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The syntax of Dutch embedded fragment answers: on the PF-theory of islands and the WH/sluicing correlation

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Abstract This paper presents new evidence in favour of Merchant's (2004, 2008) PF-theory of islands, which states that island-sensitivity is due to the presence of PF-uninterpretable traces at PF. This new evidence is provided by two types of Dutch embedded fragment answers: whereas one type is island-sensitive, the other one is not. The former differs from the latter in that it involves an extra movement step, leaving an extra trace. Moreover, this paper argues that the WH/sluicing correlation (van Craenenbroeck and Lipták 2006, 2009) makes the correct predictions regarding the (non-)embeddability of fragment answers in Dutch and English. The WH/sluicing correlation states that there is a correlation between the type of WH-movement a language exhibits and the types of clausal ellipsis attested in that language. I show that it follows straightforwardly that, unlike in Dutch, embedded fragment answers are not attested in English.

Keywords Fragment answer · Sluicing · Dutch · English · PF-theory of islands · WH/sluicing correlation · Syntax of [E]-feature

1 Introduction

English exhibits (at least) two types of clausal ellipsis phenomena: (i) sluicing, in which the sentential portion of a constituent question is elided, leaving only the WH-phrase, and (ii) fragment answers, in which a focused non-WH-remnant is found next

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to the clausal ellipsis site. The former is exemplified in (1a), the latter in (1b). They both have "the same propositional content and assertoric force as utterances which are uncontroversial fully sentential structures" (Merchant 2004:662), as shown in (1) in parentheses.

(1) a. Someone called. – Really? Who? (Really? Who called?) [English]
b. Who called you today? – The President. (The President called me today.)

Both sluiced WH-phrases and fragment answers have been analyzed as part of a fully-fledged sentential constituent. This syntactic structure is subject to ellipsis: a large portion of it undergoes deletion at PF, i.e., remains unpronounced (cf. Morgan 1973; Hankamer 1979; Lasnik 2001a, 2001b; Merchant 2001, 2004, 2006, 2008; Brunetti 2003; Frazier et al. 2009; van Craenenbroeck 2010). The remnant-to-be A′-moves to a clause-peripheral position prior to ellipsis of the host clause (TP). As such, the sluiced WH-phrase and the fragment have been extracted out of the ellipsis site, and the elided clausal structure hosts the trace of this movement operation (cf. (2)).[1,2] Connectivity effects provide prime evidence for the incorporation of both ellipsis and A′-movement in the account of sluicing and fragments: sluiced WH-phrases and fragments exhibit the same grammatical dependencies as their correlates in the corresponding non-elliptical sentence. These connectivity effects include, amongst others, the distribution of anaphors (regulated by the Binding Theory) and the availability of preposition stranding in these two types of clausal ellipsis.[3] Their derivation is schematically represented in (2), with the angled brackets enclosing unpronounced material (i.e., depicting PF-deletion).[4,5]

[1]Barbiers (2000, 2002) and Merchant (2004), amongst others, argue that the fronting of the fragment preceding TP-ellipsis is focus-movement. This is discussed in more detail in Sects. 3 and 4.

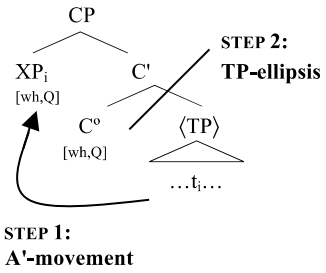
[2]Sluiced WH-phrases and fragment answers are thus not considered to have a syntactic structure which simply consists of the remnant's own phrasal projection (exclusive of any sentential material), unlike in non-structural (or *direct interpretation*) approaches to ellipsis (e.g., Van Riemsdijk 1978; Barton 1990, 2006; Stainton 1997, 1998; Ginzburg and Sag 2000; Culicover and Jackendoff 2005).

[3]Some of these connectivity effects will be elaborated upon in Sect. 3, where the properties of Dutch embedded fragment answers are introduced.

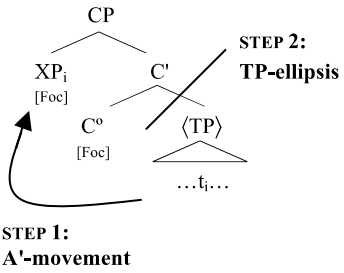
[4]TP-ellipsis is presumably triggered by its sister, the C^o-head. At this point, I will not be going into the specifics of the syntactic triggering of ellipsis (cf. Lobeck 1995; Merchant 2001; Aelbrecht 2009; etc. for numerous possible implementations). I return to this in Sect. 4.

[5]In sluicing (cf. (2a)), a WH-phrase (carrying a [WH]- and [Q]-feature) moves to the left periphery in order to check a feature on the $C^o_{[wh,Q]}$-head of constituent questions, after which TP is elided (cf. Merchant 2001, 2008). The movement involved in fragments (cf. (2b)) is not WH-movement, but focus movement (cf. also Barbiers 2000, 2002; Merchant 2004): a phrase carrying a [Foc]-feature moves to check the matching feature on C^o. For more details on the features involved in sluicing and fragments, see Sects. 3 and 4.

(2) a. *Sluicing*



b. *Fragment answer*



In this paper, two issues raised by the comparison of these two elliptical phenomena are subject to scrutiny. Firstly, while English fragment answers are island-sensitive, sluicing in English is not. To account for this state of affairs, Merchant (2004) argues that island sensitivity is due to the presence of PF-uninterpretable traces at PF (i.e., islands are a PF-phenomenon): traces of island-escaping XPs are marked with a defective feature (represented as *), causing a crash at PF. He proposes that English fragment answers differ from sluicing in requiring an additional movement step in the CP-domain. This movement step leaves a (non-elided) PF-uninterpretable trace, resulting in island-sensitive fragments. Although Merchant's (2004, 2008) PF-theory of islands does derive the difference in island sensitivity between English sluicing and fragments, the motivation for the extra movement step in fragments is unclear. This paper presents new evidence that Merchant's account is on the right track. This new evidence is provided by Dutch embedded fragment answers: one type of Dutch embedded fragments differs from a second type precisely in (i) involving an (independently motivated) extra movement step and (ii) being island-sensitive. Secondly, English sluices are embeddable, whereas English fragment answers are not. Dutch differs from English in that both types of clausal ellipsis are attested in embedded clauses in this language. I argue that the WH/sluicing correlation proposed by van Craenenbroeck and Lipták (2006, 2009) makes the correct predictions for the (non-)availability of fragments and sluicing in Dutch and English subclauses. The WH/sluicing correlation expresses that there is a correlation between the type of WH-movement a language exhibits and the types of clausal ellipsis attested in that language. I show that in English subclauses, WH-phrases move to a higher projection than foci. In Dutch embedded clauses, on the other hand, WH-phrases and foci can have the same landing site.

This paper is organized as follows. Section 2 presents Merchant's (2004, 2008) PF-theory of islands. New evidence for this theory is provided by Dutch embedded fragment answers in Sect. 3. Section 4 discusses the predictions of the WH/sluicing correlation (van Craenenbroeck and Lipták 2006, 2009) regarding the (non-)embeddability of Dutch and English fragments and sluices. Section 5 sums up and concludes.

2 Merchant's (2004, 2008) PF-theory of islands: island-insensitive sluices vs. island-sensitive fragment answers

If the analysis of sluicing and fragments as involving A′-movement to the clausal periphery (prior to TP-ellipsis) is on the right track, they are predicted to obey locality

constraints. A phrase is predicted not to be licensed as a sluice/fragment if its correlate is inside an island: in this case, the phrase cannot move in the corresponding full sentential structure. While this prediction is borne out in the case of English fragment answers, it is not for English sluicing (cf. Sect. 2.1). After introducing the PF-theory of islands in Sect. 2.2, I discuss Merchant's (2004) account of the difference between English fragments and sluices (Sect. 2.3). Merchant (2004) proposes that English fragment answers differ from sluicing in requiring an additional movement step in the CP-domain.

2.1 The data

If fragments and sluices A′-move to a left-peripheral position, they should obey locality constraints on A′-movement. As Merchant (2004:687) notes, testing for island sensitivity in fragment answers is not unproblematic, as the WH-question the fragment would have to answer will contain a locality violation itself. Therefore, Morgan (1973) and Merchant (2004) make use of implicit salient questions: these are yes/no-questions with an intonation rise on a phrase in situ. A question like this can be interpreted with the corresponding WH-phrase replacing the stressed constituent. As there is no movement of this constituent, it can be embedded in an island without resulting in ungrammaticality.[6] The examples in (3a) and (3b)—involving a relative clause and an adjunct, respectively—show that English fragment answers obey locality constraints (cf. Frazier et al. 2009).[7]

(3) (Merchant 2004:688)

a. Does Abby speak the same Balkan language that BEN speaks? [English]
* No, CHARLIE.

b. Did Ben leave the party because ABBY wouldn't dance with him? [English]
* No, BETH.

A′-extraction out of an elided TP in sluicing, on the other hand, is well-known to be island-insensitive (cf. Ross 1969; Chomsky 1972; Lasnik 2001a, 2001b; Fox and Lasnik 2003; Merchant 2001, 2004, 2006, 2008).[8,9] This is shown in (4): while (4a), in which the WH-phrase *which (Balkan language)* has been extracted out of a relative

[6] In the examples given below, stress is marked with SMALL CAPS.

[7] Note that the full sentential counterpart of the fragment answers in (3a) and (3b) is grammatical, as shown in the a-examples in (i) and (ii), respectively. The b-examples demonstrate that, when the fragment is moved out of the island, the full sentential counterparts are ungrammatical.

(i) a. No, Abby speaks the same Balkan language that CHARLIE speaks. [English]
b. *No, CHARLIE_i Abby speaks the same Balkan language that t_i speaks.

(ii) a. No, Ben left the party because BETH wouldn't dance with him. [English]
b. *No, BETH_i Ben left the party because t_i wouldn't dance with him.

[8] Ross' (1969:276–7) original claim was not that sluicing completely eliminates the effect of island. Rather, he claimed that sluicing *improves* island violations. However, this was strengthened in later work by other authors (cf. van Craenenbroeck 2010:269; Merchant 2001:Chap. 3 for discussion and references).

[9] At least, for certain types of sluicing. The 'contrast' sluices discussed in Merchant (2001, 2008, 2009), for example, do show locality effects.

clause island, is ungrammatical, the corresponding sluice in (4b) is grammatical.[10]

(4) Abby wants to hire someone who speaks a Balkan language … [English]
   a. *… but I don't remember [which (Balkan language)]$_i$ Abby wants to hire someone who speaks t_i.
   b. … but I don't remember which (Balkan language).

These differences in island sensitivity between fragment answers and sluicing present us with a puzzle: why are island effects obviated under sluicing, but not in fragment answers? Merchant (2004) tries to answer this question on the basis of his version of the PF-theory of islands, as discussed in the following subsections.

2.2 Ellipsis and island (in)sensitivity: the PF-theory of islands

Under the PF-theory of islands, proposed by Lasnik (2001a, 2001b), Fox and Lasnik (2003), and Merchant (2004, 2006, 2008), amongst others, (strong) island violations are taken to be due to properties of pronounced syntactic structures (and thus, not to derivational constraints or constraints on LF-representations). Based on the discrepancy in island sensitivity between the elliptical and the non-elliptical clause in sluicing, it is argued that (strong) islands are a PF-phenomenon.[11] Lasnik (2001a:69) reasons that an example like (4) provides evidence that island violations are "not determined strictly online", as the sluiced and non-sluiced versions of (4) have an identical (underlying) full sentential structure. If sluicing is an ellipsis phenomenon, and if ellipsis is a PF-process, then "it is the PF level that ultimately determines Subjacency violations".

At first, the PF-theory of islands was implemented as follows (see Ross 1969; Chomsky 1972; Lasnik 2001a, 2001b): an island node is assigned some PF-uninterpretable marker of deviance (*) when crossed by a movement operation.[12] Hence, the PF-interface cannot parse a crossed island node. This results in a PF-crash and, thus, in an island violation. However, when PF-deletion deletes (a constituent containing) the deviant material, the 'violation' is eliminated and the island effect vanishes. As such, a structure that is otherwise ungrammatical becomes grammatical in case there is ellipsis: this is the 'island repair' effect of ellipsis.

(i) (Merchant 2009:22)
She knows a guy who has five dogs, but I don't know how many cats. [English]
= <he [=the guy who has the five dogs] has *t*>.
≠ <she knows a guy who has *t*>.

[10] See Wang (2006) for how to rule out 'small TP deletion' (i.e., deletion of a TP which doesn't include the island) in island-insensitive sluices.

[11] Not all types of island violations can be rescued by phonological deletion of the offending structure. Sauerland (1996) points out that the remediation of islands by sluicing only applies to strong islands, not to weak ones. This suggests that only strong island violations cause the derivation to crash at PF, while violations of weak islands induce an LF-crash (cf. also Szabolcsi and Zwarts 1993).

[12] The '*'-placing procedure violates the Inclusiveness Condition (cf. Kitahara 1999; Lasnik 2001b; Fortin 2010). Lasnik (2001b:313; fn. 9) proposes the following alternative: "Instead of * being added, imagine that every phrase is marked with √ 'at birth'. Then, when an island violation occurs, the √ is erased. The […] (PF) violation would then be signaled by lack of √ rather than by *."

However, this version of the PF-theory of islands cannot properly handle the fact that, unlike sluicing (TP-ellipsis), VP-ellipsis does not obviate island effects, as shown in (5).

(5) a. *Sluicing* [English]
Abby wants to hire someone who speaks a Balkan language, but I don't remember which (Balkan language) ⟨~~TP~~⟩.

b. *VP-ellipsis*
* Abby DOES want to hire someone who speaks a certain Balkan language, but I don't remember what kind of language she DOESN'T ⟨~~VP~~⟩.

In both (5a) and (5b), the island node (the CP of the relative clause) is contained fully within the ellipsis site. Therefore, (5b) should have the same grammaticality status as its sluicing counterpart in (5a). Nevertheless, (5b) is ungrammatical, i.e., the island violation persists in this example. If the marker of deviance is on the island, there is no obvious way to capture the difference between (5a) and (5b), as the island node is deleted in both examples.

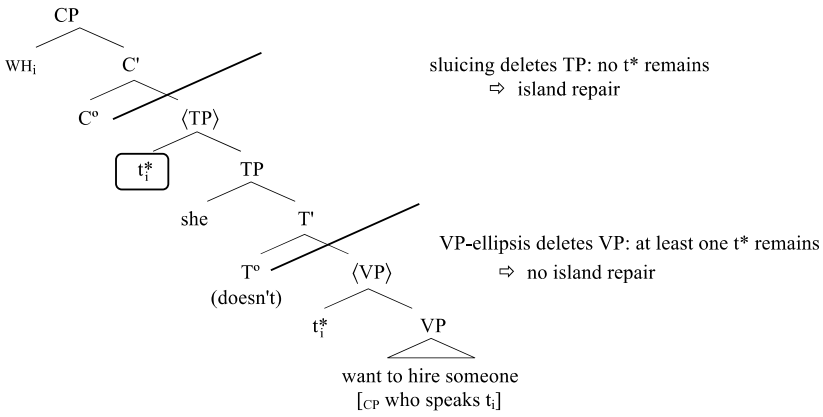
Therefore, Merchant (2004, 2008) proposes that the defective marker (*) is not a feature of crossed island nodes, but a PF-uninterpretable feature of intermediate traces/copies above the island node. Each time a phrase moves—i.e., each time a new copy of that phrase is generated via (re-)Merge—locality restrictions (such as Subjacency, etc.) are checked. If locality is not respected, the featural makeup of that new copy gets altered, as a PF-uninterpretable feature * is added to it (cf. also footnote 12). This feature is inherited by the later copies of this defective phrase. The presence of the offending *-feature in the object interpreted by PF causes the derivation to crash at this interface. As such, locality-violating movement, resulting in illicit traces/copies, yields PF-uninterpretability, and, thus, ungrammaticality. When ellipsis applies, it is possible that this deletion process eliminates exactly that part of the structure that contains all the defective traces/copies. This deletion will prevent the *-marked traces/copies from triggering a PF-crash: the result is a PF-interpretable object and the derivation converges. As such, ellipsis can nullify the effect of the island.[13]

Merchant (2004, 2008) follows Fox (1999) in assuming that WH-movement targets every intermediate maximal projection. If this is so, TP-ellipsis and VP-ellipsis will have differing consequences: unlike VP-ellipsis, TP-ellipsis eliminates all *-traces/copies of the island-escaping XP. This captures the difference in island sensitivity between sluicing and VP-ellipsis. A schematic representation of the difference between (island-insensitive) sluicing and (island-sensitive) VP-ellipsis is given in (6).[14]

[13]This suggests that the conception of the PF-interface as a complex branch (cf. e.g., Embick and Noyer 2001; Grohmann 2007, 2008), with PF-operations ordered with respect to each other, is on the right track. Apparently, ellipsis (PF-deletion) has to apply before PF starts to parse (and delete) copies. Note also that 'regular' deletion of copies in a chain (the operation Chain Reduction of Nunes 2004) does not suffice to eliminate defective island-violating copies and to stop PF from crashing.

