You have the right to remain silent

The syntactic licensing of ellipsis

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Abbreviations and formats used in examples and glosses

bold	boldface highlights crucial material in an example
CAPS	capitals indicate stress
~~strikethrough~~	strikethrough indicates deletion/non-pronunciation
gray	gray font indicates elided material
...(A)...	A is optional
...*(A)...	A is obligatory
...(*A)...	A is excluded
*...(A)...	the sentence is ungrammatical both with and without A
...{A/B}...	A and B are both possible variants
...{A/*B}...	A is an acceptable variant, B is not
*...{A/B}...	neither A nor B is acceptable
...<A>...<A>...	A can occur either in the first or in the second position
...<*A>...<A>...	A can only occur in the second position
[Φ]	phi-features (person, number, gender)
[CAT]	category features
[E]	ellipsis feature
[INFL]	inflectional features
[+Q]	question feature
[SEL]	selectional features
[+WH]	*wh*-feature
¬	negation
∃	existential quantifier
1, 2, 3	first, second, third person
I, II, III, IV,...	first, second, third, fourth noun class
ABS	absolutive
ACC	accusative
AFF	affirmative particle
COMP	complementizer
DAT	dative
DIM	diminutive affix
INF	infinitive
IPP	infinitive due to IPP-effect
GEN	genitive
NOM	nominative
OBJ	object
Op	Operator
PAST	past tense

PH	phase head
PL	plural
PRT	particle
PRTC	participle
PV	preverb
SE	simplex reflexive
SG	singular
SUBJ	subject

Nobody understands the silence of things.

~ George Bacovia

Chapter 1
What is ellipsis?

1.1 A MISMATCH BETWEEN SOUND AND MEANING

Communication in natural language is usually established through utterances, consisting of strings of sounds. These sounds correspond to a certain meaning and are interpreted by the hearer. Ellipsis, however, is the omission of elements that are inferable from the context and thus constitutes a mismatch between sound and meaning. When one utters an elliptical sentence, its interpretation is richer than what is actually pronounced. An example is given in (1): the second conjunct is interpreted as *Ryan can't draw an elephant*, but the verb phrase is not phonetically realized because its meaning is recoverable from the antecedent VP in the first conjunct.[1]

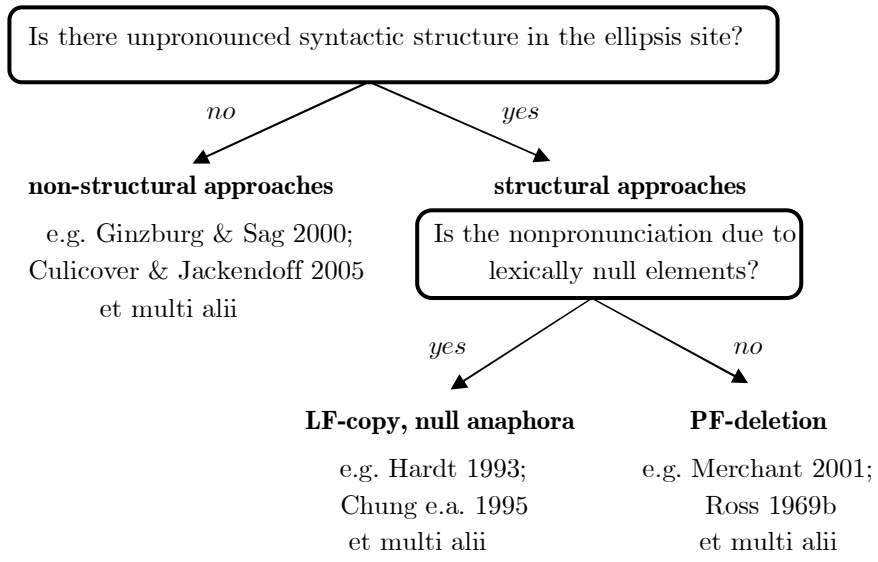
(1) Jasmin can draw an elephant, but Ryan can't _.

[1] The underscore marks the position where the unpronounced verb phrase would be.

When the phonetic realization and the semantics of a phrase do not match, the question to ask is how form and meaning are linked to each other, and where to situate the syntax. Does the ellipsis site contain unpronounced syntactic structure? Or is there no syntax present in the ellipsis site? Roughly, three main analyses for ellipsis have been proposed in the literature. Firstly, nonstructural approaches claim that the syntax matches the phonetic realization: there is no more structure to the sentence than what you hear (cf. Ginzburg & Sag 2000; Culicover & Jackendoff 2005). Secondly, null proform approaches assume there to be an empty element present in the syntax, a null proform replacing the elided constituent. This proform itself does not contain any syntactic structure. Its meaning is derived from the antecedent, either parallel to how regular pronouns are interpreted (see Wasow 1972; Shopen 1972; Hardt 1993, 1999; Lobeck 1995 and Depiante 2000), or by copying the antecedent's LF representation into the ellipsis site (i.e. LF-copy; cf. Fiengo & May 1994, Chung et al. 1995, Wilder 1997, Beavers & Sag 2004 and Fortin 2007). Thirdly, PF-deletion accounts argue that there is no syntactic structure missing, but that the phonological content can be deleted at PF because there is an antecedent rendering the meaning of the unpronounced part recoverable (cf. Merchant 2001, see also Ross 1969b for an early deletion analysis).

Merchant (2005:3) represents this discussion on the syntax of an ellipsis site with the schema in (2).

(2)



In section 1.2 I elaborate on these different points of view taken in the literature. I start with the nonstructural accounts, focusing on the most recent proposal by

Culicover and Jackendoff, and in 1.2.2 I turn to analyses that do assume the presence of at least some syntactic structure in the ellipsis site, be it a fully specified structure, a null proform or a structure with empty categories.

Next, section 1.3 deals with another important issue in the discussion of ellipsis, apart from the question of whether an ellipsis site contains syntactic structure or not: its restrictions. There are two main conditions on ellipsis. A first condition concerns recoverability. A phrase can only be elided if it has an antecedent. This restriction is discussed in 1.3.1. Secondly, ellipsis has to be licensed: only in the right syntactic configuration is ellipsis allowed. This condition, which is elaborated on in section 1.3.2, is the main research topic of this dissertation. I develop a theory of ellipsis licensing, for which evidence is provided from different elliptical phenomena.

First, however, I present the different analyses that have been proposed for ellipsis in greater detail.

1.2 Different views on ellipsis

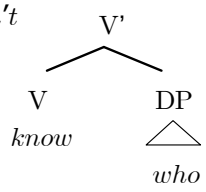
1.2.1 Nonstructural approaches

Nonstructural approaches represent what we could call WYSIWYG, 'what you see is what you get'. There is no more structure in the sentence than what is actually pronounced; no deleted parts, no null elements. However, the interpretation of an elliptical sentence is richer than its phonetic realization. This implies that the syntax-semantics interface will have to play a significant role in order to reach the correct interpretation. Some accounts along these lines are Van Riemsdijk (1978), Ginzburg & Sag (2000), Schlangen (2003), Culicover & Jackendoff (2005) and Stainton (2006).

The simplest and most naive instantiation of this account would assign the sluicing example in (3)a the tree structure in (3)b: the verb *know* selects a *wh*-phrase as its complement.

(3) a. Someone was singing *La Marseillaise*, but I don't know who.

b. *...but I don't*



However, Merchant (2001:40-54) notes that there are some immediate problems with this analysis, as the sluiced phrase behaves like a sentential complement, not a nominal one.[2] A more sophisticated version of this approach is proposed in Culicover & Jackendoff's (2005) *Simpler Syntax*. They argue for an *indirect licensing* approach of ellipsis, which 'posits no more syntactic structure than appears at the surface, in conformity with the Simpler Syntax Hypothesis' (Culicover & Jackendoff 2005:235):

(4) **Simpler Syntax Hypothesis (SSH)**
The most explanatory theory is one that imputes the minimum syntactic structure necessary to mediate between phonology and meaning. (Culicover & Jackendoff 2005:5)

They state that "if machinery exists that accounts for the interpretation of a fragment of one type, without appealing to covert syntactic structure containing the fragment, then that machinery is available for all types of fragments and constitutes the default hypothesis" (Culicover & Jackendoff 2005:235). For instance, they compare Bare Argument Ellipsis – also known as stripping – and sluicing to *wh*-movement and topicalization, saying that in all these cases there is an 'orphan' phrase that needs to be licensed indirectly. They distinguish three kinds of indirect licensing: 'matching' – in which the orphan is matched with an existing constituent of the clause –, 'sprouting' – where the orphan is a supplement to the clause by spelling out an implicit argument or adjunct (following Chung et al 1995) – and a third type in which the orphan corresponds to a trace in the clause (Culicover & Jackendoff 2005:257-258). To make their proposal more concrete, I illustrate the mechanism of indirect licensing with the sluicing example in (3), repeated as (5).

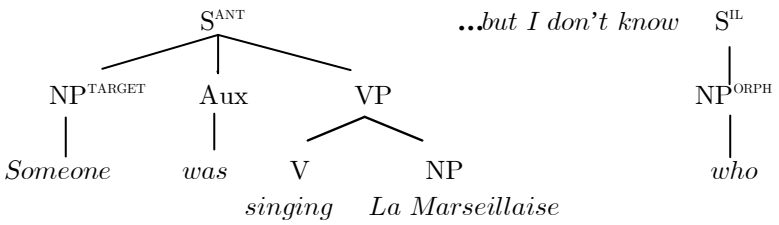
(5) Someone was singing *La Marseillaise*, but I don't know who.

The sluiced clause in (5) is to be interpreted as an embedded question '(I don't know) who was singing *La Marseillaise*', but this question itself is not uttered. The *wh*-phrase *who* refers to a questioned argument in an unexpressed proposition P and this P corresponds to the proposition expressed by the antecedent. Through the connection with this antecedent both the semantic and

[2] I refer the interested reader to Merchant (2001) for a detailed discussion of these problems.

the syntactic features of the orphan are 'indirectly licensed'.[3] The structure is then like the one in (6).[4]

(6)



In this tree structure the sluiced part is of category S but only contains an orphan NP.[5] This orphan phrase finds a target NP in the antecedent clause from which it receives its semantic and syntactic features, but it is spelled out as the *wh*-phrase *who*. The semantics of sluicing are as in (7). Because there is a question operator Qx binding the *wh*-word, the sluice is interpreted as an embedded question. It acquires its propositional content $\mathscr{F}$ through indirect licensing, i.e. via the antecedent in the discourse.

(7) **Sluicing**
Syntax: $[_S$ *wh*-phrase$_i^{ORPH}]^{IL}$ Semantics : Qx$[\mathscr{F}(x_i)]$
(Culicover & Jackendoff 2005:270)

It is clear that this approach to ellipsis – and to grammar in general – presupposes less syntactic structure, but needs a richer syntax-semantics interface to map utterances to the interpretation they receive. There is no more syntax in elliptical clauses than what is phonetically realized. Nevertheless, elliptical utterances are processed as full sentences through the mechanism of indirect licensing. However, I do not follow Culicover & Jackendoff (2005) in assuming that the syntax completely matches the phonology in ellipsis, i.e. I take there to be syntax present. The Dutch data that will be introduced in chapter 2 and the data in chapter 4 can be considered an extended argument

[3] The fact that it is not only the interpretation that gets licensed indirectly by the antecedent, but also the syntactic properties of the orphan is necessary to account for the morphological case matching data presented in section 1.2.2.2 below, for instance.
[4] IL stands for 'Indirect Licensing', ANT means 'antecedent' and ORPH is 'orphan. The tree structure is somewhat simplified, leaving out what is irrelevant for the discussion at hand.
[5] Culicover and Jackendoff overall do not view fragments as full sentences, part of which has been deleted or is null, but as "one or more well-formed nonsentential phrases" (Culicover & Jackendoff 2005:234). The reason why they have to assume that a sluicing fragment contains some sentential structure is because a sluiced phrase has the distribution of a clause, not that of a DP (cf. Merchant 2001).

against a non-structural approach to ellipsis. In the next subsection, I present two types of structural accounts, which assume that the ellipsis site contains unpronounced syntactic structure.

1.2.2 Structural approaches

Structural approaches to ellipsis give an affirmative answer to the question *Is there unpronounced syntactic structure in the ellipsis site?* Even so, there are several types of structural accounts. The unpronounced structure can be unpronounced because it only contains elements that were null in the first place, or it can be silent because of deletion of its phonological content, or lack of (late) lexical insertion, at PF. I first discuss the perspective assuming null lexical elements before I turn to the deletion account.

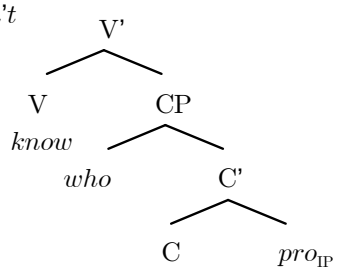
1.2.2.1 Null proforms/LF copy

Among the accounts assuming null elements two points of view can be distinguished. One approach argues for a null proform that is interpreted like overt pronouns by purely semantic means (see Wasow 1972; Shopen 1972; Hardt 1993, 1999; Lobeck 1995; Depiante 2000). The other account claims that the antecedent is copied into the ellipsis site at LF, providing the null element(s) with the right interpretation (i.e. LF-copy; see Fiengo & May 1994; Chung et al. 1995; Wilder 1997; Beavers & Sag 2004 and Fortin 2007). I abstract away from the difference between these two in this work, however, and refer the reader to Winkler (2003) for a detailed presentation of both alternatives.

The proform approach can be represented as in (8).

(8) a. Someone was singing *La Marseillaise*, but I don't know who.

b. *...but I don't*



The fact that ellipsis sites behave like overt pronouns in certain respects is seen as an argument in favor of this analysis. For one, pronouns can take split

antecedents and so can VP ellipsis (cf. (9)). Moreover, Lobeck (1995) points out that ellipsis can take a non-linguistic antecedent in some cases, parallel to pronouns (cf. (10)).

(9) a. Brian$_i$ told Jill$_j$ that they$_{i+j}$ could go away together.
b. I can walk and I can chew gum. Gerry can too, but not at the same time. (Hardt 1993)

(10) a. [Pointing at someone:]
He should do that.
b. [On receiving a present:]
You shouldn't have! (Lobeck 1995)

If ellipsis sites are like pronouns, however, we do not expect cases such as the one in (11)a, where the ellipsis site is contained in the antecedent. Parallel to what happens with the pronoun in (11)c, interpreting the antecedent in the ellipsis site would lead to infinite regress (see Sag 1976; cf. (11)d). Nevertheless, such 'antecedent-contained deletion' – or ACD – is allowed.

(11) a. Christina [read every book Hilary did *pro*$_i$]$_i$
b. * Christina read every book Hilary did [read every book Hilary did [read every book Hilary did [read every book...]]].
c. * Waldo saw [a picture of it$_i$]$_i$
d. * Waldo saw [a picture of a picture of a picture of ...].

Moreover, there is evidence that an ellipsis site can contain more syntactic structure than a mere pronoun. These data will be discussed in the next section, which deals with the PF-deletion approach.

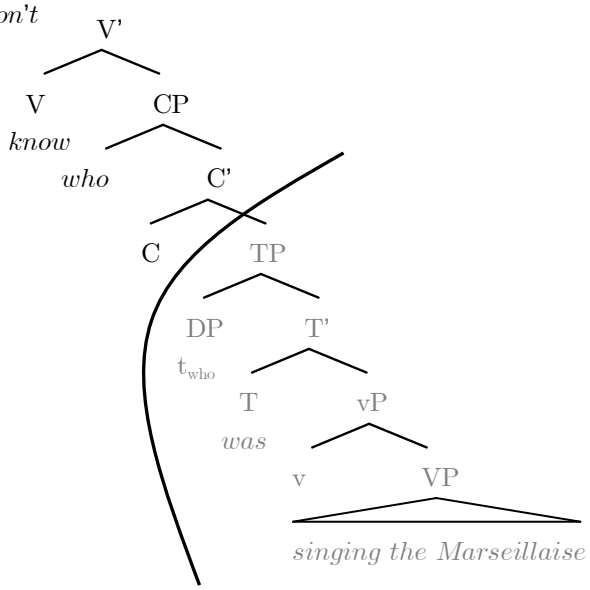
1.2.2.2 PF-deletion

The previous sections introduced views on ellipsis where the syntax matches the phonology either fully or partially, and the interpretation of the elliptical clause has to be retrieved from the antecedent clause. The last point of view to be presented here is the exact opposite: the syntax of ellipsis matches its semantics, and it is the phonology of the elliptical sentence that deviates from its non-elliptical counterpart. The ellipsis site is a fully-fledged syntactic structure, so at the LF interface nothing much changes compared to non-ellipsis, but the

phonology leaves part of the structure unpronounced. This is depicted in (12), where the gray font represents unpronounced material.

(12) a. Someone was singing *La Marseillaise*, but I don't know who.

b. *...but I don't*



Merchant (2001, 2004) provides several arguments supporting the deletion approach for sluicing. Firstly, he notices a correlation between preposition stranding in ellipsis and preposition stranding in a non-elliptical *wh*-question. English, for instance, allows *wh*-movement to target only the DP complement of a preposition and leave the P head itself behind, as in (13)a. Greek on the other hand, does not (cf. (13)b).

(13) a. Who did he talk to?

b. * Pjon milise me?[6] (Greek; Merchant 2004:667)
who she.spoke with

This difference in behavior between the two languages is mirrored in sluicing: English allows sluicing to strand the preposition in the ellipsis site, whereas Greek does not (cf. (14)). This is predicted if the ellipsis site has a fully-fledged syntactic structure: the same restrictions apply as in non-ellipsis.

[6] In the case of an ungrammatical non-English example, I provide glosses but no translation.

(14) a. He talked to someone, but I don't know who.
b. I Anna milise me kapjon, alla dhe ksero *(me) pjon.
the Anna spoke with someone but not I.know with who
(Greek; Merchant 2004:667)

A second argument in favor of deletion of syntactic structure concerns morphological case-marking (Ross 1967, 1969b; Merchant 2001, 2004). In the German example in (15)a, the *wh*-element occurs in the structural dative case that would be assigned by the missing verb *schmeicheln* 'flatter' in the ellipsis site (cf. (15)b). In (16) on the other hand, the verb *loben* 'praise' assigns accusative case to its object in a non-elliptical sentence. Accordingly, the *wh*-element receives accusative case in the sluiced sentence. The examples are taken from Merchant (2004:665-666). Absense of internal structure in the ellipsis site would leave this difference in case-marking between (15)a and (16)a unexplained.

(15) a. Er will jemandem schmeicheln, aber sie wissen nicht
he wants someone flatter but they know not
{*wer /*wen /wem}. (German)
who.NOM who.ACC who.DAT
'He wants to flatter someone, but they don't know who.'
b. Er will jemandem schmeicheln, aber sie wissen nicht
he wants someone flatter but they know not
{*wer /*wen /wem} er schmeicheln will. (German)
who.NOM who.ACC who.DAT he flatter wants
'He wants to flatter someone, but they don't know who he wants to flatter.'

(16) a. Er will jemanden loben, aber sie wissen nicht
he wants someone praise but they know not
{*wer /wen /*wem}. (German)
who.NOM who.ACC who.DAT
'He wants to praise someone, but they don't know who.'
b. Er will jemanden loben, aber sie wissen nicht
he wants someone praise but they know not
{*wer /wen /*wem} er loben will. (German)
who.NOM who.ACC who.DAT he flatter wants
'He wants to praise someone, but they don't know who he wants to praise.'

Finally, elements can be extracted out of the ellipsis site. If the ellipsis site did not contain any syntactic structure, such moved elements would not have a position where they are base-generated. On the other hand, if syntactic structure is present, it can host the movement trace and be deleted after movement has taken place. The sentence in (17)a shows that extraction of the object out of an elided verb phrase is possible, and (17)b illustrates that this movement is even sensitive to islands (Merchant 2001; Fox and Lasnik 2003): extraction is not possible if it violates the complex NP island constraint in the non-elliptical counterpart (see (17)c).[7]

(17) a. I know which puppy YOU should take home, but I don't know which one SHE should [~~take home $t_{\text{which puppy}}$~~].
b. * THEY want to hire someone who speaks two Balkan languages, but I don't know [$_{\text{DP}}$ how many Balkan languages] YOU do [~~want to hire someone who speaks t_{DP}~~].
c. * I don't know [$_{\text{DP}}$ how many Balkan languages] YOU want to hire someone who speaks t_{DP}.

Note that not all types of ellipsis allow extraction out of the ellipsis site. Depiante (2000) discusses Null Complement Anaphora (NCA), an example of which is given in (18)a, and shows that no element can be extracted out of the ellipsis site in this case (cf. (18)b).

(18) a. I asked Dany to make me a mojito, but he refused.
b. * I know Dany made a mojito, but I don't remember which cocktail he refused [~~to make $t_{\text{which cocktail}}$~~].

She concludes from this data that, unlike VP ellipsis and sluicing, NCA should not be analyzed as PF-deletion, but rather should receive a proform analysis.

This last argument, namely extraction out of the ellipsis site, is used as the main piece of evidence for syntactic structure throughout this work.[8] However, I

[7] Note, however, that sluicing is not sensitive to islands, cf. (i). See Merchant (2001) for an extensive discussion of this contrast in island sensitivity between sluicing and VP ellipsis.

(i) They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [~~they want to hire someone who speaks~~].

[8] I mainly focus on extraction as a diagnostic for unpronounced syntactic structure in the ellipsis site, without wanting to say that the other diagnostics, such as morphological case marking and other connectivity effects, are less important. The reasons for focussing on extraction are that it is the most reliable test for structure and, more importantly, that it interacts with the licensing condition on ellipsis. For more on the licensing condition and

use it unidirectionally only: if extraction is allowed, there is deleted syntactic structure, but if (certain) extractions are blocked, this can also be due to some independent reason. In other words, the lack of extraction does not automatically mean that the ellipsis site is a null proform without internal structure, although it can be. Supporting evidence for this unidirectionality comes from the Dutch modal complement ellipsis data presented in chapter 2.

1.2.3 Summary

I have introduced the main topic of this work, namely ellipsis, and the most important analyses this phenomenon has received in the literature. Ellipsis can be seen as a mismatch between sound and meaning, and the position of syntax in this mismatch has been subject to debate. Some theorists consider the syntax to match the phonology: there is no more syntactic structure than what is actually pronounced. Others argue that the ellipsis site is a null proform, which is interpreted in a way similar to overt pronouns or into which the antecedent is copied at LF. A third approach claims that the syntax matches the semantics. The ellipsis site is a fully-fledged syntactic structure and is interpreted just like non-elliptical sentences. According to this point of view, the difference between ellipsis and non-ellipsis lies mainly at PF: part of the structure is simply not pronounced. This dissertation is an extended argument in favor of the deletion account of ellipsis, at least for the constructions discussed.

The next section presents two major restrictions on ellipsis, namely recoverability and licensing. The latter condition, licensing, is the main research topic of this dissertation.

1.3 Restrictions on ellipsis

The previous section made clear what ellipsis is and introduced various ways of analyzing this phenomenon. The present section focuses on certain restrictions that are operative in ellipsis. The two main conditions that have to be fulfilled in an elliptical sentence are *recoverability* and *licensing*. Recoverability on the one hand, means that the missing material has to be recoverable semantically from the context. The licensing condition on the other hand, requires ellipsis to only

its interaction with extraction, see section 1.3.2 of this chapter and especially chapter 3 of this dissertation.

occur in the right syntactic environment, since not all syntactic configurations allow ellipsis, not even when the interpretation is clear.

1.3.1 Recoverability

The first condition on ellipsis is *recoverability*: a constituent can only be left unpronounced if there is a straightforward way for the hearer to recover its meaning from the context. When uttered out of the blue, the sentence in (19) is ungrammatical. In other words, the ellipsis site has to be recoverable by means of a salient linguistic antecedent.[9]

(19) [Uttered out of the blue:]
#I know Theano has.

One way of implementing this recoverability condition is with the notion of e-GIVENness used in Merchant (2001).[10] He captures the requirement in the Focus condition on ellipsis given in (20).

(20) **Focus condition on ellipsis** (based on Merchant 2001:26)
A constituent α can be deleted only if α is e-GIVEN.

Whether a constituent is e-GIVEN – where *e* stands for ellipsis – is determined by the presence of a salient antecedent. The notion of e-GIVENness is defined as in (21).

(21) **e-GIVENness** (Merchant 2001:26)
An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo ∃-type shifting,
(i) A entails F-clo(E), and
(ii) E entails F-clo(A).

F-clo stands for 'F-closure' in this definition, a concept defined in (22).

[9] Merchant (2004) argues, however, that the antecedent is not necessarily linguistic. An elided constituent can also find an antecedent in the non-linguistic context, parallel to deictic anaphora. I gloss over the different kinds of antecedents, linguistic or non-linguistic, here, but I refer the interested reader to Merchant (2004) on this matter.
[10] This is based on the notion of GIVENness, see Rooth (1992) and Schwarzschild (1999).

(22) **F-closure** (Merchant 2001:26)
The F-closure of α, written F-clo(α), is the result of replacing F(ocus)-marked parts of α with ∃-bound variables of the appropriate type (modulo ∃-type shifting).

The examples below illustrate the notion of e-GIVENness. Consider the sentence in (23), adapted from Merchant's (2001) (45)b. This is an instance of VP ellipsis (VPE).

(23) Alice called Pat an idiot after KIM did.

This sentence receives the interpretation in (24)a, not the one in (24)b, even though the antecedent VP (= VP_A) in (23), *call Pat an idiot*, does entail VP_E in (24)b *insult Pat*.

(24) a. = …after Kim did ~~call Pat an idiot~~.
b. ≠ …after Kim did ~~insult Pat~~.

I go through this argument step by step to demonstrate that the elided VP in (24)a is e-GIVEN. The antecedent of this VP is $[_{VP}$ *call Pat an idiot*]. Because the F-closure of the antecedent VP has an open variable corresponding to the subject, ∃-type shifting has to apply (indicated by means of a single quotation mark here), resulting in (25).

(25) VP_A' = ∃x.x called Pat an idiot

The first part of the definition of e-GIVENness says this antecedent must entail the F-closure of VP_E, i.e. the result of replacing the F-marked parts of VP_E by bound variables. Replacing the F-marked subject inside the VP by an ∃-bound variable yields (26).

(26) F-clo(VP_E) = ∃x.x called Pat an idiot

It is now clear that VP_A' entails F-clo(VP_E). According to the second condition of e-GIVENness, however, the entailment must also go in the opposite direction in order for ellipsis to take place. In other words, VP_E' has to entail the F-closure of VP_A. Both are given in (27) and (28), respectively.

(27) VP_E' = ∃x.x called Pat an idiot

(28) F-clo(VP_A) = ∃x.x called Pat an idiot

Since they are identical, we can conclude that VP_E is e-GIVEN and, given the Focus condition in (20), can thus be elided.

The elided VP in (24)b, with the VP_E' in (29) on the other hand, does not entail the F-closure of the antecedent, since you can insult someone without necessarily calling them an idiot. Therefore the VP in (24)b is not e-GIVEN. As its F-closure is entailed by the antecedent, it can be deaccented, but not elided.[11]

(29) VP_E' = ∃x.x insulted Pat

This recoverability relation between the ellipsis site and the antecedent thus is a semantic identity condition.[12] It has been proposed, however, that the ellipsis site and the antecedent have to be syntactically identical as well (which already implies semantic identity). This is what Merchant (2001:17) calls the 'structural isomorphism condition on ellipsis'. There has been some debate on the relation between the antecedent and the ellipsis site and on whether ellipsis requires strict syntactic identity or not (see Hankamer and Sag 1976; Sag 1976; Hardt 1993; Fiengo & May 1994; Lasnik 1995a; Pullum 2000; Fox 1999, 2000; Merchant 2001, 2007, 2008b; Johnson 2001; Sauerland 2004; Hardt 2004, 2005 and van Craenenbroeck 2009) and to this date no consensus has been reached. Although it is clear that a lot of research still needs to be done on this topic, the present work focuses on the second condition on ellipsis, namely licensing (see section 1.3.2 below). I will not go much further into the recoverability requirement, although the issue will come up at several points in the following chapters, where arguments are presented for one approach or the other.

1.3.2 Licensing

The main topic of this dissertation is the second condition on ellipsis: licensing. It is obvious that material can only be left out when its meaning can be deduced from the context, but it turns out that the syntactic environment also plays a crucial role in deciding whether ellipsis can take place or not. For instance, in

[11] Merchant argues that in deaccenting only the first condition has to be met: the antecedent has to entail the deaccented material, but not the other way around.

[12] Merchant (2001, 2004) takes the calculation of e-GIVENness to be part of the semantic compositional analysis of a sentence. However, one could also claim that it is established at the discourse level. If after the derivation is finished it turns out that the elided constituent cannot be considered as e-GIVEN, the sentence is ungrammatical or cannot receive the proper interpretation.

