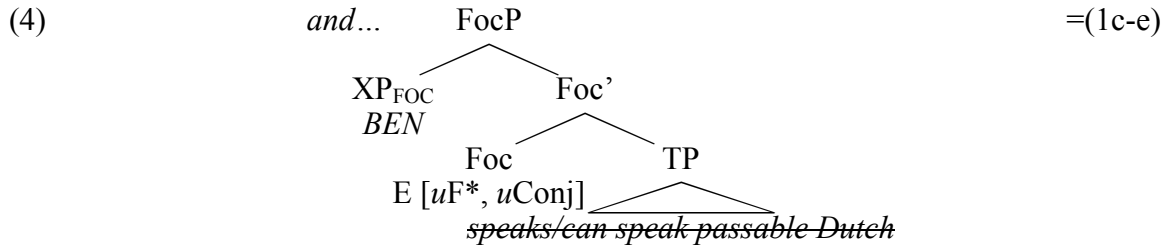
- (2) a. *\*Jane loves to study rocks, and John says that geography too.* [Lobeck 1995: 27, (72b)]  
 b. *\*Abby wanted to take Dutch, because Ben.* [Merchant 2003: (20)]  
 c. *\*Abby claimed Ben would ask her out, but she didn't think that Bill (too).* “(21)”  
 d. *Abby wanted to take Dutch because Ben does.*  
 e. *Abby claimed Ben would ask her out, but she didn't think that Bill would.*

There are two proposals for how this restriction can be accounted for (a third approach will be discussed in section 3 after I present my analysis). Following Johnson (2009), who discusses a similar restriction in gapping, stripping could involve vP coordination as in (3a), with the shared VP undergoing ellipsis or across-the-board movement. Since conjunction is one clause up in (3b) (=2c)), a low vP coordination structure is not possible, and therefore, the modal *would* and the lowest VP cannot be shared by the two conjuncts (i.e., across-the-board movement of the VP above the conjunction is not possible). Only a VP-ellipsis configuration in which the embedded modal is present in the second conjunct can be derived.





A different approach would be, following Merchant (2003), to encode the stripping restriction as part of the lexical properties of the feature licensing ellipsis as in (4). Merchant suggests that the head selecting the TP in a stripping context is equipped with an ellipsis feature ( $E_{\text{stripping}}$ ) which licenses its complement to be elided.  $E_{\text{stripping}}$  involves a strong focus feature which attracts a focus element to its specifier. Furthermore,  $E_{\text{stripping}}$  involves an uninterpretable feature  $u\text{Conj}$  which needs to be checked by a higher conjunction. The restriction that stripping is only possible in conjunctions thus comes from the feature licensing ellipsis.



While these two approaches capture the basic stripping data in (1) and (2), they make the wrong prediction for embedding structures without complementizers. As shown in (5),

there is a sharp contrast between Merchant's and Lobeck's embedding examples, repeated as (5a) and (5c), respectively, in which the complementizer is present, and the corresponding examples in (5b) and (5d) where the complementizer is omitted. Further examples are given in (6) and (7). The examples in (6) are from a corpus search conducted on COCA and have been confirmed with native speakers. The contexts of these examples clearly point to embedding structures rather than quotes, since *you* is interpreted indexically. The same is the case in (7), where *this year* refers to 2013. Both (6) and (7) are sharply ungrammatical if *that* is added.

- (5) a. \**Abby claimed (that) Ben would ask her out, but she didn't think that Bill (too).*  
b. *Abby claimed (that) Ben would ask her out, but she didn't think Bill (too).*<sup>2</sup>  
c. \**Jane loves to study rocks, and John says that geography too.*  
d. *Jane loves to study rocks, and John says geography too.*
- (6) a. [*W*]*hen we asked her ... who her favorite new country star is, she said you.*  
b. *When I get asked who's the biggest diva on the set, I say you.*
- (7) a. *First, they thought it would be done last year, then they thought (\*that) THIS year.*  
b. *First, they predicted there would be driverless cars in 2000, then they predicted (\*that) THIS year.*

It is hard to see how the difference between (5a,c) and (5b,d) can be accounted in John-

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<sup>2</sup> The example in (5b) also shows that a parenthetical analysis of the higher clause (*she didn't think*) cannot be maintained. In section 4, I suggest that the coordinator *but* imposes a contrast requirement, which can be met by reversed polarity in the two conjuncts or a contextual contrast arising through the implicature of *too*. In the absence of *too*, negation is thus required in one of the conjuncts. With the right intonation and with stress on BILL, (5b) can be used without *too*, which shows that the contrast requirement of *but* is met by negation in the second conjunct (cf. the impossible \**Abby claimed Ben would ask her out, but Bill*). Thus, the embedded clause must be an integral part of the sentence and cannot be parenthetical.