[14]It should be noted that the (pronounced) highest link of an A′-movement chain does not cause PF to crash. If this were the case, sluicing would still be predicted to show island sensitivity, as the highest copy

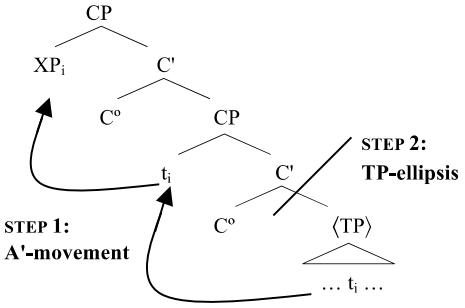
(6)



2.3 The island sensitivity of English fragments: Merchant's (2004) analysis

As shown in Sect. 2.1, English fragment answers differ from sluicing in being island-sensitive. Merchant (2004:707) remarks that, if the derivation of fragment answers and sluicing is as represented in (2), i.e., if their structure is identical, their difference in island sensitivity cannot be accounted for on the basis of his version of the PF-theory of islands. However, as the theory of *-marked traces/copies seems to be the most straightforward account for the discrepancy between sluicing and VP-ellipsis (cf. Sect. 2.2), Merchant (2004) continues to adhere to this account. Therefore, he has to conclude that the ellipsis operation resulting in English fragment structures does not elide all *-marked traces: a *-trace must be present at PF after TP-ellipsis. In order to derive this, Merchant posits an additional layer of structure in the left periphery (compared to sluicing). In this structure, the low [SpecCP] is an intermediate landing site for the fragment-to-be, and the high [SpecCP] is its final landing site.[15] As such, A′-movement of the fragment leaves a trace in the low [SpecCP]. A schematic derivation is given in (7).

(7)



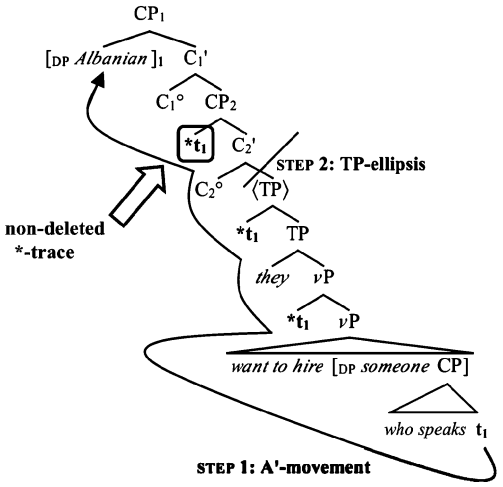
is never erased by ellipsis. Merchant (2004:709, 2008:144–145) presents three possible explanations for why the highest chain link no longer has a PF-uninterpretable feature. Each of these has clear implications for the workings of the syntax-phonology interface. I refer the reader to Merchant (2004, 2008) for the details, and leave a more elaborated discussion of the PF-branch for further research.

[15]Merchant (2004) neutrally labels the highest layer in the left periphery of fragments 'FP', the head of which selects CP. I simply make use of two indistinct Cº-heads here.

If this fronting of the fragment crosses an island node, its intermediate traces will be *-marked. The intermediate trace in the low [SpecCP] is not eliminated by TP-ellipsis. As such, this trace still causes a PF-crash, and the island violation persists even after ellipsis. The result is an ungrammatical fragment answer. The derivation of the island-sensitive fragment answer in (8) is schematically represented in (9):

(8) Do they want to hire someone who speaks GREEK? [English]
* No, ALBANIAN.

(9)



Although this analysis nicely accounts for the differences in island sensitivity between English fragment answers on the one hand and sluicing on the other hand, it is not entirely clear what the motivation for this additional movement step in English fragment structures is, other than the need to create an extra, non-elided *-marked trace. Merchant (2004) explores the idea that the structure underlying English fragment answers is similar to Clitic Left Dislocation structures attested in languages like Greek and Italian. However, assimilating English fragment answers to Clitic Left Dislocation is not unproblematic (as Merchant (2004) already pointed out himself). For instance, assuming that Clitic Left Dislocation involves movement to the left periphery (versus base-generation of the left-dislocated phrase in its surface position) is not uncontroversial at all. (For an extensive overview of the literature, see Anagnostopoulou et al. 1997 and Alexiadou 2006). Moreover, according to Rizzi (1997), Clitic Left Dislocation structures are topic-like, while Merchant (2004) argues that fragment answers are focused phrases. As such, a lot of uncertainties regarding Merchant's analysis of the island sensitivity of English fragment answers remain. However, in the following sections, I provide new evidence that Merchant's account of the interaction between ellipsis and island insensitivity in fragment answers is on the right track. This evidence comes from differences in island sensitivity between (different types of) embedded fragment answers in Dutch, which are discussed in the next section.

3 Evidence in favour of Merchant's (2004, 2008) PF-theory of islands: embedded fragment answers in Dutch

In this section, I argue that Dutch embedded fragment answers present new evidence for Merchant's (2004, 2008) proposal that island sensitivity is due to the presence of PF-uninterpretable traces. There are two types of Dutch embedded fragments and only one of these obeys locality constraints. I will show that this island-sensitive type involves an extra movement step (compared to the island-insensitive type). As such, Dutch embedded fragment answers provide support for Merchant's PF-theory of islands.

This section is organized as follows. I first show that Dutch fragment answers are embeddable, and I argue that these Dutch embedded fragments should not be analyzed as phrases hosting a parenthetical (Sect. 3.1). The Dutch embedded fragment answers share a number of properties: this is discussed in Sect. 3.2. In this section, I also show that all Dutch embedded fragments are to be analyzed as having a full sentential structure that is subject to ellipsis. I demonstrate in Sect. 3.3 that, despite sharing some commonalities, the Dutch embedded fragments should be split up in two types. The derivations of these two types of fragments are slightly different: one of them involves an additional movement step. This is discussed in Sect. 3.4.

3.1 Dutch fragment answers are embeddable

Although English fragment answers are excluded in subordinate clauses (cf. Merchant 2004:695), Dutch fragment answers can be embedded, as shown in Barbiers (2000, 2002) and Corver and Thiersch (2001). This contrast is illustrated in (10):[16]

(10) Q: Wie dacht Carl dat de wedstrijd zou winnen? [Dutch]
who thought Carl that the contest would win
'Who did Carl think would win the contest?' [English]
A_1: Hij had gedacht Kim. A_2: % Hij had Kim gedacht. A_3: Hij dacht Kim.
he had thought Kim he had Kim thought he thought Kim
* 'He (had) thought Kim.'
INTENDED: 'He (had) thought that Kim would win the contest.'

The claim that English fragment answers are not embeddable is not entirely uncontested. Morgan (1973:732,735) gives some examples of embedded English fragments, such as the ones in (11). Ebert et al. (2003) and Valmala (2007) present some similar examples. However, Morgan (1973:732) already noticed that the speakers he consulted "have differing intuitions about these constructions. Not all speakers accept sentences like [(11)]."

(11) a. Q: How does Nixon eat his tapioca? [English]
A: I think with a fork.
b. Q: What does a Nazi Indo-Europeanist have on his bumper?
A: I believe a schwa-sticker.

[16] Here and throughout the rest of the paper, the percentage sign indicates that not all native speakers of Dutch accept this type of fragment answer.

However, based on the judgements of the native English speakers I consulted, it seems that those English 'embedded fragments' that are grammatical show parenthetical-like properties. Rooryck (2001) presents a list of English parentheticals, together with several restrictions that hold for parentheticals in general.

(12) (from Rooryck 2001:127–8, shortened list)
Jules is back, . . . [English]
. . . I see
I hear/they say/(so) I'm told
I realize/I found out
it seems/it appears/it turns out
I believe/think/guess/suppose/presume
I'm afraid
I'm sorry/happy to say/tell you
you know
I tell you/I swear/I admit/I confess

Some of the restrictions on parentheticals are the following:[17]

(I) the subject of a parenthetical cannot be altered, cf. (13a)
(II) parentheticals display tense restrictions, cf. (13b)
(III) modification of a parenthetical with adverbs is impossible, cf. (13c)
(IV) negation of an affirmative parenthetical is impossible, cf. (13d)[18]

(13) *Parentheticals* (cf. Rooryck 2001:128–9) [English]
a. *subject restrictions*
Jules is back, you know / *I know / *he knows.
b. *tense restrictions*
Jules is back, I see / I saw / *I have seen / *I will see.
Jules is back, I'm / *I was / *I have been / *I will be afraid.
c. *no adverbs*
Jules is back, I'm (*really) afraid.
Jules is back, I (*firmly) believe.
d. *no negation*
Jules is back, I'm (*not) afraid.
Jules is back, you (*don't) know.

In example (11), for instance, an XP (*a schwa-sticker*) is preceded by *I believe*, which is a parenthetical according to Rooryck (2001), cf. (12). If the subject is altered, or if an adverb or negation is added, 'embedded fragments' like these become severely degraded, as illustrated in (14). The (ii)-examples in (14) show that their 'full' counterparts are grammatical.

[17] In (13), English examples are given, but the same restrictions hold for Dutch parentheticals.

[18] Restriction (IV) is not mentioned in Rooryck (2001), but was suggested to me by Johan Rooryck (p.c.).

(14) *English 'embedded fragment answers'* [English]

a. *subject restrictions*
Q: Who's responsible for the 9/11 attacks?
A: (i) ?*Michael Moore believes Bush.
(ii) Michael Moore believes Bush is responsible for the 9/11 attacks.

b. *no adverbs*
Q: What's the most beautiful place on earth?
A: (i) ?*I truly believe Kauai.
(ii) I truly believe Kauai is the most beautiful place on earth.

c. *no negation*
Q: Who will win the 2010 World Cup?
A: (i) ??I do not believe Brazil.
(ii) I do not believe Brazil will win the World Cup.

On the basis of Rooryck's (2001) restrictions on parentheticals, we can conclude that examples like those in (11) should be analyzed as a combination of a root fragment answer and a parenthetical.

According to Corver (1994) and Corver and Thiersch (2001), cases like (15) comprise a parenthetical (*ik geloof* 'I believe'), which attaches to a phrasal host (*de oude vrouw* 'the old woman') to form a constituent; the parenthetical is syntactically integrated into the XP. These authors convincingly argue that phrases like *ik geloof* 'I believe' and *ik denk* 'I think' can indeed function as parentheticals in Dutch.

(15) (based on Corver and Thiersch 2001:13)
Q: Wie heeft hij gezien? [Dutch]
who has he seen
'Who did he see?'
A: Ik geloof de oude vrouw.
I believe the old woman
'The old woman, I believe.'

However, Dutch embedded fragment answers cannot merely be analyzed as a root fragment hosting a parenthetical, as their subject and matrix verb do not show the severe restrictions on subjects, tense, adverbs, and negation typical of parentheticals (cf. supra). An example of each is given below.

(16) *Dutch embedded fragment answers* [Dutch]
Q: Wie (wordt / dacht je dat) de nieuwe directeur (zou
who becomes thought you that the new director would
worden)?
become
'Who (did you think) will/would be the new director?'
A: a. *no restrictions on the subject*
Jij / Susan / wij / de vrouwen / Mike en ik denk(t)(en) Tom.
you.SG Susan we the women Mike and I think(s) Tom

b. *no restrictions on the tense or aspect of the matrix verb*
Ik denk / had gedacht / zou hopen / kan vermoeden Tom.
I think had thought would hope can suspect Tom

c. *adverbs*
Ik vrees echt / vermoed stiekem / dacht meteen Tom.
I fear really suspect secretly thought immediately Tom

d. *negation*
Ik dacht (in elk geval) niet Tom.
I thought in any case not Tom

We can thus conclude that a Dutch embedded fragment does not incorporate a parenthetical and that, unlike in English, fragment answers are embeddable in Dutch.

3.2 Properties of Dutch embedded fragment answers

This subsection presents the properties shared by all Dutch embedded fragment answers. Importantly, some of these properties convincingly show that Dutch embedded fragments are remnants of fully-fledged syntactic structures subject to ellipsis. Some other characteristics indicate that the ellipsis process is preceded by A′-extraction of the fragment-to-be out of the ellipsis site. Variation among the various types of embedded fragments in Dutch is examined in Sect. 3.3.

3.2.1 Dutch embedded fragments have the same propositional content as a full sentential answer

In Sect. 1, fragment answers were shown to have "the same propositional content and assertoric force as utterances which are uncontroversial fully sentential structures" (Merchant 2004:662). As illustrated in (17Ab–c), Dutch embedded fragment answers are—just like their root counterparts (cf. (17Aa))—'incomplete' answers to questions, which nevertheless have the propositional content of a full sentential answer (as shown in brackets and indicated in the translation).

(17) Q: Wie dacht Carl dat de wedstrijd zou winnen? [Dutch]
who thought Carl that the contest would win
'Who did Carl think would win the contest?'
A: a. Kim. (Hij dacht dat Kim de wedstrijd zou winnen.)
Kim he thought that Kim the contest would win

b. Hij dacht Kim. (Hij dacht dat Kim de wedstrijd
he thought Kim he thought that Kim the contest
zou winnen.)
would win

c. Hij had gedacht Kim. (Hij had gedacht dat Kim de
he had thought Kim he had thought that Kim the
wedstrijd zou winnen.)
contest would win
'He thought that Kim would win the contest.'

3.2.2 Dutch embedded fragments are ellipsis remnants

As mentioned in Sect. 1, the fact that fragment answers exhibit the same grammatical dependencies (or: connectivity effects) as their correlates in the corresponding non-elliptical sentence provides evidence that they are merged as fully-fledged syntactic structures, after which a process of ellipsis (deletion at PF) applies. Embedded fragment answers in Dutch show these connectivity effects as well.

As illustrated in (18), the distribution of bound pronouns in embedded fragment answers parallels the distribution of their equivalents in full subordinate sentential answers. A pronoun can only be interpreted as a bound variable when it is in the scope of a c-commanding quantifier. Nevertheless, a bound-variable reading of a pronoun is available in Dutch embedded fragments, even though there is no overt binder. As such, variable binding takes into account material that is not pronounced. If a fragment is derived from a full syntactic structure—i.e., if (i) in example (18) is derived from (ii)—there actually *is* an (invisible) antecedent and the availability of a bound-variable reading is expected.