(30) the nouns *boeken* 'books' and *dress* cannot be missing, even though they are e-GIVEN by the context.[13]

(30) a. Ik heb twee boeken gekocht en Dries heeft drie
I have two books bought and Dries has three
*(boeken) gekocht. (Dutch)
books bought

b. I bought the red dress and Alice bought the blue *(dress).

A similar example is given in (31): even though the verb phrase is e-GIVEN in both cases, only the verb phrase occurring in the finite clause can be elided.

(31) a. * Max having arrived and Morgan not having, we decided to wait.

b. Max had arrived, but Morgan hadn't, so we decided to wait.

Moreover, not all elliptical phenomena occur in all languages. VP ellipsis, for instance, is relatively limited in its distribution across the world's languages compared to the more widespread sluicing (Lobeck 1995). The English VPE example in (32)a cannot be reproduced in Dutch or French or Italian (cf. (32)b,c,d), even though the verb phrase is equally e-GIVEN in all these languages.

(32) a. Monika has paid already, but Alice hasn't.

b. * Jelle heeft al betaald, maar Johan heeft nog niet.
Jelle has already paid but Johan has still not
(Dutch)

c. * Aurélie a déjà payé, mais Sébastien n'a pas encore.
Aurélie has already paid but Sébastien NE.has not yet
(French)

d. * Antonio ha già pagato, ma Stefano non ha ancora.
Antonio has already paid but Stefano not has yet
(Italian)

In the English sentence in (32)a VPE is syntactically licensed by the finite auxiliary *has* (see also chapters 3 and 4), while the counterparts of this auxiliary in Dutch, French and Italian do not license VPE. Modal verbs in these

[13] This dissertation does not deal with Noun Phrase ellipsis (NPE), however. In what sense exactly the syntactic environment disallows NPE in the examples in (30) is a question I leave open to further research, although I suspect that the theory of licening I develop in this work is extendable to NPE as well.

languages on the other hand, do allow their infinitival complement to be elided, i.e. license ellipsis, cf. (33).

(33) a. Jelle zal wel betalen, maar Johan kan niet. (Dutch)
Jelle will PRT pay but Johan can not

b. Aurélie paiera, mais Sébastien ne peut pas. (French)
Aurélie will.pay but Sébastien NE can not

c. Antonio pagherà, ma Stefano non può. (Italian)
Antonio will.pay but Stefano not can
'Antonio will pay, but Stefano can't.'

In this dissertation I restrict myself to a discussion of this phenomenon in Dutch (cf. chapter 2 and 3), and I call it modal complement ellipsis (MCE). I argue that Dutch MCE is only licensed by a root modal.

In short, the syntactic environment does play a role in ellipsis: missing material has to be licensed. These licensing criteria differ depending on the language and the elliptical phenomenon. It is the main goal of the present work to explore the licensing of ellipsis. In order to do this, I start out from Dutch MCE, and then extend the analysis I provide for this construction to other ellipses. In this dissertation I propose the theory of ellipsis licensing in (34), which I explain and provide supporting evidence for in the following chapters.

(34) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.

b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point, the ellipsis site becomes inaccessible for any further syntactic operations and vocabulary insertion at PF is blocked.

The fact that ellipsis requires a licensing head that establishes an Agree relation with an ellipsis feature (cf. (34)a) captures the ungrammaticality of the sentences in (31)a and (32)b,c,d: none of these examples contains a proper licensor for ellipsis, as I will show in the following chapters.

Moreover, this licensing theory can account for an extraction puzzle encountered in Dutch MCE and hence interacts with the question whether an ellipsis site contains syntactic structure or not (see section 1.2.2 above). Dutch MCE only allows extraction of subjects out of the ellipsis site, while objects cannot escape ellipsis, as is demonstrated in (35).

(35) a. Die broek mag gewassen worden, maar hij moet niet
those pants may washed become but he must not
[~~gewassen worden~~ $t_{\text{die broek}}$]. (Dutch)
washed become
'Those pants can be washed, but they don't have to be.'

b. ?* Ik weet niet wie Thomas moet uitnodigen, maar ik
I know not who Thomas must invite but I
weet wel wie hij niet mag [~~uitnodigen~~ t_{wie}].
know PRT who he not is.allowed invite
INTENDED: 'I don't know who Thomas has to invite, but I do know who he isn't allowed to.'

In section 1.2.2 I presented extraction as a reliable test for detecting syntactic structure in the ellipsis site, but only unidirectionally: if extraction out of the ellipsis site is possible, the elliptical phenomenon should be analyzed as PF-deletion. If this test applied bidirectionally, the Dutch MCE data would lead to a puzzle: subject extraction hints at PF-deletion, while the ban on object extraction suggests a proform analysis. However, I take the test to be conclusive in one direction only: if extraction out of the ellipsis site is possible, it contains a fully-fledged deleted syntactic structure. Hence, I analyze Dutch MCE as involving PF-deletion. The ban on object extraction is accounted for by the fact that ellipsis takes place in the course of the derivation, as stated in (34)b. I show that, unlike the subject, the object has not moved out of the ellipsis site yet when ellipsis occurs (see chapter 3).

1.4 Overview of this work

So far I have introduced the phenomenon of ellipsis and several types of analyses. The analysis I develop in this dissertation involves deletion at PF and I mainly use extraction data to show that this account is on the right track for the elliptical phenomena under discussion. I have also presented the two major conditions on ellipsis, namely recoverability and licensing. This dissertation focuses on the licensing requirement.

Chapter 2 presents an elliptical phenomenon in Dutch that is reminiscent of English VP ellipsis, namely modal complement ellipsis (MCE). First I go over the properties of Dutch modals and their infinitival complements in general, and then I present the basic ellipsis data.

In chapter 3 I propose an account for ellipsis licensing involving PF-deletion. Ellipsis is licensed via an Agree relation with the licensing head. Merger of this head triggers PF-deletion of the constituent that is to be elided. In other words, ellipsis occurs during the derivation. After having presented the main mechanisms behind ellipsis, I show how this analysis can be applied to Dutch MCE.

Chapter 4 applies this approach to four other ellipses: sluicing, English VP ellipsis, pseudogapping and the British English *do* construction. I show that my proposal captures these phenomena as well.

Finally, chapter 5 concludes and raises some questions and topics for further research.

Spreken is zilver, zwijgen is goud

"Speech is silver, silence is golden"

~ proverb

Chapter 2
Dutch modal complement ellipsis

Dutch displays a previously unnoticed type of ellipsis that is reminiscent of VP ellipsis in English.[14] The complement of a modal verb can be left out, as in (1).[15]

(1) Roos wil Jelle wel helpen, maar ze kan niet.
Roos wants Jelle PRT help but she can not
'Roos wants to help Jelle, but she can't.'

[14] As I noted in the previous chapter, this type of ellipsis seems to occur in other languages, such as French, Italian and Spanish, as well (see Napoli 1985, Dagnac 2007 and subsequent work for more discussion). I focus mainly on this construction in Dutch, however.
[15] All non-English examples in this chapter are Dutch, unless indicated otherwise.

This phenomenon, which I call modal complement ellipsis or MCE, differs from VP ellipsis in various ways, however. This chapter focuses on the properties of Dutch MCE. Section 2.1 looks at the complements of Dutch modal verbs in general and in section 2.2 I present the basic ellipsis data and the properties of Dutch MCE. The analysis, which accounts for these properties, will follow in the next chapter. First, however, I take a look at how complements of Dutch modal verbs behave when they are not elided.

2.1 Modal complements in Dutch

This section looks at Dutch modals in more detail. First I discuss the different readings modals can have, namely epistemic, deontic and dynamic, because it will become clear later on that these interpretations behave differently when it comes to MCE. Then I go into the question of whether modals are raising or control verbs (cf. 2.1.2), as this will turn out to be important for the issue of subject extraction in MCE. In section 2.1.3 the categorial status of the modal and that of its complement are determined.

2.1.1 Epistemic, deontic and dynamic modals

As in most languages, modal verbs in Dutch come in at least three main flavors: epistemic, deontic and dynamic (see von Wright 1951; Lyons 1977; Kratzer 1977, 1981, 1991; Palmer 1977, 1983, 1986; Brennan 1993; Warner 1993; Barbiers 1995, 2002; Jacobsson 1994; Wurmbrand 2003; Verstraete 2005 and Mikučionis 2007). I now discuss these basic modal interpretations.

Modals can have either an epistemic or a non-epistemic (i.e. root) interpretation. Root modality includes "obligation, permission and related notions (traditionally known as *deontic* modality), as well as a family of concepts dealing with intention/willingness and ability (traditionally knows as *dynamic* modality), [while] epistemic modality involves inference from known premises" (Papafragou 2002:186). In other words, "if we use an epistemic modal, we are interested in what else may or may not be the case, *given everything we know already*" (Kratzer 1981:52). In the case of non-epistemic modality, "we are interested in what can or must happen, *given circumstances of a certain kind*" (Kratzer 1981:52).

Epistemic modality modifies a whole proposition. It "indicates the speaker's confidence (or lack of confidence) in the truth of the proposition" (Coates

1983:18). In (2), for instance, the speaker deduces from the circumstances or world knowledge that it is highly likely that Antoon has already eaten.

(2) Antoon moet nu toch al gegeten hebben.
Antoon must now PRT already eaten have
'Antoon must already have eaten by now.'

Deontic modality on the other hand, does not say anything about the speaker's belief in the truth of the proposition, but rather about the attitude towards the event expressed (cf. Mikučionis 2007). Deontic modality "is associated with notions such as permission or obligation" (Lew 1997:146).[16] The modal *moeten* 'have to' in (3), for instance, expresses the subject's obligation to skip. *Moeten* does not say anything about the likelihood of the skipping event taking place in the actual world in this case, but about the desirability of it taking place in the (near) future.

(3) Bert moet ook huppelen.
Bert has.to also skip
'Bert also has to skip.'

Lastly, there is dynamic modality (see Palmer 1986, 1990). Dynamic modality describes a property that is inherent to the subject of the clause. While one could call deontic modality "participant-external" because of the obligation or permission put on a participant – mostly the subject – by an external source,[17]

[16] Barbiers (1995, 1996) distinguishes two kinds of deontic readings, directed ones and non-directed ones. Only in the first case is there a relation of permission or obligation established with the subject. In his analysis, the sentence in (i) has three readings, an epistemic one, a directed deontic one and a non-directed deontic one.

(i) Dorien moet om negen uur thuis zijn.
Dorien must at nine hour home be
EPISTEMIC: 'It is necessarily the case that Dorien is home at nine.'
DIRECTED DEONTIC: 'Dorien has the obligation to be home at nine.'
NON-DIRECTED DEONTIC: 'Someone has to make sure that Dorien is home at nine (for instance, for the surprise party organized for her).'

I do not make this distinction in the present work, because there seems to be no syntactic difference related to the semantic distinction made by Barbiers.

[17] This external source can be the speaker or some other participant in the discourse, which in the case of permission or obligation can be specified with a *van* 'from' phrase in Dutch.

(i) Bert moet ook huppelen van { mij/zijn dochtertje}.
Bert must also skip from me his daughter
'I/Bert's daughter want(s) him to skip as well.'

dynamic modality is "participant-internal" (Ziegeler 2006), because of an intention or ability coming from the subject itself. This is why dynamic modality, unlike epistemic or deontic modality, is "subject- rather than speaker-oriented: the subject's ability or willingness is at issue, not the speaker's attitudes or opinions" (Gonzálvez García 2000:122, fn. 5). Modals verbs that are classified as dynamic are the ones expressing ability or desire, such as *can* and *want*, respectively.

(4) Katrien kan lekkere chocoladetaart bakken.
Katrien can tasty chocolate.cake bake
'Katrien can bake good chocolate cake.'

With *kunnen* 'can' the difference between the deontic and the dynamic reading can easily be made explicit when considering the following minimal pair:

(5) a. Ondanks zijn muzikale opleiding kan hij niet zingen.
Despite his musical education can he not sing
'Despite his musical education he can't sing.'
b. Omdat hij een andere afspraak heeft, kan hij
because I an other appointment has can he
(vanavond) niet zingen.
tonight not sing
'Because he has another appointment he can't sing (tonight).'

In (5)a the modal expresses the inherent *(in)ability* of the subject to sing, while (5)b is concerned with the subject's *(un)availability* to sing at this particular occasion. The former is dynamic, while in the latter *kunnen* has a deontic reading. The other modal that has traditionally been considered dynamic (Palmer 1990), *willen* 'want', always expresses the subject's inherent desire when used non-epistemically, and therefore does not have a deontic use.

(6) Anouchka wil haar schilderijen tentoonstellen.
Anouchka wants her paintings exhibit
'Anouchka wants to exhibit her paintings.'

In Dutch there are five modal verbs: *mogen* 'may/be allowed to', *moeten* 'must/have to', *kunnen* 'can', *willen* 'want' and *hoeven* (*te*) 'need to'.[18] Only the

[18] Although *zullen* 'will' is sometimes considered a modal verb as well (see Haeseryn et al. 1997), I treat it as a temporal auxiliary here and will not include it in my discussion of

last one, *hoeven*, needs the infinitival marker *te* 'to' to introduce its infinitival complement. Moreover, this modal is a negative polarity item (de Swart 1998, Hoeksema 2007). All five modals can express both epistemic and non-epistemic modality, with *willen* and *kunnen* also having dynamic readings.[19]

(7) a. Stijn mag wel al thuis zijn, het is al 9 uur.
Stijn may PRT already home be it is already 9 hour
'Stijn should be home already, it's nine o'clock.' (epistemic)

b. Jesse mag niet roken binnen.
Jesse is.allowed.to not smoke inside
'Jesse is not allowed to smoke inside.' (deontic)

---

modals. Although sentences with *zullen* can get a modal interpretation, as in (i), the sentence in (i)b expresses a threat rather than an obligation. It can, for instance, not occur with a source argument, contrary to deontic *moeten* 'must', cf. (ii).

(i) a. Senne zal aan het douchen zijn.
Senne will to the shower be
'Senne is likely to be showering.' (epistemic)

b. Je ZAL gehoorzamen, dat zeg ik je nu al!
You will obey that say I you now already
'You WILL obey, I'm telling you!' (deontic)

(ii) a. Hij moet thuisblijven van zijn moeder.
he must home.stay from his mother
'His mother told him to stay home.'

b. * Hij ZAL thuisblijven van zijn moeder.
he will home.stay from his mother

Moreover, unlike *moeten*, *zullen* requires heavy stress in order to get a deontic interpretation. It behaves differently from the prototypical modal verbs in other respects as well. For instance, it cannot occur as a past participle (see also section 2.1.3.2.1).

Furthermore, it is not stackable; it always has to be the first verbal element in a clause, i.e. it cannot occur in the complement of another auxiliary or modal, as in (ii).

(ii) a. * Kris kan zullen langskomen vanavond.
Kris can will come.round tonight

b. * Kris moet wel ZULLEN langskomen, hij had het beloofd.
Kris must PRT will come.round he had it promised
INTENTED: 'It is necessarily so that Kris WILL/HAS to pass by, he promised.'

Zullen also patterns with the auxiliaries in not allowing its complement to be elided, as I show in section 2.2.1 below.

[19] The interpretations of the modal verbs can vary somewhat depending on the context. Deontic *kunnen* 'can', for instance, can also express permission, as in (i).

(i) Hier kan je wel parkeren.
here can you PRT park
'You can park your car here, i.e. you're allowed to park your car here.'

(8) a. Jurgen moet de hele taart opgegeten hebben.
Jurgen must the entire pie up.eaten have
'Jurgen must have eaten the entire pie.' (epistemic)

b. Peter moet zijn kamer opruimen.
Peter must his room up.clear
'Peter has to clean his room.' (deontic)

(9) a. Klaas kan toch nog niet klaar zijn met optreden?
Klaas can PRT yet not ready be with perform
'It can't be possible that Klaas has already finished performing?' (epistemic)

b. Anouchka kan vanavond haar kunstwerk niet komen
Anouchka can tonight her art.work not come
tonen, want ze is ziek.
show because she is ill
'Anouchka can't show her work of art tonight, because she's ill.' (deontic: availability)

c. Steven kan mooi schilderen.
Steven can pretty paint
'Steven can paint nicely.' (dynamic: ability)

(10) a. Jessica wil wel eens te laat komen.
Jessica wants PRT once too late come
'It happens occasionally that Jessica is late.' (epistemic)[20]

b. Sofie wil graag een ijsje als dessert.
Sofie wants gladly an ice-cream as dessert
'Sofie would like to have an ice-cream as dessert.' (dynamic)

(11) a. Reiner hoeft nog niet vertrokken te zijn.
Reiner needs yet not left to be
'It needn't be the case that Reiner left already.' (epistemic)

b. Wim hoeft vanavond niet te koken.
Wim needs tonight not to cook
'Wim doesn't need to cook tonight.' (deontic)

[20] Epistemic *willen* 'want' expresses a habit or tendency here and is preferably used in combination with the particles *wel eens* 'occasionally'. It can also be used epistemically with the particle *maar* and negation, as in (i).

(i) Het wil maar niet regenen.
It wants PRT not rain
'It's still not raining.'

Summing up, modal verbs come in three main flavors: epistemic, deontic and dynamic. Not under all of these interpretations do modals allow their infinitival complement to be left out. Before we go into the ellipsis cases, however, the next section discusses the question of whether modals are raising or control verbs. This issue will be important in diagnosing extraction out of the ellipsis site.

2.1.2 Are modals raising or control?

Traditionally epistemic modals have been claimed to be raising verbs, while root modals are control verbs (see Ross 1969a, Roberts 1985 and Zubizarreta 1982, among many others). Recently, however, evidence has been brought forward showing that both epistemic and deontic modals are raising verbs (Vanden Wyngaerd 1994a, Barbiers 1995, Bhatt 1998 and Wurmbrand 2003). I first present some diagnostic tests for distinguishing between raising and control. Then I apply these to Dutch modal verbs, showing that deontic modals pattern with raising verbs, just like epistemic ones. Dynamic *willen* 'want' is a control verb.

2.1.2.1 Diagnostic tests for the raising/control distinction

The long-standing distinction between raising and control verbs can be illustrated with the prototypical raising verb *seem* and the control verb *try*:

(12) a. Patrick **seems** to be in love.
b. Jella **tried** to light the candles.

Because these sentences exhibit differences in syntactic behavior, they have been assigned different underlying structures (Rosenbaum 1967, Davies & Dubinsky 2004). This section presents a couple of diagnostic tests to distinguish between raising and control verbs (cf. Haegeman 1994, Wurmbrand 2003, Miller 2006, Hornstein et al. 2005).

Firstly, raising verbs and control verbs behave differently when it comes to passivization. When the complement of a raising verb is passivized, the truth conditions of the sentence do not change (see Sag & Wasow 1999:279; Hornstein et al. 2005; Miller 2006). They do, however, when the complement of a control verb is passivized.[21] This contrast is illustrated in (13) and (14).

[21] Wurmbrand (2003:198) claims that unlike raising verbs, "control contexts [...] block passivization of the embedded object" and provides the examples in (i) (her (161)a,b):

(13) a. De politie lijkt de demonstranten te arresteren.
the police seems the demonstrators to arrest
'The police seem to arrest the demonstrators.'
b. De demonstranten lijken gearresteerd te worden door
the demonstrators seems arrested to become by
de politie.
the police
'The demonstrators seem to be arrested by the police.'

(14) a. De politie probeert de demonstranten te arresteren.
the police tries the demonstrators to arrest
'The police try to arrest the demonstrators.'
b. De demonstranten proberen gearresteerd te worden
the demonstrators try arrested to become
door de politie.
by the police
'The demonstrators try to be arrested by the police.'

Secondly, raising verbs can have inanimate subjects (cf. Bobaljik & Wurmbrand 1999, Wurmbrand 2003, Becker 2005), because they do not assign an Agent θ-role to it, as in (15)a. The control example in (15)b, on the other hand, is ungrammatical.

(15) a. De auto lijkt gewassen te worden.
the car seems washed to become
'The car seems to be washed.'
b. * De auto probeert gewassen te worden.
the car tries washed to become

Thirdly, raising verbs allow for impersonal passives, unlike control verbs (cf. (16), see Postal 1974, Barbiers 1996).

(i) a. * The biscuits tried/decided to be finished by Paul.
b. The biscuits seem to have been finished by Paul.

I argue that the generalization is a different one: control verbs do allow passivization of the embedded infinitival, but they need an animate – human or non-human – subject, unlike raising verbs. The examples in the main text are in Dutch, but the same is true for English:

(ii) a. Marsha decided to be taken home by taxi.
b. The cat tried to be pet.

(16) a. Er lijkt gedanst te worden.
there seems danced to become
'There seems to be dancing going on.'
b. * Er probeert gedanst te worden.
there tries danced to become

Finally, only raising verbs can occur with weather expletives as their subject, as in (17)a (cf. Chomsky 1986; Brennan 1993; Hornstein 1999, 2003; Wurmbrand 2003; Davies & Dubinsky 2004; Miller 2006). Such expletives are not allowed with control verbs, because they cannot receive the Agent θ-role the control verb has to assign. Hence, the example in (17)b is ungrammatical.

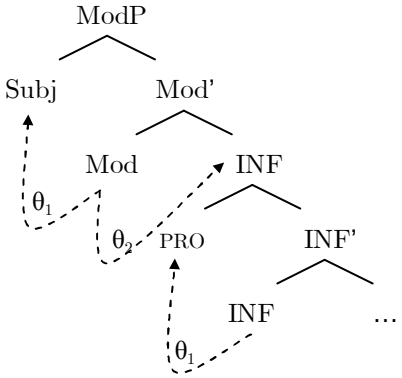
(17) a. Het lijkt te regenen.
it seems to rain
'It seems to be raining.'
b. * Het probeert te regenen.
it tries to rain

Summing up, raising verbs and control verbs differ when it comes to passivization, inanimate subjects, impersonal passive and weather expletives. Next, I return to Dutch modal verbs and show that both deontic modals and epistemic modals should be analyzed as raising verbs.

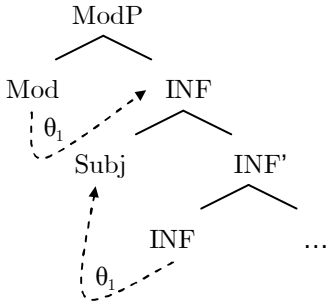
2.1.2.2 Modals are raising verbs

Traditionally, root modals – both deontic and dynamic – are considered to be control verbs, while epistemic modals are raising (see Ross 1969a, Roberts 1985 and Zubizarreta 1982). According to this point of view, a root modal has two θ-roles to assign, while an epistemic modal only has one. The two structures (taken from Wurmbrand 2003) are shown in (18).

(18) a. Root modals as control



b. Epistemic modals as raising



In the tree in (18)a, the modal assigns a θ-role to the subject of the main clause. A second θ-role is assigned to the infinitival complement. In a sentence such as *Karen moet zingen* 'Karen has to sing' the modal *moet* assigns an Agent θ-role to *Karen* and another θ-role – in this case Theme – to the infinitival complement *zingen* 'sing'. The Agent θ-role of *zingen* is assigned to a PRO in its subject position.[22] An epistemic modal only assigns a θ-role to the infinitival complement, as can be seen in (18)b. For instance, the modal *moet* in *Lien moet nu toch al gegeten hebben* 'Lien must have already eaten by now' assigns a Theme θ-role to its infinitival complement, but the subject *Lien*, which is base-generated below the modal, gets its Agent θ-role from the embedded verb *gegeten* 'eaten' and raises to the subject position of the modal verb.

More recent works on modal verbs, however, argue for a raising account for both deontic and epistemic modals. The most extensive argumentation has been laid out by Barbiers (1995) and Wurmbrand (2003), but see also Vanden Wyngaerd (1994a) and Bhatt (1998) for a raising account of deontic modals. When applying the diagnostic tests for raising versus control to modal verbs, it turns out that both epistemic and deontic modals pattern with raising verbs and not with control. Dynamic *willen* 'want', on the other hand, behaves like a control verb. Dynamic *kunnen* 'can', which has an (inherent) ability reading, patterns with the deontic modals in most but not all tests.

Let us go over the tests once more. Firstly, how do modal verbs behave under passivization? When their complement is passivized, the meaning of the sentence is truth-conditionally equivalent to its active counterpart, both with epistemics (cf. (19)) and with deontic modals (cf. (20)), and the same holds for dynamic *kunnen* (see (21)). Note also that in all the examples with a passivized

[22] See Hornstein (1999, 2003), however, for a movement account of control.

complement, the subject is inanimate. This is a second indication that these modals are raising verbs, given that only raising verbs can take inanimate subjects (Wurmbrand 2003).

(19) **Epistemic modals:**

a. Het brood **moet** opgegeten zijn door Marcha.
the bread must up.eaten be by Marsha
'The bread must have been eaten by Marsha.'

a'. Marsha **moet** het brood opgegeten hebben.
Marsha must the bread up.eaten have
'Marsha must have eaten the bread.'

b. Een cocktail **wil** wel al eens gedronken worden
a cocktail wants PRT already once drunk become
door vermoeide werklui na een lange dag.
by tired workers after a long day
'It sometimes happens that tired workers drink a cocktail after a long day of work.'

b'. Vermoeide werklui **willen** wel al eens een
tired workers wants PRT already once a
cocktail drinken na een lange dag.
cocktail drink after a long day
'It sometimes happens that tired workers drink a cocktail after a long day of work.'

(20) **Deontic modals:**

a. De tekst **kan** niet voorgelezen worden door Monika,
the text can not recited become by Monika
want die zit vast in de file.
for she sits stuck in the traffic.jam
'The text cannot be recited by Monika, because she's stuck in traffic.'

a'. Monika **kan** de tekst niet voorlezen, want ze zit vast
Monika can the text not recite for she sits stuck
in de file.
in the traffic.jam
'Monika cannot recite the text, because she's stuck in traffic.'

b. Dit cadeau **mag** door jou aan Kaat gegeven worden.
this present may by you to Kaat given become
'This present can be given to Kate by you.'

b'. Je **mag** dit cadeau aan Kaat geven.
you may this present to Kaat give
'You are allowed to give this present to Kate.'

(21) **Dynamic *kunnen* 'can':**

a. Alleen Hilke **kan** die aartsmoeilijke schotel maken.
only Hilke can that arch.difficult dish make
'Only Hilke can prepare that extremely difficult dish.'

b. Die aartsmoeilijke schotel **kan** alleen door Hilke gemaakt worden.
that arch.difficult dish can only by Hilke made become
'That extremely difficult dish can only be prepared by Hilke.'

Dynamic *willen* 'want' on the other hand, behaves differently from the other modals in patterning with the control construction. When its complement is passivized there is a truth-conditional change in meaning, as in (22).

(22) **Dynamic *willen* 'want':**

a. De politie **wil** de demonstranten arresteren.
the police wants the demonstrators arrest
'The police wants to arrest the demonstrators.'

b. De demonstranten **willen** gearresteerd worden door de politie.
the demonstrators want arrested become by the police
'The demonstrators want to be arrested by the police.'

Moreover, Dynamic *willen* 'want' cannot take an inanimate subject (cf. (23)).

(23) * Het huis **wil** geverfd worden.
the house wants pained become

Putting modals to the third test, we can see that epistemic and deontic modals allow impersonal passives, just like raising verbs, as in (24) and (25) (see McGinnis 1993; Warner 1993; Barbiers 1995, 1996, 2002; Kulick 1998 and also Wurmbrand 2003 for German modals).[23] The dynamic modals behave differently:

[23] Epistemic *mogen* 'may', which normally expresses likelihood of the truth of the proposition, has a concessive reading when used in impersonal passives.

the dynamic readings of *willen* 'want' and *kunnen* 'can' pattern with the control construction in not allowing impersonal passives (cf. (26)a,b).

(24) **Epistemic modals:**

a. Er **moet** gedanst geweest zijn.
there must danced been be
'Someone must have been dancing.'

b. Er **kan** gedanst geweest zijn.
there can danced been be
'Someone could have been dancing.'

c. Er **hoeft** niet gedanst te zijn.
there need not danced to be
'There needn't have been any dancing going on.'

d. Er **wil** wel eens gedanst worden.
there wants PRT once danced become
'Sometimes there is some dancing going on.'

(25) **Deontic modals:**

a. Er **moet** gedanst worden.
there must danced become
'Someone has to be dancing.'

b. Er **kan** gedanst worden, iemand heeft muziek
there can danced become someone has music
meegebracht.
with.brought
'There is some opportunity to dance, someone brought music.'

c. Er **mag** gedanst worden.
there may danced become
'People are allowed to dance.'

d. Er **hoeft** niet gedanst te worden.
there need not danced to become
'There doesn't have to be any dancing going on.'

(i) Er mag (dan wel) gedanst zijn, erg levendig was dat feestje niet.
there may then PRT danced be very lively was that party not
'Although there may have been some dancing, it wasn't exactly a lively party.'

(26) **Dynamic *willen* 'want' and *kunnen* 'can':**

a. * Er **wil** gedanst worden.
there wants danced become

b. * Er **kan** goed gedanst worden door elke leerling van de dansschool.
there can good danced become by each pupil of the dance.school

A third test involves weather expletives (see Barbiers 1995, 1996 and Wurmbrand 2003). Both epistemic and deontic modals, and dynamic *kunnen* 'can' allow a weather pronoun as their subject, as is shown in (27) and (28).