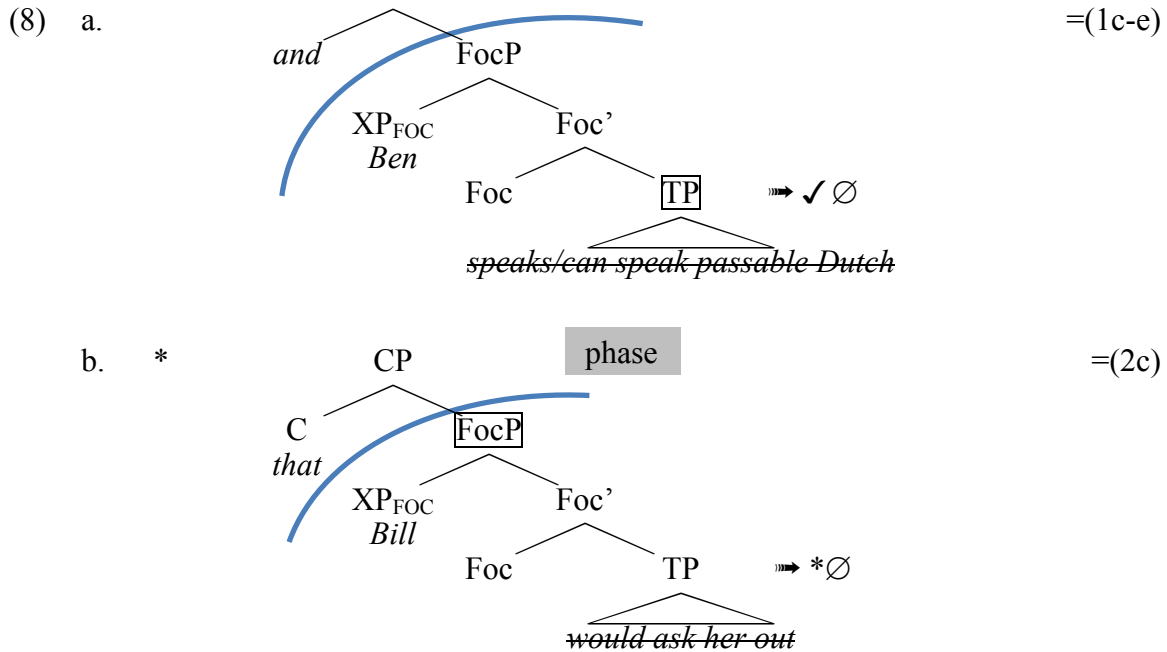
son's or Merchant's approaches. As in (3b) (= (5a)), conjunction one clause up from the clause with the stripped material in (5b) would prohibit low vP coordination and sharing of the embedded VP and IP. The presence or absence of a complementizer would not make any difference here. Similarly in Merchant's approach, the  $E_{\text{Stripping}}$  feature would need to be licensed by conjunction, which is too far away in (5a), and it would presumably also be too far away in (5b). In the next section, I introduce an alternative approach to ellipsis, which, together with a particular view of phasehood, provides a unified account of the facts discussed so far.

## 2. Ellipsis as zero spell-out

Recently, several works have proposed that ellipsis is a form of spell-out: phase heads trigger spell-out of their complements, and ellipsis is the option of not realizing a spell-out domain [SOD] at PF (see Gengel 2006, 2009, Gallego 2009, van Craenenbroeck 2010b, Rouveret 2012, Bošković To appear). Thus, elided constituents are unpronounced SODs. I will refer to this approach as the *zero spell-out* approach.

Following Merchant's basic structure (see also Nakao et al. 2012), a zero spell-out approach to ellipsis derives stripping and the embedding restriction from a structural difference between (1) and (2), as illustrated in (8). The crucial assumption followed here is that phasehood is determined contextually—the top projection of a cyclic domain, whatever its category or size, functions as a phase (see Bobaljik and Wurmbrand 2005, 2013, Bošković To appear, Wurmbrand 2013 for details and arguments for such a dynamic phasehood view). In a regular stripping context such as (8a), the top projection of the stripping clause is the focus phrase, hence the TP is a SOD and leaving that SOD unpro-

nounced is predicted to be possible. In the embedded context in (8b), on the other hand, the top projection of the embedded clause is the CP, making the FocP the SOD (see below). Since the TP is not a SOD, stripping is correctly predicted to be impossible.