(18) Q: Wat vindt elke politicus$_i$ uiterst belangrijk? [Dutch]
what finds every politician extremely important
'What does every politician$_i$ hold in high regard?'

A: (i) A_1: Ik zou denken zijn$_i$ imago.
I would think his image

A_2: % Ik zou zijn$_i$ imago denken.
I would his image think

A_3: Ik denk zijn$_i$ imago.
I think his image

(ii) Ik (zou) denk(en) dat elke politicus$_i$ zijn$_i$ imago
I would think that every politician his image
belangrijk vindt.
important finds
'I (would) think that every politician$_i$ holds his$_i$ image in high regard.'

Moreover, the morphological case of an embedded fragment DP corresponds to the case its equivalent has in a non-elliptical embedded sentential answer (Barbiers 2000, 2002), as shown in (19). If the embedded fragment is the result of an ellipsis process applying to a 'regular' full sentential answer, this follows straightforwardly: the constraints and mechanisms regulating case on DPs will be identical in both the full syntactic structure and its elliptical counterpart.[19]

[19]Some speakers disallow the nominative marked pronoun *hij* 'he' in examples such as (A_2) in (19) and prefer the accusative marked pronoun *hem* 'him' (especially speakers of dialects in which embedded fragments of this type are degraded). Note that verbs like *denken* 'think' can also simply take a DP direct object, which precedes the main verb when there is an auxiliary, cf. (i). This might be a confounding factor in the judgements of examples like this one. In any case, most importantly, several speakers (for whom (A_2)-type answers are perfectly fine) do allow for the nominative marked pronoun *hij* 'he' in (A_2) in (19).

(19) (based on Barbiers 2002:57)
Q: Wie wint de wedstrijd? [Dutch]
who wins the game
'Who will win the game?'
A: (i) A_1: Ik zou denken HIJ / *HEM. A_2: % Ik zou
I would think he him I would
HIJ / *HEM denken.
he him think
A_3: Ik denk HIJ / *HEM.
I think he him

(ii) Ik (zou) denk(en) dat HIJ / *HEM de wedstrijd wint.
I would think that he him the game wins
'I (would) think that he will win the game.'

An anonymous *NLLT* reviewer notices that many embedded fragments discussed in this article (e.g., those in (17) and (18)) are not overtly case marked. (S)he points out that in languages like Japanese and Korean, the properties of case marked remnants differ from remnants that do not bear any overt case markers. This has led some to argue that only overtly case marked remnants are derived by ellipsis, while non-case marked remnants are not. Instead, the latter involve a cleft structure with a null subject and an (optionally) empty copula (cf. Fukaya and Hoji 1999; Fukaya 2003, 2007; Park 2005; cf. also Merchant 1998, 2001 on pseudosluicing). The question thus arises whether non-overtly case marked Dutch embedded fragments are actually instantiations of the 'reduced cleft' type. This does not seem to be the case.

First of all, the properties of overtly case marked Dutch embedded fragments and their non-case marked counterparts are identical (e.g., they both require a linguistic antecedent and show the same locality effects). Moreover, Merchant (1998) has argued that, in order for a language to display reduced clefts, it must also independently display pro drop (to allow the subject of the cleft to remain null) and copula drop (to allow the verb of the cleft to remain null). Dutch, however, is not a null copula language and does not display pro drop (cf. e.g., Ackema et al. 2006; Neeleman and Szendrői 2007; van Craenenbroeck 2010).[20] Finally, Merchant (1998) noticed for English that negative quantifiers are well-formed fragment answers, while they cannot occur in the pivot of clefts. This is also the case for negative quantifiers in Dutch embedded fragments vs. in Dutch clefts, cf. (20). Taking all this into account, it can be concluded that case marked and non-case marked Dutch embedded fragments should be given the same analyses.

(i) Ik zou *< het > denken <* het >. [Dutch]
I would it think it
'I would think so (LIT. 'it'). '

[20]Dutch does allow so-called topic drop, but crucially, the topic has to occupy the initial position of a main (not a subordinate) clause (cf. e.g., Ackema et al. 2006; Neeleman and Szendrői 2007).

(20) Wat heeft de inbreker meegenomen? [Dutch]
what has the burglar taken
'What did the burglar take?'

a. Ik denk niets.
I think nothing
'Nothing, I think.'

b. *Ik denk dat het niets was dat hij / de inbreker meegenomen heeft.
I think that it nothing was that he the burglar taken has
* '(I think that) it was nothing that he / the burglar took.'

Consequently, we can draw the conclusion that all Dutch embedded fragments are derived from fully-fledged (embedded) sentential structures, which are subject to ellipsis.

3.2.3 Dutch embedded fragments have A′-moved prior to ellipsis

Since Dutch embedded fragment answers can be shown to be the remnants of an ellipsis process applying to a full subordinate syntactic structure, the question arises whether the ellipsis process is also preceded by A′-extraction of the fragment out of the ellipsis site. One piece of evidence indicating that embedded fragment answers in Dutch have indeed moved prior to the application of ellipsis comes from preposition stranding (cf. Merchant 2004; Frazier et al. 2009). There is a correlation between (i) the availability of preposition stranding under A′-movement in a given language and (ii) the availability of a remnant without a preposition which corresponds to a PP-correlate. Generally, a language exhibits DP-fragment answers corresponding to PP-correlates if and only if that language allows for preposition stranding under A′-movement. In Dutch, which is a non-preposition-stranding language, such embedded DP-fragment answers are infelicitous, as illustrated in (21).[21] The grammatical constraints that regulate the possibility of extracting a phrase from a PP are operative in Dutch embedded fragment answer structures as well. This is expected if the fragment has A′-moved prior to ellipsis.[22]

(21) Q: <Naar> wie is Greg <* naar> aan het kijken? [Dutch]
at who is Greg at on it look
'<At> who(m) was Greg looking <at>?'

A_1: Ik zou denken ?*(naar) Lisa. A_2: Ik zou *(naar) Lisa denken.
I would think at Lisa I would at Lisa think

[21] A more precise formulation is: Dutch is a 'partial preposition-stranding language', as it *does* allow preposition stranding in a few very specific contexts. Dutch prepositions can be stranded by R-pronouns (e.g., *waar* 'where', *daar* 'there'), empty operators, and complex WH-phrases (e.g., *welke jongen* 'which boy'), cf. van Riemsdijk (1978) and van Craenenbroeck (2010).

[22] Some caveats are in order for Dutch. Some native speakers of Dutch do accept the DP-fragment answers in (21). These speakers also generally allow preposition-stranding under A′-movement (and thus accept, for instance, the preposition-stranding version of the question in (21)). The fact that preposition stranding under A′-movement is normatively rejected could have a significant influence on the reported judgements (Merchant 2001:95).

A$_3$: Ik denk ?*(naar) Lisa.
I think at Lisa
'I (would) think Greg is looking at Lisa.'

As an anonymous *NLLT* reviewer points out, it is theoretically conceivable that the correlation discussed here also holds for A-movement. That is, the PP in example (21) might move to an A-position and the obligatory presence of P could then be due to the lack of P-stranding under A-movement. However, it can be shown that PPs in Dutch do not move to an A-position (as hinted at by Law 2006). Three possible candidates for A-movement of a PP in Dutch come to mind: (i) passives, as in (22a), (ii) so-called 'locative inversion', as in (22b), and (iii) scrambling, as in (22c).

(22) a. [$_{PP}$ Op de overwinning] werd niet gerekend. [Dutch]
on the victory was not counted
'The victory wasn't counted on.'
b. [$_{PP}$ Naar de speeltuin] ging het jongetje.
to the playground went the boy-dim
'To the playground went the little boy.'
c. ... dat Jan [$_{PP}$ naar haar] nauwelijks keek.
that John to her hardly looked
'... that John hardly looked at her.'

For examples like (22a), Law (2006) notices that "for virtually all analyses of verb-second root clauses, a non-subject appearing before the verb in second position is in [SpecCP], an A-bar position on standard assumptions" (cf. also Travis 1984; Haider and Prinzhorn 1986). He concludes that the PP in (22a) has undergone A′-movement.[23] Concerning (22b), Broekhuis (2008) argues that Dutch has no locative inversion and that the PP in Dutch examples like this has undergone Topicalization (hence, occupies an A′-position).[24] Finally, according to Broekhuis (2007), PP-scrambling in Dutch (cf. (22c)) shows behaviour untypical of object shift (which has been argued to involve A-movement, cf. Vanden Wyngaerd 1989; Vikner 1994). He argues that Dutch PP-scrambling involves movement of the A′-type. Hence, it can be concluded that PPs do not move to an A-position in Dutch. Since the examples in (21) involve PPs, this constitutes another argument for the claim that the movement of the remnant is A′-movement.[25]

3.2.4 Dutch embedded fragments only occur in complements of propositional attitude verbs

Barbiers (2000, 2002) notices that embedded fragment answers in Dutch only occur in complements of propositional attitude verbs such as *denken* 'think', *geloven*

[23]For more arguments why the PP(-object) does not occupy the A-position [SpecTP] in Dutch, cf. Law (2006).

[24]In arguing against the existence of locative inversion in Dutch, Broekhuis (2008:303–4) explicitly takes issue with Zwart's (1992) arguments to the opposite effect.

[25]Thanks to an anonymous *NLLT* reviewer for pointing this out.

'believe', or *vrezen* 'fear'. Embedded fragments cannot co-occur with factive verbs like *weten* 'know' and *betreuren* 'regret', or with so-called response stance verbs (cf. e.g., Cattell 1978), such as *instemmen* 'agree' or *betwijfelen* 'doubt'.[26] Examples of fragment answers with each of these types of verbs are given in (23).[27]

(23) Q: Wie wordt de nieuwe directeur? [Dutch]
who becomes the new director
'Who will be the new director?'

A: (i) *propositional attitude verbs*
Lynn vermoedt / had gehoopt / meent / had gedacht / vreest Tom.
Lynn suspects had hoped thinks had thought fears Tom

(ii) *factive verbs*
* Lynn betreurt / heeft onthuld / weet Tom.
Lynn regrets has revealed knows Tom

(iii) *response stance verbs*
* Lynn betwijfelt / had ingestemd Tom.
Lynn doubts had agreed Tom

As will become clear in Sect. 3.4.1, this is readily explainable if embedded fragment answers A′-move to the embedded left periphery (cf. 3.2.3) prior to the application of ellipsis (cf. 3.2.2).

3.2.5 Conclusion

In this section, it was shown that all embedded fragment answers in Dutch share a number of properties. These properties suggest that they are to be analyzed as having a full (subordinate) sentential syntactic structure, which is subject to ellipsis. Moreover, the fragment has A′-moved out of the ellipsis site. In the next section, I show that Dutch embedded fragment answers do not always show uniform behaviour. I argue that there are two types of embedded fragments in Dutch.

3.3 Variation among Dutch embedded fragment answers

At this point, it is clear that Dutch fragment answers are embeddable. The relevant examples are presented once more in (24). In (A_1), the fragment follows both the

[26] While the complement of a factive verb is presupposed to be true, this is not the case for the complement of propositional attitude verbs. Response stance complements seem to be an 'intermediate' category: like propositional complements, their truth is not presupposed. (They "must be under debate" (Drubig 2000)), but syntactically—for instance, with respect to islandhood—they behave like factive complements. More on the distinction propositional attitude verb / factive verb / response stance verb can be found in Kiparsky and Kiparsky (1970), Cattell (1978), and Hegarty (1992).

[27] Some of the verbs that cannot co-occur with an embedded fragment answer, such as *weten* 'know', can form part of a parenthetical, cf. (i). This is an additional argument against a parenthetical analysis of Dutch embedded fragments (cf. Sect. 3.1).

(i) (based on Corver and Thiersch 2001:17)
[In Tilburg—(zo) weet ik—en in Amsterdam] heb je leuke kroegen. [Dutch]
In Tilburg (so) know I and in Amsterdam have you nice pubs
'I know that there are nice pubs in Tilburg and Amsterdam.'

finite and the non-finite verb; in (A_2), it follows the finite verb, but precedes the non-finite verb; in (A_3), there's just a finite verb, which is followed by the fragment.

(24) A_1: Hij had gedacht Kim. A_2: % Hij had Kim gedacht.
he had thought Kim he had Kim thought
A_3: Hij dacht Kim.
he thought Kim

Section 3.2 concentrated on the characteristics these embedded fragments have in common. In this section, I will show that the Dutch embedded fragment answers should be split up in two types, which display different properties. Therefore, the derivations of these two types of fragments will be slightly different, as will be demonstrated in Sect. 3.4.

I will label fragments like the one in (A_1) 'type 1 fragment answers' and fragments such as (A_2) 'type 2 fragment answers'. The embedded fragments of type 1 and type 2 differ from one another with respect to three properties: (i) conjunction with CP, (ii) the distribution of NPIs, and (iii) island (in)sensitivity. These will be discussed in the following subsections.

Fragments such as the one in (A_3) are potentially ambiguous between type 1 and type 2. Dutch is a verb-second language, with the finite verb occupying C^o in matrix clauses (den Besten 1983). In (A_1) and (A_2), the finite verb *had* 'had' has raised to C^o, and the non-finite verb *gedacht* 'thought' has remained in its base position. Comparing the word order of (A_1) and (A_2), it is clear that the fragment occupies a different position in these two types of embedded fragment answers: the fragment follows or precedes the (non-moved) non-finite verb, respectively. In (A_3), on the other hand, there is no non-finite verb. The finite verb *dacht* 'thought' has raised to C^o. Theoretically, the remnant in (A_3) could either occupy the same position as the one in (A_1), or the same position as the one in (A_2). However, fragments like (A_3) seem to show the same properties as (A_1)-type fragments (they can be conjoined with a CP, they license the presence of NPIs and they are island-insensitive). This seems to indicate that the remnant in (A_3) occupies the same position as the one in (A_1) and, hence, that fragments such as (A_3) are also 'type 1 fragment answers' and should be given the same analysis.[28] For the discussion of the two types of Dutch embedded fragment answers I will nevertheless focus on examples such as (A_1) and (A_2) in (24), which are also distinguishable solely on the basis of word order differences.

3.3.1 Conjunction with CP

Dutch embedded fragment answers of type 1 can be conjoined with a CP, whereas those of type 2 cannot. This contrast is illustrated in (25):the a-answer shows that type 1 fragments can surface in a coordination with a CP. The b-answer, on the other hand, in which a fragment of type 2 is coordinated with the same CP, is ill-formed.

[28]Thanks to an anonymous *NLLT* reviewer for raising this issue.

(25) [Dutch]

Q: Wie denk je dat de lijsttrekker van de socialisten in Brussel zal
who think you that the list-puller of the socialists in Brussels will
zijn in juni?
be in June
'Who do you think will head the ballot for the Socialist Party in Brussels in June?'

A: a. Ik zou denken Hans Bonte en [$_{CP}$ dat Anciaux dat niet zal
I would think Hans Bonte and that Anciaux that not will
appreciëren].
appreciate
'I would think Hans Bonte will head the ballot and Anciaux will not like that.'

b. *Ik zou Hans Bonte denken en [$_{CP}$ dat Anciaux dat niet zal
I would Hans Bonte think and that Anciaux that not will
appreciëren].
appreciate

3.3.2 The distribution of NPIs

As noticed by Merchant (2004), an account of fragment answers which incorporates a movement component (cf. Sect. 3.2.3) makes the following prediction: negative polarity items (NPIs) that cannot be fronted are excluded as fragments, whereas NPIs that are frontable are licensed as fragment answers. Examples (26) and (27) show that English indefinite NPIs such as *any*-terms (*anything, anyone, anybody*), which cannot be fronted to a left-peripheral position, cannot occur as fragments (cf. Morgan 1973; Giannakidou 2000; Merchant 2004).