(27) **Epistemic modals:**

a. Het **moet** geregend hebben.
it must rained have
'It must have rained.'

b. Het **kan** geregend hebben.
it can rained have
'It could have rained.'

c. Het **hoeft** niet geregend te hebben.
it needs not rained to have
'It needn't have rained.'

d. Het **wil** hier wel eens regenen.
it wants here PRT once rain
'It occasionally happens that it's raining here.'

e. Het **mag** wel al eens regenen.[24]
it may PRT already once rain
'It occasionally happens that it's raining.'

(28) **Deontic modals and dynamic *kunnen* 'can':**

a. Het **moet** regenen.
it must rain
'It has to rain.'

[24] Again, epistemic *mogen* 'may' can receive a concessive reading here.

(i) Het mag dan wel geregend hebben, de rivier staat nog steeds te laag.
it may then PRT rained have the river stands still always too low
'Although it rained, the river's water level is still too low.'

b. Het **kan** regenen.[25]
it can rain
'It can rain.'

c. Het **mag** regenen (van mij).
it may rain of me
'I wouldn't mind if it rained.'

d. Het **hoeft** niet te regenen opdat ik droef zou zijn.
it needs not to rain so.that I sad would be
'It doesn't have to rain for me to be sad.'

Dynamic *willen* on the other hand, cannot take a weather expletive as its subject, as the sentence in (29) shows:

(29) * Het wil regenen.
it wants rain

Summarizing, we have seen that both epistemic and deontic modals are raising verbs. The subject is base-generated below the modal and raises to its surface subject position, leaving a copy in the infinitival complement. The dynamic modal *willen* 'want' on the other hand, is a control verb. Its subject is base-generated higher in the structure and its infinitival complement contains a PRO that is coindexed with the subject. Dynamic *kunnen* 'can' patterns with raising verbs according to most diagnostic tests. However, it does not allow for the impersonal passive construction, parallel to control verbs. At this point I do not have a satisfactory explanation for this behavior and I consider dynamic *kunnen* for be a raising verb on the basis of the other diagnostics. It will become clear in section 2.2 that this modal behaves differently from the other root modals in the case of ellipsis as well, and deserves further investigation.

2.1.3 The categorial status of Dutch modals and their complement

Having argued that both epistemic and deontic modals are raising verbs and dynamic *willen* 'want' is a control verb, I now determine the categorial status of the modal verb, and of their infinitival complement, starting with the latter.

[25] A possible context in which the root modal *kunnen* 'can' allows weather-*it* as its subject is one in which the speaker has created a miniature city – as in a computer game, for instance – and by pressing a button he can make it rain in this city. The interpretation of *kunnen* might both be one of ability, i.e. dynamic, or availability, i.e. deontic.

2.1.3.1 The modal complement

When determining the categorial status of the infinitival complement, it is clear that the complement must at least be a VP, since it contains a verb and its internal argument(s). The question addressed here, however, is whether the complement is bigger than a VP, and if so, how much bigger. I first argue that it is at least as big as vP and then I show that it has to contain tense as well. As a result I consider the complement of a modal to be a TP.

2.1.3.1.1 The complement of a modal contains a vP layer

Given that epistemic and deontic modals are raising verbs, the base-generation position of the subject must be below the modal. In other words, the complement of an epistemic or deontic modal must be at least a vP, where the external argument is introduced in [Spec,vP] and little v assigns structural Case to the object (Chomsky 1995). Dynamic *willen* 'want', which is a control verb, also selects at least a vP, because there has to be a position for PRO in the complement to which the embedded predicate assigns its (Agent) θ-role and the embedded object needs Case.[26]

Moreover, the examples in (30) make clear that infinitival complements of modals can contain aspectual heads. In other words, the complement must at least contain the aspectual layers that dominate vP.

(30) a. Senne moet zijn kamer opgeruimd **hebben**.
Senne must his room clean.PRTC have
'It must be the case that Senne has cleaned his room'

[26] Wurmbrand (2003) provides another argument to decide whether a verb's infinitival complement contains a structural case position, i.e. a vP-layer: long passives. Wurmbrand argues that certain German verbs, such as *versuchen* 'try', take an infinitival complement without a vP-layer, unlike in Dutch or English. Therefore these verbs can occur in the long passive construction, where "the embedded object is not assigned case by the embedded verb or a functional head in the infinitival complement, but rather the embedded object establishes a case and agreement relation with a head in the matrix predicate" (Wurmbrand 2003:23). An example is given in (i).

(i) ...dass der Traktor [zu reparieren] versucht wurde. (German)
that the tractor.NOM to repair try.PRTC became
*'...that the tractor was tried to be repaired.'

Because Dutch modals cannot be passivized for independent reasons, however, this test is not applicable to my data.

'Senne is obliged to have cleaned his room.'

b. Jesse moet zijn huiswerk aan het maken **zijn**.
Jesse must his homework to the make be
'It must be the case that Jesse is doing his homework.'
'Jesse is obliged to be doing his homework.'

Furthermore, I show in the next section that modal complements even contain tense and are therefore TPs.

2.1.3.1.2 The complement of a modal contains tense

There is a whole body of literature on the presence or absence of tense in infinitival complements (see Karttunen 1971; Stowell 1981, 1982; Pesetsky 1992; Guasti 1993; Rizzi 1993; Haegeman 1995; Martin 1996; Bošković 1995, 1996, 1997; Boivin 1998; Felser 1998 and Wurmbrand 2003). In my discussion of modal complements I add to this debate, claiming that Dutch modal complements contain tense and hence are TPs.

The main argument for this claim is that the infinitival complement of a modal can be modified by a time adverbial different from the one in the matrix clause. This is shown for deontic *moeten* 'must' in (31)a, where the time adverbial of the matrix clause *gisteren* 'yesterday' makes clear that the obligation event is set in the past with respect to the utterance time, while the event time of the performing is set one week after the utterance time. The sentence in (31)b also has two different time adverbials, but here the event time of the embedded infinitive is not set in reference to the utterance time, but to the event time of the deontic modal *kunnen* 'can'.

(31) a. **Gisteren** moest ik nog **volgende week** optreden
yesterday must.PAST I still next week perform
en nu zijn de plannen alweer een week opgeschoven.
and now are the plans again a week delayed
'Yesterday I still had to perform next week, and now the plans have been delayed with another week.'

b. **Vorige vrijdag** kon hij **de dag erna** komen
last Friday could he the day there.after come
schilderen, maar er is weer iets tussengekomen.
paint but there is again something intervened
'Last Friday he could come paint the day after, but again something intervened.'

These examples show that deontic modals select a complement that contains its own tense specification. The same holds for dynamic *willen* 'want' in (32)a and dynamic *kunnen* 'can' in (32)b.

(32) a. **Gisteren** wou hij **vandaag** nog naar zee rijden, maar
yesterday wanted he today still to sea drive but
blijkbaar is hij weer van gedacht veranderd.
apparently is he again of thought changed
'Yesterday he still wanted to drive to the seaside today, but apparently he changed his mind again.'

b. Hoewel hij drie maanden geleden nog niet in top-
although he three months ago still not in top
conditie was, heeft hij de voorbije weken stevig
condition was has he the passed weeks considerably
getraind en ik ben er zeker van: **na** **zijn**
worked.out and I am there sure of after his
volgende **training** **morgen** kan hij **in** **mei** de 20
next training tomorrow can he in May the 20
kilometer van Brussel lopen.
kilometer of Brussels run
'Although he wasn't in top condition yet three months ago, he's been training considerably and I'm sure that after his next training tomorrow he'll be able to run the 20 kilometers of Brussels in May.'

Finally, epistemic modals also allow their complement to have a different time specification than the one modifying the modal itself. The example in (33) can be read in a context of a crime investigation.

(33) **Gisteren** moest hij nog in Portugal geweest zijn **op**
yesterday must.PAST he still in Portugal been be on
zijn **verjaardag**, maar het nieuwe bewijsmateriaal toont aan
his birthday but the new evidence shows on
dat dat een foute conclusie was.
that that a wrong conclusion was
'Yesterday he must have been in Portugal on his birthday, but the new evidence indicates that that conclusion was wrong.'

Summing up, all modals, epistemic, deontic and dynamic, allow their infinitival complement to be modified with a time adverbial different from the one modifying the matrix event expressed by the modal itself. This is only possible if the complement contains tense, or, in other words, if it is a TP.[27]

2.1.3.1.3 The complement of a modal is not a CP

In the previous section we have established that modals select an infinitival complement that contains at least a tense projection. The next question to be asked is whether the modal complement is as big as CP, a full clause. Several arguments indicate that the answer to this question is negative (see also Barbiers 2005). A first argument for this claim is that there is never an overt complementizer in infinitival complements of modals (cf. (34)a,b,c).

(34) a. Elke moet (* **dat)** chocolade kopen. (Dutch)
Elke must that.COMP chocolate buy

b. Pieter-Jan kan **(* om)** zijn broer ophalen. (Dutch)
Pieter-Jan can for.COMP his brother up.pick

c. Pieter-Jan kan **(* van)** zijn broer ophalen.
Pieter-Jan can of.COMP his brother up.pick
(Flemish Dutch, see Van Craenenbroeck 2002)

[27] Another possible argument to show that the complement is a TP concerns the infinitival marker *te* 'to'. It has been claimed that the infinitival marker is the phonological realization of the infinitival T head (see Akmajian et al. 1979; Stowell 1982; den Besten 1979; van Gelderen 1996, 1997 and Hoekstra 1997). As one of the modals, namely with *hoeven* 'need to', takes an infinitival complement that is introduced by *te*, as is illustrated in (i), this could provide additional evidence for the presence of tense in modal complements. Why none of the other modal complements can be introduced by the infinitival marker is an issue that will not concern us here.

(i) Monika hoeft niet langs **te** komen vanavond.
Monika needs not by to come tonight
'Monika doesn't need to drop by tonight.'

However, the position of the infinitival marker in T has been under discussion recently. Wurmbrand 2003, Abraham 2004 and Christensen 2007 provide evidence that the infinitival marker is base-generated lower than T. Christensen (2007), for instance, shows that in English and Scandinavian languages it is base-generated in its own functional projection dominating the verb phrase and that it can, but need not, move to T. Furthermore, Wurmbrand argues that there are verbs in German, such as *versuchen* 'try', taking an infinitival complement that does not contain tense but is nevertheless introduced by *zu* 'to' (see Wurmbrand 2003 for further discussion). Further research on infinitival clauses is needed to determine the exact status and position of the infinitival marker.

Nevertheless, I argue on the basis of the temporal adverbials that modal complements are TPs.

This contrasts with finite complement clauses – where the presence of a complementizer is obligatory (cf. (35)a) – and other infinitival complements (cf. (35)b,c), that optionally allow for it.[28]

(35) a. Elke zegt *(**dat**) Koen van chocolade houdt.
Elke says that Koen of chocolate loves
'Elke says (that) Koen loves chocolate.'

b. Anneke {probeerde / besloot} (**om**) voor Reinout een taart
Anneke tried decided for for Reinout a cake
te bakken.
to bake
'Anneke tried/decided to bake Reinout a cake.'

c. Anneke {probeerde / besloot} (**van**) voor Reinout een
Anneke tried decided of for Reinout a
taart te bakken.
cake to bake
'Anneke tried/decided to bake Reinout a cake.'

A second argument against modals having a CP complement has to do with extraposition. In Dutch CP complements are obligatorily extraposed (see Evers 1975, Chomsky 1981, Reuland 1981; Bennis and Hoekstra 1989, Rutten 1991), whether they are finite (cf. (36)) or nonfinite (cf. (37)).

(36) a. ... dat Hilke heeft gezegd [dat Bram ook komt].
that Hilke has said that Bram also comes
'... that Hilke said that Bram is coming too.'

b. * ... dat Hilke heeft [dat Bram ook komt] gezegd.
that Hilke has that Bram also comes said

c. * ... dat Hilke [dat Bram ook komt] heeft gezegd.
that Hilke that Bram also comes has said

[28] In embedded constituent questions a complementizer is not obligatory, but in that case the presence of a CP-layer is indicated by the *wh*-element in [Spec, CP], cf. (i).

(i) a. Ellen vraagt **wie** van chocolade houdt.
Ellen asks who of chocolade likes
'Ellen asks who likes chocolate.'

b. Sofie wist niet **wat** te kopen.
Sofie knew not what to buy
'Sofie didn't know what to buy.'

Modal complements cannot contain a *wh*-element for independent reasons: they are incompatible with the semantics of an interrogative complement.

(37) a. … dat Epi heeft besloten [(om) met Kaat mee te gaan.
that Epi has decided for with Kate with to go
b. * … dat Epi heeft [(om) met Kaat mee te gaan]
that Epi has for with Kate with to go
besloten.
decided
c. * … dat Epi [(om) met Kaat mee te gaan] heeft
that Epi for with Kate with to go has
besloten.
decided

Infinitival complements of modal verbs on the other hand, do not allow extraposition, as shown in (38)a. Instead, they display verb raising (cf. (38)b, see Evers 1975; Haegeman and van Riemsdijk 1986, 1988; den Besten and Rutten 1989 and Kroch and Santorini 1991).[29]

(38) a. * … dat Dorien moet [een liedje zingen].
that Dorien must a song.DIM sing
b. … dat Dorien een liedje moet zingen.
that Dorien a song.DIM must sing
'…that Dorien has to sing a song.'

Recapitulating, this section has provided evidence for the claim that the infinitival complement of a modal is a TP. It contains tense, but unlike a CP complement, it never contains a complementizer and cannot be extraposed. The next section focuses on the categorial status of the modal verb itself.

2.1.3.2 The categorial status of Dutch modal verbs

Now that the categorial status of the infinitival complement of a Dutch modal has been determined, the present section is concerned with the status of the modal itself. There are several possibilities: it could be an instantiation of T, as

[29] Note that this is possible – although not obligatory – in certain dialects of Dutch (see SAND Database, Barbiers et al. 2005). However, in such cases this might not be a real instantiation of extraposition of the whole infinitival clause, but rather a case of verb clustering. Certain (mostly Belgian) dialects of Dutch allow verbal particles and objects to intervene between the verbs in the verb cluster that is formed at the end of the clause. I hope to investigate this path in further research, as I do not have a satisfactory explanation for this dialectal variation at this point. See also Haegeman & van Riemsdijk (1976) for a discussion on verb raising and verb projection raising and the differences with extraposition.

has been claimed for English modal verbs, or it could be an aspectual auxiliary. Another option would see the modal as the head of a ModP. Finally, modals could be lexical verbs. This section looks at the properties of the Dutch modals themselves in more detail in order to determine their category. I claim that Dutch modals are not inflectional heads or auxiliaries, but head their own ModP projection.

2.1.3.2.1 Dutch modals are not inflectional heads

Although much has been said about the category of English modals (Chomsky 1957; Jackendoff 1972, 1977; Fiengo 1974; Akmajian, Steele & Wasow 1979; Palmer 1983, 1986, 1990, 2001; Bobaljik 1995; Bobaljik and Thráinsson 1998), Dutch modals have received relatively little discussion. I compare Dutch modals to English ones, showing that they cannot be considered of the same categorial status.

It is well known that English modals display certain properties that set them apart from regular verbs and even from aspectual auxiliaries (Palmer 1983, 1986, 1990, 2001). First, they cannot be inflected and second, they are not stackable, i.e. they do not co-occur, unlike other auxiliaries. Concerning the first property, (39)a illustrates that English modals cannot occur in the past tense, nor do they occur as a past participle (cf. (39)b) or an infinitive (cf. (39)c). They also do not show any present tense inflection for third person singular, as shown in (39)d. All of these verbal properties do, however, occur with both regular verbs and auxiliaries (cf. (40) and (41)).

(39) **English modals:**

a. * Peter **{mayed/might}** not play outside.[30]
   INTENDED: 'He was not allowed to play outside.'

b. * Jasmin has never **{could/canned}** that.
   INTENDED: 'Jasmin has never been able to do that.'

c. * Ryan will not **must** come.
   INTENDED: 'Ryan will not have to come.'

d. Adam {***musts/must**} come.

[30] Note that English modals formally occur with past tense morphology, as in *might*, *should* and *could*, which are derived from *may*, *shall* and *can*, respectively. However, these forms do not generally get a past tense interpretation (cf. Gergel 2005), even though there are a few cases where they are interpreted as past tense, as in (i). I will not consider such cases here.

(i) In the fifties people could smoke in movie theatres.

(40) **English lexical verbs:**
  a. Alice **played** outside today.
  b. Keenan has never **cooked** a proper dinner.
  c. I will not **touch** those filthy clothes.
  d. Brian **{wrestles/*wrestle}**.

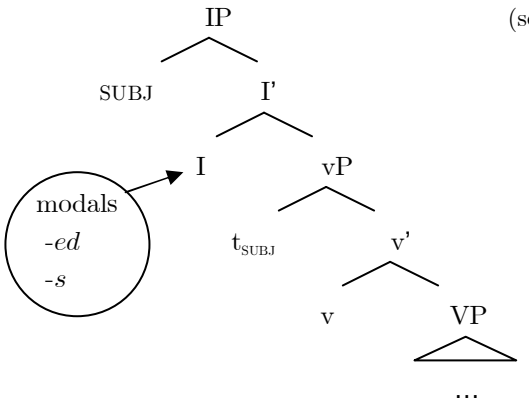
(41) **Aspectual auxiliaries:**
  a. Colin **had** gone to the library instead.
  b. Jessi had never **been** robbed before.
  c. Niko will **be** living in France at that time.
  d. Yaron **{has/*have}** travelled a lot.

Second, English modals cannot co-occur (cf. (42)a) and can also not be embedded under other verbs (cf. (42)b). The ungrammaticality of these sentences is expected, given that we have just seen that modals do not occur in the infinitival form in English.

(42) a. * Priyesh must **can** cook.
  INTENDED: 'Priyesh must be able to cook.'
  b. * Addie seems to **can** visit me.
  INTENDED: 'Addie seems to be able to visit me.'

The literature on English modals accounts for these properties by saying that modals occupy the inflectional head, blocking the presence of inflectional affixes (Chomsky 1957; Jackendoff 1972; Fiengo 1974; Akmajian, Steele & Wasow 1979; Bobaljik 1995; Bobaljik and Thráinsson 1998). English modals being inflectional heads, i.e. being base-generated in the position of the finite verb, also provides an explanation for why they cannot occur as participles or infinitives. The structure that has been proposed for English modals is the following:

(43)



(see Wurmbrand 2003:140)

The structure shows that English has one single functional projection to represent modality, agreement and tense. Hence, the properties of English modals are accounted for.

Dutch modals, on the other hand, do behave like regular verbs when it comes to inflection and stackability. The data in (44) and (45) show that Dutch modals – both epistemic and root modals – can occur in the past tense, the past participle or in the infinitival form. Moreover, they are inflected for plural, just like regular verbs.

(44) **Epistemic modals:**

a. Hij **kon** zijn kamer nog niet opgeruimd hebben.
he may.PAST his room yet not cleaned have
'He couldn't possibly have cleaned his room already.'

b. Dat Tom kwam, dat had **gekund**.[31]
that Tom came that had can.PRTC
'It would have been possible that Tom came.'

c. Pieter zou al **mogen** gegeten hebben nu.
Pieter would already may.INF eaten have now
'It's very likely that Pieter has eaten already by now.'

[31] This sentence displays a slightly different use of the modal than what we have seen up until now: the subject is not the subject of the embedded proposition that has raised into the higher clause; it is a demonstrative pronoun referring to the CP the epistemic modal modifies. The reason why I use it here is that the modal displays the IPP effect (Infinitivus Pro Participio) when it takes an infinitival complement: it appears as an infinitive instead of a past participle, cf. (i).

(i) Tom had {kunnen /*gekund} komen.
Tom had can.INF can.PRTC come
'It was possible that Tom would come.'

d. Ze **{moeten /*moet}** toch nog thuis zijn.
they must.PL must.SG PRT still home be
'It's necessarily the case that they are still at home.'

(45) **Deontic modals:**

a. Hij **mocht** niet buiten spelen.
he may.PAST not outside play
'He was not allowed to play outside.'

b. Tom heeft dat nooit **gekund**.
Tom has that never can.PRTC
'Tom was never able to do that.'

c. Pieter zal niet **mogen** komen.
Pieter will not may.INF come
'Pieter won't be allowed to come.'

d. We **{moeten /*moet}** nog eten.
we must.PL must.SG still eat
'We still have to eat.'

Secondly, Dutch modals can be stacked (cf. (46)a), just like other verbs taking infinitival complements (cf. (46)b).[32]

(46) a. Hij moet goed kunnen koken.
He must good can cook
'He has to be able to cook well.'

b. Hij probeerde te leren zwemmen.
he tried to learn swim
'He tried to learn how to swim.'

On the basis of these differences between Dutch and English I conclude that Dutch modals are not base-generated in T.[33]

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[32] Dorian Roehrs (p.c.) informs me that there are certain dialects in Southern England that do allow stacking of modals. Several Southern American English dialects allow double modals as well (see Coleman 1975, Wilson 1993, among many others). It would be interesting to see how the modals in such dialects behave with regard to the inflection property as well as in ellipsis.

[33] A further difference expected to be found between English modals and Dutch modals is that the complement of an English modal should not be able to contain separate time modification, unlike Dutch modals (see 2.1.3.1.2). At first sight this prediction seems borne out, cf. (i), although I have not been able to test it extensively yet. Thanks to Ezra Keshet for helping me out with the data collection.

(i) a. ?* **Today** I should go home **on the 30th**, but I'm sure that tomorrow they'll tell me to come home on the 29th already.

2.1.3.2.2 Dutch modals are not auxiliaries

I have argued that Dutch modals, as opposed to English modals, are not inflectional heads. The next option to consider is whether they are auxiliaries.

Recall that the complement of a Dutch modal can have its own time specification, one that differs from the one modifying the modal verb. In other words, a sentence with a modal describes two events or situations: the situation expressed by the modal and the event or situation in the complement. Auxiliaries on the other hand, describe a single event or situation together with their complement. Hence, they do not allow separate time modification (cf. (47)b)).[34]

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b. * As of **today**, he can drop by **tomorrow**, but if his meeting is postponed, he'll only be able to come on Thursday.

When this same meaning is expressed by a periphrastic modal selecting a TP complement (a non-finite *to*-infinitive clause), the complement can contain its own time specification, as in (ii).

(ii) a. **Today** I {have to/am supposed to} go home **on the 30th**, but I'm sure that tomorrow they'll tell me to come home on the 29th already.
b. As of **today**, he is able to drop by **tomorrow**, but if his meeting is postponed, he'll only be able to come on Thursday.

[34] In some contexts aspectual auxiliaries also seem to allow two different time modifications (cf. (i)).

(i) **Gisteren** had hij zijn auto **vorige week** al verkocht, en
yesterday had he his car last week already sold and
vandaag zegt hij dat hij hem morgen pas kan verkopen.
today says he that he him tomorrow only can sell

This sentence, however, has a reading in which *gisteren* 'yesterday' modifies an unexpressed event of saying or claiming, while the aspectual and the participle are modified by *vorige week* 'last week'. It is not the case that the aspectual has a different time specification from the one in the non-finite complement. In the modal cases on the other hand, the modal itself is modified by one time adverbial and its complement by the other. A way to demonstrate this difference is by making the event of saying explicit, as in (ii), and add a third time adverbial. Only in (ii)b with the modal does this result in a grammatical and interpretable sentence.

(ii) a. * Gisteren zei hij dat hij eergisteren zijn auto
yesterday said he that he the.day.before.yesterday his car
vorige week al verkocht had, en…
last week already sold had and…
b. Gisteren zei hij dat hij eergisteren volgende
yesterday said he that he the.day.before.yesterday next
week al naar huis mocht, maar nu moet hij nog
week already to home was.allowed but now must he still
twee weken blijven.
two weeks stay
'Yesterday he said that the day before yesterday he was allowed to go home next week, and now he has to stay for another two weeks.'

(47) a. Vorige week moest ik morgen komen helpen, en
last week must.PAST I tomorrow come help and
nu is het weer verplaatst naar overmorgen.
now it is again moved to the.day.after.tomorrow
'Last week I had to come and help tomorrow, and now they moved it to the day after tomorrow.'

b. * Gisteren heb ik vorige week vis gegeten.
yesterday have I last week fish eaten

Moreover, modals in Dutch differ from auxiliaries in their choice of complementation. Aspectual auxiliaries, such as *zijn* 'be' and *hebben* 'have', which are used in the perfective, or temporal *zullen* 'will' for the future, or the passive auxiliaries *worden* 'become' and *zijn* 'be' can only take verbal complements.[35] Modals on the other hand, can select finite CP complements as well, cf. (48).

(48) a. Het moest haast wel [dat Charlotte de cake had
it must.PAST almost PRT that Charlotte the cake had
opgegeten]. (epistemic)
up.eaten
'It almost had to be the case that Charlotte had eaten the cake.'

b. [Dat zo'n kunstwerk verloren gaat] mag echt niet.
that such.a art.piece lost goes may really not
'That such a piece of art is lost, that really should not be allowed.' (deontic)

c. Lien wil [dat ik die brief vertaal]. (dynamic)
Lien wants that I that letter translate
'Lien wants me to translate that letter.'

Root modals can also select DPs, APs, AdvPs as well as PPs (see Barbiers 1995, 1996, 2005), as is illustrated in (49).[36, 37]

[35] Of course, *be*, *have* and *become* can be used as main verbs as well, both in English and in Dutch and many other languages.

[36] Since modals are raising verbs, the subject in these sentences is also base-generated below the modal. Therefore the complement could be a small clause containing an AP, AdvP, DP or PP, rather than an AP, AdvP, DP or PP only. Alternatively, it has been suggested by van Riemsdijk (2002) and Vanden Wyngaerd (1994a) that these complements are actually verbal in that they contain a phonologically silent verb. A third option would be to say that modals have both a raising and a non-raising use, parallel to Wurmbrand (2003), who argues that German restructuring verbs also have a non-

(49) a. Roos mag **een ijsje** vanavond. [DP]
Roos is.allowed an ice-cream tonight
'Roos is allowed to have an ice-cream tonight.'

b. Die spin moet **dood**. [AP]
that spider must dead
'That spider must be dead.'

c. Deze boeken kunnen al **weg**. [AdvP]
these books can already away
'These books can be done away already.'

d. Frederik hoeft niet **naar de dokter**. [PP]
Frederik needs not to the dokter
'Frederik doesn't need to go to the doctor.'

Another argument in favor of the claim that Dutch modals are not auxiliaries is brought forward by Barbiers (2005): modals expressing permission or obligation can optionally express the source of this permission or obligation with a PP argument, as in (50). This illustrates once more that modals can have their own argument structure, unlike auxiliaries.

(50) a. Anouk mag van haar mama niet uitgaan vanavond.
Anouk is.allowed of her mum not out.go tonight
'Anouk's mum is not allowing her to go out tonight.'

b. Jeroen moet aardappels schillen van zijn opa.
Jeroen must potatoes peel of his grandpa
'Jeroen's grandpa is telling him to peel potatoes.'

2.1.3.2.3 Dutch modals are Mod/V heads

In the literature modal verbs in Dutch and German have been considered the head of their own functional projection ModP, and not lexical V heads (see

restructuring use. I will not be concerned with this issue here and defer it to future research.

[37] Note that modals with such complements cannot get an epistemic reading (see Barbiers 1995, 1996, 2005). A possible explanation for this might be semantic: epistemic modals modify a whole proposition. However, more research is needed on the different properties of epistemic and root modals.

Cinque 1999, Wurmbrand 2003, Barbiers 2005, among others).[38] Overall, however, Dutch modals do not behave significantly different from other verbs that can select a (tensed) infinitival complement, such as *besluiten* 'decide' or *leren* 'learn'.

(51) a. Nele heeft beslist de kinderen morgen te brengen.
Nele has decided the children tomorrow to bring
'Nele decided to bring the kids tomorrow.'
b. Rulke heeft vorig jaar leren zwemmen.
Rulke has last year learn swim
'Rulke learned how to swim last year.'

One property of modals that sets them apart from prototypical V heads is that they cannot be passivized. In order to express passive voice with a modal its complement has to be passivized, as in (52).

(52) a. * De taart wordt gemoeten opeten vandaag.
the pie becomes must.PRTC up.eat today
b. De taart moet worden opgegeten vandaag.
the pie must become up.eaten today
'The pie has to be eaten today.'

They share this characteristic, however, with several other stative verbs (Barbiers 2005). Verbs such as possessive *have* (or *hebben* in Dutch), *lack* or *resemble* cannot occur in the passive either:

(53) a. Kwinten heeft een nieuwe auto. (Dutch)
Kwinten has a new car
a'. * Een nieuwe auto wordt gehad door Kwinten.
a new car becomes had by Kwinten
* 'A new car is had by Kwinten.'
b. These houses lack natural light inside.
b'. * Natural light (inside) is lacked by these houses.
c. I resemble my grandmother.
c'. * My grandmother is resembled by me.