This approach predicts that the complement of a phase head C should be elidable, which is indeed the case in standard sluicing constructions (see Merchant 2001, van Craenenbroeck 2010b, among many others). However, while being a SOD is a necessary condition for ellipsis, it is, of course, not a sufficient condition. In addition to involving the appropriate structural configuration, ellipsis is also subject to a parallelism/identity requirement between the elided and antecedent constituent (see, among many others, Sag 1976, Fiengo and May 1994, Johnson 2001, Merchant 2001, 2008, 2009/11). In the present context, this will exclude ellipsis of FocP (a SOD, but one without a parallel antecedent) in cases such as (8b) (cf. \**Abby speaks passable Dutch, because Ben speaks pass-*

*able Dutch*).<sup>3</sup>

Although the three accounts discussed so far make the same predictions for the cases in (1) and (2), they differ regarding the examples in (5) through (7). Both Johnson's low coordination account and Merchant's  $E_{\text{Stripping}}$  feature account prohibit stripping in contexts where the elided XP is in an embedded clause, even if that higher clause is part of a conjunction. The zero spell-out account, on the other hand, predicts stripping to be possible in embedded clauses, as long as there is no CP. This is, I argue, exactly what we find in embedded clauses lacking *that*.

The structure of *that*-less complements is a controversial issue, and the question of whether such clauses involve a CP-less structure or an embedded CP with an empty complementizer is still under debate.<sup>4</sup> While I will not be able to solve this debate, I believe that the properties of stripping may shed some interesting new light on this issue. Recall that the crucial difference between (8a) and (8b) is the presence of the CP. If there is no CP, the TP is a SOD and can thus be elided. In contrast, if a CP is present, TP is not a SOD, and hence cannot be elided. If, following the CP-less view, *that*-less embedded clauses lack their top projection, we are in a position to account for the contrasts in (5) through (7). The relevant parts of the structures are given in (9). In (9a) (= (5a)), *think*

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<sup>3</sup> Following Merchant (2007), I assume that two conjuncts with parallel traces, which are bound by different antecedents outside the conjuncts qualify as identical for the purpose of ellipsis. That is, the TP [<sub>TP</sub> t<sub>Abby</sub> *speaks passable Dutch*] in (1a-c)/(8a) is an appropriate antecedent for the elided TP [<sub>TP</sub> t<sub>Ben</sub> *speaks passable Dutch*].

<sup>4</sup> See, among others, Pesetsky and Torrego (2001, 2004, 2007), Bošković and Lasnik (2003) for the empty complementizer view; and Hegarty (1991), Webelhuth (1992), Doherty (1993, 1997, 2000), Bošković (1997), Svenonius (1994), Franks (2005), Wurmbrand (To appear) for a CP-less approach.

combines with a CP, which, like in (8b), prevents the TP from eliding since it is not a SOD. The same is the case for (5c) and the versions with *that* in (6) and (7). In (9a) (=5a)), on the other hand, *think* combines with a CP-less embedded clause, which makes the focus phrase the top projection and hence a phase. As in (8a), the TP is a SOD, and zero spell-out of the TP is thus correctly predicted to be possible in (5b,d), (6) and (7).

- (9) a. \*...but she didn't think [<sub>CP=phase</sub> *that* [<sub>FocP=SOD</sub> *Bill* \*<sub>[TP ~~would ask her out~~]]]</sub>  
 b. ...but she didn't think [<sub>FocP=phase</sub> *Bill* ✓<sub>[TP=SOD ~~would ask her out~~]]]</sub>

The current account also extends to fragment answers (thanks to Jason Merchant for drawing my attention to these cases). Assuming a clausal ellipsis account of fragment answers (see Merchant 2004), the utterance in (10b) involves a FocP with the remnant NP in its specifier. If this FocP is the top projection, deletion of the complement TP is possible, exactly as in (8a)/(9b). However, if a complementizer, i.e., a CP, is added, FocP ceases to be a phase and TP would not be a SOD anymore, thus not allowing TP-deletion.

- (10) a. *How does Nixon eat his tapioca. I think with a fork.* [Morgan 1973: 732, 105-6]  
 b. *I think (\*that) with a fork.*

### 3. An alternative?

In this section, I discuss a potential alternative account which also derives the impossibility of complementizers in stripping contexts.<sup>5</sup> Baltin (2010) proposes that the cross-linguistic restriction that sluicing cannot strand a complementizer ((11a), even in languages in which embedded interrogatives can occur with a filled C) or T-elements moved

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<sup>5</sup> I thank a reviewer for emphasizing this point.



to C ((11b), see Lobeck 1995, Lasnik 1999, Merchant 2001) is accounted for by the assumption of a split CP-structure, specifically the structure in (11c) where the *wh*-phrase is in Spec,Foc(us)P and moved T or *that* are in the lower Fin(ite) head.

- (11) a. *They discussed a certain model, but they didn't know which model (\*that).*  
[Baltin 2010: 331, (2)]
- b. A: *He visited somebody.*  
B: *Oh, really. Who did he visit? Who (\*did)?* [Baltin 2010: 331, (3)]
- c. [ForceP [TopP [FocusP *who/which model* [FiniteP *that/did* ]]]]

Assuming that sluicing targets FinP, it then follows that moved T elements and complementizers must always delete. This account could then be extended to stripping, that is, (5c,d), for instance, would have the structure in (12b), where, again, *that* must be deleted if stripping applies to FinP.