(26) a. I didn't see anyone/anybody in the desert. [English]
b. *Anyone/anybody, I didn't see in the desert.

(27) Q: Who did(n't) you see in the desert? [English]
A: *Anyone/anybody.[29]

Similarly, Dutch indefinites with the NPI-adverb *ook maar* 'even', which are unfrontable (Hoekstra et al. 1988), are excluded as fragment answers.[30] Consider (28) and (29):

[29]There is some discussion in the literature concerning the (un)acceptability of fragments like the one in (27), cf. den Dikken et al. (2000). Den Dikken et al. propose an alternative analysis of fragment answers is terms of 'Forward Deletion' (p. 55). This account is problematic, however, as the ellipsis process targets a non-constituent.

[30]Hoekstra (1991) and Hoeksema (2000) note that in certain contexts, fronting an indefinite containing the NPI-adverb *ook maar* 'even' is acceptable, cf. (i). Why this is so is beyond the scope of this paper. Relevant here is that in those cases where the NPI can be fronted, it is also licensed as a fragment, cf. (ii). This is, of course, entirely predicted under the current analysis.

(28) (based on Hoekstra et al. 1988:227–8)

a. Niemand heeft [ook maar iemand] gezien. [Dutch]
nobody has also but someone seen
'Nobody saw anyone whatsoever.'

b. *[Ook maar iemand] heeft niemand gezien.
also but someone has nobody seen
INTENDED: 'Nobody saw anyone whatsoever.'

(29) Q: Wie heeft niemand gezien? [Dutch]
who has nobody seen
'Who did nobody see?'

A: *Ook maar iemand.
also but someone
*'Anyone whatsoever.'

The Dutch definite NPI *de eerste de beste* 'just anyone' (which is only an NPI when used as a predicate nominal), on the other hand, can be fronted (Hoeksema 2000). This NPI is licensed as a fragment answer. Examples are given in (30) and (31).

(30) (based on Hoeksema 2000:139–40) [Dutch]

a. Obama is niet [de eerste de beste].
Obama is not the first the best
'Obama is not just anyone.'

b. [De eerste de beste] is Obama niet.
the first the best is Obama not
'Obama is not just anyone.'

(31) Q: Wat is Obama volgens jou NIET? [Dutch]
what is Obama according.to you not
'What is Obama NOT, according to you?'

A: De eerste de beste.
the first the best
*'Just anyone.'

The generalization that only those NPIs that can be fronted are licensed in fragment answers also seems to hold for Dutch embedded fragment answers of type 1. As shown in (32) and (33), an embedded fragment with the unfrontable 'indefinite +

(i) (based on Hoeksema 2000:129)
[Van een ook maar bij benadering eerlijke rechtspleging] was geen sprake. [Dutch]
of an also but at approximation honest jurisdiction was no talk
'There wasn't even a halfway fair administration of justice.'

(ii) Q: Waarvan was (er) geen sprake? [Dutch]
where.of was there no talk
'What was out of the question?'

A: Van een ook maar bij benadering eerlijke rechtspleging.
of an also but at approximation honest jurisdiction
'A fair administration of justice.'

NPI-adverb *ook maar*' is ungrammatical, while the frontable definite NPI *de eerste de beste* is licensed as an embedded fragment answer.

(32) Q: Wie heeft niemand gezien? [Dutch]
who has nobody seen
'Who did nobody see?'
A: *Ik had gehoopt ook maar iemand.
I had hoped also but someone
INTENDED: 'I had hoped that nobody saw anyone whatsoever.'

(33) Q: Wat is Obama NIET? [Dutch]
what is Obama not
'What is Obama NOT?'
A: ?Ik zou hopen de eerste de beste.
I would hope the first the best
'I would hope Obama is not just anyone.'

In the case of type 2 embedded fragments, on the other hand, even the (frontable) NPI *de eerste de beste* is excluded, as shown in (34).

(34) Q: Wat is Obama NIET? [Dutch]
what is Obama not
'What is Obama NOT?'
A: *Ik zou de eerste de beste hopen.
I would the first the best hope
INTENDED: 'I would hope Obama is not just anyone.'

It seems that NPIs can never be licensed in embedded fragment answers of type 2, unlike in those of type 1.

3.3.3 Island (in)sensitivity

In Sect. 2, English root fragment answers were shown to obey locality constraints. However, the two types of Dutch embedded fragments differ with respect to whether or not they are island-sensitive. As discussed in Sect. 2.1, the best way to test for island sensitivity in fragment answers is the use of implicit salient questions (i.e., yes/no-questions with an intonation rise on a questioned phrase in situ). The examples in (35) and (36)—with an adjunct island and a relative clause island, respectively—demonstrate that, whereas Dutch embedded fragments of type 1 do not obey locality constraints (cf. the a-examples in (35) and (36)), those of type 2 are similar to English root fragments in being island-sensitive (cf. the b-examples in (35) and (36)).[31]

(35) Q: Is Jack gekomen omdat hij MARIN wil versieren? [Dutch]
is Jack come because he Marin wants seduce
'Has Jack come because he wants to seduce MARIN?'

[31] Note that the full sentential counterpart of the fragment answers in (35) and (36) is grammatical, as shown in the a-examples in (i) and (ii), respectively. The b-examples demonstrate that, when the fragment-to-be is moved out of the island, the full sentential counterparts are ungrammatical.

A: a. Nee, ik had gedacht / zou denken LYNN.
no I had thought would think Lynn
b. *Nee, ik had LYNN gedacht / ik zou LYNN denken.
no I had Lynn thought I would Lynn think
*'No, (I had thought / I would think) LYNN.'

(36) Q: Willen ze iemand aannemen die GRIEKS spreekt? [Dutch]
want they someone hire that Greek speaks
'Do they want to hire someone who speaks GREEK?'
A: a. Nee, ik zou denken ALBANEES.
no I would think Albanian
b. *Nee, ik zou ALBANEES denken.
no I would Albanian think
*'No, (I would think) ALBANIAN.'

3.3.4 Conclusion

In this section, I have shown that there is variation among the embedded fragment answers in Dutch: they should be split up in two types. Dutch embedded fragments of type 2 clearly differ from their type 1 counterparts in (i) not conjoining with CP, (ii) not licensing (frontable) NPIs, and (iii) being island-sensitive. Their different properties are summarized in table (37). These differences should be reflected in their respective analyses, which are discussed in the next section.

(i) [Dutch]
a. Nee, ik had gedacht / zou denken dat Jack gekomen is omdat hij LYNN wil
no I had thought would think that Jack come is because he Lynn wants
versieren.
seduce
'No, I had thought / would think that Jack has come because he wants to seduce LYNN.'
b. *Nee, ik had <LYNN$_i$> gedacht / zou <LYNN$_i$> denken <LYNN$_i$> dat Jack
no I had Lynn thought would Lynn think Lynn that Jack
gekomen is omdat hij t_i wil versieren.
come is because he wants seduce
INTENDED: 'No, I had thought / would think that Jack has come because he wants to seduce LYNN.'

(ii) [Dutch]
a. Nee, ik zou denken dat ze iemand willen aannemen die ALBANEES
no I would think that they someone want hire that Albanian
spreekt.
speaks
'No, I would think that they want to hire someone who speaks ALBANIAN.'
b. *Nee, ik zou <ALBANEES$_i$> denken <ALBANEES$_i$> dat ze iemand willen
no I would Albanian think Albanian that they someone want
aannemen die t_i spreekt.
hire that speaks
INTENDED: 'No, I would think that they want to hire someone who speaks ALBANIAN.'

(37)

	type 1 embedded fragments *ik had gedacht* XP	**type 2 embedded fragments** *ik had* XP *gedacht*
conjunction with CP	✓	*
frontable NPI licensed	✓	*
extraction out of island	✓	*

3.4 The analysis of Dutch embedded fragment answers

This section presents the analysis of the two types of Dutch embedded fragment answers. In Sect. 3.4.1, I argue that the derivation of embedded fragments of type 1 is very similar to that of (embedded) sluicing (cf. Sect. 2): they constitute the non-WH-counterpart of (embedded) sluices. Type 2 embedded fragment answers, on the other hand, should be analyzed differently. In Sect. 3.4.2, I show that fragment answers of type 2 involve an extra A′-movement step into the *v*P-domain of the matrix clause. Their inability to conjoin with a CP and to license a frontable NPI follows straightforwardly from this analysis. Moreover, they present new evidence for Merchant's (2004, 2008) PF-theory of islands (where island sensitivity is due to the presence of PF-uninterpretable traces).

3.4.1 The analysis of Dutch type 1 embedded fragment answers

In Sect. 3.2, I have argued that Dutch embedded fragment answers A′-move to a specifier position in the (embedded) left periphery, after which the remainder of the sentence (TP) is elided. This analysis is very similar to the derivation of sluicing discussed in Sects. 1 and 2, in which a WH-phrase is A′-moved to the left periphery, prior to TP-ellipsis. This is a desirable outcome, as Dutch embedded fragment answers of type 1 strongly resemble sluicing in (i) exhibiting connectivity effects and (ii) not being sensitive to islands. Hence, Dutch embedded fragment answers are the non-WH-counterpart of (embedded) sluicing.[32]

Barbiers (2000, 2002) and Merchant (2004) argue that the A′-movement of a fragment prior to ellipsis is focus-movement. The fact that non-focusable constituents

[32] In sluicing, the C^{o}-head to the immediate right of the WH-phrase—i.e., the one triggering ellipsis of its TP-complement, cf. Lobeck (1995), Merchant (2001)—always has to remain empty (cf. Merchant 2001; cf. Baltin 2010 and Thoms 2010 for a different point of view), even in doubly-filled-comp-violating languages such as various Dutch dialects, cf. (i).

(i) [Flemish, i.e., southern Dutch]
Kris is onlangs naar Vancouver verhuisd, maar ik weet niet precies ...
Chris is recently to Vancouver moved but I know not exactly
a. ... wanneer (dat) hij verhuisd is.
when that he moved is
b. ... wanneer (*dat).
when that
'Chris moved to Vancouver recently, but I don't know exactly when (he moved).'

Similarly, in embedded fragment answers in Dutch, the C^{o}-head always remains empty: although non-elliptical subordinate clauses in Dutch require the presence of *dat* 'that', this complementizer is obligatorily absent in embedded fragment answers. This contrast is illustrated in (ii). If Dutch embedded fragment answers are the non-WH-counterpart of sluicing, this parallel state of affairs is expected.

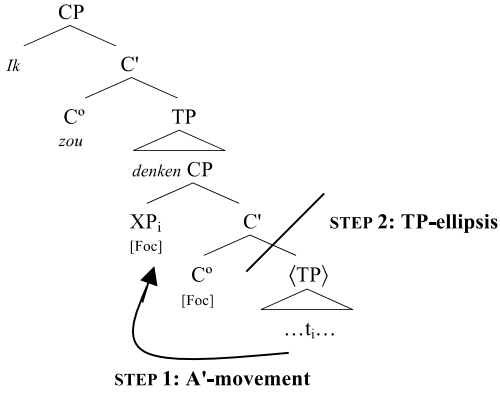
cannot be remnants indicates that this analysis is on the right track, and this is also the case for Dutch embedded fragment answers. Only strong (i.e., focusable) pronominals can occur as fragments (whether these are R-pronouns such as *daar* 'there' or personal pronouns like *mij* 'me'); their weak counterparts (*er* and *me*, respectively) are ill-formed. This is illustrated in (38):

(38) a. Q: Waarmee moet ik dit openen? [Dutch]
where-with must I this open
'What do I have to open THIS with?'
A: Ik zou denken DAARMEE / * ermee.
I would think there.STRONG-with there.WEAK-with
'With THAT, I would think.'

b. Q: Wie had je gedacht dat de leraar zou straffen? [Dutch]
who had you thought that the teacher would punish
'Who did you think the teacher would punish?'
A: Ik had gedacht MIJ / * me.
I had though me.STRONG me.WEAK
'ME, I thought.'

In the derivation of Dutch embedded fragment answers, the movement and ellipsis processes take place in a subordinate clause. A schematic derivation is given in (39): first, the embedded fragment-to-be focus-moves out of the embedded TP to the specifier of the embedded C°-head, after which the TP-complement of this C°-head is elided (in (39), the angled brackets enclose unpronounced material).

(39)



As discussed in Sect. 3.2.4, Dutch embedded fragments can only co-occur with propositional attitude verbs, and not with factive ones. As proposed by Barbiers

(ii) Q: Wie heeft de wedstrijd gewonnen? [Dutch]
who has the contest won
'Who has won the contest?'
A: a. Ik zou denken *(dat) Kim de wedstrijd gewonnen heeft.
I would think that Kim the contest won has
'I would think that Kim won the contest.'
b. Ik zou denken <*dat> Kim <*dat>.
I would think that Kim that

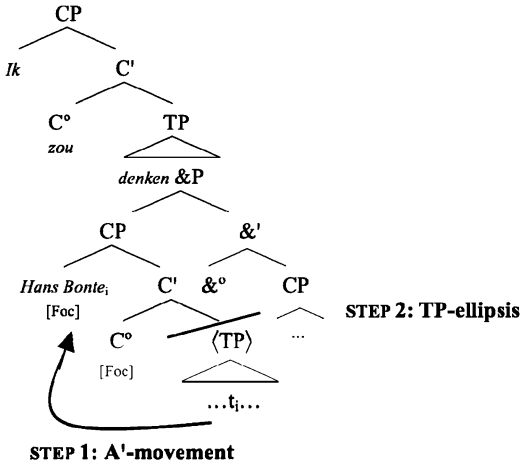
(2002), this might be due to an empty factive operator occupying [SpecCP] (cf. Manzini 1992; Watanabe 1993), blocking movement of the fragment-to-be to the CP-domain in case the subordinate CP is the complement of a factive verb.

Furthermore, the observation that Dutch embedded fragments of type 1 can surface in a coordination with a CP (cf. Sect. 3.3.1, example (25Aa)) is entirely expected if these fragments are the result of an ellipsis process applying to a full subordinate CP. In these particular cases, the original sentence starts out with a verb selecting a conjunction of two CPs as its complement verb (*denken* 'think' in (25Aa)), after which the TP of the first conjunct is deleted at PF. This is represented in the tree structure in (40).[33]

(25) Q: Wie denk je dat de lijsttrekker van de socialisten in Brussel zal
who think you that the list-puller of the socialists in Brussels will
zijn in juni? [Dutch]
be in June
'Who do you think will head the ballot for the Socialist Party in Brussels in June?'

Aa: Ik zou denken Hans Bonte en [$_{CP}$ dat Anciaux dat niet zal
I would think Hans Bonte and that Anciaux that not will
appreciëren].
appreciate
'I would think Hans Bonte will head the ballot and Anciaux will not like that.'

(40)



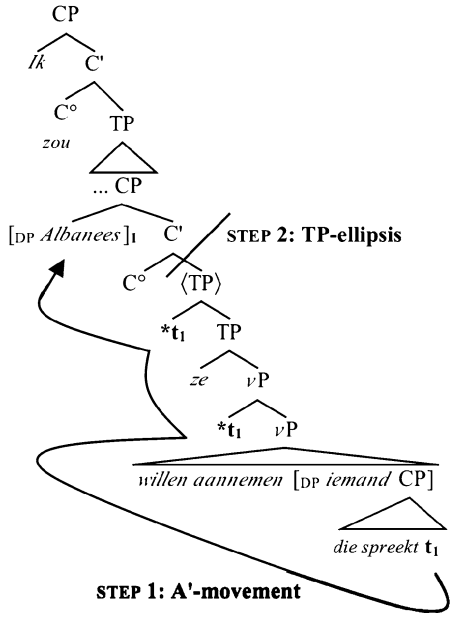
[33] Note that the full sentential counterpart of (25Aa) is ungrammatical, as shown in (i).