[38] See Ijbema (2002), however, for an account of *willen* 'want' as a lexical head rather than a functional one. Furthermore, Barbiers (2005) observes that Dutch modals can behave like main verbs.

The divide between functional and lexical heads is immaterial to the analysis of Dutch modal complement ellipsis I develop in chapter 3, however. Nothing in this analysis hinges on the label Mod versus V head for Dutch modals (see also Gergel 2005). What is important is that I have illustrated that Dutch root modals are not inflectional heads, given that they can bear inflectional morphology and are stackable, nor can they be considered auxiliaries. When they select an infinitival complement, this complement is a TP. Moreover, I showed that they can select complements other than infinitival clauses, and that they have their own argument structure. For convenience's sake, I label modal verbs as Mod heads from now on.[39]

2.1.4 Summary

This section has been concerned with Dutch modal verbs. We have seen that modals can get three different readings, namely epistemic, deontic and dynamic. I have provided evidence in favor of the claim that all Dutch modals, except for dynamic *willen* 'want', are raising verbs.

Next it was argued that the infinitival complement of Dutch modals is a TP, because it can contain its own time specification. However, as it is incompatible with complementizers and does not allow extraposition, it is not a whole CP.

Finally, in 2.1.3.2 I illustrated that Dutch modals differ from English modals in not being inflectional heads. Furthermore, Dutch modals were shown not to behave like aspectual auxiliaries. I considered them to be Mod heads.

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[39] Note that the different modal readings occur in a specific order: when modal expressions co-occur, epistemic modality precede deontic modality, which is followed by dynamic modality. Cinque (1999) captures this ordering in his functional projections hierarchy, cf. (i). See Butler (2006) and Nilsen (2003) for an alternative, less cartographic approach, however.

(i) [Mood$_{\text{Speech Act}}$ *Frankly* [Mood$_{\text{Evaluative}}$ *Fortunately* [Mood$_{\text{Evidential}}$ *Allegedly* [Mod$_{\text{Epistemic}}$ *Probably* [T$_{\text{past}}$ *Once* [T$_{\text{future}}$ *Then* [Mod$_{\text{Irrealis}}$ *Perhaps* [Mod$_{\text{Necessity}}$ *Necessarily* [Mod$_{\text{Possibility}}$ *Possibly* [Asp$_{\text{Habitual}}$ *Usually* [Asp$_{\text{Repetitive}}$ *Again* [Asp$_{\text{Freq(I)}}$ *Often* [Mod$_{\text{Volitional}}$ *Intentionally* [Asp$_{\text{Celerative(I)}}$ *Quickly* [T$_{\text{Anterior}}$ *Already* [Asp$_{\text{Terminative}}$ *No longer* [Asp$_{\text{Continuative}}$ *Still* [Asp$_{\text{Perfect(?)}}$ *Always* [Asp$_{\text{Retrospective}}$ *Just* [Asp$_{\text{Proximative}}$ *Soon* [Asp$_{\text{Durative}}$ *Briefly* [Asp$_{\text{generic/progressive}}$ *Characteristically*(?) [Asp$_{\text{Prospective}}$ *Almost* [Asp$_{\text{sg.completive(I)}}$ *Completely* [Asp$_{\text{pl.completive}}$ *Tutto* [Voice *Well* [Asp$_{\text{Celerative(II)}}$ *Fast/Early* [Asp$_{\text{Repetitive(II)}}$ *Again* [Asp$_{\text{Freq(II)}}$ *Often* [Asp$_{\text{sg.completive(II)}}$ *Completely*]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]

2.2 Dutch modal complement ellipsis: Properties

The present section focuses on a previously unnoticed property of Dutch modals, namely the fact that their infinitival complement can be left unpronounced, as is illustrated in (54).[40]

(54) Je mag langskomen vanavond, maar je moet
you are.allowed.to pass.by tonight but you must
niet [~~langskomen vanavond~~].
not pass.by tonight
'You can drop by tonight, but you don't have to.'

As is clear from the translation, this phenomenon is similar to English VP ellipsis (VPE). However, Dutch, like German and French, has always been claimed to lack VPE (see Emonds 1978 for French; Lobeck 1995). I come back to the properties of VPE in chapter 4 and it will become clear that there are significant differences between VPE and this construction, which I call *modal complement ellipsis* or MCE. Because of these properties, the analyses of VPE and MCE I provide differ to a certain extent, although both ellipses are derived by the same mechanism involving PF deletion.

This section introduces this previously undiscussed kind of ellipsis in Dutch and lists its basic properties. An analysis accounting for these properties is presented in the next chapter.

2.2.1 MCE is only allowed with root modals

A first important property of modal complement ellipsis or MCE in Dutch is its distribution. As the name indicates, only the complement of a modal can be deleted. Unlike in English VP ellipsis, the complement of a Dutch aspectual or temporal auxiliary cannot be left out, as is shown below. Moreover, MCE is limited to root modals in Dutch, i.e. the infinitival complement of an epistemic modal cannot be deleted. This section presents the relevant examples.

Firstly, (55) illustrates that deontic modals can leave out their infinitival complement.

[40] Ellipsis is indicated by strike-through.

(55) a. Jella mocht ook mee gaan zwemmen, maar ze
Jella was.allowed.to also with go swim but she
kon niet [~~mee gaan zwemmen~~]; ze was ziek.[41]
could not with go swim she was ill
'Jella was allowed to come along swimming too, but she couldn't; she was ill.'

b. Jessica wil niet gaan werken morgen, maar ze **moet**
Jessica wants not go work tomorrow but she must
[~~gaan werken morgen~~].
go work tomorrow
'Jessica doesn't want to go to work tomorrow, but she has to.'

c. Je hoeft niet te helpen, maar je **mag** altijd [~~helpen~~].
you need not to help but you may always help
'You don't need to help, but you're always welcome to.'

d. Je mag altijd helpen, maar je **hoeft** niet [~~te helpen~~].
you may always help but you need not to help
'You're always welcome to help, but you don't need to.'

The sentence in (56) shows that dynamic *willen* 'want' also allows its infinitival complement to be left out.

(56) Thomas moet dansen, maar hij **wil** niet [~~dansen~~].
Thomas must dance but he wants not dance
'Thomas has to dance, but he doesn't want to.'

Dynamic *kunnen* 'can' is exceptional: it does not allow deletion of its infinitival complement. The example in (57)a can only get the availability reading – the one expressing imposed or external ability, which is deontic; not the dynamic reading where the ability is inherent to the subject. The sentence in (57)b, where the context triggers a dynamic reading, is ungrammatical.[42]

[41] As shown in section 2.1.1, *kunnen* 'can' has three root interpretations, two deontic ones and one dynamic reading. Deontic *kunnen* can mean 'be available' or 'be allowed', while dynamic *kunnen* expresses (inherent) ability. In this example *kunnen* cannot have the permission reading, because this would lead to a contradiction, and the ability reading is also excluded. The only interpretation the sentence can get is that Jella is not available for some reason, namely that she is ill.

[42] When instead of leaving the infinitival complement out altogether, an overt pronoun *dat* 'that' referring to it is used, the dynamic reading shows up again and is even the only one possible, as in (i).

(i) a. Alex zou de auto repareren, maar hij kan **dat** niet.
Alex would the car repair but he can that not
'Alex was going to repair the car, but he can't do that.'

(57) a. Alex zou de auto repareren, maar hij **kan** niet [~~de auto repareren~~].
Alex would the car repair but he can not the car repair
'Alex was going to repair the car, but he can't.'

b. * Koen wil ook zingen, maar hij **kan** niet [~~zingen~~], hij heeft daar echt geen stem voor.
Koen wants also sing but he can not sing he has there really no voice for
'Koen wants to sing too, but he can't; he hasn't got the voice for it.'[43]

So far I have illustrated that MCE is possible with deontic modals and dynamic *willen* 'want'. The following examples show that MCE is restricted to root modals: epistemic modal verbs do not allow their complement to be deleted (cf. (58)).[44]

MEANING: Alex doesn't know how to repair cars.

b. Koen wil ook zingen, maar hij kan **dat** niet.
Koen wants also sing but he can that not
'Koen wants to sing too, but he can't.'
MEANING: Koen doesn't know how to sing.

This fact could lead to the explanation for why dynamic *kunnen* does not allow MCE. In future research I hope to investigate the realization of the infinitival clause with the overt pronoun *dat* 'that' in greater detail.

[43] If the context triggering a dynamic reading is left out, the sentence can get a deontic interpretation and is grammatical, cf. (i).

(i) Koen wil ook zingen, maar hij kan niet.
Koen wants also sing but he can not
'Koen wants to sing too, but he can't.'

The only interpretation this example can receive is one where Koen does not have time to sing (at a specific occasion) or is unavailable for some other external reason.

[44] Some sentences with epistemic modals and MCE show interspeaker varability in the judgments:

(i) a. A: Ulrike begint je nu precies te vertrouwen.
Ulrike begins you now seemingly to trust
?/?*B: Goh, ze **mag** stilaan wel, he!
well she may gradually PRT right
'Ulrike seems to begin to trust you now.' – 'Well, she should by now, right?'

b. A: Zou Jonas thuis zijn? – B: ?/?*Hij **moet** haast wel.
would Jonas home be he must almost PRT
'Would Jonas be home?' – 'He should be, really.'

c. A: Hangt Senne soms de flauwe plezante uit ?
hangs Senne sometimes the silly fellow out

(58) a. Arne zegt dat hij niet de hele taart heeft opgegeten,
Arne says that he not the whole pie has up.eaten
maar hij **moet** wel ?*(de hele taart hebben opgegeten),
but he must PRT the whole pie have up.eaten
want ze is weg.
for she is away
'Arne says he didn't eat the whole pie, but he must have, for it's gone.'

b. Klaas zegt dat hij al klaar is met zijn huiswerk,
Klaas says that he already ready is with his homework
maar hij **kan** toch niet *(al klaar zijn met zijn
but he can PRT not already ready be with his
huiswerk).
homework
'Klaas says that he's done with his homework already, but he can't be.'

c. Jessica zou liever niet te laat komen, maar ze
Jessica would rather not too late come but she
wil wel eens *(te laat komen).
wants PRT once too late come
'Jessica would rather not be too late, but it sometimes happens that she is.'

d. Reiner zou al vertrokken kunnen zijn, maar hij
Reiner would already left can.INF be but he
hoeft nog niet *(vertrokken te zijn).
needs yet not left to be
'Reiner could already have left, but it doesn't need to be the case that he has yet.'

e. A: Zou Stijn al thuis zijn?
would Stijn already home be

?/?*B: Tja, hij **wil** wel 's.
well he wants PRT once
'Is Senne being a silly fellow sometimes?' – 'Well, he happens to be.'

Although I admit that there might be a contrast between these sentences and the ones in (58) for some speakers, I will not address this difference here, on the assumption that there is no fundamental split between these examples relevant to the discussion. There is a significant contrast, however, between epistemic modals and deontic modals in allowing MCE: deontic modals allow the infinitival complement to be left out, while this is not generally allowed with epistemic modals. Once it is clear why MCE with epistemic modals is ungrammatical, I suspect the reason for why the examples in (i) are more acceptable for some speakers to be found as well.

'Would Stijn be at home already?'
B: Hij **mag** wel al ?*(thuis zijn). Het is 9 uur.
he may PRT already home be it is 9 hour
'He should be [home already]. It's nine o'clock.'

Recapitulating, MCE is restricted to root modals. It does not occur with epistemic modals. Furthermore, the following examples illustrate that the verbal complement of aspectual or temporal auxiliaries cannot be left out either (cf. (59)), nor can the complement of the passive auxiliaries *worden* 'become' and *zijn* 'be' (cf. (60)).

(59) a. Willem had gezegd dat hij zou komen, maar hij **is**
Willem had said that he would come but he is
niet *(gekomen).
not come
'Willem had said that he would come, but he didn't.'
b. Guido ging niet bellen, maar hij **heeft** toch *(gebeld).
Guido went not call but he has PRT called
'Guido wasn't going to call, but he did nevertheless.'
c. Herman zingt niet vanavond, maar Marlies **zal** *(zingen
Herman sings not tonight but Marlies will sing
vanavond).
tonight
'Herman won't be singing tonight, but Marlies will.'

(60) a. De brief wordt vandaag verwacht, maar het pakketje
the letter becomes today expected but the package
wordt niet *(vandaag verwacht).
becomes not today expected
'The letter is expected today, but the package isn't.'
b. Je broek is al gewassen, maar je rok **is**
your pants is already washed but your skirt is
nog niet *(gewassen).
yet not washed
'Your pants have been washed, but your skirt hasn't been yet.'

Summing up, modal complement ellipsis in Dutch is only allowed with deontic modals and dynamic *willen* 'want'. The epistemic modals, dynamic *kunnen* 'can' and the auxiliaries do not allow their verbal complement to be elided.

2.2.2 MCE affects a complete constituent

A second property of MCE in Dutch is that it deletes a complete phrase, not just the infinitival verb. MCE elides the verb with all its objects, its aspectual projections and its Voice projection. This section provides empirical evidence for the size of the elided constituent by examining every projection of the modal complement to determine whether it is included in the ellipsis site or not.

First of all, MCE deletes not only the infinitive, but also all of its internal arguments. In (61) both the indirect object *hem* 'him' and the direct object *dat boek* 'that book' are missing in the second conjunct.

(61) Ik wou hem dat boek helemaal niet geven, maar ik
I wanted him that book at.all not give but I
moest [~~**hem dat boek** geven~~].
must.PST him that book give
'I didn't want to give him that book at all, but I had to.'

The example in (62) illustrates that a directional object is also obligatorily interpreted as included in the ellipsis site; it cannot be contradicted, as illustrated in the answer of B'. The example in (63) contains an obligatory locative, which has to be interpreted as elided together with the verb.

(62) A: Wie kan er morgen naar Antwerpen rijden?
who can there tomorrow to Antwerp drive
B: Ik kan wel [~~**naar Antwerpen** rijden~~].
I can PRT to Antwerp drive
B':* Ik kan wel [~~rijden~~], maar niet naar Antwerpen.
I can PRT drive but not to Antwerp
'Who can drive to Antwerp tomorrow?' – 'I can.'

(63) A: Wie wil er even vooraan komen staan?
who wants there once in.front come stand
B: Ik wil wel [~~**vooraan** komen staan~~].
I want PRT in.front come stand
B':* Ik wil wel [~~komen staan~~], maar niet vooraan.
I want PRT come stand but not in.front
'Who wants to come stand in front?' – 'I want to.'

Consequently, the ellipsis site includes at least the whole VP, i.e. the verb together with its objects.

VP modifying adverbs are included in the ellipsis site as well, as is the position for embedded negation. The sentences in (64) show that low adjuncts (cf. Jackendoff 1972) do not survive the ellipsis, not even when they are contrasted with a modifier in the antecedent.[45] This issue is further discussed in section 2.2.3 on extraction out of the ellipsis site.

(64) a. Je hoeft niet per se snel te schrijven, maar je mag
you need not per se fast to write but you are.allowed
wel snel *(schrijven)
PRT fast write

b. Je hoeft niet per se SNEL te schrijven; je moet vooral
you need not per se fast to write you must most.of.all
MOOI *(~~schrijven~~).
beautifully write

Moreover, the MCE ellipsis site also includes the position for embedded negation. The infinitival complement of the modal can contain negation, as (65)a,c illustrate.[46] In MCE this negation cannot survive the ellipsis, cf. (65)b,d.[47]

(65) a. Je mag het vlees opeten, maar je mag
you are.allowed the meat up.eat but you are.allowed
het ook NIET opeten.
it also not up.eat

[45] For the position of adverbs, see Cinque (1999), Zubizarreta (1987) and Sportiche (1988), among others.

[46] It is immaterial to the point I want to make here whether this negation is constituent negation on vP/VP or embedded sentential negation, which means that it is presumably adjoined to vP or part of a NegP dominating the verb phrase (see Haegeman 1995). If we are dealing with embedded sentential negation, however, this could provide an additional argument for my claim that the infinitival complement of a modal contains tense. Zanuttini (1991, 1996), Kayne (1992) and Haegeman (1995, 1996) indeed argue that sentential negation needs to be licensed by tense.

[47] The same has been observed for French MCE by Dagnac (2007):

(i) * Paul peut repasser la classe en septembre et Luc peut
Paul can retake the class in September and Luc can
[$_{TP}$ ne pas [~~repasser la classe~~]].
ne not retake the class
'Paul is allowed to retake the class in September and Luc is allowed not to.'

'You are allowed to eat the meat, but you're also allowed NOT to eat it.'

b. * Je mag het vlees opeten, maar je mag
you are.allowed the meat up.eat but you are.allowed
ook NIET [~~het vlees opeten~~].
also not the meat up.eat
'You're allowed to eat the meat, but you're also allowed not to.'

c. Je mag komen, maar je mag ook NIET
you are.allowed come but you are.allowed also not
komen.
come
'You're allowed to come, but you're also allowed NOT to come.'

d. ?* Je mag komen, maar je mag ook NIET
you are.allowed come but you are.allowed also not
[~~komen~~].
come
'You're allowed to come, but you're also allowed NOT to.'

Note that the ungrammaticality of (65)b,d only implies that the position of the embedded negation is included in the ellipsis site, because the negation cannot survive the ellipsis. However, ellipsis of the embedded negation in (65)b,d is not allowed either, because the antecedent does not contain negation. In other words, eliding the embedded negation would violate the recoverability requirement on ellipsis. If the antecedent contains negation as well, as in (66), ellipsis of the embedded negation is perfectly fine.

(66) Ze zou liever NIET gaan, maar ze mag niet [~~niet gaan~~].
she would rather not go but she is.allowed not not go
'She'd rather NOT go, but she isn't allowed not to go.'

I conclude that the ellipsis site MCE includes low adverbs and embedded negation.

Moreover, it also deletes the aspectual heads and the passive auxiliary, as is illustrated in (67).[48]

[48] Again, the same holds for French MCE, as is noted by Dagnac (2007):

(i) a. Paul peut avoir fini en juin, et Luc peut aussi
Paul can have finished in June and Luc can also
*(avoir).
have

(67) a. A: Ik denk dat Charlotte haar kamer nog altijd
I think that Charlotte her room still always
niet opgeruimd heeft.
not cleaned has
'I think Charlotte still hasn't cleaned her room.'
B: Goh, tegen vanavond moet ze wel [~~haar kamer~~
well by tonight must she PRT her room
~~opgeruimd~~ **hebben**].
cleaned have
'Well, by tonight she'll have to have cleaned it.'

b. A: Ik denk dat Charlotte haar kamer nog altijd
I think that Charlotte her room still always
niet opgeruimd heeft.
not cleaned has
'I think Charlotte still hasn't cleaned her room.'
B: * Goh, tegen vanavond moet ze wel [~~haar kamer~~
well by tonight must she PRT her room
~~opgeruimd~~] **hebben**
cleaned have
'Well, by tonight she must have.'

c. Die broek moet nog niet gewassen worden, maar hij
those pants must still not washed become but he
mag wel al [~~gewassen~~ **worden**].
is.allowed PRT already washed become
'Those pants don't have to be washed yet, but they can be.'

d. * Die broek moet nog niet gewassen worden, maar hij
those pants must still not washed become but he
mag wel al [~~gewassen~~] **worden**.
is.allowed PRT already washed become
'Those pants don't have to be washed yet, but they can be.'

So far we have determined that MCE elides the VP with its internal arguments, adjuncts and negation, as well as the aspectual and voice auxiliaries. Looking at the simplified tree structure in (68), it seems that almost all the

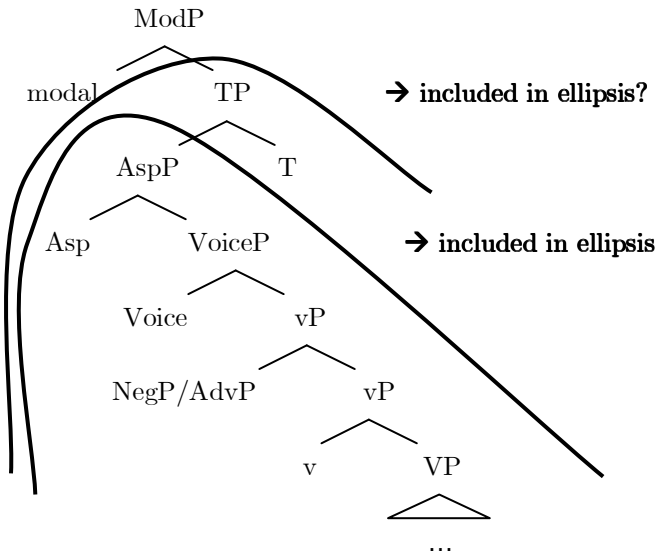
---

'Paul can be finished in June and Luc can be too.'

b. Paul peut être muté, et Luc aussi peut *(être).
Paul can be transferred and Luc also can be
'Paul can be transferred and Luc can be as well.'

projections in the complement of the modal are included in the ellipsis site.[49] The only projection yet to be looked at is TP.[50]

(68)



I argue that MCE does not elide the whole infinitival complement of the modal. There is a set of data showing that the embedded subject position [Spec, TP] is not included in the ellipsis site. When the matrix subject is a *there*-expletive, the associate of *there* survives MCE, cf. (69). Recall that MCE elides the embedded Voice and aspectual projections, so that the base position of the associate, [Spec, vP], is elided as well. I claim that the associate of *there* sits in the embedded [Spec, TP], which is therefore not included in the ellipsis site.

(69) a. A: Gaat er iemand naar het feestje morgen?
goes there someone to the party tomorrow
B: Er moet toch IEMAND [~~naar het feestje gaan~~].
there must still someone to the party go
'Is anyone going to the party tomorrow?' – 'Well, SOMEONE has to.'

b. Ik ruim niet meer op, hoor. Er mag wel eens
I clean not more up hear there may PRT once

[49] The exact position of NegP is irrelevant at this point. What is important is that all three projections AspP, VoiceP and NegP are included in the ellipsis site.
[50] I represent Dutch embedded TPs as head-final. Nothing hinges on this, however.

iemand anders [~~opruimen~~] deze keer.
someone else up.clean this time
'I'm not cleaning up anymore. Someone else can this time.'

c. Er mochten wel eens vriendinnetjes blijven slapen,
there were.allowed PRT once girlfriends stay sleep
maar er mochten geen vriendjes [~~blijven slapen~~].
but there were.allowed no boyfriends stay sleep
'Girlfriends were allowed to sleep over, but boyfriends weren't.'

Moreover, an embedded temporal adjunct also survives MCE. Recall that the complement of a modal can contain its own temporal modifier, as in (70).

(70) a. Gisteren moest ik vandaag komen en vandaag moet
yesterday must.PAST I today come and today must
ik **volgende week pas** komen.
I next week only come
'Yesterday I had to come today and today I only have to come next week.'

b. Gisteren wou hij volgende week pas naar de zee
yesterday wanted he next week only to the sea
vertrekken, maar nu wil hij blijkbaar **vandaag**
leave but now wants he apparently today
al naar de zee vertrekken.
already to the sea leave
'Yesterday he only wanted to leave for the seaside next week, but now he want to leave today already, apparently.'

These adjuncts are considered to adjoin high in the structure, presumably as high as TP (see Jackendoff 1972, Zubizarreta 1987, Sportiche 1988, Dowty 1989, Parsons 1990). As it turns out, these high adverbs are not included in MCE, as is shown in (71).[51]

[51] Note that a temporal adverb can be absent if it is not contrasted with a temporal adverb in the antecedent, cf. (i).

(i) Gisteren moest ik volgende week een lezing geven, en vandaag
yesterday must.PAST I next week a talk give and today
moet Els.
must Els
'Yesterday I had to give a talk next week and to day Els has to.'
DEFAULT READING: '...and today Els has to give a talk next week.'

(71) a. Gisteren moest ik vandaag komen en vandaag moet
yesterday must.PAST I today come and today must
ik **volgende week pas**.
I next week only
'Yesterday I had to come today and today I only have to next week.'

b. Gisteren wou hij volgende week pas naar de zee
yesterday wanted he next week only to the sea
vertrekken, maar nu wil hij blijkbaar **vandaag**
leave but now wants he apparently today
al.
already
'Yesterday he only wanted to leave for the seaside next week, but now he want to today already, apparently.'

In the tree in (72) the temporal adjunct adjoins to TP. Consequently, MCE does not elide the modal complement as a whole; there is at least one projection between the base position of the modal and the ellipsis site. Moreover, this projection has to be able to host the associate of a *there*-expletive subject. These facts imply that the TP projection itself is not elided.[52]

However, that does not mean that the temporal adverb is actually included in the ellipsis site. Schachter (1977) and Zwicky & Sadock (1975) show that in coordinations time adverbials can be interpreted in both conjuncts, as in (ii), without there being ellipsis of the adverb in the second conjunct.

(ii) Daan heeft gisteren een gedicht geschreven en Dag heeft zijn paper
Daan has yesterday a poem written and Dag has his paper
afgewerkt.
finished
'Daan wrote a poem yesterday and Dag finished his paper.'
DEFAULT READING: '...and Dag finished his paper yesterday.'

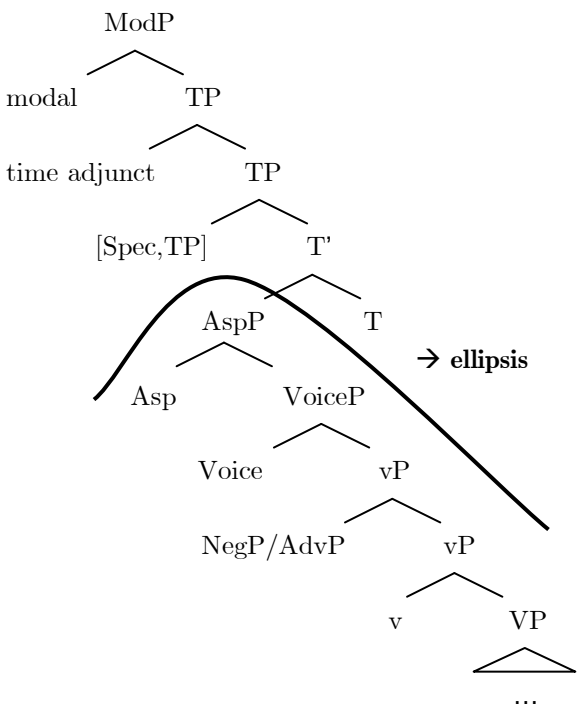
[52] Recall that there is one modal verb in Dutch that selects a complement introduced by the infinitival marker *te* 'to', namely *hoeven* 'need', as can be seen in (i)a. Interestingly, MCE elides *te*, cf. (ii)b.

(i) a. Anne mag gerust komen schilderen, maar ze hoeft niet
Anne may easily come paint but she needs not
*(te) komen schilderen.
to come paint
'Anne is allowed to come paint, but she doesn't need to come paint.'

b. Anne mag gerust komen schilderen,maar ze hoeft niet (*te).
Anne can easily come paint but she needs not to
'Anne is allowed to come paint, but she doesn't need to.'

If the infinitival marker sits in T, this would imply that the T head is included in the ellipsis site. However, Wurmbrand 2003, Abraham 2004 and Christensen 2007 argue that

(72)



I conclude that MCE elides more than the infinitival head. Evidence has been provided to show that the VP deletes together with its internal arguments and the voice and aspectual projections. On the other hand, the presence of the associate of a *there*-expletive as well as the presence of temporal adjuncts demonstrate that it is not the infinitival complement as a whole that is elided.

2.2.3 Extraction

As I explained in chapter 1, ellipsis can be analyzed in different ways. The ellipsis site can be seen as a null proform, as nothing at all, or as a fully-fledged but unpronounced syntactic structure. One of the main arguments for deciding between these analyses involves extraction: if a phrase can be extracted out of an ellipsis site, the latter necessarily contains syntactic structure (see Merchant 2001; Johnson 1996, 2001 for discussion of English VP ellipsis as deletion).

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the infinitival marker is base-generated lower than T (cf. footnote 27). Christensen (2007) demonstrates that languages differ as to whether the infinitival marker stays in a position close to the verb phrase or (optionally) moves up to T. I can account for the absence of *te* in MCE by saying that either the infinitival marker does not move up to T anyway in Dutch, or that ellipsis bleeds head movement of *te* to T (for ellipsis bleeding head movement, see Lasnik 1999b; Merchant 2001; Boeckx & Stjepanovic 2001).

Otherwise the extracted constituent would not have a base position to move out from. On the other hand, if extraction is not allowed at all, it is more plausible that the elided part is not a full structure, but a null proform instead (Lobeck 1995, Depiante 2000), or even nothing at all (Napoli 1985, Culicover and Jackendoff 2005).

Therefore, the question we have to ask ourselves is whether MCE allows extraction out of the ellipsis site or not. I demonstrate that MCE disrupts the simple picture sketched above: some extraction is possible out of an MCE ellipsis site, but not all phrases are allowed to move out.