- (12) a. *Jane loves to study rocks, and John says (\*that) geography too.*  
 b. *says<sub>[FocusP]</sub> geography<sub>[FiniteP that [TP Jane loves to study t ] ]</sub>*

Although this account is attractive as it would relate the obligatory omission of *that* in stripping contexts to similar properties found in sluicing, it faces several questions when considered for English (see below for other languages). First, as argued in Rizzi (1997) and Haegeman (2000a, b), in embedded questions, the *wh*-XP is not in Spec,FocP, but rather in Spec,ForceP, since embedded interrogatives are selected by the matrix verb and the highest CP-projection must therefore carry the *wh*-feature, which then attracts the *wh*-XP to its specifier. Furthermore, embedded *wh*-XPs can co-occur with lower focus elements, such as the negative inversion cases given in (13a-c) or the topic constructions in

(13d,e).<sup>6</sup>

- (13) a. *Lee wonders ?whether/why under no circumstances at all would Robin volunteer.* [Culicover 1991; Haegeman 2000a: 136f; (28)]  
 b. *?Lee wonders who under no circumstances would Robin help.*  
 c. *?Lee wonders what under no circumstances at all would Chris ever buy.*  
 d. *I was wondering for which jobs, during the vacation, I should go into the office.* [Haegeman 2000a: 135; (25)]  
 e. *No one could ever explain to me how in just fifteen minutes two children could make such a mess;* [Culicover 1996: 460, (47b)]

Proponents of a split CP structure therefore assume that the structures of embedded questions are as in (14) rather than as in (11c).<sup>7</sup>

- (14) a. [<sub>ForceP</sub> *wh*-XP [<sub>FocP</sub> *under no circumstances {would}* [<sub>FinP</sub> *{would}* ]]]  
 b. [<sub>ForceP</sub> *wh*-XP [<sub>Top</sub> *during the vacation* [<sub>FinP</sub> ]]]

If, as suggested in Baltin (2010), sluicing targets FinP, it would be predicted that focused or topicalized XPs should survive sluicing. Given the markedness and speaker uncertainty in *wh*-contexts with inversion, I only give examples with topics here. While there is speaker variation regarding the strength of ‘dislike’, examples with stranded topics as in

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<sup>6</sup> Embedded *wh*-constructions with topics are generally accepted. Embedded *wh*-constructions with lower foci and inversion are marked for most speakers, however for many not impossible (the speakers I consulted show various degrees of acceptance, with (13a) with *why* being the best [but see the next section] and (13c) the least liked). Culicover (1996: 456, (37a,b)) also gives relevant examples with relative clauses: *Terry is the person to whom only books like these would I give; Terry is the person for whom on my vacation not even a postage stamp did I remember to buy.*

<sup>7</sup> In contrast to what Baltin (2010) suggests, Haegeman (2000a, b) assumes that T-to-C movement in (13a-c) targets Foc rather than Fin, since this movement is triggered by the NEG-criterion, which requires a spec-head relation between the focused XP and the Foc head. Thus, under Haegeman’s account, the prohibition of stranding T elements could not be derived by the assumption that sluicing targets FinP.

(15c) are generally seen as clearly degraded compared to parallel examples without sluicing, (15a), or sluicing without a stranded topic, (15b). For a Rizzi-style split-CP system, this suggests that sluicing typically targets the complement of Force rather than FinP; FinP only being a potential ellipsis site for speakers who accept (15c). In the analysis proposed here, it follows that sluicing targets the complement of the highest C-head. The structure I assume is as in (15d), with topics adjoined to TP.<sup>8</sup> Since TP is a SOD, sluicing typically affects the entire TP (both TP segments), but can also strand the higher adjunct, at least marginally for some speakers.

- (15) a. *?Megan knows that on Monday, Barry brought the mail to campus, but she doesn't know who, on Tuesday, brought the mail.*  
 b. *Megan knows that on Monday, Barry brought the mail to campus, but she doesn't know at what time ~~Barry brought the mail to campus~~.*  
 c. *?-\*Megan knows that on Monday, Barry brought the mail to campus, but she doesn't know who, on Tuesday ~~brought the mail to campus~~.*  
 d. ... know [<sub>CP</sub> who/at what time [<sub>TP</sub> on Tuesday [<sub>TP</sub> ... ]]]

Second, as laid out in (12b), the extension of Baltin's sluicing account to stripping would entail that complementizers are lower than focused or topicalized XPs in embedded clauses. For English, this is clearly not the case, as shown in (16a-c). For that reason,

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<sup>8</sup> The difference between focus projecting a CP-projection above TP, whereas topicalized XPs adjoin to TP is motivated by two facts: i) focused and negative XPs (but not topicalized XPs) involve inversion, which requires a head position between the focused XP and TP; and ii) in inversion contexts, the negative XPs take sentential scope in contrast to topicalized XPs without inversion (see e.g., the meaning difference between *With no clothes does Robin look attractive* ≈ there are no clothes that make her look attractive; vs. *With no clothes, Robin looks attractive* ≈ Robin looks attractive when naked; see Horn 1989, Haegeman 2000: 31, (31)). The two interpretations are reflected in the structural difference.