(i) [Dutch]
*Ik zou Hans Bonte$_i$ denken dat t$_i$ de lijsttrekker van de socialisten in Brussel zal zijn
I would Hans Bonte think that the list-puller of the socialists in Brussels will be
in juni … en dat Anciaux dat niet zal appreciëren.
in June and that Anciaux that not will appreciate
INTENDED: 'I would think Hans Bonte will head the ballot and Anciaux will not like that.'

Moreover, if island sensitivity is due to the presence of *-marked traces (Merchant 2004, 2008; cf. Sect. 2), the island insensitivity of type 1 embedded fragments follows straightforwardly under this account. If fronting of the fragment to the embedded [SpecCP] has crossed an island node, its intermediate traces are *-marked. However, TP-ellipsis eliminates all defective traces from the PF-object, which results in an island-insensitive embedded fragment. (41) shows the derivation of the island-violating embedded fragment of type 1 in (36), repeated here. In (41), the fragment A′-moves to [SpecCP], after which the TP-complement of C° is deleted at PF. TP-ellipsis thus eliminates all defective traces, resulting in a grammatical island-violating fragment.

(36) Q: Willen ze iemand aannemen die GRIEKS spreekt? [Dutch]
want they someone hire that Greek speaks
'Do they want to hire someone who speaks GREEK?'
A: Nee, ik zou denken ALBANEES.
no I would think Albanian

(41)



Up until this point, all of the properties of embedded fragments of type 1 could be accounted for if they involve TP-ellipsis preceded by A′-movement of the fragment. There is, however, one issue that has been left untouched. As is exemplified in (42), a focus phrase preceding the complementizer *dat* 'that' in non-elliptical Dutch subordinate clauses is ungrammatical (cf. also Zwart 1993; Neeleman 1994; Hoekstra and Zwart 1994, 1997; Barbiers 2002).

(42) Q: Wat wil Marie aan haar grootvader geven? [Dutch]
what wants Mary on her grandfather give
'What does Mary want to give to her grandfather?'

A: *Ik zou denken [DRIE NIEUWE HEMDEN] dat ze aan hem wil
I would think three new shirts that she on him wants
geven.
give
INTENDED: 'I would think that she wants to give three new shirts to him.'

Hence, overt focus-movement to [SpecCP] in Dutch embedded clauses is ungrammatical. However, it is precisely this type of movement that is involved in the derivation of embedded fragment answers of type 1: TP-ellipsis is preceded by A′-movement of the fragment-to-be into the left periphery. Accordingly, an otherwise grammatically deviant structure seems to underlie the ellipsis process resulting in a grammatical fragment answer. It appears that the prohibition against focus phrases raising to a left-peripheral position in Dutch embedded clauses is lifted in fragment answers: the deviance seems to be 'repaired' by the application of ellipsis. If overt focus-movement in Dutch subclauses is ungrammatical, what allows for the 'repair' of this movement resulting in Dutch embedded fragment answers?

Richards' (1997, 2001) theory of the relation between feature strength and the overt/covert distinction offers the solution to this conundrum. In the traditional Minimalist framework (Chomsky 1995 *et seq*.), movement is a feature-driven operation, and the difference between overt and covert movement is encoded in the form of feature strength. Generally, the checking of strong features must take place before Spell-Out (i.e., prior to the transfer of the derivation to PF): this results in phonologically detectable or 'overt' movement. Weak features, on the other hand, can be checked after Spell-Out: as such, they trigger 'covert' (phonologically undetectable) movement.

It should however be noted that according to Chomsky (1995:Chap. 4), overt feature-checking movement is possible *in principle* in the case of weak features on the attractor head.[34] That is, overt syntactic checking of weak features is not ruled out *per se*; it is, however, in general unnecessary and therefore dispreferred (because of the requirement to get to Spell-Out as quickly as possible). Richards (1997, 2001:Chap. 4) follows the line of reasoning that there is no *ban* on the overt syntactic checking of weak features. He presents a number of cases for which he argues that weak features do drive overt feature-checking movement. Richards proposes that the general absence of overt movement in a weak-feature checking relation is essentially due to a PF requirement. He argues that chains are subject to the two principles of PF well-formedness in (43):

(43) a. PF must receive unambiguous instructions about which part of a chain to pronounce.[35]

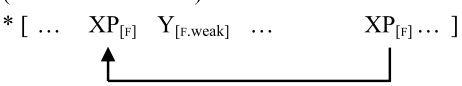
[34]Chomsky's (1995:Chap. 4) argument is based on the observation that the finite forms of the auxiliaries *be* and *have* must raise to T^o in overt syntax, despite the fact that the [V]-feature of T^o is arguably weak in English. Chomsky (1995:Chap. 4) derives the necessity of overt syntactic movement in this particular case from the assumption that these auxiliaries are LF-invisible, and hence cannot undergo covert movement. Thanks to Marcel den Dikken (p.c.) for pointing this out to me.

[35]For Richards (1997, 2001), who assumes the Copy Theory of Movement, a 'chain' is the maximal set of copies of a given element created by the copying process involved in movement (i.e., a moving element leaves copies in its various landing sites).

b. A strong feature instructs PF to pronounce the copy in a chain with which it is in a feature-checking relation.

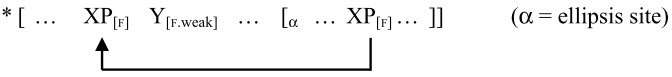
In most cases, these two conditions on PF-objects will result in the elimination of overt movement checking a weak feature.[36]

(44) (Richards 2001:105)



For a movement chain in which one of the copies checks a weak feature, such as the one in (44), PF does not receive unambiguous instructions as to which copy to spell out. There is more than one copy, which means that there is more than one candidate for pronunciation. However, none of the copies is associated with a strong feature, so PF has no reason to choose one of them over the other. Consequently, the derivation will crash.

Richards (1997, 2001) then shows that, since the absence of overt movement to check weak features is due to well-formedness conditions at PF, the ungrammaticality caused by a violation of these conditions can also be undone at PF. One type of overt movement to check a weak feature allowed by Richard's theory is movement out of an ellipsis site.[37]

(45) 

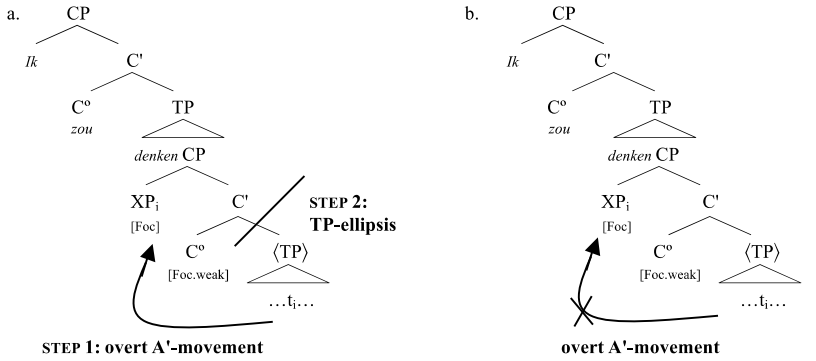
In (45), α is an ellipsis site; i.e., PF is instructed not to pronounce any part of α. As such, the tail of the potentially offending movement chain is deleted at PF (left unpronounced). The resulting chain contains only one candidate for pronunciation, namely the higher copy. Thus, PF receives unambiguous instructions, which results in the chain being a legitimate PF-object. This means that the ambiguity causing the lack of overt movement in chains involving weak features, disappears when there is ellipsis. Richards concludes that ellipsis makes possible certain kinds of overt movement that are not possible without ellipsis.

I would like to argue that this is precisely what happens in the case of Dutch embedded fragment answers. In an embedded clause, the [+Focus] feature on the C^o-head is weak and thus ordinarily cannot trigger overt fronting to [SpecCP] (following the PF-well-formedness principles of Richards 1997, 2001). It can, however, trigger movement out of an ellipsis site (TP), since the resulting chain will contain only a single candidate for pronunciation (the copy in [SpecCP]) and thus will be a well-formed PF-object. As such, the TP-ellipsis resulting in an embedded fragment answer makes possible overt focus movement to the embedded left periphery, which is impossible in a non-elliptical clause.

[36]The only two movement chains resulting in a well-formed PF-object are: (i) single-membered chains (here, PF always receives an unambiguous instruction, cf. (43a)), and (ii) chains in which a single strong feature is checked (here, the copy in the feature-checking relation is spelled out, cf. (43b)).

[37]The ellipsis cases discussed by Richards (1997, 2001) are multiple sluicing and gapping.

(46)



3.4.2 The analysis of Dutch type 2 embedded fragment answers

Just like the derivation of Dutch embedded fragments of type 1, that of type 2 involves A′-movement and ellipsis (cf. Sect. 3.2). However, the derivation of type 2 embedded fragments cannot be entirely parallel to that of their type 1 counterparts, as the former differ from the latter in a number of properties, most the most important of which relate to locality constraints (cf. Sect. 3.3).

Barbiers (2000, 2002) argues that an embedded fragment answer of type 2 focus-moves into the matrix *v*P-layer prior to ellipsis.[38] He shows that movement into matrix *v*P is indeed possible in Dutch: it can serve both as an intermediate and as a final landing site of A′-movement. The latter case is illustrated in (47a) with a focus-moved anaphor, and in (47b) with a focus-moved place adjunct. The fact that the moved constituent in (47a) and (47b) precedes the non-finite verb *gedacht* 'thought' indicates that its landing site is inside the main clause. Moreover, the fact that it follows matrix negation in (47b) indicates that its landing site in the main clause is indeed *v*P, and not some higher functional projection. According to Barbiers (2000, 2002), the full sentential structures in (47ai) and (47bi) are the non-elliptical counterparts of the type 2 embedded fragments in (47aii) and (47bii).

(47) a. (Barbiers 2002:57–8)

Q: Wie had jij gedacht dat Jan$_i$ zou voordragen? [Dutch]
who had you thought that John would recommend
'Who did you think John$_i$ would recommend?'

A: (i) %Ik had [$_{vP}$[$_{DP}$ ZICHZELF]$_i$ gedacht [$_{CP}$ dat hij$_i$ zou
I had himself thought that he would
voordragen t$_i$]].
recommend
'I had thought that he$_i$ would recommend himself$_i$.'

(ii) %Ik had ZICHZELF$_i$ gedacht.
I had himself thought

[38] Belletti (2004) and Aboh (2006), amongst others, propose that the *v*P-periphery includes a Focus projection.

b. (based on Barbiers 2002:56)
Q: Waar had jij (niet) gedacht dat het feest zou zijn? [Dutch]
Where had you not thought that the party would be
'Where did(n't) you think that the party would be?'
A: (i) %Ik had niet [$_{vP}$ [$_{PP}$ in de TUIN]$_i$ gedacht [$_{CP}$ dat het
I had not in the garden thought that the
feest t_i zou zijn]].
party would be
'I had not thought that the party would be in the GARDEN.'
(ii) %Ik had in de TUIN gedacht.
I had in the garden thought

Based on Barbiers' (2000, 2002) argumentation, we can conclude that the derivation of embedded fragment answers of type 2 involves an extra movement step compared to their type 1 counterparts. This extra step targets the *v*P-domain of the higher clause, leaving a trace in the embedded [SpecCP].[39]

The question arises what the first movement step (targeting [SpecCP]) is then triggered by. Note that Bošković's (2008) *Operator Freezing Effect* bans movement from an Operator position to another Operator position (cf. also Epstein 1992; Müller and Sternefeld 1993; Bošković 1997, 2003, 2010), as an anonymous *NLLT* reviewer pointed out. If Bošković's generalization is on the right track, this would imply that the first movement step cannot be triggered by an operator feature (e.g., a focus feature), as the second movement step (targeting [Spec*v*P]) checks a focus feature (cf. supra). Note however that, if movement has to proceed from phase edge to phase edge (cf. Chomsky 2001 *et seq.*), this first movement step does not need to take place for feature-checking, [SpecCP] being a phase edge. Bošković (2010:11) also points out that movements from phase edges (including [SpecCP]) are not relevant for the *Operator Freezing Effect.*

Type 2 embedded fragment answers differ from their type 1 counterparts in obeying locality constraints: example (36b) shows island sensitivity. As discussed in the previous Sect. 3.4.1, in the derivation of type 1 fragment answers, the fragment moves to the embedded [SpecCP], after which TP-ellipsis deletes all PF-uninterpretable traces, resulting in island insensitivity. The derivation of type 2 embedded fragments, on the other hand, is different. The structure in (48) represents the derivation of the island-sensitive type 2 embedded fragment in (36b). The fragment-to-be (*Albanees* 'Albanian') first moves to the [SpecCP] of the subordinate clause, and then into the matrix *v*P-layer. This final movement step is triggered by a focus-feature on the matrix v^o. If this moved phrase crosses an island node, its intermediate copies are *-marked. If one of those defective copies is not eliminated, it will cause a PF-crash (i.e., it will result in ungrammaticality). At PF, the TP-complement of the embedded C^o-head is deleted.[40] As such, the trace in the embedded [SpecCP] is never elim-

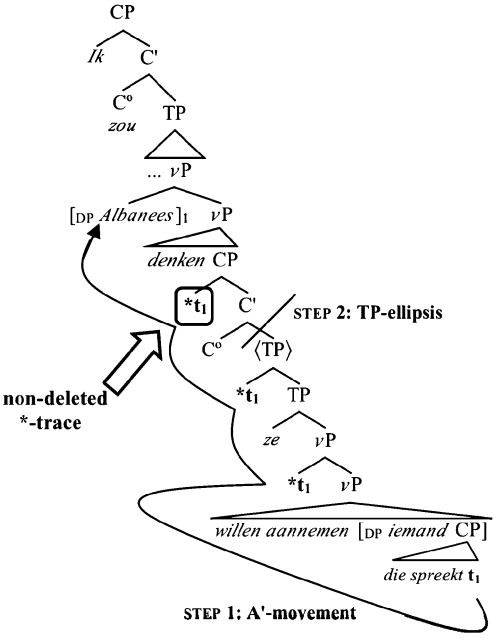
[39] According to Barbiers (2002), focus-movement to the matrix *v*P-layer occurs in one fell swoop, i.e., from *v*P to *v*P, without an intermediate landing site in [SpecCP]. However, if this were the case, clausal ellipsis would eliminate all *-traces, resulting in island insensitivity, contrary to fact.

[40] Barbiers (2000, 2002) analyzes embedded fragments of type 2 as involving PF-deletion of the entire embedded CP (instead of ellipsis of the embedded TP). This is, however, unlikely, as an operation of

inated. If this is a PF-uninterpretable trace, its non-deletion results in a PF-crash. Hence, embedded fragment answers of type 2 are island-sensitive.

(36b) Q: Willen ze iemand aannemen die Grieks spreekt? [Dutch]
want they someone hire that Greek speaks
'Do they want to hire someone who speaks Greek?'
A: *Nee, ik zou Albanees denken.
no I would Albanian think

(48)



ellipsis targeting an entire complement CP has been argued not to exist (cf. Hankamer 1971; Lobeck 1995; Kennedy and Merchant 2000; Merchant 2001). This also holds for Dutch, cf. (i).