2.2.3.1 Subject extraction

Recall that deontic modals are raising verbs. This means that the subject of the modal is base-generated inside the infinitival complement and moves up to the surface subject position.[53] This also happens when the infinitival complement is elided (cf. (73)). Consequently, there are two options: either the base position of the subject is not included in the ellipsis site, or the subject can extract out of the ellipsis site.

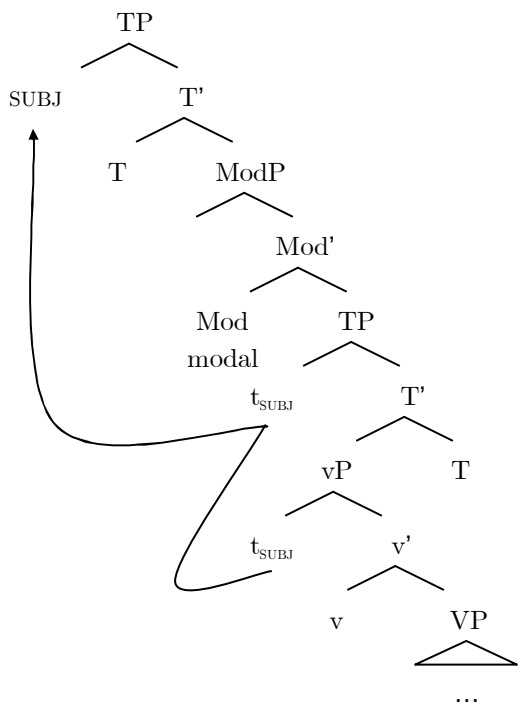
(73) a. Jeroen wou Sarah wel een cadeautje geven, maar **hij**
Jeroen wanted Sarah PRT a present give but he
mocht niet [~~Sarah een cadeautje geven~~].
was.allowed not Sarah a present give
'Jeroen wanted to give Sarah a present, but he wasn't allowed to.'

b. Karel moet studeren, maar **hij** kan niet [~~studeren~~].
Karel must study but he can not study
'Karel has to study, but he can't.'

The verb *geven* 'geven' is ditransitive and the verb *studeren* 'study' is unergative, which means their subjects are base-generated in the specifier position of vP. As can be seen in the simplified tree structure in (74), the subject A-moves from its base position through the embedded [Spec,TP] to its surface position.

[53] This fact provides evidence against an analysis which assumes that the modal does not have a complement at all in MCE, as was proposed by Napoli (1985). She claims that similar sentences in Italian and sentences with Null Complement Anaphora involve intransitive variants of, for instance, modal verbs such as *volere* 'want'. The fact that modals are raising verbs and that the subject of the sentence must originate in a position below the modal provides strong evidence against this position.

(74)



In the previous section evidence was provided for the claim that MCE elides more than vP: it also includes the voice and aspectual auxiliaries. In other words, the position where the subject is base-generated is included in the ellipsis site. Consequently, the subject must be able to extract out of it.

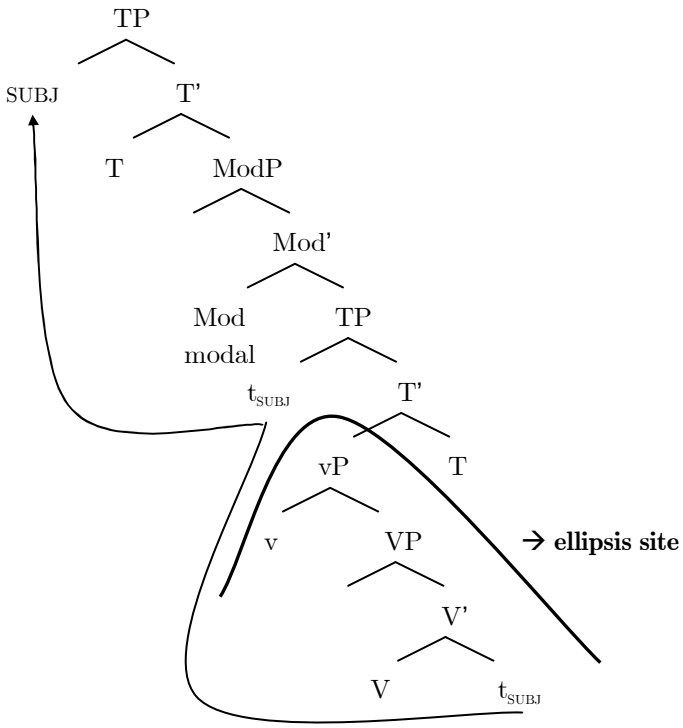
This is even clearer in the next examples. The infinitival clauses in the sentences in (75) contain a passive verb (cf. (75)a) and an unaccusative one (cf. (75)b).

(75) a. Die broek MOET nog niet gewassen worden, maar **hij**
those pants must still not washed become but he
MAG al wel [~~t_{hij} gewassen worden~~].
may already PRT washed become
'Those pants don't have to be washed yet, but they can be.'

b. Erik is al langsgekomen, maar **Jenneke** moet nog
Erik is already by.passed but Jenneke must still
[~~$t_{Jenneke}$ langskomen~~].
by.pass
'Erik has already passed by, but Jenneke still has to.'

These verbs do not have a subject that is base-generated in [Spec,vP], but rather one that is merged in the verb's complement position. Still, when MCE applies, the resulting sentences have a subject. In other words, the subject must have moved from the embedded complement position to the surface subject position. Since MCE elides the VP (and in fact more than that), this movement involves extraction out of the ellipsis site. Consequently, the ellipsis site has to contain enough structure to host the subject's trace as in the simplified structure in (76).

(76)



Moreover, MCE allows extraction of *wh*-subjects, as well. Examples of *wh*-subjects having raised out of the ellipsis site are given in (77).

(77) a. Iemand van zijn vrienden kon niet komen naar het
Someone of his friends could not come to the
feestje, maar hij wist niet meer **WIE** er nu ook
party but he knew not more who there now also
weer niet kon [~~t$_{wie}$ komen naar het feestje~~].
again not could come to the party
'One of his friends couldn't come to the party, but he didn't remember WHO couldn't.'

b. Deze rok mag WEL gewassen worden, maar ik weet niet
this skirt may AFF washed become but I know not
welke nu ook weer NIET mag [~~t_{welke} gewassen worden~~].
which now also again not may washed become
'This skirt can be washed, but I don't know which one can't be again.'

c. Ik weet wie er MOET komen, maar ik ben vergeten
I know who there must come but I am forgotten
wie er weer niet MAG [~~t_{wie} komen~~].
who there again not may come
'I know who SHOULD come, but I've forgotten who isn't ALLOWED to.'

Summing up, I conclude that the MCE ellipsis site allows A-extraction of a subject. Consequently, the ellipsis site has to contain syntactic structure that is deleted. Otherwise, the moved subject would not have a base position to move out from. Hence, subject extraction points towards a deletion account for MCE.

2.2.3.2 Object extraction

Not all extraction facts lead to this conclusion, however. When we include A'-movement of an object out of the ellipsis site, the picture becomes more complex. The sentence in (78)a, which involves extraction of a *wh*-object out of the MCE ellipsis site, is unacceptable and the grammatical sentence without ellipsis in (78)b shows that the illicitness must result from the ellipsis operation itself.[54]

[54] Schuyler (2002) points out that not all A'-extractions out of an English VP ellipsis site are equally grammatical, even though English VPE does allow extraction of both subjects and objects, as is illustrated in (i).

(i) a. Jason was not arrested, but he should be [~~t_{Jason} arrested~~].
b. I don't know who Kate should invite, I do know who she shouldn't [~~t_{who} invite~~].

The condition on A'-extraction as stated by Schuyler (2002:18) is the one in (ii). She also notes that extraction out of root questions with VPE is ungrammatical, as in (iii), and examples with contrasted auxiliaries are slightly better than the ones with contrasted subjects (see Schuyler 2002 for more details).

(i) *Contrast-locality condition for VPE extraction* (Schuyler 2002:18)
For A' extraction out of the site of VPE to be licensed, there must be a contrastively focused expression in the C-command domain of the extracted phrase.

(78) a. ?* Ik weet niet wie Kaat WOU uitnodigen, maar ik
I know not who Kaat wanted invite but I
weet wel **wie** ze MOEST [~~t$_{wie}$ uitnodigen~~].
know AFF who she must.PST invite
'I don't know who Kaat WANTED to invite, but I do know who she HAD to.'

b. Ik weet niet wie Kaat WOU uitnodigen, maar ik
I know not who Kaat wanted invite but I
weet wel **wie** ze MOEST uitnodigen.
know AFF who she must.PST invite
'I don't know who Kaat WANTED to invite, but I do know who she HAD to.'

In short, MCE does not seem to allow objects to extract out of the ellipsis site, in contrast with what was shown earlier for subjects. Subjects, even derived subjects, can move out to the surface subject position and survive the ellipsis. This disrupts the clear pattern that is expected when using the extraction diagnostic to decide between a proform or a deletion account. In MCE the ban on object extraction suggests that there might be a proform involved, whereas subject extraction points towards a deletion account.

The object extraction data deserve a bit more attention. There are several kinds of objects – direct, indirect, locative, DPs, PPs and so on – and several kinds of object extraction – *wh*-extraction, topicalization, object scrambling – and the judgments seem to vary. I first focus on object scrambling, which turns out to be fairly stable when it comes to MCE: object scrambling is always disallowed out of the ellipsis site and results in the most pronounced ungrammaticality judgments. Next, I go into types of A'-movement out of an MCE ellipsis site that lead to more varying judgments, namely *wh*-extraction of an object and topicalization. These both involve movement of the object to a higher position, viz. to a specifier position in the CP layer. The judgments here are somewhat gradient, but the overall pattern is the same: object extraction out of the MCE ellipsis site is much worse than subject extraction. First, however, the more clear-cut case of object scrambling is discussed.

(ii) * I'm going to make a candlestick. What are you? (Hardt 1999)

In the Dutch MCE examples with object extraction, however, I have made sure that Schuyler's contrast-locality condition is met and that they do not involve root questions. I also contrasted the auxiliaries whenever I could. All the examples have grammatical English translations.

2.2.3.2.1 Object scrambling

Dutch displays a form of word reordering called object scrambling. Pronominal objects have to move out of the verb phrase across negation. The same holds for definite full DP objects, although scrambling is preferred rather than obligatory in this case.[55] This is illustrated in the following examples in (79) where the direct objects *je* 'you', *het* 'it' and *dat boek* 'that boek' and the indirect object *hem* 'him' cannot follow sentential negation and certain adverbs.

(79) a. Ik kan <je> niet <*je> helpen.
I can you not you help
'I can't help you.'

b. Je moet <het> <hem> niet <*het> <*hem> geven.
you must it him not it him give
'You don't have to give it to him.'

c. Je moet <hem> <dat boek> al <*hem> <??dat boek> geven.
you must him that book already him that book give
'You have to give him that book already.'

Indefinite objects on the other hand, have to stay lower than negation and adverbs. In this case the sentential negation *niet* 'not' merges with the indefinite article *een* 'a(n)' to form *geen* 'no', as in (80)a. The sentence in (80)c shows that the DP *een boek* can also precede negation or adverbials, but in that case it is interpreted as a specific indefinite.

(80) a. Roos heeft geen boek gelezen.
Roos has no book read

[55] Definite DP objects also undergo scrambling but not always obligatorily. The sentence in (i), for instance, is grammatical:

(i) Je moet hem niet dat boek geven.
you must him not that book give
'You don't have to give him that book.'

The most unmarked reading of this sentence, however, is one in which the unscrambled object is contrasted with something else in the context. For instance, by adding *maar die cd* 'but that cd' to (i). In this case the negation can well be constituent negation on the DP instead of sentential negation and the DP might still have scrambled.

Note that for some speakers (79)c is also fine with *dat boek* 'that book' following *al* 'already', given the right intonation and in an appropriate context.

'Roos didn't read a(ny) book.'

b. Roos heeft al een boek gelezen.
Roos has already a book read
'Roos already read a book.'

c. Roos heeft een boek {niet/ al} gelezen.
Roos has a book not already read
'Roos (didn't) read a certain book (already).'

When the infinitival clause is elided, however, the object cannot scramble across negation but is obligatorily elided as well. The same sentences without ellipsis do display obligatory scrambling.

(81) a. Ik WIL je wel helpen, maar ik KAN (*je) niet.
I want you PRT help but I can you not

b. Ik WIL je wel helpen, maar ik KAN je niet helpen.
I want you PRT help but I can you not help
'I WANT to help you, but I CAN'T.'

c. Je MAG me komen bezoeken, maar je MOET
you are.allowed me come visit but you must
(*me) niet.
me not

d. Je MAG me komen bezoeken, maar je MOET
you are.allowed me come visit but you must
me niet komen bezoeken.
me not come visit
'You're ALLOWED to come visit me, but you don't HAVE to.'

In these examples the definite object *je* 'you' is a weak form of the pronoun. Although object scrambling should apply independently of ellipsis and has nothing to do with contrastive focus, one might argue that scrambling in an elliptical sentence is only possible when the object bears stress. What renders this explanation implausible is that this restriction would solely apply to object scrambling, not to subject raising, since even unstressed subjects can survive the ellipsis. This is shown clearly in (82) where the reduced form of *ik* 'I' is used.

(82) 'k Wil wel komen, maar 'k mag niet.
I want PRT come but I am.allowed not
'I want to come, but I'm not allowed to.'

Furthermore, the examples in (83)a,c show that even contrasted objects cannot scramble across the negative marker, while they do in the non-elliptical counterparts in (83)b,d.

(83) a. * Ik kan MAX wel helpen, maar ik kan ADAM niet.
I can Max PRT help but I can Adam not

b. Ik kan MAX wel helpen, maar ik kan ADAM niet
I can Max PRT help but I can Adam not
helpen.
help
'I can help MAX, but I can't help ADAM.'

c. * Je mag JOHAN de FACTUUR niet geven, want hij kan
you may Johan the bill not give because he can
MIJ het REKENINGNUMMER niet.
me the account.number not

d. Je mag JOHAN de FACTUUR niet geven, want hij kan
you may Johan the bill not give because he can
MIJ het REKENINGNUMMER niet geven.
me the account.number not give
'You shouldn't give Johan the bill, because he can't give me the account number.'

Summing up, object scrambling in an MCE sentence invariably leads to severe ungrammaticality, whether the scrambled phrase bears contrastive stress or not.

2.2.3.2.2 *Wh*-object extraction

Next, I consider the less clear-cut cases. I first discuss *wh*-extraction out of the MCE ellipsis site and then turn to topicalization. Recall that the sentence in (78), repeated here as (84), is ungrammatical as a result of the *wh*-object extraction.

(84) ?*Ik weet niet wie Kaat WOU uitnodigen, maar ik
I know not who Kaat wanted invite but I
weet wel **wie** ze MOEST [~~t$_{wie}$ uitnodigen~~].
know AFF who she must.PST invite
'I don't know who Kaat WANTED to invite, but I do know who she HAD to.'

This example involves *wh*-extraction of a DP direct object. A closer look at sentences with DP indirect objects and PP objects reveals that the pattern with *wh*-object extraction is less clear than with object scrambling. The example in (85)a again exhibits extraction of a DP direct object, but is even worse than (84). In (85)b,c the sentences involves extraction of an indirect object, while (85)d has extraction of a prepositional object.[56]

(85) a. * MINA heeft KEVIN kunnen kussen, maar ik weet niet **wie**
Mina has Kevin can kiss but I know not who
BEN {heeft gekund / kon}.
Ben has can.PRTC could
'MINA could kiss KEVIN, but I don't know who BEN could.'

b. * Ik weet niet aan wie Thomas die bloem WOU
I know not to who Thomas that flower wanted
geven, maar ik weet wel **aan wie** hij MOEST.
give but I know AFF to who he must.PAST
'I don't know who Thomas WANTED to give that flower to, but I do know who he HAD to.'

---

[56] Note that the non-elliptical counterpart of the example with the DP indirect object in (85)c is degraded as well, unlike the counterparts of the other sentences. A'-movement of a DP indirect object seems to be more difficult in Dutch in general. This has also been observed for English, although not everyone agrees on the judgments.

(i) a. ?? Ik weet niet wie Thomas die bloem WOU geven,
I know not who Thomas that flower wanted give
maar ik weet wel wie hij ze MOEST geven.
but I know AFF who he her must.PST give
'I don't know who Thomas WANTED to give that flower, but I do know who he HAD to give it.'

b. MINA heeft KEVIN kunnen kussen, maar ik weet niet wie
Mina has Kevin can kiss but I know not who
BEN { heeft kunnen/ kon} kussen.
Ben has can could kiss
'MINA could kiss KEVIN, but I don't know who BEN could kiss.'

c. Ik weet niet aan wie Thomas die bloem WOU geven,
I know not to who Thomas that flower wanted give
maar ik weet wel aan wie hij ze MOEST geven.
but I know AFF to who he her must.PST give
'I don't know to who Thomas WANTED to give that flower, but I do know to who he HAD to give it.'

d. Ik weet niet met wie Anastasia MOEST praten,
I know not with who Anastasia must.PST talk
maar ik weet wel met wie ze niet MOCHT praten.
but I know AFF with who she not was.allowed talk
'I don't know who Anastasia had to talk to, but I do know to whom she wasn't allowed.'

c. * Ik weet niet wie Thomas die bloem WOU geven,
I know not who Thomas that flower wanted give
maar ik weet wel **wie** hij MOEST.
but I know AFF who he must.PAST
'I don't know who Thomas WANTED to give that flower to, but I do know who he HAD to.'

d. ?* Ik weet niet met wie Anastasia MOEST praten,
I know not with who Anastasia must.PAST talk
maar ik weet wel **met** **wie** ze niet MOCHT.
but I know AFF with who she not was.allowed
'I don't know who Anastasia had to talk to, but I do know who she wasn't allowed to.'

Dagnac (2007) explores an elliptical construction in French that is similar to Dutch MCE and notes some variability when it comes to object extraction there as well. She claims that object extraction is allowed in French, but under strict conditions. First, there has to be a contrast between an element in the ellipsis clause and one in the antecedent. Moreover, she argues that, additionally and more importantly, the antecedent has to display parallel extraction, i.e. the correlate in the antecedent has to undergo (*wh*-)movement as well (see also Kehler 2002).[57] However, I show that object extraction is ungrammatical in Dutch MCE even when the parallelism requirement and the contrast condition are observed. Consider the French data adapted from Dagnac (2007) in (86).

(86) a. Je sais **quels livres** Mina PEUT lire et **quels livres** elle
I know which books Mina can read and which books she
ne peut PAS. (French)
NE can not
'I know which books Mina CAN read and which books she CAN'T.'

b. Je sais **quels livres** ADDIE a pu lire et **quels**
I know which books Addie has can.PRTC read and which
livres BEN n' a pas pu.
books Ben NE has not can.PRTC
'I know which books ADDIE could read and which books BEN couldn't.'

[57] The latter observation was also explored by Schuyler (2002), who concluded that there is indeed a parallelism effect, but that the contrast condition is much stronger.

c. * MINA a pu embrasser KEVIN, mais je ne sais pas
Mina has can.PRTC kiss Kevin but I NE know not
qui BEN a pu.
who Ben has can.PRTC
'MINA could kiss KEVIN, but I don't know who BEN could.'

In (86)a,b the *wh*-object *quels livres* 'which books' undergoes *wh*-movement out of the VP in both the antecedent and the elided clause. In addition, either the auxiliaries or the subjects are contrasted. The sentence in (86)c, on the other hand, has no extraction in the antecedent, and although the subjects are contrasted the sentence is ungrammatical.

Although the Dutch MCE data improve under these conditions as well, parallel extraction and contrast do not render *wh*-object extraction grammatical. It is clear that non-parallelism indeed rules out the example in (85)a, repeated here as (87)a, parallel to French. However, although (78), with parallel extraction is slightly better, it is still degraded. Parallel extraction in (85)b, repeated as (87)c, does not improve the sentence at all.

(87) a. * MINA heeft KEVIN kunnen kussen, maar ik weet niet **wie**
Mina has Kevin can kiss but I know not who
BEN {heeft gekund/ kon}. (Dutch)
Ben has can.PRTC could
'MINA could kiss KEVIN, but I don't know who BEN could.'

b. ?* Ik weet niet wie Kaat MOEST uitnodigen, maar ik weet
I know not who Kaat had.to invite but I know
wie ze niet MOCHT.
who she not was.allowed
'I don't know who Kaat SHOULD invite, but I know who she SHOULDN'T.'

c. * Ik weet niet aan wie Thomas die bloem WOU
I know not to who Thomas that flower wanted
geven, maar ik weet wel **aan** **wie** hij MOEST.
give but I know AFF to who he must.PAST
'I don't know to whom Thomas WANTED to give that flower, but I do know to whom he HAD to.'

What does improve *wh*-object extraction somewhat is having the same modal verb in both antecedent and ellipsis clause, as in (88), although even then the sentences are not fully grammatical.

(88) a. ?* Ik weet niet welke boeken Mina WEL **wil** lezen en
I know not which books Mina AFF wants read and
welke ze NIET **wil**.
which she not wants
'I know which books Mina wants to read and which she doesn't want to.'

b. ?* Ik weet niet welke boeken Mina WEL **kan** lezen en
I know not which books Mina AFF can read and
welke ze NIET **kan**.
which she not can
'I know which books Mina CAN read and which she CAN'T.'

c. ?* Ik weet niet welke boeken Mina WEL **mag** lezen en
I know not which books Mina AFF may read and
welke ze NIET **mag**.
which she not may
'I know which books Mina IS allowed to read and which she ISN'T.'

Without parallel extraction having the same modal in the antecedent and the ellipsis clause still results in complete ungrammaticality, as in (89).

(89) a. * Ik weet dat ze twee gasten niet **wou** uitnodigen,
I know that she two guests not wanted invite
maar ik weet niet **wie** ze WEL **wou**.
but I know not who she AFF wanted
'I know there were two guests she didn't want to invite, but I don't know who she did want to.'

b. * Ik weet dat ze twee gasten niet **kon** uitnodigen,
I know that she two guests not could invite
maar ik weet niet **wie** ze WEL **kon**.
but I know not who she AFF could
'I know there were two guests she couldn't invite, but I don't know who she could.'

c. * Ik weet dat ze twee gasten niet **mocht**
I know that she two guests not was.allowed.to
uitnodigen, maar ik weet niet **wie** ze WEL **mocht**
invite but I know not who she AFF was.allowed.
'I know there were two guests she wasn't allowed to invite, but I don't know who she was.

Summing up, *wh*-object extraction is not allowed in Dutch MCE. Admittedly, the judgments vary from sentence to sentence and are slightly better with direct objects than with indirect objects. Furthermore, parallel extraction and having the same modal verb in the antecedent improves the extraction data, but even in these cases *wh*-object extraction is strongly degraded, unlike in French. I do not have an explanation for why the French construction and Dutch MCE differ in this way, however, and defer this issue to further research.

The ungrammaticality of object extraction is even clearer when contrasted with subject extraction. As the examples in (90) show, subject extraction is perfectly fine without parallel extraction (cf. (90)a) and the antecedent and the ellipsis clause do not have to contain the same modal (cf. (90)b).

(90) a. Iemand van zijn vrienden kon niet komen naar het
Someone of his friends could not come to the
feestje vanavond, maar hij was vergeten **WIE** er nu
party tonight but he was forgotten who there now
ook weer niet kon [~~komen naar het feestje vanavond~~].
also again not could come to the party tonight
'One of his friends couldn't come to the party tonight, but he had forgotten WHO couldn't.'

b. Gert **wou** wel koken gisteren, maar hij **mocht**
Gert wanted PRT cook yesterday but he was.allowed
niet.
not
'Gert wanted to cook yesterday, but he wasn't allowed to.'

2.2.3.2.3 Topicalization

A third kind of object extraction out of the ellipsis site, next to scrambling and *wh*-movement, is topicalization. Dagnac (2007) argues that in French MCE topicalization is possible. In the examples in (91)a,b the direct object is contrasted with the object in the antecedent and has undergone movement to the left periphery of the clause; and in (91)c it is the PP indirect object that is topicalized.[58]

(91) a. Je peux faire les courses, mais **la vaisselle**, je ne
I can do the shopping but the dishes I NE

[58] Because ellipsis requires contrast, we are dealing with contrastive topics here.

peux pas. (French)
can not
'I can do the shopping, but the dishes, I can't.'

b. A la rigeur, je peux lire le Figaro, mais **Minute**, je
with the effort I can read the Figaro but Minute I
ne peux pas.
NE can not
'With effort, I can read the Figaro, but Minute, I can't.'

c. Elle peut dire la vérité à Jules, mais **à Jim**, elle
she can tell the truth to Jules but to Jim she
ne peut pas.
NE can not
'She can tell the truth to Jules, but to Jim, she can't.'

Their Dutch counterparts on the other hand, result in ungrammaticality: Dutch MCE does not seem to allow topicalization of an object out of the ellipsis site:[59]

(92) a. * Ik kan de boodschappen doen, maar **de afwas** kan ik niet.
I can the shopping do but the dishes can I not
'I can do the shopping, but the dishes, I can't.'

b. * Met wat moeite wil ik de Figaro lezen, maar **de**
with some effort want I the Figaro read but the
Minute wil ik niet.
Minute want I not
'With effort, I can read the Figaro, but Minute, I can't.'

c. * Ze moet de waarheid vertellen aan Barbara, maar **aan**
she must the truth tell to Barbara but to
Els moet ze niet.
Els must she not
'She can tell the truth to Barbara, but to Els, she can't.'

In some cases, however, topicalization is more acceptable. The sentences in (93)a,b, with two different modals, are better than the data in (92), resulting in the opposite pattern from what was observed for *wh*-objects. As with *wh*-extraction, parallel topicalization in the antecedent also leads to slightly better results (cf. (93)c).

[59] Because the French sentences in (91)b,c display the dynamic modal *pouvoir* 'can', which does not allow MCE in Dutch, I use a different modal than in the French examples. In (92)a on the other hand, *kunnen* can get a deontic interpretation.

(93) a. ?? Je MAG die boeken lezen, maar deze boeken
you are.allowed those books read but these books
MOET je.
must you
'You're allowed to read those books, but these books, you have to.'

b. ?? Die boeken MAG je lezen, maar deze boeken
those books are.allowed you read but these books
MOET je.
must you
'Those books you're allowed to read, but these books, you have to.'

c. ?* De boodschappen kan ik doen, maar de afwas kan ik niet.
the shopping can I do but the dishes can I not
'The shopping I can do, but the dishes, I can't.'

The judgments are not univocal, however: the examples in (94) are all ruled out, even though the modal in the antecedent differs from the one in the ellipsis clause, and parallel topicalization does not change anything.

(94) a. * De boodschappen MOCHT hij doen, maar de afwas
the shopping was.allowed he do but the dishes
MOEST hij.
must.PAST he

b. * Hij MOCHT de boodschappen doen, maar de afwas
he was.allowed the shopping do but the dishes
MOEST hij.
must.PAST he

c. * Je vlees moet je opeten, maar je groenten hoef
your meat must you finish but your vegetables must
je niet.
you not

d. * Je vlees hoef je niet op te eten, maar je
your meat must you not up to eat but your
groenten moet je wel.
vegetables must you PRT

In short, although in certain cases topicalization sentences improve for some reason, overall MCE does not allow topicalization of an object out of the ellipsis site.

2.2.3.3 Adjunct extraction

The previous sections have been concerned with extraction of arguments out of the MCE ellipsis site. Dutch MCE allows subjects, even derived subjects, to move out of the ellipsis site and survive deletion, while this is not allowed with objects. The present section looks at extraction of adjuncts.

In the discussion of whether the modal complement contains tense or not, I argued that the infinitival complement is a TP because it can have temporal modification that differs from the matrix clause's. This is shown in the sentences in (95).

(95) a. **Gisteren** moest ik nog **volgende week** optreden
yesterday must.PAST I still next week perform
en nu zijn de plannen alweer een week opgeschoven.
and now are the plans again a week delayed
'Yesterday I had to perform next week still, and now the plans have been delayed with another week.'

b. **Vorige vrijdag** kon hij **de dag erna** komen
last Friday could he the day there.after come
schilderen, maar er is weer iets tussengekomen.
paint but there is again something intervened
'Last Friday he could come paint the day after, but again something intervened.'

c. **Gisteren** wou hij **vandaag** nog naar zee vertrekken,
yesterday wanted he today still to sea leave
maar blijkbaar is hij weer van gedacht veranderd.
but apparently is he again of thought changed
'Yesterday he wanted to leave for the seaside today, but apparently he changed his mind again.'