Rizzi (1997) and Haegeman (2000a, b) argue that the complementizer in embedded declaratives is in Force (cf. (16d)), rather than in Fin.

- (16) a. *John thinks that geogrpahy, Jane loves to study.*  
 b. \**John thinks geography that Jane loves to study.*  
 c. *I stress that, during the vacation, on no account will I go into the office.*  
 [(Haegeman 2000a: 135, (26a)]  
 d. *stress* [<sub>ForceP</sub> *that* [<sub>TopP</sub> *during the vacation* [<sub>FocP</sub> *on no account will* [<sub>FinP</sub> ]]]]

To maintain the structure in (12b) thus appears to be quite unmotivated for English. Note that the co-occurrence of *that* and the inverted auxiliary in (16a) also makes an account according to which *that* corresponds to T which is moved into the CP-domain unlikely. Rather the most straightforward account seems to be that *that* is base-generated in the highest CP projection. This, however, then raises the question of why *that* must be missing in stripping cases, which is exactly what the zero spell-out analysis proposed here accounts for.

A Baltin-style split CP structure does, however, seem to be the correct approach for stripping in verb second languages such as German. As shown in (17a), stripping is possible in German, but only when the verb (traditionally assumed to be in C) is also deleted. Under a traditional CP-structure, this is surprising. However, if the moved XP and the finite verb are in different projections, as suggested by Baltin and shown in (17b), the outcome is as desired. I assume that TopP or FocP is the top projection, hence a phase, and its complement FinP, which contains the finite verb, is a SOD and hence deleted under stripping. Furthermore, German, like English, allows embedded stripping, however, as predicted, only when the complementizer is not present (cf. (17c)).

- (17) a. *Leo spricht Deutsch und Viktor (\*spricht) auch*  
 Leo speaks German and Viktor (\*speaks) also  
 ‘Leo speaks German and Viktor too.’
- b. *and* [TopP/FocP=Phase *Viktor* [FinP=SOD *speaks* [TP t<sub>Subj</sub> t<sub>T</sub> *German* t<sub>v</sub> ] ] ]
- c. *Leo spricht Englisch und Kai behauptet (\*dass) Lina auch*  
 Leo speaks English and Kai claims (\*that) Lina also  
 ‘Leo speaks English and Kai claims (\*that) Lina, too’

#### 4. Additional material in stripping contexts

In this section, I turn to constructions, in English and other languages, in which stripping contexts involve remnants containing material in addition to the focused XP. I show that these constructions do not challenge the claim that stripping can only apply to SODs.

The account proposed here correctly predicts that stripping is impossible in *wh*-movement contexts in English. Since *wh*-movement requires a CP above the focus phrase, TP would not be a SOD anymore, and deletion is blocked as shown in (18).

- (18) a. *\*John ate natto yesterday, but when sushi?*  
 b. *but* [CP=phase *when* [FocP=SOD *sushi* \* [TP≠SOD ... ] ] ]      \*TP → ∅

There is, however, a construction in English that at first sight seems to go against the analysis proposed here. As shown in Nakao et al. (2012), *why* questions do allow stripping, that is, examples such as (19a,b) appear to be a combination of sluicing and stripping. The analysis proposed in Nakao et al. (2012) is given in (19c): following a Rizzi-style split CP, *why* occurs in the topmost projection, ForceP, and the stripping remnant in FocP. Stripping applies, per assumption, to the TP. Since TP would not be a SOD, this account is not compatible with the approach to ellipsis proposed here.

- (19) a. A: *John ate natto.*

- B: *Why NATTO?* (but not something else) [Nakao et al. 2012: 270]
- b. A: *John sold a lot of pictures.*  
 B: *Why PICTURES OF HIMSELF?* [Nakao et al. 2012: 271]
- c. [<sub>ForceP</sub> *Why* [<sub>TopP</sub> [<sub>FocP</sub> *NATTO* [<sub>FinP</sub> [<sub>TP</sub> *John ate t<sub>Obj</sub>* ]]]]]. [“ 276]

The account in (19c) leaves open why *wh*-stripping is only possible with *why* and not with other *wh*-phrases. The authors do, however, provide an important observation regarding *why*-stripping: since, in contrast to regular *why* sluicing ((20a), see Merchant 2001), *why* stripping as in (20b) does not show island sensitivity, they propose that in the latter, *why* is not moved to the initial position but base-generated there (the authors also provide arguments based on scope for a base-generated position).