(i) a. *Even though Mary [VP said [CP e]], John knows that Bill isn't
*Hoewel Marie [VP zei [CP e]], John weet dat Bill er
going to be there. [English]
niet zal zijn. [Dutch]
b. *I suppose that he will come, and they
*Ik veronderstel dat hij zal komen en zij
[VP suppose [CP e]], too. [English]
[VP veronderstellen [CP e]] ook. [Dutch]

Dutch does exhibit Modal Complement Ellipsis (Aelbrecht 2009), cf. (ii), but Aelbrecht (2009:37ff) argues extensively that the complement of a modal in Dutch is not a CP. I refer the reader to Aelbrecht's work for details.

(ii) (Aelbrecht 2009:51)
Alex zou de auto repareren, maar hij kan niet [TP e]. [Dutch]
Alex would the car repair but he can not
'Alex was going to repair the car, but he can't.'

As such, the different derivations of the two types of Dutch embedded fragment answers provide evidence that Merchant's (2004, 2008) PF-theory of islands is on the right track: in the derivation of type 2 fragments, an extra, non-eliminated *-trace causes island sensitivity. Contrary to the movement step in Merchant's (2004) derivation of English fragment answers, the extra movement step in the derivation of type 2 embedded fragments in Dutch is independently motivated (as shown by Barbiers 2000, 2002).[41]

As shown in Sect. 3.3.1, embedded fragment answers of type 2 cannot be conjoined with a CP. The relevant example, (25Ab), is repeated here:

(25) Q: Wie denk je dat de lijsttrekker van de socialisten in Brussel
who think you that the list-puller of the socialists in Brussels
zal zijn in juni? [Dutch]
will be in June
'Who do you think will head the ballot for the Socialist Party in Brussels in June?'

Ab: *Ik zou Hans Bonte denken en [$_{CP}$ dat Anciaux dat niet zal
I would Hans Bonte think and that Anciaux that not will
appreciëren].
appreciate
INTENDED: 'I would think Hans Bonte will head the ballot and that Anciaux will not like that.'

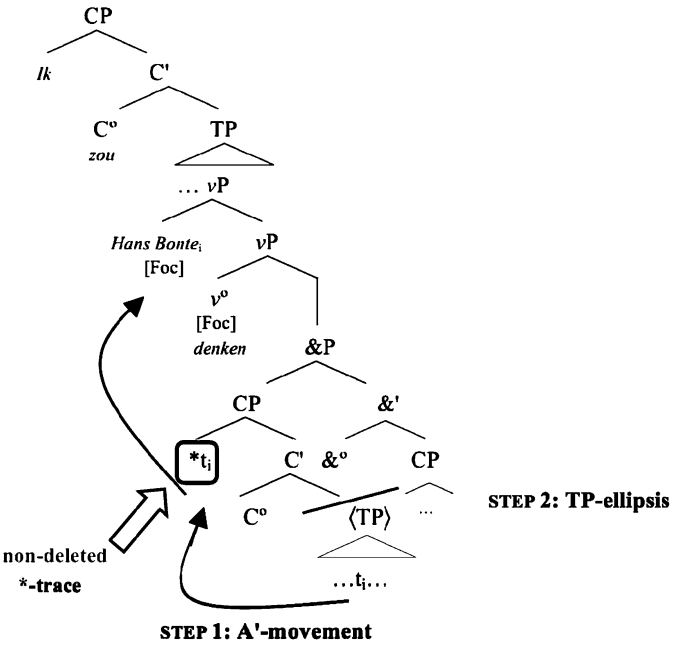
This state of affairs is expected if (25Ab) has a derivation starting out with a structure like (40) (i.e., with a verb selecting a CP-coordination as its complement), but differing from the latter in having [SpecCP] of the first conjunct only as an intermediate landing site. The fragment moves on from within this [SpecCP] to the matrix *v*P-domain. This final movement step is a violation of the Coordinate Structure Constraint, and, consequently, leaves a PF-uninterpretable *-trace in the specifier of the first conjunct-CP. TP-ellipsis in the first conjunct does not eliminate the defective trace in [SpecCP], resulting in an ungrammatical sentence. This is schematically represented in (49).[42]

[41] The question arises why, in the derivation of type 2 fragments, the distance between the landing site of the moved phrase and the ellipsis site is quite extended. A possible explanation could be provided by Aelbrecht (2009), who proposes that ellipsis licensing takes place under Agree, hence, at a distance. Note also that these facts are at first glance problematic for an analysis like Thoms (2010), where ellipsis licensing is conceived of as deletion of the complement of the moved phrase. I leave this issue to further research.

[42] As already shown in footnote 33, the full sentential counterpart of (25Ab) is ungrammatical as well, cf. (i).

(i) [Dutch]
*Ik zou Hans Bonte$_i$ denken dat t_i de lijsttrekker van de socialisten in Brussel zal zijn
I would Hans Bonte think that the list-puller of the socialists in Brussels will be
in juni … en dat Anciaux dat niet zal appreciëren.
in June and that Anciaux that not will appreciat
EINTENDED: 'I would think Hans Bonte will head the ballot and Anciaux will not like that.'

(49)



The third difference between type 1 and type 2 embedded fragment answers (discussed in Sect. 3.3.2), viz. the fact that only type 1 embedded fragments license (frontable) NPIs such as *de eerste de beste* 'just anyone' (cf. (33)–(34)), also receives an account under this analysis. Even for frontable NPIs, the negation in the embedded clause is too far removed from the NPI that has moved into the matrix clause, and can no longer license it. This is confirmed by (34ii), i.e., the full sentence underlying the fragment answer in (34): this sentence, with the NPI surfacing in [Spec*v*P] of the matrix clause, is ungrammatical due to the lack of NPI-licensing.[43,44]

(34) Q: Wat is Obama NIET? [Dutch]
what is Obama not
'What is Obama NOT?'

[43]Thanks to Marcel den Dikken (p.c.) for suggesting this to me.

[44]Jeroen van Craenenbroeck (p.c.) notes that the difference between (ia) and (ib) confirms that negation in an embedded clause cannot license an NPI that has moved into the matrix clause. In (ia) and (ib), the NPI *de eerste de beste* 'just anyone' has moved from within the embedded clause to the matrix [SpecCP]. In the grammatical example (ia), the matrix negation licenses the fronted NPI. In the degraded example (ib), the embedded negation is too far removed from the fronted NPI and fails to license it.

(i) a. ?De eerste de beste$_i$ zei hij **niet** [$_{cp}$ dat Jan was t$_i$]. [Dutch]
the first the best said he not that John was
'He didn't say that John was just anyone.'
b. ?*De eerste de beste zei hij [$_{cp}$ dat Jan **niet** was t$_i$].
the first the best said he that John not was
INTENDED: 'He said that John was not just anyone.'

A: (i) *Ik zou de eerste de beste hopen.
I would the first the best hope
INTENDED: 'I would hope Obama is not just anyone.'
(ii) *Ik zou de eerste de beste hopen dat Obama niet is.
I would the first the best hope that Obama not is
INTENDED: 'I would hope Obama is not just anyone.'

As such, the three properties of Dutch embedded fragments of type 2 under scrutiny here (island sensitivity, lack of coordination with CP, and no licensing of (frontable) NPIs) are straightforwardly accounted for under my analysis.

3.4.3 Conclusion

In this section, I have argued that type 1 embedded fragment answers in Dutch are the non-WH-counterpart of (embedded) sluicing: they involve A′-movement of the remnant-to-be to [SpecCP], followed by TP-ellipsis. Island-sensitive embedded fragments of type 2 involve an extra movement step to the matrix *v*P layer (Barbiers 2000, 2002), leaving a trace in [SpecCP], which is not eliminated by TP-ellipsis. As such, Dutch embedded fragment answers provide support for a Merchant-type PF-theory of islands, where island sensitivity is due to the presence (or non-deletion) of PF-uninterpretable traces.[45] Unlike in Merchant's (2004) analysis of English root

[45]Regarding the sluicing and VP-ellipsis examples in (5), there is another account available in the literature. Fox and Lasnik (2003) [F&L] propose an analysis based on certain interactions of Parallelism and the locality of movement. In the examples in (5), the correlate in the antecedent clauses is an indefinite, which does not move, but is bound by existential closure (cf. Reinhart 1997). A Parallelism condition on ellipsis then forces WH-movement in the elliptical clauses to take place in one fell swoop. Only in that case are the variables in the elliptical clause and those in its antecedent bound from exactly parallel syntactic positions (the idea being that intermediate landing sites would introduce additional variables and concomitant binders and hence a violation of Parallelism). However, as F&L adhere to the idea that all maximal projections are potential barriers, movement has to take place successive cyclically; i.e., it has to adjoin to every intermediate projection. If it skips any intermediate projections, these projections become islands. F&L propose that ellipsis can repair island violations if every intermediate projection skipped (i.e., every island) is deleted. In the sentences in (5), Parallelism forces one-fell-swoop movement. In the case of sluicing (5a), ellipsis deletes every skipped projection, resulting in grammaticality. VP-ellipsis (5b), on the other hand, deletes a smaller constituent and some skipped projections remain unelided. Hence, the ungrammaticality of (5b) is either due to a violation of Parallelism or to (non-repaired) violation of the locality of movement. I refer the reader to the original paper for more details.

An anonymous *NLLT* reviewer raises the question of how the Dutch embedded fragments would fare under the F&L account. At first sight, the F&L analysis seems to make the same predictions as a Merchant-type account regarding the island sensitivity of the two types of Dutch embedded fragments. While in the case of type 1 fragments, every intermediate projection is elided and hence no island violation ensues, some skipped projections (e.g., CP) will not be deleted in the case of type 2 fragments. The F&L account thus correctly predicts island insensitivity for the former and island sensitivity for the latter. That said, however, the embedded fragment examples discussed here crucially differ from the sluicing and VP-ellipsis examples of F&L in not having indefinites, but rather, focused phrases as their correlates (see e.g., (36)). Park (2005, 2010) and Merchant (2008), amongst others, have shown that focused XPs and indefinites scope differently. Park follows Rooth (1985) in assuming that focused phrases do not move at LF; Merchant takes island-escaping LF focus movement to be "crippled"; i.e., it cannot target the IP or CP, but is limited to VP. Either way, it seems that because of these different scope properties, the level of Parallelism aimed at by F&L cannot be attained in the relevant fragment examples. Accordingly, this Parallelism cannot be adopted to predict or explain island sensitivity in examples such as (36).

fragment answers, the extra movement step leaving a trace that is not elided by TP-ellipsis is well motivated in the derivation of island-sensitive Dutch embedded fragment answers.

4 On the (non-)embeddability of English and Dutch fragment answers

Both Dutch and English exhibit embedded sluicing, in which a WH-phrase is found next to an embedded clausal ellipsis site. Nevertheless, only in Dutch can fragment answers (clausal ellipsis leaving behind a non-WH remnant) occur in embedded contexts, as discussed extensively in Sect. 3.1. This contrast is illustrated in (50).

(50) a. *Embedded sluicing*
Ik zweer dat ik iemand heb horen giechelen,
I swear that I someone have heard giggle
maar ik weet niet wie. [Dutch]
but I know not who [English]
'I swear I heard someone giggle, but I don't know who.'

b. *Embedded fragment answer*
Wie heeft gegiecheld? – Ik zou denken Peggy. [Dutch]
who had giggled I would think Peggy
'Who giggled? – (*I would think) Peggy.' [English]

The key to understanding this state of affairs is the WH/sluicing correlation proposed by van Craenenbroeck and Lipták (2006, 2009), which states that there is a correlation between the type of WH-movement a language exhibits and the types of clausal ellipsis attested in that language. In this section, I argue that English only has embedded sluicing, and no embedded fragment answers, because in English subclauses, WH-phrases move to a higher projection than foci. In Dutch embedded clauses, on the other hand, WH-phrases and foci can have the same landing site. The WH/sluicing correlation then correctly predicts that both sluices and fragments should be attested in Dutch subclauses.

4.1 The WH/sluicing correlation and the [E]-feature

Van Craenenbroeck and Lipták's precise formulation of the WH/sluicing correlation is as follows:

(51) *The* WH*/sluicing correlation* (van Craenenbroeck and Lipták 2009:9)
The syntactic features that the [E]-feature has to check in a language *L* are identical to the strong features a WH-phrase has to check in a regular constituent question in *L*.

The [E]-feature mentioned in (51) was first introduced by Merchant (2001 *et seq.*) and adopted by Gengel (2007) and van Craenenbroeck (2010), *inter multa alia*. The [E]-feature directly links the licensing and identification requirements on ellipsis with the phonological effect of non-pronunciation, as it bundles the syntactic, semantic and phonological properties that characterize ellipsis. This [E]-feature, which

triggers ellipsis (PF-deletion), is merged with the head whose complement is the target of deletion. In the cases under scrutiny here—i.e., clausal ellipses—[E] occurs on the C°-head, the TP-sister of which is to be elided. The full specification of the [E]-feature responsible for sluicing, specified by Merchant (2004), is given in (52).

(52) [E] in sluicing (Merchant 2004:670–2)

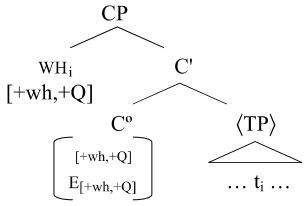
a. The phonology of [E]: $\varphi_{TP} \rightarrow \emptyset /$ E _

b. The semantics of [E]: $[\![E]\!] = \lambda p$: e-GIVEN (p) [p]

c. The syntax of [E]: $E_{[uWH^*, uQ^*]}$

The effect of the [E]-feature on the phonology is represented in (52a): φ_{TP} is the phonological representation of the material dominated by the TP node, and the realization of this material is null when it is the complement of [E]. In other words, [E] instructs PF not to parse/pronounce the complement of the head with which it is merged. The semantics of [E] in (52b) encodes the identification or recoverability requirement on the elided phrase. The partial identity function in (52b) expresses that the complement of [E] has to be e-GIVEN for semantic composition to succeed. Roughly, an expression is e-GIVEN if it has a salient antecedent. The syntactic subcategorization of [E] in (52c) represents the licensing requirements on sluicing. It has long been noted in the literature, going back to Ross (1969), that ellipsis is licensed only in certain syntactic environments (cf. also Lobeck 1995; Aelbrecht 2009). The syntactic specification in (52c) encodes that sluicing is only licensed in constituent questions in English. The [E]-feature is endowed with both an operator (+wh, or +Op) and a question (+Q) feature, which are uninterpretable (u) and strong (indicated by the asterisk). To be fully licensed, the [E]-feature has to check these features against matching features in a local (head-head) configuration, not by means of (potentially non-local) Agree. This implies that [E] can only occur on the C°-head of WH-questions, the syntactic featural makeup of which is [+wh, +Q] as well. This is schematically represented in (53):

(53)



Van Craenenbroeck and Lipták (2006, 2009) propose that the syntactic requirements of the [E]-feature should be relativized across languages, in order to capture the crosslinguistic diversity found in sluicing constructions. They observe that Hungarian sluicing is licensed in a different set of syntactic environments than its English counterpart. In particular, while sluicing is only licensed in constituent questions in English, Hungarian also exhibits 'focus sluicing' (i.e., clausal ellipsis with a focused non-WH-remnant) in relative clauses and declarative complement clauses, as illustrated in (54).

(54) a. WH-*sluicing* (van Craenenbroeck and Lipták 2009:9) [Hungarian]
Valaki olvasta azt a könyvet, de nem tudom ki.
someone read that the book.ACC but not I.know who
'Someone read that book, but I don't know who.'

b. '*relative deletion*' (*focus sluicing I*) (van Craenenbroeck and Lipták 2006:248)
Kornél azt a LÁNYT hívta meg, akit ZOLTÁN.
Kornél that.ACC the girl.ACC invited PV who.ACC Zoltán
'The girl who Kornél invited was the one who Zoltán *(did).'

c. *focus sluicing II* (van Craenenbroeck and Lipták 2009:9)
János kirugott valakit, és azt hiszem hogy BÉLÁT.
János fired someone and that I.think that Béla
'János fired someone and I think *(it was) Bill.'