Dutch MCE allows this embedded temporal specification to survive the ellipsis, as was demonstrated in section 2.2.2:

(96) a. Gisteren moest ik nog volgende week optreden
yesterday must.PAST I still next week perform

en **nu** moet ik pas **de week erna** [~~optreden~~].
and now must I only the week there.after perform
'Yesterday I had to perform next week still, and now I only have to the week after that.'

b. Vorige vrijdag kon hij de dag erna komen
last Friday could he the day there.after come
schilderen, maar **zaterdagochtend** kon hij plots pas
paint but Saturday.morning could he suddenly only
deze week.
this week
'Last Friday he could come paint the day after, but on Saturday morning he suddenly only could this week.'

c. Gisteren wou hij volgende week pas naar de zee
yesterday wanted he next week only to the sea
vertrekken, maar **nu** wil hij blijkbaar **vandaag**
leave but now wants he apparently today
al.
already
'Yesterday he only wanted to leave for the seaside next week, but now he wants to today already, apparently.'

As was also shown in section 2.2.2, low adjuncts, i.e. adjuncts which modify the verb phrase (see Jackendoff 1972, Zubizarreta 1987, Sportiche 1988 and Cinque 1999, among others), cannot escape the ellipsis in MCE, not even when contrasted. The sentences in (97) illustrate this for instrumentals, place adjuncts, manner adjuncts and purpose clauses.[60]

[60] Compare (97)a, however, to the grammatical sentence with a manner of transportation adjunct in (i).

(i) Vroeger moest Anne met de bus naar school gaan, maar nu
earlier must.PAST Anne with the bus to school go but now
ze twaalf is, mag ze met de fiets.
she twelve is is.allowed she with the bike
'Anne used to have to go to school by bus, but now that she's twelve, she's allowed to go by bike.'

Manner adjuncts expressing ways of transport are exceptional in that they are usually accompanied by *gaan* 'go', as in *met de fiets/auto/trein/... gaan* 'to go by bike/car/train/...'. Deontic modals sometimes allow this *gaan* 'go' to be left out in their complement, as is the case when the complement contains a directional (see also van Riemsdijk 2002). This is shown in (ii). The grammaticality of (i) could thus be explained by claiming that this example does not involve MCE, but that the infinitive gaan 'go' is left unpronounced for independent reasons.

(97) a. ?* Als kind mocht ik met een lepel eten, maar nu
as kid was.allowed I with a spoon eat but now
moet ik **met mes en vork**.
must I with knife and fork
'As a kid I could eat with a spoon, but now I have to eat with knife and fork.'

b. ?* Normaal moet de hond buiten slapen, maar wanneer het
normally must the dog outside sleep but when it
erg hard regent, mag hij **in de keuken** [~~slapen~~].
very hard rains is.allowed he in the kitchen sleep

c. * Bij mooi weer kunnen we in de tuin eten, maar als
by nice weather can we in the garden eat but if
het regent, moeten we wel **binnen**.
it rains must we PRT inside

d. * Je hoeft niet per se snel te schrijven; je moet vooral
you need not per se fast to write you must most.of.all
mooi.
beautifully

e. ?* Reindert eet echt traag. Hij mag wel wat **sneller**.
Reindert eats really slowly he is.allowed PRT a.bit faster

f. * Vroeger moest hij gaan werken om eten te kunnen
earlier must.PAST he go work for food to can
kopen, maar sinds hij de loterij heeft gewonnen, moet
buy but since he the lottery has won must
hij **om zich niet te vervelen**.
he for SE not to bore

(ii) A: Je moet naar de tandarts (gaan) vandaag.
you must to the dentist go today
B: Mag ik met de fiets (gaan)?
am.allowed I with the bike go
'You have to go to the dentist today.' – 'Can I go by bike?'

However, this *gaan* 'go' is not allowed to be dropped in cases that do not allow MCE, such as aspectual auxiliaries, cf. (iii). I defer this issue to further research.

(iii) Normaal gaat Anne met de bus naar school, maar vandaag zal
normally goes Anne with the bus to school but today will
ze met de fiets *(gaan).
she with the bike go
'Normally Anne goes to school by bus, but today she'll go by bike.'

An alternative analysis for such sentences with manner of transport PPs is given in Barbiers (1995, 1996, 2005), who argues the modal selects a PP argument. In other words, they do not involve ellipsis at all under his account.

This contrast between high and low adjuncts shows that the high adverbs are adjoined to a projection outside the ellipsis site and that adjuncts cannot be extracted. If the high adjuncts had undergone extraction, we would expect this possibility to be open for lower adjuncts as well, contrary to fact.

Summing up, only high adjuncts, which I assume to attach to TP or at least as high as TP, can escape ellipsis while low adjuncts, such as manner adverbs, instrumentals, purpose adjuncts and place adjuncts, are obligatorily included in the ellipsis.

2.2.3.4 Summary

The present section has discussed extraction out of the MCE ellipsis site. It turns out that extraction is possible, but that it is restricted. Subjects survive MCE, whether they are derived or not, while objects cannot be extracted out of the ellipsis site. Several kinds of object extraction were explored: *wh*-extraction, object scrambling and topicalization. Although some cases are clearer than others and there are conditions that mildly improve the judgments, overall object extraction out of MCE is infelicitous. The same holds for adjuncts: only adjuncts that are base-generated outside the ellipsis site occur in an MCE clause; lower adjuncts are elided.

2.2.4 There-*sentences and MCE*

The extraction data discussed in the previous section provide a puzzle for the test that is put forward in many works on ellipsis in order to determine whether an elliptical construction involves deletion or a proform (Ross 1969b; Merchant 2001; Johnson 2001, Depiante 2000, among many others). The fact that subjects can be extracted out of the ellipsis site argues for a deletion account for MCE. One of the other arguments in favor of a deletion account brought forward for English VP ellipsis (VPE) is that it is allowed with *there*-sentences, as in (98).

(98) a. Francis says there should be balloons in the garden, but I think there shouldn't [~~be balloons in the garden~~].
b. Kelvin thought there would be arriving three movie stars that same morning, but there wouldn't [~~be arriving three movie stars that same morning~~].

Since *there* is only licensed by the presence of an associate lower in the structure, the VP ellipsis site must contain syntactic structure. In other words, it

cannot be a proform. It is worth testing whether MCE is allowed with *there*-sentences. The data in (99) reveal that *there*-sentences are indeed possible in Dutch MCE, with both unaccusative and unergative embedded verbs, but only if the associate of *there* has survived the ellipsis as well.

(99) a. A: Gaat er iemand naar het feestje morgen?
goes there someone to the party tomorrow
B: Er moet toch IEMAND [~~naar het feestje gaan~~].
there must still someone to the party go
'Is anyone going to the party tomorrow?' – 'Well, SOMEONE has to.'

b. Ik ruim niet meer op, hoor. Er mag wel eens
I clean not more up hear there may PRT once
iemand anders [~~opruimen~~] deze keer.
someone else up.clean this time
'I'm not cleaning up anymore. Someone else can this time.'

c. Er mochten wel eens vriendinnetjes blijven slapen,
there were.allowed PRT once girlfriends stay sleep
maar er mochten geen vriendjes [~~blijven slapen~~].
but there were.allowed no boyfriends stay sleep
'Girlfriends were allowed to sleep over, but boyfriends weren't.'

Hence unlike in English, MCE sentences with a *there*-expletive subject do not provide evidence for or against the claim that the ellipsis site contains deleted structure. The fact that the associate cannot be elided, however, was important in section 2.2.2 above where the size of the ellipsis site was determined.

2.2.5 MCE blocks the IPP effect

When a modal occurs in the perfective in non-elliptical sentences, the infinitival verb in its complement triggers the Infinitivus Pro Participio effect (IPP effect) on the modal. The sentences in (100) illustrate this: the modal occurs as an infinitive, not as a past participle.

(100) Ralf heeft {***gemoeten** / **moeten**} werken.
Ralf has must.PRTC must.IPP work
'Ralf has had to work.'

Turning to MCE sentences, when the complement is elided, there is no IPP effect: the modal appears as a past participle and a modal infinitive even makes the sentence ungrammatical, as is illustrated in (101)b. In other words, MCE blocks the IPP effect.

(101) a. Ralf wou niet werken, maar hij heeft **gemoeten**.
Ralf wanted not work but he has must.PRTC
'Klaas didnt' want to drop by, but he had to.'
b. * Ralf wou niet werken, maar hij heeft **moeten**.
Ralf wanted not work but he has must.IPP

2.2.6 Restrictions on the position of the antecedent

Elliptical constructions differ in the restrictions they impose on the antecedent. This section presents some restrictions involving utterance boundaries, embedding and backward anaphora, which are operative in some elliptical constructions, and shows that these restrictions do not apply to MCE. First, I argue that the antecedent or the MCE ellipsis site – or both – can be embedded in a different clause. Secondly, the possibility of MCE to occur across utterance boundaries is illustrated. Lastly, I show that MCE allows backward anaphora.

2.2.6.1 Embedded antecedent, embedded ellipsis site

One point of variation with elliptical constructions is whether they allow the antecedent or the ellipsis site – or both – to be embedded; for instance, whether the antecedent can appear in a matrix clause, while the ellipsis site is in a subordinate clause or the other way around (see Lobeck 1995). English VPE, for example, allows for such embedding (Lobeck 1995), while gapping and stripping do not (see Neijt 1979, Lobeck 1995 and Johnson 2006 on gapping and Lobeck 1995, Merchant 2003 on stripping). Examples of VPE are given in (102).[61] In (102)a the antecedent is in a matrix clause, while the VP ellipsis site is part of the finite subclause. The reverse is true in (102)b. In (102)c both antecedent and ellipsis site are embedded in a different clause.

(102) a. [I want to come]$_1$, but [I suspect [that I won't be able to ~~come~~]$_2$]$_1$.
b. [I think [I won't be able to come]$_2$]$_1$, but [I do want to ~~come~~]$_1$.

[61] Level of embedding is indicated by subscripts.

c. [Mina says [she won't come]$_2$]$_1$, but [honestly, I think [she should ~~come~~]$_2$]$_1$.

This contrasts with the (Dutch and English) gapping examples in (103) and (104).[62] A grammatical example of gapping, with both antecedent and elided constituent as matrix clauses in a coordiation, is given in (103). In (104)a,b either the antecedent or the ellipsis site is embedded, and the sentences are ruled out.[63] The sentence in (104)c, with both the antecedent and the ellipsis site embedded, is equally ungrammatical (see also Aelbrecht 2007).

(103) [Antonio zong een rockballade]$_1$ en [Tom een popliedje]$_1$.
Antonio sang a rock.ballad and Tom a pop.song
'Antonio was singing a rock ballad and Tom a pop song.'

(104) a. * [Antonio zong een rockballade]$_1$ en [ik denk [dat Tom een popliedje]$_2$]$_1$.
Antonio sang a rock.ballad and I think that Tom a pop.song
* 'Antonio was singing a rock ballad and I think that Tom a pop song.'

b. * [Ik denk [dat Antonio een rockballade zingt]$_2$]$_1$ en [Tom een popliedje]$_1$.[64]
I think that Antonio a rock.ballad sings and Tom a pop.song
* 'I think that Antonio is singing a rock ballad and Tom a pop song.'
MEANING: I think that Antonio is singing a rock ballad, and Tom is singing a pop song.

c. * [Ik denk [dat Antonio een rockballade gezongen heeft]$_2$]$_1$, en [Joris denkt [dat Tom een popliedje]$_2$]$_1$.
I think that Antonio a rock.ballad sung has and Joris thinks that Tom a pop.song

[62] The same restrictions hold for stripping, but I do not illustrate this phenomenon here.
[63] See Temmerman (2009), however, for a discussion of embedded fragments.
[64] The reading in which both the antecedent clause and the ellipsis clause are embedded under *ik denk* 'I think' is grammatical:

(i) [Ik denk [dat Antonio een rockballade zingt] en [Tom een popliedje]].
I think that Antonio a rock.ballad sings and Tom a pop.song
'I think that Antonio is singing a rock ballad and Tom a pop song.'

* 'I think Antonio sang a rock ballad and Joris thinks that Tom a pop song.'

Turning to MCE, this phenomenon behaves like English VPE with respect to restrictions on the antecedent. An MCE ellipsis site can take an embedded antecedent or be itself embedded in a clause different from the one with the antecedent. In (105)a the antecedent is the infinitival complement of a modal in the matrix clause, while the elided complement is part of the embedded complement clause of *vermoeden* 'suspect'. The sentence in (105)b exemplifies the reverse situation, while in (105)c both antecedent and elided phrase are embedded, but under a different verb.

(105) a. [Ik wil wel komen]$_1$, maar [ik vermoed [dat ik niet zal
I want PRT come but I suspect that I not will
kunnen]$_2$]$_1$.
can
'I want to come, but I suspect that I won't be able to.'

b. [Ik denk [dat ik niet kan komen]$_2$]$_1$, maar [ik wil wel]$_1$.
I think that I not can come but I want PRT
'I think I won't be able to come, but I do want to.'

c. [Mina zegt [dat ze niet komt]$_2$]$_1$, maar [ik vind
Mina says that she not comes but I find
eigenlijk [dat ze moet]$_2$]$_1$.
in.fact that she must
'Mina says she won't come, but honestly, I think she should.'

A related restriction on gapping is that it requires coordination, i.e. it is disallowed when the antecedent clause and the ellipsis site are linked through subordination, as in (106)b. The sentence in (106)a shows that both MCE and VPE occur in subordination.

(106) a. Gert is enkel komen helpen omdat hij moest. (MCE)
Gert is only come help because he had.to
'Gert only came to help because he had to.' (VPE)

b. * Gert heeft de vis gekozen omdat Ralf de kalkoen.
Gert has the fish chozen because Ralf the turkey
* 'Gert chose the fish because Ralf the turkey.' (gapping)

2.2.6.2 MCE applies across utterance boundaries

Another point on which elliptical phenomena differ from each other with respect to the position of the antecedent is whether they can occur across utterance boundaries or not. MCE allows the antecedent to be in another utterance, even uttered by another speaker, just like English VP ellipsis, while this has been claimed to be ungrammatical in English gapping (Lobeck 1995, Williams 1977a, Hankamer and Sag 1976, Neijt 1979).[65]

(107) a. A: Kom je vanavond? – B: Ik moet wel! (MCE)
come you tonight I must prt
'Are you coming tonight?' – 'I have to!' (VPE)

b. A: John likes fish. – B: *Yes, and Mary meat.
(gapping; Lobeck 1995:25)

2.2.6.3 MCE allows backward anaphora

Finally, just like English VP ellipsis and unlike gapping, MCE allows backward anaphora. In other words, it allows the antecedent to follow the elided site as long as the ellipsis clause is embedded under the antecedent clause.[66]

(108) a. Omdat Ben niet kon, mocht ik zingen. (MCE)
because Ben not could was.allowed I sing
'Because Ben couldn't, I was allowed to sing.' (VPE)

b. * Omdat Jurgen een rockballade, zong Tom een popliedje.
because Jurgen a rock.ballad sang Tom a pop.song
* 'Because Jurgen a rock ballad, Tom was singing a pop song.'
(gapping)

Summing up, regarding the position of the antecedent MCE is not restricted, unlike gapping for instance. It allows either the antecedent or the ellipsis site –

[65] There are Dutch examples of gapping across utterances that are grammatical to my ear, however (Aelbrecht 2007).

(i) A: Bert eet graag kip. – B: Ja, maar Katrien vis.
Bert eats gladly chicken yes but Katrien fish
'Bert likes eating chicken.' – 'Yes, but Katrien fish.'

[66] The fact that gapping does not allow backward anaphora is expected, given that the ellipsis site cannot be embedded under the antecedent clause with the former following the latter either.

or both – to be embedded, it applies across utterances and also allows backward anaphora.

2.2.7 Form mismatches between antecedent and ellipsis site

Dutch MCE allows form mismatches between the antecedent and the ellipsis site. In other words, it does not require the elided material to be syntactically identical to the antecedent. As (109) illustrates, the elided infinitive can have a past participle as its antecedent, a progressive and even a finite verb.

(109) a. Ik dacht dat Jeroen zijn kamer nu toch wel al
I thought that Jeroen his room now PRT PRT already
opgeruimd zou hebben, maar hij wou niet [~~zijn~~
upcleaned would have but he wanted not his
~~kamer opruimen~~].
room up.clean
'I thought that Jeroen would have cleaned his room by now, but he didn't want to.'

b. Fien was **aan het schilderen**, maar Ilise mocht nog
Fien was on the painting but Ilise was.allowed still
niet [~~schilderen~~].
not paint
'Fien was painting, but Ilise wasn't allowed yet.'

c. Fre **wast** vandaag **af**, want ik kan niet [~~afwassen~~
Fre washes today off because I can not off.wash
~~vandaag~~].
today
'Fre is washing the dishes today, because I can't.'

Even voice mismatches are allowed in Dutch MCE, i.e. sentences where the antecedent clause is in the passive voice while the elided clause is active, as in (110).

(110) a. ? A: Dat cadeautje kan afgegeven worden door Yves.
that present can off.given become by Yves
B: Ralf mocht vandaag toch [~~dat cadeautje afgeven~~]?
Ralf may today PRT that present off.give
'That present can be handed over by Yves.' – 'I thought Ralf was allowed to do that today?'

b. ? Dit programma kan gebruikt worden door iedereen
this programme can used become by everyone
die wil [~~dit programma gebruiken~~].
that wants this program use
'This programma can be used by everyone who wants.'

The reverse pattern, an active antecedent and a passive ellipsis site, is not allowed, as is shown in (111).

(111) a. * Iemand moet de lamp$_i$ vervangen, maar ze$_i$ kan niet
someone must the bulb replace but she can not
[~~vervangen worden~~], want ze$_i$ zit vast.
replace become because she sits stuck
'Someone should replace the bulb, but it can't be because it's stuck.'

b. * Patrick wil de taart$_i$ al opeten, maar ze$_i$ mag
Patrick wants the cake already up.eat but she is.allowed
nog niet [~~opgegeten worden~~]; ze is voor het feestje
still not up.eaten become she is for the party
morgen.
tomorrow
'Patrick wants to eat the cake already, but it's not allowed to be yet, because it's for the party tomorrow.'

So far I have presented verb form mismatches and voice mismatches. A third kind of formal mismatch between the antecedent and the ellipsis site involves pronouns and a phenomenon called 'vehicle change' by Fiengo and May (1994). An R-expression, pronoun or anaphor in the antecedent would sometimes lead to a Binding Theory violation if it occurred in the exact same form in the ellipsis site. In (112)B the occurrence of the R-expression *Peter* in *Peters feestje* 'Peter's party' results in a Principle C violation, while B' with ellipsis is fine.

(112) A: Wie komt er naar Peters feestje?
who comes there to Peter's party
'Who is coming to Peter's party?'

B: * Peter moet wel naar Peters feestje komen.
Peter must PRT to Peter's party come

B': Peter moet wel [~~naar Peters feestje komen~~].
Peter must PRT to Peter's party come

'Peter has to.'

This contrast led Fiengo and May to the conclusion that the elided material is not necessarily an exact copy of the antecedent. More precisely, they argue that R-expressions, for instance, can be expressed by any of the three referential expressions in the ellipsis site, whichever 'vehicle' suits that context best. In other words, the elided material in (112)B' is not *naar Peters feestje komen* 'to Peter's party come', but rather what is shown in (113). As the examples show, Dutch MCE exhibits vehicle change.

(113) A: Wie komt er naar Peters$_i$ feestje?
who comes there to Peter's party
'Who is coming to Peter's party?'
B": Peter$_i$ moet wel [~~naar zijn$_i$ feestje komen~~].
Peter must PRT to his party come
'Peter has to.'

Summarizing, in Dutch MCE the antecedent and the ellipsis site can display formal mismatches. The verb form is not necessarily the same and a passive clause is allowed as the antecedent of an active ellipsis site. Finally, referential expressions in the MCE ellipsis site are not necessarily exact copies of those in the antecedent.

2.2.8 Summary

Summing up all the properties of MCE discussed in this section, I have first of all shown that MCE only occurs with root modals, not with epistemic ones. Secondly, MCE deletes more than the infinitival head. A third property of MCE, however, is that it is selective in what can be extracted out of the ellipsis site: subjects can undergo extraction, while objects and adjuncts cannot. Fourthly, MCE does not impose restrictions on the position of the antecedent like gapping or stripping do. Furthermore, MCE is possible when the subject is a *there*-expletive, provided that the associate is not deleted. Next, MCE blocks the IPP effect. Finally, it allows form mismatches between the antecedent and the ellipsis site to some extent. In the next chapter I present my analysis of Dutch MCE, which provides an account for these properties.[67]

[67] Another property of MCE sentences is that they mostly contain a discourse particle such as *wel*, *toch*, *per se* or polarity markers such as the negator *niet* 'not' or the affirmative adverb *wel*.

(i) a. Joris wou wel komen, maar hij kan **niet** [~~komen~~].
Joris wanted PRT come but he can not come
'Joris wanted to come, but he can't.'

b. A: Zou Joris komen? – B: Hij moet **wel** [~~komen~~].
Would Joris come he must PRT come
'Would Joris come?' – 'He has to.'

c. Ik dacht dat Joris niet wou komen, maar hij
I thought that Joris not wanted come but he
wou **WEL** [~~komen~~].
wanted AFF come
'I thought Joris didn't want to come, but he did.'

d. A: Ga je uit vanavond?
go you out tonight
B: Ja. Ik mocht **toch** [~~uitgaan vanavond~~]?
yes I was.allowed PRT out.go tonight
'Are you going out tonight?' – 'Yes, I was allowed to, right?'

These particles or polarity markers are not obligatory, however. When the modal is heavily stressed, like *moeten* in (ii)a, or when it is followed by a contrasted constituent, no particle or polarity marker is needed.

(ii) a. A: Stefan wil niet komen. – B: Hij MOET!
Stefan wants not come he must
'Stefan doesn't want to come.' – 'He HAS to!'

b. Tanja mocht VANDAAG een roze jurk dragen,
Tanja was.allowed.to today a pink dress wear
en Evy mag MORGEN.
and Evy is.allowed.to tomorrow
'Tanja can wear a pink dress TODAY, and Evy can TOMORROW.'

Moreover, the particles also occur in the non-elliptical counterparts of the sentences in (i). Consequently, I conclude that the presence of particles or polarity markers is not a property of MCE per se; it just means that sentences containing them are the ones providing the right context for ellipsis. This property is most likely a pragmatic one: the contexts with particles or polarity markers are the contexts in which the ellipsis site is recoverable and there is enough contrast with the antecedent clause in the remaining part to trigger the ellipsis.

Silence is a source of great strength.
~ Lao Tzu

Chapter 3
Ellipsis licensing

In the previous chapter I presented the core data of this dissertation, Dutch modal complement ellipsis (MCE). The present chapter introduces my analysis of how ellipsis is licensed. The main claims are the following:

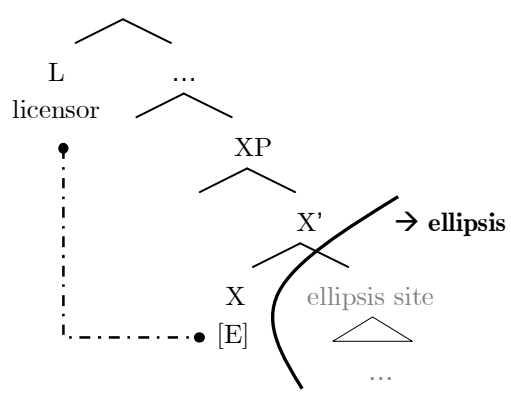
(1) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.
b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

I first discuss both aspects of this analysis in greater detail in sections 3.1 and 3.2, and in section 3.3 I apply it to Dutch MCE. In 3.4 I return to the properties of MCE listed in chapter 2 and show how these are captured by the analysis. Section 3.5 discusses the locality restriction on Agree relations and demonstrates that this holds in ellipsis as well. Section 3.6 concludes.

3.1 LICENSING VIA AGREE

Most works on ellipsis assume that ellipsis requires the presence of a licensing head. I argue that elliptical sentences contain an [E](llipsis)-feature that needs to establish an Agree relation with the licensing head. This Agree relation triggers ellipsis of the complement of the head bearing [E], as is depicted in (2).[68]

(2)



I first present the notion of licensing head in section 3.1.1. Next, in section 3.1.2 I introduce Merchant's (2001) implementation of ellipsis licensing. He takes an optional [E]-feature on the licensing head to be responsible for deletion of its complement. However, section 3.1.3 shows that the licensor and the ellipsis site do not have to be adjacent and hence, that a head-complement relation cannot be the correct way to capture ellipsis licensing. Therefore, I argue in section 3.1.4 that ellipsis is licensed via Agree and discuss the implementation of such an approach in terms of an [E]-feature. Section 3.1.5 summarizes and concludes.

3.1.1 The ellipsis licensing head

Ellipsis can only take place if a specific head with a certain morpho-syntactic feature specification occurs in a local relation to the ellipsis site. I assume that ellipsis has to be licensed by this particular head, i.e. the licensor, following Zagona (1982, 1988a, 1988b), Lobeck (1993, 1995), Johnson (2001), Merchant (2001, 2004) and Gergel (2006).[69]

[68] I indicate an Agree relation between two elements with a semi-dotted line.
[69] Not everyone agrees on the generality of this claim; cf. Chao (1987) on the distinction between headed and headless ellipses.

When a head licenses ellipsis, this implies that without the presence of this head – with its specific feature specification – ellipsis is not allowed. For English VP ellipsis (VPE), for instance, the licensor is generally assumed to be the inflectional head T when filled with a finite auxiliary or the infinitival marker *to*. Without this filled inflectional head, the verb phrase cannot be elided (Zagona 1982, 1988a, 1988b; Lobeck 1993, 1995; Martin 1992, 1996; Johnson 2001).[70]

(3) a. Alice wasn't drinking tea, but I think that Yaron **was** [~~drinking tea~~].
b. * Alice doesn't drink tea, but I think that Yaron [~~drinks tea~~].
c. Alice doesn't drink tea, but I think that Yaron does.

Example (3)a represents a grammatical case of VPE, with the auxiliary *was* as licensor in T. In (3)b, on the other hand, there is no auxiliary filling the T-position, given that finite main verbs in English stay inside vP. Consequently, VPE is not allowed. In such cases, when there is no aspectual or modal auxiliary present to fill T, dummy *do* can be inserted to license VPE, as in (3)c.

In short, ellipsis is only allowed in the presence of a certain head with a specific feature structure. Which head is the licensor can be determined by looking at minimal pairs, i.e. by comparing sentences that do not allow ellipsis to minimally differing sentences that do. In section 3.3 and in the next chapters I determine the licensing head in this way.

The fact that ellipsis needs a licensor can be implemented in different ways. Merchant (2001, 2004, 2007, 2008b) proposes an ellipsis feature [E] on the licensor that triggers deletion of its complement. His account is presented in the next section.

3.1.2 Merchant (2001)

In his analysis of sluicing, Merchant (2001) acknowledges the fact that TPs cannot always be elided whenever their meaning is recoverable.[71] Sluicing is only possible in constituent questions, witness the examples in (4).[72]

[70] I focus on VPE in finite clauses for the moment, but I come back to VPE with infinitival *to* and VPE in general in chapter 4.
[71] He calls the elided projection IP instead of TP, but the difference is purely notational in this case.
[72] Note that *that* in (4)c is a complementizer. The sentence is grammatical if *that* is a demonstrative pronoun.

(4) a. One of the linguists was going to the Leap Day party, but no-one told me who [~~was going to the Leap Day party~~].
b. One of the linguists was going to some party, but I don't know which party [~~one of the linguists was going to~~].
c. * One of the linguists was going to the Leap Day party, but no-one told me that [~~one of the linguists was going to the Leap Day party~~].
d. * One of the linguists was going to the Leap Day party, but I didn't know yet whether [~~one of the linguists was going to the Leap Day party~~] when Susan asked me about it.

In other words, sluicing is only licensed by the interrogative C that shows up in constituent questions, C [*wh*, Q]. To capture such licensing within the Minimalist framework, Merchant proposes a featural implementation:

(5) **[...]** if we are to capture the intuitions behind the government approach to licensing in a Minimalist framework dispensing with government *per se*, we should locate the necessarily local relation between the licensing head C and the elided category IP not in a spec-head relation [as Lobeck (1999) does, LA], but in a head-head relation. We can employ the same conditions on licensing identified by Lobeck, recasting them as featural matching requirements in a head-head relation, the other structural relation available for feature checking. (Merchant 2001:60)

More concretely, Merchant (2001:55-61; 2004) postulates an ellipsis feature [E] which is compatible only with this interrogative C [*wh*, Q] head and which triggers deletion of the head's sister, TP. For each elliptical construction there is a specific [E]-feature listed in the lexicon. For instance, the lexical entry of the ellipsis feature responsible for sluicing, $[E]_S$, is the following (Merchant 2004:670-672):

(6) a. The syntax of E_S: E_S [*u*wh*, *u*Q*]
b. The phonology of E_S: $\varphi_{TP} \rightarrow \emptyset / E_S\_$
c. The semantics of E_S: $[\![E_S]\!] = \lambda p : \text{e-GIVEN}\ (p)\ [p]$

The syntactic specification of $[E]_S$ represents the intuition that sluicing is only licensed in constituent questions: it has uninterpretable strong *wh*- and Q-features that have to be checked against matching features in a local

relationship, i.e. the head-head relation mentioned in (5).[73] Consequently, $[E]_S$ can only occur on C [*wh*, Q]. The effect of [E] on the phonology is represented in (6)b: 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]

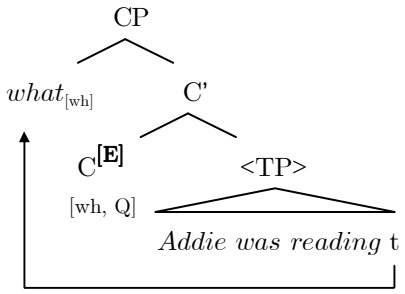
> [...] instructs the post-PF phonological interpretative component not to parse its complement. [...] The effect [...] is a familiar kind of morphologically triggered syncope: here the morphological trigger is E and the syncopated element is TP. The non-pronunciation is entirely controlled by the *actual* phonology [...] Deletion as a notion is completely eliminated from the syntax. (Merchant 2004:671)

Finally, the semantics of [E] encodes the e-GIVENness requirement discussed in chapter 1.