- (20) a. \**Mary said [that John left for a certain reason], but I don't know why.*  
 b. A: *John is happy [because Bill ate natto].*  
 B: *Why NATTO?*

Thus, *wh*-movement as in (18) prohibits TP-deletion but base-generation of *why* allows it, and the question is why.<sup>9</sup> The account provided here has a way of encoding this difference. Maintaining the analysis in (18b), stripping is excluded in the presence of a CP above FocP. In *why* stripping cases, on the other hand, the structure is as in (21). The

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<sup>9</sup> One possibility for Nakao et al.'s account may be to assume that focus XPs (but not topic XPs) block *wh*-movement across it. However, as we have seen in the previous section, Culicover (1991, 1996) and Haegeman (2000a) provide cases (which have been confirmed by native speakers I consulted) where *wh*-movement is compatible across lower foci. Furthermore, *wh*-movement across topics is possible, thus, if there is an intervention effect, it would need to be restricted to inversion cases. The account I provide in the text excludes stripping in *wh*-contexts independently of whether *wh*-movement across a focus XP is possible or not, thus allowing *wh* » Foc inversion cases (for speakers who allow those constructions) but still accounting for the stripping restriction in (18).

FocP is built as in regular stripping cases, and since there is no *wh*-movement, I assume that there is no  $C_{wh}$  attracting a *wh*-XP.<sup>10</sup> Rather, the extended CP domain terminates with FocP, which is thus a phase. As for base-generated *why*, I assume that in the cases at hand, it is CP-external (like certain topics), possibly adjoined to FocP. As pointed out in Nakao et al. (2012), *why* has a special property of focus association (see also Bromberger 1992), which allows it to combine with FocP directly, whereas other *wh*-expressions need to be associated with specific positions in the TP to derive the correct interpretations.

- (21)  $[_{FocP} \textit{why} [_{FocP=phase} \textit{NATTO} [_{TP} \textit{John ate } t_{Obj}] ]]$

Looking beyond English and German, we find that stripping is allowed in constructions with a complementizer in certain languages, as illustrated in (22a) for Hungarian and (22b) for Spanish.<sup>11</sup> An interesting generalization about which languages allow these constructions is provided in Craenenbroeck and Lipták [C&L] (2006, 2008): such stripping is only possible in languages in which *wh*-movement targets FocP, rather than CP. C&L propose that in those languages Foc is equipped with an operator feature, which, like C in English-type languages, licenses ellipsis of its complement.

- (22) a. *János meghívott valakit és azt hiszem, hogy BÉLÁT*  
 Janos invited someone.ACC and that.ACC think that Béla.ACC  
 ‘János invited someone and I think it was Béla whom he invited.’

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<sup>10</sup> On true (non-echo) interrogatives without *wh*-movement to Spec,CP in English, see e.g., Ginzburg and Sag 2000, Bobaljik and Wurmbrand In prep.

<sup>11</sup> I thank Luis Vicente for drawing my attention to Spanish. Morgan (1973: 749, fn. 5) states that *that*-stripping is possible in Spanish and Albanian; furthermore, van Craenenbroeck and Lipták (2006, 2008) state that, in addition to Hungarian, *that*-stripping is also possible in Basque, Polish, Russian, and Hebrew.

[C&L 2006: 260, (26a)]

- b. *Me dijeron que si llueve (que) se quedan aquí,*  
CL said that if rains (that) CL stay here  
*y que si nieva (que) también*  
and that if snows (that) too  
‘They told me that they are going to stay here if it rains or snows.’

[Villa-García 2012a: 210, (16)]

- c. [CP *that* [<sub>FocP=OP=phase</sub> BÉLÁ/*if snows* (*que*) [TP=SOD .... ]]]

The approach proposed here also has a straightforward way of implementing this generalization: the head that attracts a *wh*-phrase (i.e., the head equipped with the operator property) is a phase head. In English, this coincides with the top projection of the CP-domain, in the account here C. However, in *wh*-focus languages, this is Foc. As shown in (22c), if FocP is a phase, it then follows that its complement, TP, can be elided, despite the presence of a higher complementizer. The advantage of this approach is that C&L’s generalization could be derived. In C&L’s account there is no connection between licensing ellipsis and having the operator property. However, in the account here there is—both properties are tied to phasehood. While this claim will, of course, need to be backed up by showing that English-type languages and *wh*-focus languages display different behavior regarding locality or other phasehood properties, some initial evidence for the phasal status of FocP is provided by the distribution of complementizers in Spanish. As shown in Villa-García (2012a, b) and illustrated in the example in (22b), Spanish allows multiple occurrences of the complementizer *que*. Interestingly, Villa-García (2012b) argues that medial *que*, such as the *que* associated with a TopP or FocP, creates island effects. This is expected, if FocP constitutes a phase, exactly as proposed here.