As such, the syntactic subcategorization of [E] for Hungarian sluicing cannot be [+wh, +Q] as in English (cf. (52c)): it should be less specific, thus licensing sluicing in a wider range of sentential environments. As van Craenenbroeck and Lipták (2006:257) note, the different syntactic specifications of the [E]-feature in Hungarian and English should preferably be linked to independent properties of the two languages. They propose that the syntactic featural makeup of the [E]-feature in a particular language is determined by the syntax of overt WH-movement in that language (the WH/sluicing correlation in (51)).

Van Craenenbroeck and Lipták (2006, 2009) follow the analysis of É. Kiss (1987) and Bródy (1995) that Hungarian WH-movement does not target [SpecCP], but rather [SpecFocP], a clause-internal focus position. Hence, the only strong feature checked by a WH-phrase in Hungarian is [+Focus] (or, more generally, [+Op(erator)]). The WH/sluicing correlation then predicts that the syntax of [E] in Hungarian should be [*u*Foc*], or more generally [*u*Op*]. As such, the Hungarian [E]-feature is licensed in every syntactic context where an operator-variable dependency is created (cf. (54)). This explains why Hungarian exhibits more types of clausal ellipsis than English: for the latter, the syntactic requirements of the [E]-feature are more specific (cf. (52c)). Furthermore, van Craenenbroeck and Lipták argue that other languages in which WH-movement targets [SpecFocP], such as Polish and Russian, also exhibit Hungarian-like clausal ellipsis. This further corroborates the WH/sluicing correlation. More details and supporting evidence can be found in the papers mentioned above. For our present purposes, this general picture suffices.

If the WH/sluicing correlation is indeed correct, there is not simply one feature [E] specific to each clausal elliptical construction (WH-sluicing, focus sluicing, fragment answer, ...) listed in the lexicon (as was originally proposed by Merchant 2001, cf. also Aelbrecht 2009). Van Craenenbroeck and Lipták (2006, 2009) have shown that all types of clausal ellipsis in Hungarian can be derived on the basis of the WH/sluicing correlation, with only one [E]-feature, specified as [*u*Op*]. Given this, the question arises what the syntactic featural makeup of the [E]-feature in English and Dutch embedded clauses is. Note that the representation in (52c)

seems to be on the right track for English in that it limits embedded clausal ellipsis in English to constituent questions, thus correctly predicting that only embedded sluicing will be attested in English. On the other hand, (52c) cannot be correct for Dutch embedded clauses: sluicing is not the only type of embedded clausal ellipsis found in this language; embedded fragment answers are attested as well. If the [E]-feature has to check both an operator and a question feature, as specified in (52c), it can never be licensed in embedded declarative clauses, and embedded fragment answers are predicted to be unattested in Dutch, contrary to fact. This means that the syntactic specification of the [E]-feature for embedded clausal ellipsis in Dutch needs to be adjusted. Given that Dutch exhibits both sluicing and fragment answers in embedded clauses, the [E]-feature in Dutch embedded clausal ellipsis simply has to check an operator feature (e.g., a [+wh] feature in sluicing and a [+Focus] feature in fragment answers). This implies that the properties of WH-movement in Dutch differ from those in English: in accordance with the WH/sluicing correlation, the only strong feature checked by a Dutch WH-phrase is an operator feature. In the following subsection, I show that this is indeed the case.

4.2 WH-movement, focus-movement and clausal ellipsis in Dutch and English

In this section, I discuss the properties of embedded WH-movement in Dutch and English, and I show that the WH/sluicing correlation makes the correct predictions for embedded clausal ellipsis in both languages.

For the discussion of WH-movement in Dutch and English, I adopt the 'split CP'-hypothesis, as implemented by, amongst others, Reinhart (1981), Bhatt and Yoon (1991), Culicover (1991), Authier (1992), Zwart (1993), Hoekstra and Zwart (1994, 1997), Bennis (1997, 2000), and van Craenenbroeck (2009, 2010, 2012). These proposals all differ somewhat in their details, but the gist is that the CP-domain consists of (at least) two functional projections. The traditional support for the claim that Dutch has a 'double' CP is the co-occurrence of the complementizers *of* 'if' and *dat* 'that' in embedded (yes/no- and WH-) questions, as shown in (55). This suggests that there are two distinct functional heads present in the left periphery, heading their own separate functional projection.

(55) (Zwart 1993:265)

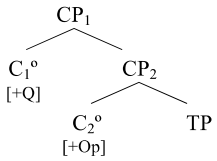
a. Ik vraag of dat Jan het gedaan heeft. [colloquial Dutch]
I ask if that John it done has
'I'm asking whether John did it.'

b. Ik vraag [$_{CP_1}$ [C^o_1 of] [$_{CP_2}$ [C^o_2 dat] [$_{TP}$ Jan het gedaan heeft]]].

For the specifics of the split CP-hypothesis, I follow van Craenenbroeck's (2009, 2010, 2012) proposal. He argues that each of the two projections makes a specific syntactic and semantic contribution to the clause; i.e., they have a precise content and function. The lower of the two CPs (CP_2) is related to establishing operator-variable dependencies (i.e., operator features are being checked here),

whereas the high CP (CP_1) is specialized for clause typing (e.g., a [+Q(uestion)]-feature in WH-questions). For WH-questions, this yields the abstract structure in (56).[46]

(56)



In the traditional Minimalist Program (Chomsky 1995 *et seq.*), movement is a feature-driven operation (cf. also Sect. 3.4.1). A feature in need of checking triggers movement of a phrase that carries a matching feature; the triggering feature is then checked in a local configuration by the matching feature on the moved phrase. I will assume, following Sabel (2000), den Dikken (2003), and van Craenenbroeck (2009, 2010, 2012) that WH-movement is forced by the need to check two kinds of features: [+Q(uestion)] and [+Op(erator)].[47,48] These features are carried by (i) the WH-phrase and (ii) the relevant functional heads (under the present account, C^o_1 and C^o_2, respectively, cf. (56)). In what follows, it will become clear that the features relevant for WH-movement do not differ in Dutch and English. The contrast between the two languages lies in the parametric properties that force WH-movement in embedded clauses: the strength of the [+Q]- and [+Op]-features on C^o_1 and C^o_2, respectively. The WH/sluicing correlation predicts that this will affect the syntactic specifications of the [E]-feature, and thus, the types of clausal ellipsis available.

Based on the distribution of aggressively non-D-linked WH-phrases (such as *what the hell*) and the position of WH-phrases relative to topics, den Dikken and Giannakidou (2002) and den Dikken (2003) show that the landing site of WH-phrases in embedded constituent questions is [SpecCP], the specifier of the highest of two left-peripheral functional heads (corresponding to [SpecCP_1] in the present account).[49] This means that, in an embedded constituent question in English, C^o_2 first attracts the WH-phrase to its specifier, after which C^o_1 drives overt syntactic WH-movement to its specifier. A schematic representation of WH-movement in English embedded clauses is given in (57). A WH-phrase moves overtly to [SpecCP_2] to check a strong [+Op]-feature on C^o_2. However, this specifier position is only an intermediate landing site:

[46]The general idea of the division of labor between the 2 CPs is reminiscent of Reinhart's (1981) account. CP_1 and CP_2 are most closely related to ForceP and FocP, respectively, in the Rizzian left periphery (cf. Rizzi 1997 *et seq.*), as explicitly acknowledged in van Craenenbroeck (2010:32).

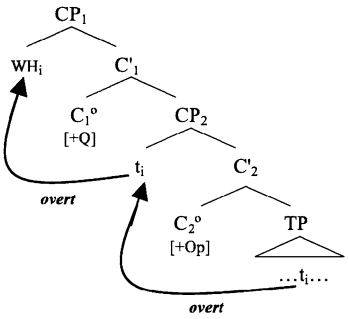
[47]For Sabel (2000) and den Dikken (2003), the [+Op]-feature checked by WH-movement is [+Foc]. Sabel (2000) presents ample cross-linguistic evidence that WH-movement is in fact also an instance of focus-movement. The exact nature of the [+Op]-feature involved in WH-movement is irrelevant for my purposes; the only thing crucial is that there is *some* operator feature that needs to be checked. Furthermore, Sabel (2000) and den Dikken (2003) analyze WH-movement as involving a [+wh]-feature instead of a [+Q]-feature. Presumably, there is no problem in reformulating what follows in terms of the [+wh]-feature. I prefer to use the [+Q]-feature, as this seems more closely related to the notion 'clause-typing'.

[48]According to van Craenenbroeck (2009, 2010, 2012), this only holds for simple WH-phrases, not for complex ones. Here, I disregard complex WH-constituents and only focus on the simple ones.

[49]For a brief illustration of the two empirical arguments given by den Dikken and Giannakidou (2002) and den Dikken (2003), cf. infra, p. 44–45.

it has to check the strong clause-typing [+Q]-feature on C^o_1 and moves further on to [SpecCP$_1$] in overt syntax.[50,51]

(57) English subclauses



At first sight, WH-movement in Dutch embedded clauses seems to resemble its English counterpart. Van Craenenbroeck (2009, 2010, 2012) argues extensively that WH-phrases in Dutch first raise to [SpecCP$_2$] to check a strong [+Op]-feature, and then to [SpecCP$_1$] to check a [+Q]-feature. However, a particular data set provides evidence that the [+Q]-feature on C^o_1 in Dutch embedded clauses is only *optionally* strong, i.e., that it can be checked either before or after Spell-Out (cf. van Craenenbroeck 2010:258; fn. 6). Above, it was pointed out that Dutch has two complementizers, each lexicalizing one of the two functional heads in the CP-domain: *of* 'if' occupies the high C^o_1-head, *dat* 'that' the low C^o_2-head. In Dutch, it is most common for a fronted WH-phrase to precede the complementizer *of* 'if' in an embedded WH-question (cf. Zwart 1993; Hoekstra and Zwart 1994, 1997; Bennis 1997, 2000; van Craenenbroeck (2009, 2010, 2012). This is exemplified in (58). These word order facts indicate that in this case, the WH-constituent has raised overtly to the [SpecCP$_1$] position. On the other hand, as Hoekstra (1994) and van Craenenbroeck (2009, 2010, 2012) note, in a number of Dutch dialects (such as Amsterdam Dutch and Strijen Dutch), the moved WH-phrase can surface in between the two complementizers, i.e., to the right of the complementizer *of* 'it'.[52] This is illustrated in (59). It thus becomes apparent that a Dutch WH-phrase can also surface in [SpecCP$_2$].

(58) (based on van Craenenbroeck 2010:30)

Ik vraag me af [CP$_1$ wie$_k$ [C^o_1 of] [CP$_2$ t_k [C^o_2 dat] [TP je zoekt t_k]]].
I ask me PRT who if that you look.for
'I wonder who you are looking for.' [colloquial standard Dutch]

[50]There is some discussion as to whether the [+Op]-feature on C^o_2 is strong in case the [+Q]-feature on C^o_1 is strong, cf. van Craenenbroeck (2010:89). Even if the [+Op]-feature on C^o_2 is weak in this case, the consequences of the WH/sluicing correlation for clausal ellipsis discussed below still hold.

[51]Although movement from [SpecCP$_2$] to [SpecCP$_1$] starts out from a position in which an operator-variable chain was created, Bošković's (2008) *Operator Freezing Effect* (cf. Sect. 3.4.2) is not relevant here, as the landing site is not an operator position (but related to clause typing).

[52]The option with the WH-constituent occurring to the left of the complementizer *of* 'if' is also available in these dialects (cf. van Craenenbroeck 2009, 2010, 2012).

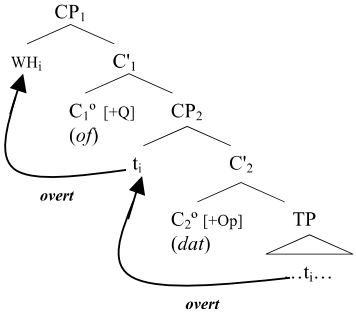
(59) (based on van Craenenbroeck 2010:33)

Ik weet nie [CP1 [C°1 of] [CP2 met wiek [C°2 dat] [TP Jan oan et
I know not if with who that John on it
proate was tk]]].
talk was
'I don't know who John was talking to.' [Strijen Dutch]

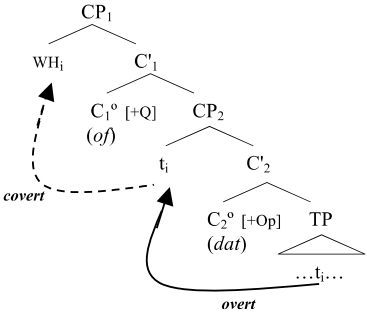
This yields two possible derivations for WH-movement in Dutch embedded clauses, abstractly represented in (60). Either the WH-phrase raises all the way up to the specifier of the high C^{o}_{1}-head, or it remains in [SpecCP$_2$]. We can conclude that the final movement step of Dutch WH-phrases (i.e., the one starting in the lower [SpecCP$_2$] and targeting the higher [SpecCP$_1$]) can take place either overtly or covertly. The [+Op]-feature on C^{o}_{2} is strong; the [+Q]-feature on C^{o}_{1} is only optionally strong.[53]

(60) Dutch subclauses

a. *strong [+Q]-feature*



b. *weak [+Q]-feature*



As such, Dutch WH-movement in embedded clauses differs from its English counterpart in that the [+Q]-feature on the highest C^{o}_{1}-head is either weak or strong in Dutch, while it is always strong in English. This state of affairs is summarized in the first column of table (61). According to van Craenenbroeck and Lipták's (2006, 2009) WH/sluicing correlation, these differences in feature strength will be reflected in the feature specification of the [E]-feature. Following the WH/sluicing correlation, the syntactic licensing requirements of the [E]-feature in Dutch and English embedded clauses should be as shown in the rightmost column of table (61). Consequently, just as there are two instances of WH-movement in Dutch, there are two options for the syntactic featural makeup of [E] in Dutch embedded clausal ellipsis.

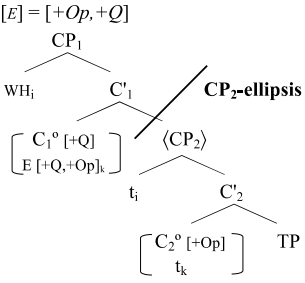
(61)

	strong features checked by WH	**syntax of [E]**
English embedded clause	[+Op,+Q]	[+Op,+Q]
Dutch embedded clause	[+Op] *or* [+Op,+Q]	[+Op] *or* [+Op,+Q]

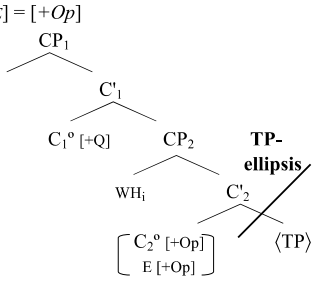
[53] Following a suggestion by van Craenenbroeck (2010:258, fn. 6), I formulate the overt/covert asymmetry in terms of a difference in feature strength. Van Craenenbroeck (2009:3, fn. 2), on the other hand, suggests that the covertness of the final movement step could be linked to the Vacuous Movement Hypothesis (cf. e.g., Agbayani 2000): the movement is 'local enough' for it to take place without its phonetic matrix.