Hence, Merchant assigns the schematic structure in (7)b to the sentence in (7)a.

(7) a. Addie was reading something, but I don't know what.

b. (Merchant 2004:670)



Summing up, Merchant (2001, 2004) assumes an [E]-feature that triggers deletion of the complement of the head on which it resides. The syntactic specification of the [E]-feature ensures that it can only occur on certain heads, thus capturing the licensing requirement on ellipsis. This analysis implies – as do all other recent accounts of ellipsis to my knowledge, explicitly or implicitly – that the ellipsis licensing head and the ellipsis site always stand in a head-complement relation to one another. However, I demonstrate in the next section

[73] This is captured in the notation by the asterisk in (6)a: the uninterpretable features on E are strong, which means they cannot be checked from a distance. They can only be checked locally.

that this is not always the case. Therefore I argue ellipsis licensing to be the result of an Agree relation.

3.1.3 Material between licensor and ellipsis site

In Merchant's approach the notion of the ellipsis licensing head was captured by letting the licensor bear an ellipsis feature that deletes its complement. This section presents evidence showing that the licensing head and the ellipsis site are not necessarily in a head-complement relation. Although the licensing head has to be in a local relation with the ellipsis site,[74] it does not have to be adjacent to it. Consider the examples of English VPE in (8).[75]

(8) a. I hadn't been thinking about that. – Well, you should have been [~~thinking about that~~]!
b. Ezra hasn't finished yet, but I really want him to have [~~finished~~].
c. Morgan hadn't been thinking about it, although it certainly would have been wise for him to have been [~~thinking about it~~].
d. Morgan hadn't thought about it, but it certainly would have been wise to have [~~thought about it~~].

The licensor of English VPE is a filled inflectional head, i.e. a finite form of the auxiliary *have*, *be*, dummy *do* or a modal, or the infinitival marker *to* (see Sag 1976, Williams 1977c; Zagona 1982, 1988a, 1988b; Martin 1992, 1996; Lobeck 1993, 1995; Johnson 2001).

That it is indeed the finite auxiliary – or the infinitival marker *to* – that needs to be present and not simply any auxiliary is shown in (9). Non-finite *have* and *be* do not license VPE.

(9) a. * I hadn't been thinking about it, but I recall Morgan having been.
b. * I hadn't thought about it, but I recall Morgan having.
c. * Max having come to dinner, and Jessi not having, we decided to wait for her.
d. * Sarah hated him having {been/arrived} late for dinner and I hated him having (been), too.

[74] More on locality in section 3.5.
[75] Many thanks to Ryan Bochnak, James Iveniuk, Kyle Johnson, Ezra Keshet, Peter Klecha, Jason Merchant and Jasmin Urban for their judgments on the data.

e. * Pat having shown up at the game and Pete not having was a surprise to everyone.

The non-elliptical counterparts of these sentences are well-formed (although a bit redundant). This means that the ungrammaticality in (9) is due solely to ellipsis.

(10) a. I hadn't been thinking about it, but I recall Morgan having been thinking about it.
b. I hadn't thought about it, but I recall Morgan having thought about it.
c. Max having come to dinner, and Jessi not having come to dinner, we decide to wait for her.
d. Sarah hated him having {been/arrived} late for dinner and I hated him having {been/arrived} late for dinner, too.
e. Pat having shown up at the game and Pete not having shown up (at the game) was a surprise to everyone.

Consequently, in the example in (8)a, repeated as (11), it is not the non-finite auxiliary *been* that licenses VPE, but the finite modal auxiliary *should*.

(11) I hadn't been thinking about that. – Well, you **should** have been [~~thinking about that~~]!

As a result, these examples show that there can be material intervening between the licensor and the ellipsis site. In other words, the ellipsis site is not necessarily the complement of the head licensing ellipsis.

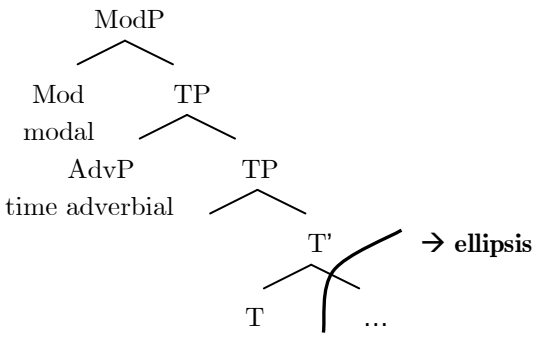
Dutch MCE also shows that the licensor and the ellipsis site do not have to be adjacent. This becomes clear when there is a temporal adverbial present in the embedded clause, i.e. when the temporal adverbial in the ellipsis clause is contrasted with the one in the antecedent, cf. (12).

(12) Gisteren mocht Tyl volgende week zijn nieuwe auto gaan
yesterday was.allowed Tyl next week his new car go
halen, en vandaag mag hij pas **over een maand**.
get and today is.allowed he only in a month
'Yesterday Tyl was allowed to go get his new car next week and today he's only allowed to go get it in a month.'

Assuming that the time adverbial is inside the modal complement, most likely adjoined to TP (see Zubizarreta 1987, Sportiche 1988, among others) – as is

illustrated in the tree structure in (13) – ellipsis licensing cannot involve a head-complement configuration.

(13)

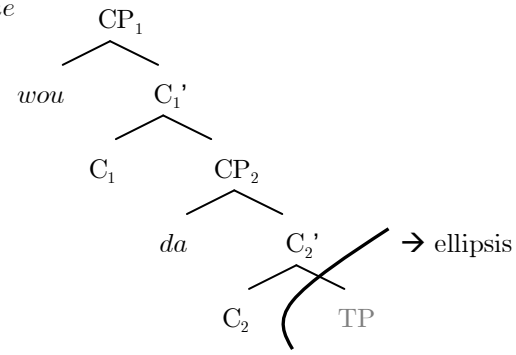


The same holds for some cases of sluicing that will be discussed in more detail in the next chapter, namely (dialect Dutch) spading and (English) swiping. Spading – i.e Sluicing Plus A Demonstrative In Non-insular Germanic – is a kind of sluicing found in several Dutch dialects that was first described by Hoekstra (1993) and analyzed in detail by van Craenenbroeck (2004, to appear). An example is given in (14).

(14) Jef eit iemand gezien, mo ik weet nie wou **da**.
Jef has someone seen but I know not who that
'Jef saw someone, but I don't know who.' (Wambeek Dutch)

Van Craenenbroeck (2004, to appear) convincingly argues for a split CP-layer, where the higher CP, CP_1, is the projection that encodes speech act information (Rizzi's 1997 ForceP) while the lower one, CP_2, can be assimilated to Rizzi's FocP. Moreover, he claims that *da* 'that' is a demonstrative pronoun in the specifier of CP_2. Since it is the higher C head C_1 that licenses sluicing – and by extension spading (see van Craenenbroeck 2004, to appear for details) – the demonstrative intervenes between the licensing head and the ellipsis site. This analysis can be represented as in the tree in (15) for the sentence in (14).

(15) *...mo ik weet nie*

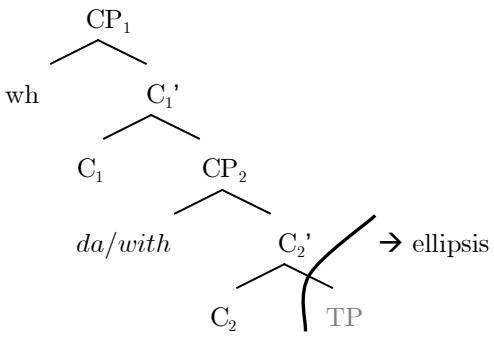


The same can be observed in English swiping, i.e. 'Sluiced *Wh*-word Inversion with Prepositions in Northern Germanic' (Merchant 2002). The sentence in (16) exemplifies this type of sluicing.

(16) Astrid was talking, but I don't know who **with**.

Parallel to the demonstrative in Dutch dialect spading, the stranded preposition in swiping sits in [Spec, CP_2] (see van Craenenbroeck 2004, to appear for evidence and discussion). Consequently, in sluicing the licensor, i.e. the higher C head (or Force head) and the ellipsis site are not in a head-complement relation, cf. (17).

(17)



In short, I have presented a number of cases where there is lexical material between the licensing head and the ellipsis site. This provides evidence against the claim that ellipsis comes about through a head-complement relation between the two (Johnson 2001; Merchant 2001, 2004). I argue instead that ellipsis is licensed via Agree. The next section elaborates on this Agree relation.

3.1.4 Ellipsis licensing via Agree

If ellipsis is licensed via Agree, the first question to ask is which features are involved in this Agree relation.

Recall Merchant's (2001, 2004) approach to ellipsis licensing as involving a head-complement relation: he posits an ellipsis feature which can only occur on a certain head, the licensor, and which instructs its complement to be left unpronounced, thereby specifying the ellipsis site. Under such an approach, both elements involved, the licensor and the ellipsis site, are defined by this single ellipsis feature. On the other hand, if the licensor and the ellipsis site are not sisters, both participants in the Agree relation cannot be defined in this way.

I propose that ellipsis involves a more complex, extended version of Merchant's [E]-feature.[76] In order to be able to explain how this feature works, some elaboration on feature structure is required. Suppose that each head is a feature bundle with the following feature structure: it has categorial features, inflectional features and selectional features, which can be represented as in (18).

(18)
$$\begin{bmatrix} \text{CAT} & [\ldots] \\ \text{INFL} & [\ldots] \\ \text{SEL} & [\ldots] \end{bmatrix}$$

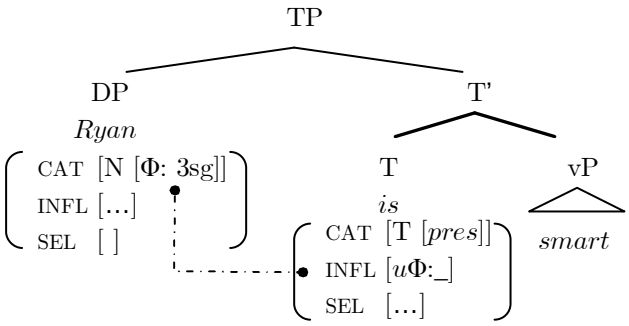
The categorial features specify the category of a lexical entry. The inflectional features can be uninterpretable, in which case they have to be checked against the category features of another head. The selectional features encode what categories this head takes as its complement.

Such an implementation can capture Agree relations in the following way. Take a standard case of subject-verb agreement, as in *Ryan is smart*. Simplifying matters somewhat, the finite T bears the category feature [T] with value [present], and an uninterpretable inflectional [Φ]-feature.[77] This INFL feature has to be checked against the categorial [Φ]-features of the head noun of the subject. This is depicted in (19).

[76] I am grateful to Jason Merchant for drawing my attention to this possibility and for the practical implementation of the subfeatural notation, inspired by the notation used in HPSG.

[77] I leave the selectional features unspecified here, as they are not relevant for the point at hand.

(19)



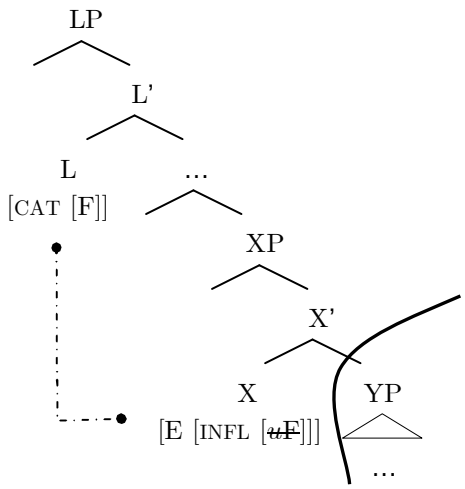
The Agree relation in ellipsis happens in the same way. I propose that there is an ellipsis feature (bundle) in the lexicon for each type of elliptical construction. This [E] is optional and is only compatible with certain heads, a property that is encoded by its SEL(ectional) features. Moreover, it causes its complement to be left unpronounced at PF. So far this is parallel to the [E]-feature posited by Merchant (2001, 2004). However, [E] also has an uninterpretable inflectional (INFL) feature that corresponds to the category (CAT) feature of a certain head, the ellipsis licensor. Because of this uninterpretable feature, [E]'s occurrence in a sentence – and hence the ellipsis it causes – is only allowed if it can establish a checking relation with the licensor. For example, if L, an element of category F, is the licensor of a certain elliptical construction and X is the head bearing the [E]-feature, this yields the feature structure in (20) for [E] and the abstract representation of an elliptical sentence in (21).[78]

(20)

$$\text{E} \quad \begin{bmatrix} \text{CAT} & [\text{E/X}] \\ \text{INFL} & [u\text{F}] \\ \text{SEL} & [\text{X}] \end{bmatrix}$$

[78] As for the category feature of [E], I assume that it is of its own category E for ellipsis, or that it takes over the category feature of the head X on which it occurs. Nothing hinges on this, however.

(21)



Parallel to Merchant (2001, 2004) I assume that for each elliptical phenomenon that occurs in a language, there is a specific [E]-feature in the lexicon. In section 3.3 the [E]-feature for MCE in Dutch is discussed and the next chapter deals with sluicing, VPE, pseudogapping and a construction called British English *do* (Haddican 2006; Baltin 2007). Contrary to Merchant's approach, however, my analysis does not take this [E]-feature to necessarily reside on the licensor.

Finally, an important remark needs to be made on the non-standard directionality of the Agree relation: Chomsky (1995, 2000, 2001) proposes that uninterpretable features probe down, looking for an interpretable counterpart in their c-command domain. Hence, the probe sits higher in the structure than the goal. In the proposal made here, the uninterpretable feature on the complex [E] has to probe upwards in the structure to establish the Agree relation. On the other hand, several proposals argue against Chomsky, saying that the uninterpretable feature sits lower in the structure (see Neeleman & van de Koot 2002; Adger 2003; Von Stechow 2005, and Zeijlstra 2008, under review). Hence, with the licensing theory I propose for ellipsis I add to this debate on the directionality of Agree.

I argue that the Agree relation in ellipsis applies in a non-standard direction, i.e. with the uninterpretable feature lower than the interpretable one. Hornstein et al. (2005) provide a test to determine whether a feature is [+interpretable] or [-interpretable] on a certain element by looking at instances of multiple Agree (cf. (22)).[79]

[79] See Hiraiwa (2001, 2002), however, for an account of multiple Agree where an uninterpretable probe establishes an Agree relation with multiple interpretable goals.

(22) If a given feature is [+interpretable], traditional considerations regarding recoverability of deletion will require that such a feature does not get deleted upon checking; that is, checking only deletes [-interpretable] features. If so, we reach the following conclusion: [-interpretable] features cannot participate in more than one checking relation, whereas [+interpretable] features are free to participate in multiple checking relations. (Hornstein et al. 2005:285)

I apply this test to the analysis of ellipsis I propose. The [E]-feature that has to be checked against the (interpretable) category features of the licensor is uninterpretable on the head selecting the ellipsis site. As a result, I predict that one licensor can enter multiple Agree relations. In other words, one licensing head should be able to license ellipsis of multiple ellipsis sites, provided it is local enough to establish an Agree relation with them.[80] For instance, one finite auxiliary in English should be able to trigger VP ellipsis of two coordinated verb phrases. This prediction seems to be borne out: in the examples in (23) the licensor *could* licenses VPE in both conjuncts, as the second conjunct does not have an auxiliary of its own.[81]

(23) a. ?? Has Ezra been thinking about it? – Well, he could have been yesterday, but not have been the day before.
b.(?)? When do you think he has gone into the office? – Well, he could have yesterday, but not have the day before.
c. ? Has Ezra been thinking about it? – Well, he could be today and maybe even have been for the past few days.
d. ? Has Ezra been thinking about it? – Well, he could have been for the past few days and maybe even be right now.
e. ?? Is Ezra thinking about it? – Well, he can't be today or have been yesterday, that's for sure.
f. ? When could our team have helped Bettina? – Well, {someone/one team member} could have yesterday, but not have the day before.

[80] More on locality of Agree in section 3.5.
[81] Thanks to Ryan Bochnak, James Iveniuk, Ezra Keshet and Francis McKay for helping me out with the data collection. Thanks also to Jason Merchant and Norvin Richards for useful comments on this issue. The judgments are the average of the judgments of several native speakers. There is some interspeaker variability, and parsing difficulties should also be taken into account with such complicated examples, but for each sentence there is at least one speaker who judged it as fully grammatical.

g. ? When should our team have been helping Bettina? – Well, {someone/one team member} should have been yesterday, but not have been the day before.[82]

Zeijlstra (2008, under review) also argues for such reversed directionality in Agree relations on the basis of multiple dependencies. He discusses cases of Negative Concord (NC), a phenomenon where several formally negative elements express only one semantic negation.[83] An example of a NC language is Italian. The negative indefinite *nessuno* 'no-one' and the negative marker *non* 'not' together express only one logical negation.

(24) Raffaele *(non) ha visto nessuno. [Italian]
Raffaele not has seen no-one
'Raffaele hasn't seen anyone.'
'Raffaele hasn't seen no-one.'

Furthermore, Zeijlstra claims that "NC is an Agree relation between a single feature [*i*NEG] and one or more features [*u*NEG]" (Zeijlstra under review:20). Given that the negative indefinite cannot express negation without the negative marker, Zeijlstra argues that in NC languages negative indefinites – which he calls n-words – are semantically non-negative. Hence, they carry an [*u*NEG]-feature. The interpretable [NEG]-feature resides on the negation marker or on abstract negative operator higher up in the structure. In other words, Zeijlstra argues for an Agree relation that deviates from the standard assumptions, in having the interpretable feature c-command the uninterpretable one. Moreover, such an analysis explains why one negative marker can license several n-words, while still only having one semantic negation in the sentence. Consider the example in (25).

(25) Raffaele *(non) ha detto niente a nessuno.
Raffaele not has said nothing to no-one
'Raffaele hasn't said anything to anyone.'
'Raffaele hasn't said nothing to no-one.'

[82] Note that these sentences cannot involve conjunction reduction in a coordination of two TP. The modal takes scope over both conjuncts and in (23)f,g the subject is interpreted as a single person in both conjuncts.
[83] There are several kinds of NC languages. Although Zeijlstra provides an account of how the different kinds come about, this issue will not concern us here.

The negative marker *non* 'not' carries an interpretable [NEG]-feature, which can check both [*u*NEG]-features on *niente* 'nothing' and *nessuno* 'no-one'. If *non* was the one bearing the uninterpretable feature, multiple checking would be impossible.

In short, there are reasons to believe that Agree in general, and the Agree relation involved in ellipsis in particular, can deviate from the standardly assumed directionality of Agree in having an element bearing an uninterpretable feature probing upwards in the tree.[84]

Summing up, I propose that for each elliptical phenomenon the lexicon contains an ellipsis feature which is only compatible with a certain head X, and which needs to be checked against another specific head, the licensor. This checking relation triggers ellipsis of the complement of the head X bearing the ellipsis feature.

3.1.5 Summary

Recapitulating, the core ingredients of the analysis of ellipsis licensing put forward in this dissertation are the ones in (26).

(26) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.

b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

---

[84] I do not assume that all instantiations of Agree have the interpretable feature c-command the uninterpretable one. In subject-verb agreement, for instance, the directionality of Agree is as assumed in Chomsky (1995 and subsequent work). This can be made explicit by applying the Hornstein et al. (2005) test: a subject, carrying interpretable Φ-features, can establish an Agree relation with multiple T heads by which it is c-commanded. The subject usually moves to [Spec, TP] because of an [EPP] feature on T, from where it does c-command the uninterpretable features on the T heads (cf. (i)b), but this movement is not required to establish the Agree relation, as (i)a illustrates.

(i) a. There **should** and **will** be **two more people** joining our company.
b. **Someone should** and **will** be punished for this!

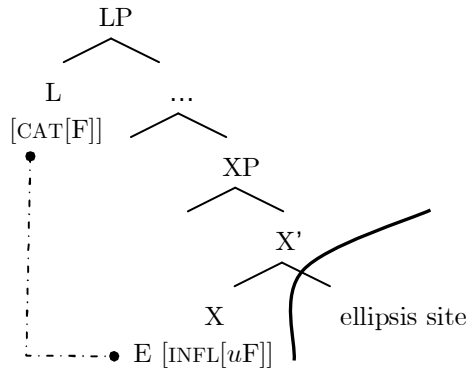
Again, the interpretation of *someone* in (i)b shows that conjunction reduction is not involved here: *someone* refers to the same person in both conjuncts, whereas this is not (necessarily) the case in *someone should be punished for this and someone will be punished for this*.

Which Agree relations exhibit the standard directionality and which do not, and why there is a difference, are questions beyond the scope of this dissertation.

The present section focused on the first ingredient: ellipsis is licensed via Agree. First I elaborated on the notion of ellipsis licensor and then presented Merchant's (2001) approach to ellipsis. His analysis contains an ellipsis feature on the licensor, triggering PF deletion of its complement. However, evidence was provided against the claim that ellipsis involves a head-complement configuration between licensor and ellipsis site. Therefore, I argue that ellipsis is licensed via Agree. I have proposed the following analysis to implement the Agree relation that licenses ellipsis: each language has an ellipsis feature [E] for every single elliptical phenomenon listed in its lexicon. This [E]-feature optionally occurs on the head that selects the ellipsis site. Moreover, [E] has an uninterpretable feature [*u*F] corresponding to the category feature of the head that licenses that specific ellipsis construction. The uninterpretable feature can be checked via an Agree relation with the licensor and this checking activates [E], which sends off its complement to PF. Schematically this can be represented as in (27) below.

The next section discusses the second main claim in my analysis of ellipsis licensing, namely the fact that it occurs during the derivation (see (26)b above).

(27)



3.2 Derivational ellipsis

3.2.1 The timing of ellipsis

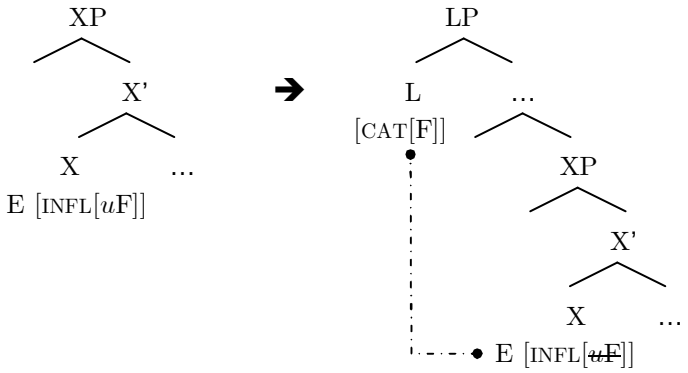
As I argue in the previous section, ellipsis is licensed via Agree. An elliptical sentence contains an [E]-feature that is situated on a head X. This [E] has to check its uninterpretable INFLection against the category feature on the licensor.

Checking theory (see Chomsky 1999, among others) states that features are checked as soon as possible. In other words, [E] is checked as soon as the licensing head is introduced in the structure.

This can mean two things: either (a) [E] on X is checked but its effect, i.e. ellipsis of X's complement, does not take place until the derivation is finished, or (b) ellipsis occurs immediately, as soon as the licensor is merged and [E] is checked. I argue that the latter option is correct. As is clear from (26)b above, I claim that the effect of ellipsis is twofold: it freezes the ellipsis site for any further syntactic operations and it marks it for ellipsis at PF, i.e. it blocks lexical insertion.[85] The two options, which are represented schematically in the tree structures in (28) and (29), make different predictions. The next section provides evidence for the latter option.

(28) **OPTION #1**: ellipsis at the end of the derivation

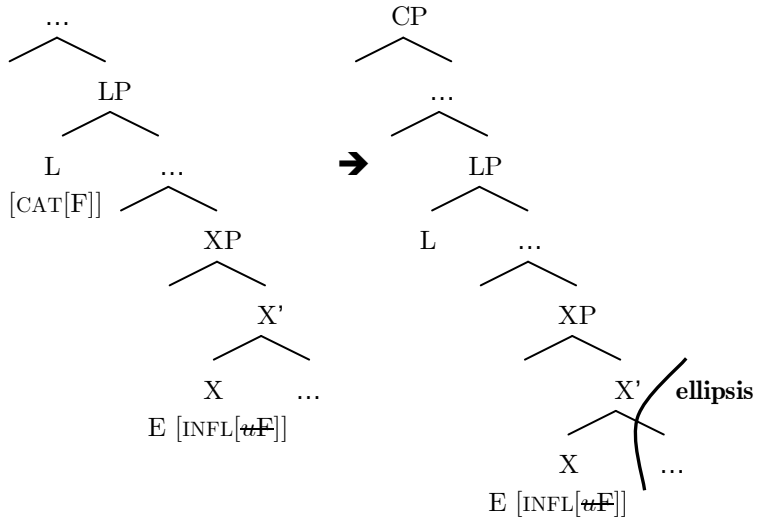
Step 1: merger of [E] **Step 2:** the licensor Agrees with [E]



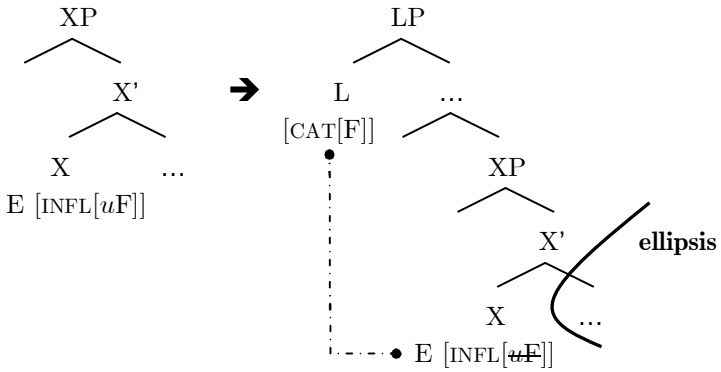
[85] I follow the Late Lexical Insertion view developed by Halle & Marantz (1993) who argue that there are no phonological features in syntax (see also Marantz 1995 and Jackendoff 1997, as well as many others). It is the operation 'Vocabulary Insertion', occurring at the interface to the phonological component that is responsible for the phonological realization of syntactic nodes.

Hence, the PF-deletion approach I am taking here does not involve actual deletion. Rather, ellipsis prevents vocabulary insertion. I will, however, keep using *deletion approach* and *deleted structure* throughout this dissertation when I am talking about ellipsis targeting a full syntactic structure.

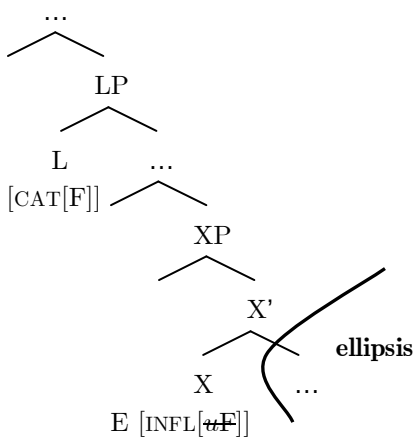
Step 3: the rest of the derivation **Step 4:** end of derivation + ellipsis



(29) **OPTION #2**: derivational ellipsis
Step 1: merger of [E] **Step 2:** the licensor Agrees with [E] + ellipsis



➔ **Step 3:** the rest of the derivation



In the next section the extraction contrast observed in Dutch MCE (see chapter 2) provides evidence in favor of the second option.

3.2.2 Returning to the extraction puzzle

I take a PF-deletion approach to ellipsis, i.e. I take the ellipsis site to be a fully-fledged syntactic structure.[86] However, I deviate from the traditional PF-deletion accounts in assuming that ellipsis freezes the ellipsis site for syntactic operations. This means that at the moment when ellipsis happens, the ellipsis site is no longer accessible for narrow syntax. Moreover, I argue that the projections inside the ellipsis site are not actually *deleted* at PF, but that ellipsis prevents lexical insertion to take place. I return to the latter issue in section 3.2.3.

What is important at this point is that the two options presented in the previous section make different predictions under my approach. If ellipsis happens at the end of a derivation, no syntactic differences are expected between an elliptical sentence and its non-elliptical counterpart. All syntactic operations have already taken place before ellipsis occurs. The second option on the other hand, allows for differences between ellipsis and non-ellipsis, since under my account the ellipsis site is frozen for any syntactic operations as soon as [E] has been checked. I will show that the extraction data presented in chapter 2 support the second option.