A last set of facts that bear on the analysis proposed here are cases in which negation is stranded under stripping in addition to the focused element, as in (23a,b). Furthermore, negation is typically obligatory in cases with the connectors *but* and *although*, (23c).

- (23) a. *Abby speaks passable Dutch, (al)though not Ben.* [Merchant 2003: (38c)]  
 b. *Abby speaks passable Dutch, (but) not Ben.* [Merchant 2003: (1c)]  
 c. *\*Abby speaks passable Dutch, (al)though Ben too.* [Merchant 2003: (38a)]

I assume that in the contexts above, *but* and *although* are coordinators which require a contrast between the two conjuncts, which can be instantiated via reversed polarity in the two conjuncts (cf. (24)).<sup>12,13</sup>

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<sup>12</sup> The preposition *although* (see Huddleston and Pullum 2002: 735f), similar to *because*, can be used in different ways. One function of *although* is a subordinating preposition, which I assume is not what we find in cases such as (23). Like adverbial clauses introduced by *because* (expressing causation), concessive *although* can also trigger embedded root phenomena in the clause it combines with (see Heycock 2006, Wegener 1993). In German, *obwohl* ‘although’ can combine with a verb second clause, and in English, too, *although* can introduce a root question (e.g., *Some people want me to learn Greek, although why should I?* Agbayani and Zoerner 2004: 205). For that reason, Agbayani and Zoerner assume that *although* is a CP-adjoined adverb. Huddleston and Pullum (2002: 1321) further note that *although* can link finite VPs (*They both remembered Jane, though rarely spoke of her*), in which case an initial position of the second ‘conjunct’ is not possible (*\*They both, though rarely spoke of Jane, remembered her*), and they state that such cases “might be regarded as a marginal coordinative construction” [p 1321]. I leave open here whether *although* is a coordinator syntactically or an adverbial adjoined to the highest projection of the clause it combines with. Under either view, the XP combining with *although* (FocP in (23b)) would count as a phase, and hence stripping of its complement will be allowed.

<sup>13</sup> The contrast requirement can also be met contextually (without negation in either conjunct), if the context supports an ‘only’ interpretation of the first conjunct, which can then be contrasted with *too* in the second conjunct (e.g., *Who speaks Dutch? Abby speaks Dutch. Oh, but Ben speaks Dutch, too.*). For the stripping cases considered here, these contexts are not relevant.

- (24) a. *Abby speaks Dutch, but/although Ben doesn't/\*does.*  
 b. *Abby doesn't speak Dutch, but/although Ben does/\*doesn't.*

Polarity differences are possible in VP-ellipsis contexts (cf. (24a)/(25a), since the TP in the second conjunct is overt (only the VP is elided) and can thus be different from the TP in the first conjunct. In stripping contexts, on the other hand, parallelism requires that the two TPs be identical. Since, as shown in (25b), the elided TP (the highlighted part) cannot simultaneously involve the same polarity value (as required by parallelism) and a different polarity value (polarity reversal triggered by *but*, *although*), stripping in (23c)/(25b) is impossible. The only context which allows both requirements to be met is when the TP matches in polarity, but the remnant of ellipsis involves polarity reversal. This is the case in (23a,b)/(25c), where the focused phrase involves constituent negation.

- (25) a. [TP [-Neg] *Abby speaks Dutch*] *but* [TP [+Neg] *Ben doesn't* [<sub>VP</sub> t<sub>Ben</sub>  $\forall P$ ]] ✓ VPE  
 b. [<sub>FocP</sub> *Abby* [TP [-Neg] t<sub>Abby</sub> *speaks passable Dutch*]] *but/although* =(23c)  
 \* [<sub>FocP</sub> *Ben* [TP [-Neg] t<sub>Ben</sub> *speaks passable Dutch*]] \*polarity  
 \* [<sub>FocP</sub> *Ben* [TP [+Neg] t<sub>Ben</sub> *doesn't speak passable Dutch*]] \*parallelism  
 c. [<sub>FocP</sub> *Abby* [TP [-Neg] t<sub>Abby</sub> *speaks passable Dutch*]] *but/although* =(23a,b)  
 [<sub>FocP</sub> *not Ben* [TP [-Neg] t<sub>Ben</sub> *speaks passable Dutch*]] ✓ polarity, ✓ parallelism