Because it carries a [+Op]-feature, the [E]-feature is always merged with the low C^o_2-head first. In this local configuration, [E]'s [+Op]-feature can be checked against that of C^o_2. When this is the only feature of [E] that needs to be checked, [E] is syntactically fully licensed when it resides on C^o_2 and can trigger deletion of the complement of the C^o_2-head (TP). However, in case [E] also carries a [+Q]-feature that needs to be checked, residing in C^o_2 is insufficient: it has to raise further to C^o_1. After checking [+Q], [E] is fully licensed and triggers deletion of the complement of C^o_1 (CP_2). These two instances of the [E]-feature are illustrated in (62). The WH-phrase (which will be the remnant of sluicing) is also represented in the tree structures. In Dutch, both instances of the [E]-feature are available. In English, only the one in (62a) is available.

(62) a. English and Duch subclauses



b. Only Duch subclauses



The WH/sluicing correlation predicts that two types of clausal ellipsis will be attested in Dutch embedded clauses (TP- and CP_2-ellipsis), while only one type (CP_2-ellipsis) will in English subclauses. The TP-ellipsis process in (62b) is licensed by Dutch WH-phrases that have their final landing site in [SpecCP_2]. The CP_2-ellipsis process in (62) is licensed, both in Dutch and in English, by WH-phrases targeting [SpecCP_1]. Accordingly, both in Dutch and English, embedded sluicing is attested. The English embedded sluice in (63a) can only be the result of CP_2-ellipsis. The sluice in (63b) seems to be the Dutch counterpart of the English sluice in (63a), i.e., the result of CP_2-ellipsis.[54] The Dutch sluice in (63c) is the result of TP-ellipsis (the WH-phrase follows *of* 'if' and, hence, occupies [SpecCP_2]).

[54]Strictly speaking, the sluice in (63b) could also be the result of TP-ellipsis. In those variants of Dutch that do not allow the WH-phrase and the overt complementizer *of* 'if' to surface together, there is no way of telling whether in (63b) or (i) is the derivation of *en daarom vraag ik me af waarom* 'and therefore, I wonder why.'

(i) … en daarom vraag ik me af [$_{CP_1}$ [C^o_1] [$_{CP_2}$ waarom ⟨TP⟩]].
and therefore ask I me PRT why

[55]Sluices like the one in (63c) are predicted to be acceptable for those speakers of Dutch who allow the WH-phrase to surface in to the right of the complementizer *of* 'if' in non-elliptical embedded interrogative clauses (i.e., where the [+Q]-feature on C^o_1 is optionally strong), e.g., speakers of Amsterdam Dutch and Strijen Dutch. More examples like the one in (63c) can be found on Google, such as the one in (i).

(i) (http://blognetwerk.net/search.php?page=7&search=mooiste+vrouw&tag=true)
Nu toch geprikkeld door een ander vraag ik me af of hoe. [dialectal Dutch]
now still agitated by a other ask I me prt if how
'As I am agitated by another person, I wonder how.'

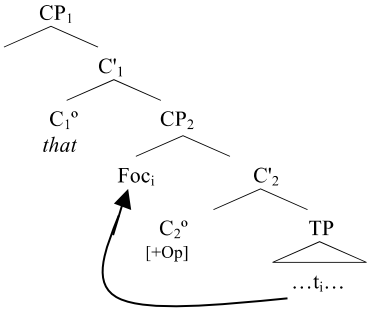
(63) a. . . . and therefore, I wonder [CP_1 why ⟨CP_2⟩]. [English]
b. . . . en daarom vraag ik me af [CP_1 waarom ⟨CP_2⟩]. [Dutch]
and therefore ask I me prt why
'. . . and therefore, I wonder why.'
c. (http://forum.fok.nl/topic/1431360/8/25)[55] [dialectal Dutch]
. . . en daarom vraag ik me af [CP_1 [C^o_1 of] [CP_2 waarom ⟨TP⟩]].
and therefore ask I me PRT if why
'. . . and therefore, I wonder why.'

Hence, the WH/sluicing correlation makes the correct predictions for Dutch and English embedded sluicing.

The fact that Dutch, but not English, has embedded fragment answers, can also be derived on the basis of the WH/sluicing correlation. As discussed in Sect. 3.4, the A′-movement involved in the derivation of fragment answers is focus-movement, triggered by a syntactic (formal) feature [+Foc(us)]:[56] the moved fragment checks a [+Foc]-feature of a left-peripheral head. A [+Foc]-feature is, more generally, a [+Op]-feature (cf. van Craenenbroeck and Lipták 2006, 2009; amongst others), and resides on the low C^o_2-head in the split CP (cf. supra). Regarding English focus-movement, Culicover (1991), Authier (1992), and den Dikken (2003) indeed all consider the focus phrase to target the lower of the two CP-projections.[57] This means that, if a focus phrase surfaces in a left-peripheral position, as in (64), it has checked a [+Op]-feature in C^o_2.[58] Focus movement is schematically represented in (65). I take Dutch focus-movement to target the specifier of the low CP_2-projection as well.

(64) I think that to Tom Lee gave a book.

(65)



As discussed above, the syntactic featural makeup of the [E]-feature for English clausal ellipsis is [+Q, +Op]: [E] is only fully licensed on the high C^o_1-head (pro-

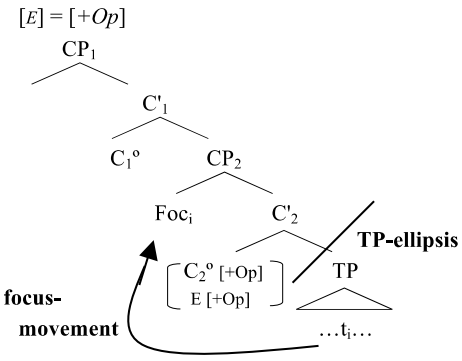
[56]Focus-movement is taken to be triggered by a syntactic (formal) feature [+Foc] or, more generally, [+Op] in Horvath (1986, 2007), Bródy (1995), Rizzi (1997), den Dikken (2003), and van Craenenbroeck and Lipták (2006, 2009), amongst others.

[57]There is no clause-typing feature that needs to be checked: declaratives are the unmarked ('default') clause type (Sadock and Zwicky 1985; Payne 1997).

[58]There is a general consensus in the literature (Culicover 1991; Authier 1992; den Dikken 2003) that the complementizer *that* in English (cf. (64)) occupies the highest C^o-head (labelled C^o by these authors, here: C^o_1).

vided C_1^o carries a [+Q]-feature). As a focus phrase never moves higher than [SpecCP_2], it will never be able to survive CP_2-ellipsis.[59] As such, embedded fragment answers are never attested in English. In Dutch, on the other hand, the syntactic licensing requirements of the [E]-feature in embedded clauses are either [+Q, +Op] or [+Op]. In the latter case, [E] is fully licensed on the low C_2^o-head (when C_2^o carries a [+Op]-feature). If C_2^o for instance has a [+Foc]-feature, [E] is licensed and triggers deletion of the complement of C_2^o (TP). A focus-moved phrase in [SpecCP_2] will survive TP-ellipsis (as shown in (66)), resulting in an embedded fragment answer. Hence, the WH/sluicing correlation also makes the correct prediction for the availability of embedded fragment answers in Dutch and English.

(66)



Finally, an anonymous *NLLT* reviewer wonders how, all things being equal, it is possible under this analysis that root fragments are attested in English (cf. Sect. 2). If English WH-movement and focus movement in an embedded clause exhibit the same behaviour as in a root clause, the WH/sluicing correlation predicts English root fragments to be unavailable (cf. supra), contrary to fact.

A focus phrase in English does target the same position in root and embedded clauses, i.e., the specifier of the lowest of the two CP-projections (cf. Culicover 1991; Authier 1992; den Dikken 2003). However—as also already briefly hinted at above—based on the placement of WH-phrases *vis-à-vis* fronted topics and the distribution of aggressively non-D-linked WH-phrases (e.g., *what the hell*, cf. den Dikken and Giannakidou 2002), den Dikken (2003) shows that English exhibits a root/non-root asymmetry with respect to the landing site of WH-phrases in constituent questions. Firstly, topics precede WH-phrases in root questions but follow them in embedded ones, cf. (67). Den Dikken (2003) remarks that the position of topics is relatively constant cross-linguistically and hence, that we can assume that the topic *to Mary* occupies the same position in (67a) and (67b). If this is the case, the sentences in (67) show that the landing site of WH-movement in English is different in root and embedded clauses. While WH-fronting targets [SpecCP] in embedded clauses,

[59] In fact, if there is *only* focus movement into the left periphery (i.e., to [SpecCP_2]), there will be no CP_2-ellipsis in the first place: as the [+Q]-feature of [E] remains unchecked, [E] is not fully licensed and cannot trigger ellipsis.

the WH-constituent moves no further than [SpecFocP] in root WH-questions; in the present account, these positions correspond to [SpecCP$_1$] and [SpecCP$_2$], respectively.[60]

(67) (den Dikken 2003:83) [English]

a. ? To Mary, what should we give?

b. ? I don't know what to Mary, we should give.

Secondly, (root and embedded) multiple WH-questions normally get either a regular pair-list reading or a single-pair echoic reading (cf. (68)). However, den Dikken and Giannakidou (2002) show that when the fronted WH-phrase is aggressively non-D-linked, a root multiple WH-question only permits a single-pair echoic interpretation (cf. (69a)). This is not the case in embedded multiple WH-questions with a fronted WH-*the-hell* expression: these also allow the regular pair-list interpretation (cf. (69b)).

(68) (den Dikken 2003:81–3) [English]

a. Who is in love with who? [*pair-list or single-pair echo interpretation*]

b. I {am wondering/would like to know} who is in love with who. [*pair-list or single-pair echo interpretation*]

(69) (den Dikken 2003:81–3) [English]

a. ?Who the hell is in love with who? [*single-pair echo interpretation only*]

b. I {am wondering/would like to know} who the hell is in love with who. [*pair-list or single-pair echo interpretation*]

Den Dikken and Giannakidou (2002) and den Dikken (2003) argue that the empirical facts in (68)–(69) can be accounted for if the WH-*the-hell* expression raises to [SpecCP]—here [SpecCP$_1$]—in embedded clauses but only to [SpecFocP]—here [SpecCP$_2$]—in root clauses. I refer the reader to the original papers for the details of the analysis.

Summarizing, based on the data and account presented in den Dikken and Giannakidou (2002) and den Dikken (2003), we can conclude that WH-phrases move to [SpecCP$_1$] in embedded clauses, but no further than [SpecCP$_2$] in root clauses. This means that the [+Op]-feature on C$^{o}_{2}$ first attracts the WH-phrase to its specifier, but the clause-typing [+Q]-feature on C$^{o}_{1}$ only drives overt WH-movement to its specifier in an embedded context. Nevertheless, den Dikken (2003) shows, on the basis of intervention effects, that the C$^{o}_{1}$-head in root WH-questions does indeed carry a [+Q]-feature: this feature systematically gets checked via covert movement at LF. Hence, there is a root/non-root asymmetry with respect to the point of the derivation at which the [+Q]-feature on C$^{o}_{1}$ is checked, i.e., pre- or post-*Spell-Out*. As such, we can conclude that while the [+Op] feature on C$^{o}_{2}$ in English WH-questions is always

[60] A similar analysis of English WH-movement in root and embedded clauses can be found in Culicover (1991).

strong, the [+Q] feature on C^o_1 is strong in embedded WH-clauses, but weak in root WH-clauses (see the structure in (60b)).[61]

The WH/sluicing correlation states that these differences in feature strength of the [+Q]-feature on C^o_1 will be reflected in the feature specification of [E]: while the syntax of [E] in an embedded clause is [+Op,+Q], it will simply be [+Op] in a root clause. In a root clause, then, [E] will be syntactically fully licensed when it resides on C^o_2, where it checks its [+Op] feature against that of C^o_2. At this point, it triggers deletion of the complement of the C^o_2-head (i.e., of TP). This ellipsis process is licensed by both WH-constituents and focus phrases. Wh-phrases and focus-phrases in [SpecCP_2] of a root clause will 'survive' TP-deletion (see the structures in (62b) and (66)). Consequently, both root sluicing and root fragment answers are attested in English.[62]

4.3 Conclusion

In this section, I have shown how the WH/sluicing correlation proposed by van Craenenbroeck and Lipták (2006, 2009) makes the correct predictions for clausal ellipsis in Dutch and English embedded clauses. In an interrogative subclause in English, the strong features checked by a WH-phrase are [+Op] and [+Q]. In a Dutch embedded constituent question, [+Q] is only optionally strong. The syntactic licensing requirements of the [E]-feature in an English embedded clause are hence predicted to consist of [+Op,+Q], while in a Dutch subclause, they can also simply be [+Op]. Therefore, the [E]-feature is only fully licensed in an English embedded clause when it resides on the highest C^o_1-head (provided C^o_1 has a [+Q]-feature). This results in CP_2-ellipsis, in which only WH-phrases survive. As such, only embedded sluicing, but not embedded fragment answers, are attested in English. In Dutch, on the other hand, the [E]-feature can be fully licensed on the low C^o_2-head (if C^o_2 carries a [+Op]-feature). This triggers TP-ellipsis, which is licensed by both WH- and focus-phrases. Accordingly, Dutch has embedded sluicing and embedded fragment answers. As such, the non-embeddability of English fragment answers (versus the embeddability of Dutch fragment answers) is derived from the properties of WH-movement, in line with the WH/sluicing correlation.

[61] According to den Dikken (2003:91–2), the [+Q] feature on C^o_1 is always strong in English. He attributes the observation that a WH-phrase does not move overtly to [SpecCP_1] in a root WH-question to the fact that [+Q] is on the root node itself. He posits, following a hypothesis due to Chomsky (1995:Chap. 4), that no feature on the root C ever needs to be checked via overt movement: the features of the root node are not 'active' in overt syntax. This is not incompatible with my account based on the WH/sluicing correlation (although the latter may then need to be rephrased in terms of 'overt movement' instead of 'strong features'). For expository purposes, though, I simply consider the [+Q] feature on C^o_1 in English root clauses to be weak.

[62] Note that under this account, the island sensitivity of English fragment answers (cf. Sect. 2) still remains unexplained. Fragments are generated on the basis of a 'regular' focus movement structure, with the focus phrase targeting [SpecCP_2], after which TP is elided. As such, TP-ellipsis will delete all *-marked traces, which predicts island-insensitivity, contrary to fact. Thus, we still need to assume—following Merchant (2004)—that English root fragments involve a left dislocation structure, which leaves a (non-deleted) trace in [SpecCP_2].

5 Conclusions

This paper started out from a discrepancy in island sensitivity between English VP-ellipsis, sluicing and fragment answers. I introduced Merchant's (2004, 2008) proposal that island sensitivity is due to the presence of PF-uninterpretable traces. Merchant (2004) proposes that English fragment answers differ from sluicing in that they have an additional landing site in the CP-domain, leaving a non-elided trace. This paper presented new evidence in favour of Merchant's PF-theory of islands on the basis of Dutch embedded fragment answers. It was shown how one type of Dutch embedded fragment differs from a second type in (i) involving an extra movement step and (ii) being island-sensitive. Unlike in Merchant's (2004) analysis of English root fragment answers, the extra movement step leaving a trace that is not elided by TP-ellipsis is well motivated in the derivation of island-sensitive Dutch embedded fragment answers. Other points of variation between these two types of Dutch embedded fragment answers (conjunction with CP and NPI-licensing) follow straightforwardly from my analysis as well. Moreover, this paper discussed a second difference between sluicing and fragment answers in English, viz. only the former is embeddable. On the other hand, both sluicing and fragments can be embedded in Dutch. I argued that the key to understanding this contrast is the WH/sluicing correlation proposed by van Craenenbroeck and Lipták (2006, 2009). In English subclauses, WH-phrases move to a higher projection than foci. In Dutch embedded clauses, on the other hand, WH-phrases and foci can have the same landing site. The WH/sluicing correlation correctly predicts that, while both sluices and fragments can be embedded in Dutch, only the former are attested in English subclauses.

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