Merchant (2003) leaves open whether examples such as (23a,b) involve constituent negation or a NegP projected above the focus phrase. Unless NegP constitutes a phase by itself, the zero spell-out approach is only compatible with the former. As pointed out to me by Winfried Lechner, p.c., the addition of *either* supports this claim (see Klima 1964). While *either* can be added to VP-ellipsis cases such as (26a), which clearly involve sentential negation, adding *either* to a stripping context with a negative remnant is impossi-

ble (cf. (26b,c)).<sup>14</sup>

- (26) a. ?*Sue doesn't speak Dutch, but Abby does. Ben doesn't either.*  
b. *Sue doesn't speak Dutch, but Abby does, (al)though not Ben.*  
c. ?\**Sue doesn't speak Dutch, but Abby does, (al)though not Ben either.*

## 5. Extensions and conclusion

The restrictions noted for stripping in English are very similar to restrictions known for gapping. Since the distribution of gapping is considerably more complex, I can only provide a preliminary suggestion for how to extend the current account of stripping to similar facts found with gapping. Like stripping, gapping appears to be restricted to conjunctions and be impossible in embedded contexts (see, among others, Koutsoudas 1971, Sag 1976, Hankamer 1979, Wilder 1994, Williams 1997, Johnson 2001, 2009). This is illustrated in (27) (examples from J[ohnson 20]09).<sup>15</sup> If gapping can be analyzed as involving

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<sup>14</sup> A further interesting construction pointed out to me by a reviewer involves elliptical *if* statements. Stripping appears to be possible in “if not” contexts, e.g., *John will invite someone to the party, but if not Mary, I'd be surprised*. Negation plays a crucial role in this construction since it is often obligatory, which may point to a very tight connection between *if* and *not* (cf. *\*If now, when else should we eat fugu?*, *\*If Ralph, who else should we invite?*; Jason Merchant, p.c.). Moreover, the *if* clause can combine with an interrogative root clause (e.g., *If not now, (then) when should we eat fugu?*), which may indicate a higher (above CP) level structure. I have to set the details of this construction aside here, but preliminarily suggest that these constructions do not involve stripping but rather a concealed copula/cleft construction, similar to van Craenenbroeck's (2010a) pseudo-sluicing. This is supported by cases which do not appear to involve ellipsis such as *We need a new representative. If not John, then who will we get to do this?* but are readily accounted for under a ‘pseudo-stripping’ analysis.

<sup>15</sup> All examples in (27) become grammatical with pseudogapping, which, in the current approach would involve focus movement to a focus projection above *vP*; the FocP closes off the extended *vP* phase, making the *vP* a SOD and hence elidable (see Merchant 2007, 2008, Bošković To appear).

movement of multiple XPs to a TP-external focus projection, the difference between (27a) and (27b-e) can be derived in the same way as suggested for analogous examples with stripping. This would then lead us to expect that omission of a complementizer as in (27f) should also show an ameliorating effect in gapping. While most speakers consulted find a contrast between (27e) and (27f), judgments for gapping are in general significantly less clear and stable, and further empirical studies are needed to see whether a unification of stripping and gapping is possible.

- (27) a. *Some have served mussels to Sue and others ~~have served~~ swordfish.* [J09: (1)]  
 b. *\*Some had eaten mussels because others ~~had eaten~~ shrimp.* [J09: (13)]  
 c. *\*Some will eat mussels because others ~~will eat~~ shrimp.*  
 d. *\*Some had eaten mussels and she claims that others ~~had eaten~~ shrimp.* [J09:(15)]  
 e. *\*Some will eat mussels and she claims that others ~~will eat~~ shrimp.*  
 f. *%Some will eat mussels and she claims others ~~will eat~~ shrimp.*

To conclude, I have proposed that a zero spell-out approach to ellipsis, together with a dynamic phasehood view, provides a straightforward account of the distribution of stripping in English, specifically the restriction that stripping can only apply in embedded clauses when the complementizer is missing. While puzzling for other ellipsis approaches, this distribution follows from a zero spell-out approach combined with the view that embedded root clauses are CP-less. Furthermore, following the proposal in Baltin (2010), I have provided a partially split CP-structure for German verb second clauses which accounts for the obligatory absence of the finite verb in German stripping contexts. I have also suggested that the generalization proposed in Craenenbroeck and Lipták (2006, 2008)—that *that*-stripping is only possible in languages in which *wh*-

movement targets FocP rather than CP—can be derived from the assumption that head equipped with the operator property in the CP always constitutes a phase head (possibly in addition to the top projection of the CP domain). If the current account can be maintained after considering the stripping and phasehood properties of a larger set of languages, a general consequence of the system would be that stripping can be used as a phase detector in the CP-domain.

Lastly, the zero spell-out approach also extends to other types of ellipsis: sluicing (CP phase, TP SOD), NP-ellipsis (DP phase, NP SOD), pseudogapping (FocP phase, vP SOD; see fn. 15), and VP-ellipsis (vP phase, VP SOD). While the account proposed here covers the basic cases of these constructions, the distribution of the different types of ellipsis is far more complex, and a detailed account of the structural and phasal properties of these constructions will need to consider each type of ellipsis separately.

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