[86] For alternative views, see chapter 1.

Recall that MCE blocks extraction of an object. The ungrammaticality of (30)a is caused solely by ellipsis, because in the non-elliptical counterpart object extraction is perfectly fine, witness the contrast with (30)b.

(30) a. * Ik weet niet wie Thomas MOET uitnodigen, maar ik
I know not who Thomas must invite but I
weet wel **wie** hij niet MAG [~~uitnodigen t$_{wie}$~~].
know AFF who he not is.allowed invite
'I don't know who Thomas HAS to invite, but I do know who he isn't ALLOWED to.'

b. Ik weet niet wie Thomas MOET uitnodigen, maar ik
I know not who Thomas must invite but I
weet wel **wie** hij niet MAG uitnodigen.
know AFF who he not is.allowed invite
'I don't know who Thomas HAS to invite, but I do know who he isn't ALLOWED to.'

According to the extraction test for syntactic structure in the ellipsis site (see chapter 1), the ungrammaticality of (30)a could be accounted for with a proform analysis of MCE: the ellipsis is a null proform, and hence does not contain enough structure to host the object trace.

Such an approach is not tenable, however, in the light of the subject extraction data presented in chapter 2. Subjects, even derived subjects, can be extracted out of the MCE ellipsis site (cf. (31)), showing that there must be syntactic structure present in the ellipsis site. Hence, I argue that MCE should be analyzed as PF-deletion, not a null proform.

(31) a. Die broek moet niet gewassen worden, maar **hij**
that pants must not washed become but he
mag wel [~~t$_{hij}$ gewassen worden~~].
is.allowed PRT washed become
'Those pants don't have to be washed, but they can be.'

b. Anouk wil wel komen, maar **ze** kan niet [t$_{ze}$ komen].
Anouk wants PRT come but she can not come
'Anouk wants to come, but she can't.'

However, the contrast between object and subject extraction is unexpected if ellipsis occurs at the end of the derivation, because at that point, all syntactic operations have taken place already. In other words, at that point the subject

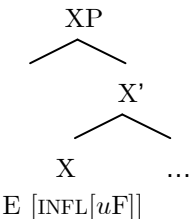
has undergone movement out of the ellipsis site, but so has the object: it will already have moved to [Spec, CP], parallel to what happens in (30)b. On the other hand, if ellipsis renders the ellipsis site inaccessible to narrow syntax as soon as the licensor checks the [E]-feature, the contrast can be accounted for: at the moment when the licensor is introduced, A-movement of the subject out of the ellipsis site has already taken place, but the *wh*-object is still inside the ellipsis site. The movement operation that takes place in the non-elliptical counterpart can no longer affect the object in (30)a. Consequently, object movement is blocked. I show that this is indeed what happens in MCE when I apply the analysis to this phenomenon in section 3.3.

In short, the extraction data suggest that ellipsis takes place in the course of the derivation. From the moment the licensor checks the [E]-feature, the ellipsis site is blocked for further syntactic operations. As a result, extraction out of the ellipsis site is only possible before ellipsis takes place. I present this aspect of my analysis, which I call *derivational ellipsis*, in the next section.

3.2.3 Derivational ellipsis

I claim that ellipsis happens during the derivation, i.e. I argue for what I call 'derivational ellipsis'. Take a head X that bears an ellipsis feature [E] (cf. (32)). The [E] feature has to be checked against a head L with a category feature F.

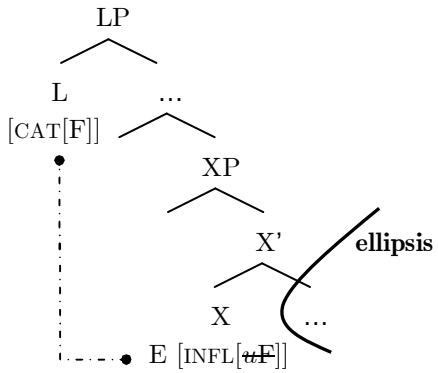
(32) **Step 1: merger of [E]**



When this head L is merged into the structure, it establishes an Agree relation with [E]. From then on the ellipsis site – i.e. everything c-commanded by X – is frozen for further syntactic operations. This is shown in (33). Ellipsis should be seen as an effect on PF (see also Chomsky & Lasnik 1993, Klein 1993, Merchant 2001, Hartmann 2002, Johnson 2001 and many others for a PF-deletion approach to ellipsis), but under my account it also affects the syntax: it ships off

the ellipsis site to PF, where it is inaccessible to narrow syntax.[87] Because the ellipsis site is marked for ellipsis by the [E]-feature, PF refrains from pronouncing it (see also Merchant 2001, discussed in section 3.1.2 above, for the effect of ellipsis on the phonology). More concretely, ellipsis prevents insertion of lexical items into the terminal nodes of the ellipsis site.

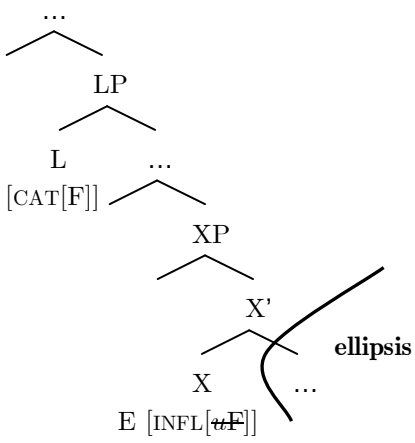
(33) **Step 2: the licensor Agrees with [E] and ellipsis takes place**



After ellipsis has sent off the ellipsis site to PF, the rest of the structure is built up (cf. (34)). The difference to a non-elliptical sentence is that any syntactic operations involving elements inside the ellipsis site are now illicit.

[87] Mark Baltin, p.c., observes that "allowing transfer to PF as soon as the licensing head is merged implies that there is no unified PF component, unless a component is defined not as a set of operations that apply in a block, uninterrupted by any operations not within the component, but rather as a set of operations that have particular formal characteristics". Grimshaw (1986) took the latter view. Many thanks to Mark Baltin for this observation.

(34) **Step 3: the rest of the derivation**



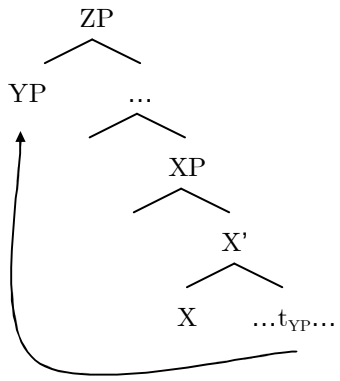
Next, I show how this approach leads to limited extraction out of the ellipsis site and how it explains the lack of inverse scope in some ellipses.

3.2.3.1 Limited extraction

Ellipsis has its effect as soon as the licensor checks the [E]-feature: it renders the ellipsis site inaccessible for any further syntactic operations. One such operation is movement. After ellipsis has taken place, nothing can move out of the ellipsis site anymore.

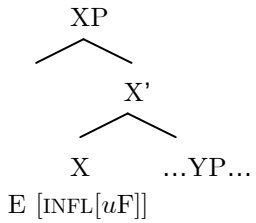
Take a phrase YP inside the complement of X that moves up to the specifier of ZP (cf. (35)).

(35)



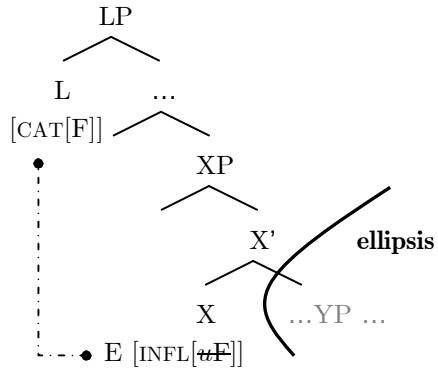
Now take the same structure, but with X bearing an ellipsis feature that needs to be checked against a head L:

(36)



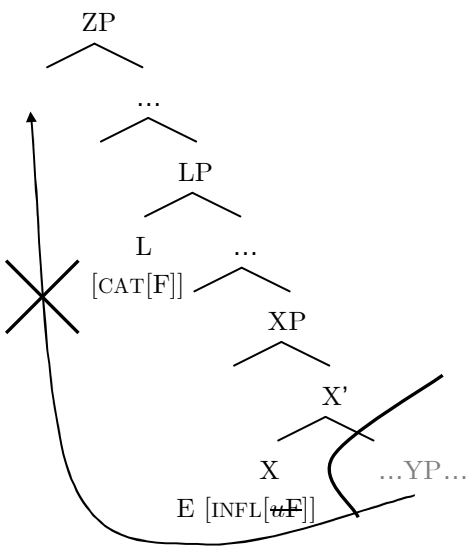
As soon as L is merged, the [E]-feature is checked and the complement of X is frozen for syntactic operations, as in (37).

(37)



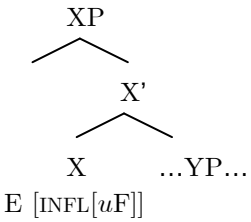
As a result, YP can no longer move to the specifier position of ZP:

(38)



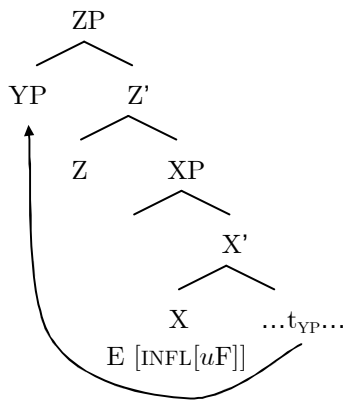
This does not imply that movement out of the complement of a head X bearing an ellipsis feature is completely impossible. If an element moves out of the ellipsis site before the licensing head is merged, it survives the ellipsis. Take again a phrase YP in the complement of a head X bearing an ellipsis feature.

(39)



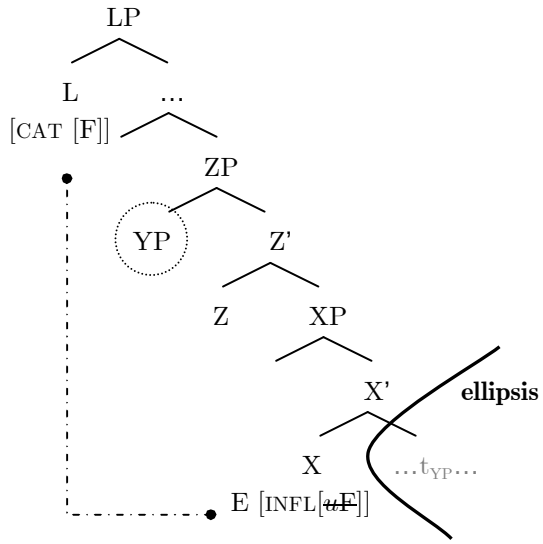
Next, suppose that Z is merged and YP moves to the specifier of ZP, as in (40). This is possible because the [E]-feature has not been checked yet.

(40)



When L is introduced and checks the [E]-feature, the ellipsis site is sent to PF (cf. (41)). As before, nothing can move out of it from now on. This time, however, YP is not inside the ellipsis site anymore and therefore survives ellipsis.

(41)



In short, only phrases that move to a – final or intermediate – landing site between the ellipsis site and the licensor can be extracted out of the ellipsis site. As soon as the licensor is merged, the ellipsis site is sent to PF and is therefore frozen for movement.[88]

[88] The licensor itself can also attract an element out of the ellipsis site prior to ellipsis, since all operations triggered by the same head take place simultaneously. An example is provided in chapter 4, namely British English *do*. For convenience's sake I will present the escape hatches as 'the positions between the licensor and the ellipsis site', however.

3.2.3.2 Limited LF movement

One may wonder whether ellipsis also affects operations that are considered to take place at LF. I present empirical data from British English in support of the claim that it does.

British English displays an elliptical phenomenon called the 'British English *do* construction' (BE *do*; see Haddican 2006, Baltin 2007). This phenomenon, exemplified in (42), looks like regular English VPE with an extra *do*.

(42) I will run the race and you will do too.

It is dealt with in more detail in chapter 4, but at this point I mention one particular property of BE *do*, observed by Baltin (2004, 2005, 2007): it does not allow for inverse scope, witness the sentence in (43). Ellipsis of the verb phrase prevents the object *every book* to undergo Quantifier Raising (QR) over *some woman*.[89, 90]

(43) Some man will read every book and some woman will do too.
(*some* > *every*, **every* > *some*; Baltin 2007)

The analysis proposed here can account for this fact. Recall that the ellipsis site is inaccessible for any syntactic operation from the moment the licensor is merged. Moreover, I follow Bobaljik's (1995, 2002) 'Single Output Syntax'. Bobaljik argues that all movement, both overt and covert, takes place in narrow syntax and that the PF and LF component decide which copy to spell-out or interpret, respectively. If PF spells out the higher copy, the result is what is traditionally called overt movement, while spelling out the lower copy yields covert movement. At LF a similar choice is made, concerning the position in which an element is interpreted, which results in reconstruction or not. These options lead to the four-way typology of movement operations schematized in (44), with copy_1 c-commanding copy_2.

[89] An ellipsis clause can only get an inverse scope reading if the antecedent clause is interpreted with inverse scope as well, i.e. the Parallelism requirement on scope readings in ellipsis; see Fox (1999). In (43) the antecedent allows for the inverse scope reading, however. Consequently, the reason why this reading is impossible in the ellipsis clause cannot be a violation of the Parallelism requirement.

[90] Baltin (2007) explains this fact by assuming that ellipsis occurs in narrow syntax. I discuss his approach in chapter 4.

(44) Privileged copies (Bobaljik 2002:199)

a. $\text{copy}_1 \ldots \text{copy}_2$ 'overt movement, no reconstruction'

PF LF

b. $\text{copy}_1 \ldots \text{copy}_2$ 'LF movement'

LF PF

c. $\text{copy}_1 \ldots \text{copy}_2$ 'overt movement + reconstruction'

PF LF

d. $\text{copy}_1 \ldots \text{copy}_2$ 'LF movement + reconstruction'

PF LF

Hence, there is no movement at LF anymore; all movement operations occur in narrow syntax. A consequence for my theory of derivational ellipsis is that ellipsis not only affects overt extraction but also covert movement (in this case QR).[91]

This implies that whenever overt extraction of a certain element out of an ellipsis site is blocked, covert movement is expected to be equally impossible. This prediction is borne out: British English *do* does not allow overt object extraction out of the ellipsis site, as in (45) (see Baltin 2007, as well as the discussion of British English *do* in chapter 4), and covert raising of the quantified object over the subject is not possible either, as (43) above illustrated.

(45) * Although I don't know who Thomas will invite, I do know **who** Aga will do [~~invite t_{who}~~].

On the other hand, English VP ellipsis, which allows overt object extraction out of the ellipsis site (cf. (46)a), also has an inverse scope reading for the sentence in (46)b.[92, 93]

[91] Alternatively, one could claim, in line with Kayne (1998) and Epstein and Seely (2002), and also Marušič (2005), that the structure not only branches off to PF at certain points in the derivation, but also to LF (see also Chomsky 2001, 2005). In other words, merger of the licensing head of ellipsis not only sends the ellipsis site off to PF but also to LF, making it inaccessible for 'overt' movement as well as LF-movement operations. Under either implementation (this one or Bobaljik's), I predict that movement operations, whether they have an effect on the PF representation (overt movement) or not (covert movement), are blocked from the ellipsis site after merger of the licensing head.

[92] See chapter 4 for a more extensive discussion of why object extraction out of a VP ellipsis site is allowed.

(46) a. Although I don't know who Thomas will invite, I do know **who** Aga will [~~invite t_{who}~~].

b. Some man will read every book and some woman will too.
(*some* > *every*, *every* > *some*; Baltin 2007)

3.2.3.3 Summary

Recapitulating, I argue for derivational ellipsis, i.e. ellipsis that takes place in the course of the derivation. At the point when the licensing head is merged and the [E]-feature can be checked, the ellipsis site becomes inaccessible to any further syntactic operations. As a result, only constituents that have moved out of the ellipsis site prior to ellipsis, i.e. to a position between the ellipsis site and the licensor, can be extracted. Given that all movement – overt and covert – takes place in the syntax (Bobaljik 2002), this holds equally for overt and covert movement.

On top of this freezing effect, the ellipsis site is sent to PF marked for ellipsis. This implies that lexical insertion, which provides the terminal nodes with phonological content, is blocked for this part of the structure. Hence, ellipsis involves PF deletion (for other accounts of ellipsis as PF deletion, see Ross 1969b, Tancredi 1992, Chomsky & Lasnik 1993, Klein 1993, Merchant 2001, Hartmann 2002, Johnson 2001 and many others; see also chapter 1).

3.2.4 Ellipsis versus phases

The concept of ellipsis occurring derivationally is reminiscent of cyclic Spell-out and Phase Theory. A direct parallel between ellipsis and phases has been drawn by Gengel (2007a), who develops the idea that ellipsis is simply part of Spell-out.

---

[93] We expect MCE to pattern with BE *do*, because it also disallows object extraction (see chapter 2 and the discussion in section 3.4 below). In other words, inverse scope should be unavailable as well. However, MCE sentences with an indefinite subject seem to be somewhat degraded for independent reasons (cf. (i)). To the extent that the sentence in (i) is acceptable, however, only the surface scope reading is allowed. The sentence cannot be interpreted as 'for each abstract there can be an internal reviewer reading it'.

(i) ? Een externe reviewer moet elk abstract lezen, maar een interne
an external reviewer must each abstract read but an internal
reviewer mag ook wel.
reviewer is.allowed also PRT
'An external reviewer has to read each abstract, but an internal reviewer can too.'

According to her, ellipsis is the result of a phase head sending its phasal domain to PF for *non*-pronunciation instead of pronunciation. Under such an account, ellipsis naturally takes place during the derivation as well, parallel to cyclic Spell-out of phasal domains. Due to the Phase Impenetrability Condition (PIC, see Chomsky 2000, 2001) a phrase inside the ellipsis site is only accessible until ellipsis takes place. However, given that the licensor is a phase head, elements can move to the phase edge prior to – or simultaneously to – ellipsis.

Despite the apparent similarities between phases and ellipsis, I show in the present section that they should not be considered two sides of the same coin (contra Gengel 2007a). There are crucial differences between the two supporting this idea. Before I go into these differences, however, I present the aspects of Phase Theory and cyclic Spell-out that will be relevant to the discussion.

3.2.4.1 Ellipsis and phases (Gengel 2007a)

In the Minimalist framework (Chomsky 1995, 2000, 2001, 2005) parts of the structure – i.e. phasal domains – are claimed to be sent off to PF before the derivation is complete. This is known as cyclic or derivational Spell-out (see also Epstein et al. 1998). From this point of view a phrase is accessible for syntactic operations as long as the domain of cyclic Spell-out that contains it has not been sent off to PF yet. This condition is known as the Phase Impenetrability Condition or PIC (Chomsky 1999, 2000, 2001).

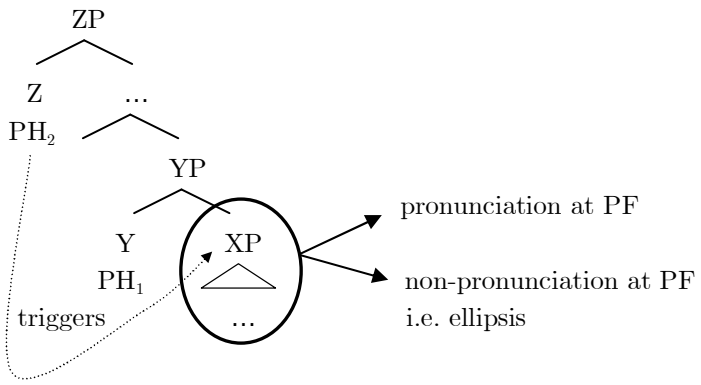
(47) **Phase Impenetrability Condition** (PIC, Chomsky 2000:108)
In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

The revised version of the PIC further specifies that a phasal domain is accessible to syntax until the next phase head is merged (Chomsky 2001). In other words, merger of a phase head triggers the domain of the previous phase head to be sent to Spell-out. The PIC ensures that movement happens cyclically, i.e. a constituent cannot move up in one fell swoop, for instance from its base position in an embedded clause to the [Spec, CP] of the matrix clause, but needs to move through intermediate phase edges, i.e. the specifiers of the phase heads. Only this way can it avoid being sent to Spell-out already; hence, being frozen for syntactic operations (i.e. cyclic movement, Chomsky 2005).

It is tempting to see ellipsis as a special kind of Spell-out, especially in the light of the analysis I presented in section 3.2.3. Both ellipsis and Phase Theory

make part of the structure inaccessible for further syntactic operations when a specific trigger is merged. For ellipsis this trigger is the licensing head, while in Phase Theory the merger of a higher phase head triggers the lower phase head to send off its complement to PF. Suppose that ellipsis licensors are in fact phase heads, as proposed by Gengel (2007a). This would lead to the scenario in (48): take XP to be the complement of a phase head (PH_1). When the next phase head (PH_2) is merged, XP is sent to PF.[94] There it has the choice of being pronounced or not (provided that it meets the recoverability requirement, see chapter 1). From that point on, XP is inaccessible to syntax, in accordance with the PIC.

(48)



However, recall the extraction data I brought forward as an argument for derivational ellipsis. If ellipsis and cyclic Spell-out are instantiations of the same process involving phases, these data remain unexplained. Crucially, they illustrated that there can be a contrast between ellipsis and non-ellipsis in opacity for extraction: a Dutch *wh*-object can move to [Spec, CP] in a non-elliptical sentence, but it cannot in its MCE counterpart.

I now make this more concrete. Chomsky (1999 and subsequent work) proposes that C and little v are phase heads, which means that TP and VP are the phasal domains.[95] Take a sentence with a *wh*-object that has to move from

[94] For Gengel (2007a), ellipsis is licensed in a head-complement configuration. As a result, it is the phase head selecting XP that sends it to PF, not the higher one (in accordance with the earlier version of the PIC). The fact that the licensor and the ellipsis site are not adjacent, as I have shown, provides an argument against her approach. Hence, the account I explore here deviates from her theory in this respect, and needs to assume the revised version of the PIC.

[95] I take the clause-internal phase edge not to be [Spec, vP] but [Spec, VoiceP], following Baltin (2007). However, for expository purposes I do not deviate from Chomsky's (1999, 2005) view here.

its base position in the complement of V to the specifier position of CP. Phase theory states that such movement happens cyclically: first movement to the clause-internal phase edge [Spec, vP] and then to [Spec, CP]. This is illustrated in (49).[96]

(49) a. Movement to the phase edge:
$[_{vP}$ object $[_{v'}$ v $[_{VP}$ V t_{object}]]]

b. Merger of the next phase head and sending off VP to PF:
$[_{C'}$ C $[_{TP}$ … $[_{vP}$ object $[_{v'}$ v $[_{VP}$ V t_{object}]]]]]]

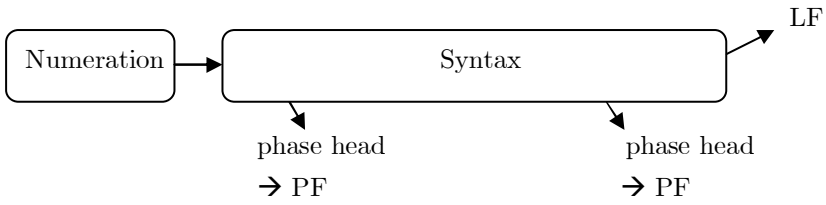
c. Movement to [Spec, CP]:
$[_{CP}$ object $[_{C'}$ C $[_{TP}$ … $[_{vP}$ t_{object} $[_{v'}$ v $[_{VP}$ V t_{object}]]]]]]

If the C phase head had the choice of sending VP to PF for pronunciation or non-pronunciation, the extraction possibilities would be the same: in both cases the object would have moved to the phase edge prior to the merger of C.

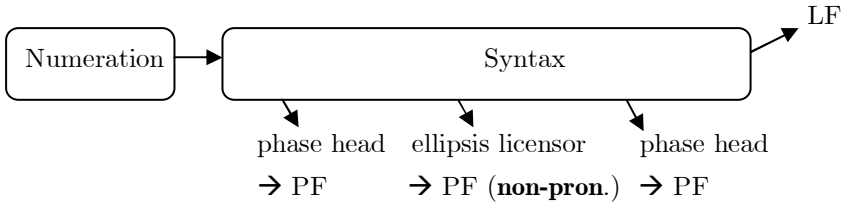
In order to account for the contrast, however, in non-ellipsis the object must have moved out of the vP phasal domain before the latter is sent off to PF by C, but it crucially cannot have vacated the VP yet when ellipsis occurs. Consequently, although ellipsis and phasal domains seem to be closely linked, it is not the case that whenever the appropriate domain is sent off to Spell-out, there is a choice between pronunciation or non-pronunciation. In non-elliptical sentences the phasal domain is sent to PF after all elements that need to undergo further operations have moved to the phase edge. On the other hand, in an elliptical construction with limited extraction such as MCE, ellipsis – i.e. sending part of the structure off to PF, thereby freezing it for narrow syntax – happens *before* certain elements can move out of the ellipsis site to the phase edge. I argue that ellipsis occurs when the ellipsis licensing head is merged, while sending off a phasal domain to PF happens when the next phase head is introduced into the structure.[97] The derivational schemas in (50) and (51) show that in ellipsis there is an additional point at which a part of the structure is sent to PF, namely when the licensor is merged.[98, 99]

[96] Gray font in this case indicates which part of the structure has been sent to PF. It does not imply ellipsis here.
[97] I do not exclude that an ellipsis licensor can be a phase head in certain cases.
[98] Note that it is possible to have multiple occasions where the structure branches off to LF as well. See section 3.2.3.2 above.

(50) No ellipsis: Spell-out only triggered by phase heads



(51) Ellipsis: Spell-out triggered by ellipsis licensor and by phase heads.



Summing up, although it is tempting to draw a parallel between phases and ellipsis, as Gengel (2007a) does, this would leave the extraction contrast unexplained. Next, I present several other crucial differences between phases and ellipsis that make a unifying account untenable.

3.2.4.2 Differences between ellipsis and phases

Phase heads and heads licensing ellipsis both send off part of the structure to PF, thereby making it inaccessible to narrow syntax. However, the extraction contrast between ellipsis and non-ellipsis shows that ellipsis licensors and phase heads do not necessarily coincide: the point when ellipsis occurs can differ from the moment when phasal domains are frozen. Moreover, under my account of ellipsis phases and ellipsis differ in other respects as well, as shown in (52) and discussed below.

(52) a. Ellipsis displays an asymmetry between the two heads involved, while there is no such asymmetry between phase heads.

b. There is no ellipsis edge, no automatic escape hatch.

[99] By indicating the result of ellipsis at PF as **non-pron**(unciation), I do not mean that that part of the structure is not pronounced at that point. This notation only indicates that an ellipsis site is marked for ellipsis, i.e. lexical insertion is prevented.

c. Ellipsis licensors are not necessarily phase heads, nor are the ellipsis sites the phasal domains.

d. Ellipsis affects the entire complement of [E], while phases only affect their own phasal domain.

Firstly, in ellipsis there is a clear asymmetry between the two heads involved. One head bears an uninterpretable feature, which has to be checked against the other; i.e. one is the probe and the other is the goal. Only one is them is a licensor. There is no such asymmetry between phase heads, on the other hand: they are both phase heads and can fulfil both roles in the interaction. Consider a phase head PH_1 that sends off its domain to PF when the higher phase head PH_2 is merged. This PH_2 will in turn send off its domain to PF when a next phase head PH_3 enters the derivation, and so on. Such a scenario is not found in ellipsis.

Secondly, while phases have a phase edge, which provides an automatic escape hatch for elements that need to remain accessible for syntax, ellipsis crucially does not. In this way the limitations on extraction out of the ellipsis site can be explained, as well as the contrast between elliptical and non-elliptical sentences.

Also related to the extraction data is the third difference between phases and ellipsis. I have demonstrated in the previous section that the moment of ellipsis cannot be the moment at which a phasal domain is frozen, because in that case the extraction possibilities in ellipsis and non-ellipsis would be the same. More concretely this means that ellipsis licensors cannot automatically be phase heads. Chomsky (1999) takes C and v to be phase heads.[100] Taking into consideration the split of the CP layer into CP_1 and CP_2 (or ForceP and FocP, see section 3.1.3 above and the next chapter) and the vP layer into VoiceP and vP, I refine this idea and I assume that C_2 and Voice are the phase heads.[101] On the other hand, in my discussion of the elliptical phenomena in section 3.3 below and in chapter 4, I provide evidence for the fact that the licensors in MCE, sluicing, VP ellipsis, pseudogapping and British English *do* are root modal Vs, the higher C_1 head, the inflectional head T and little v, respectively. It is clear that not all of

[100] D is sometimes also considered to be a phase head (see Chomsky 2005 and references cited there), but since the ellipsis cases I discuss do not include NP ellipsis this issue is irrelevant here.

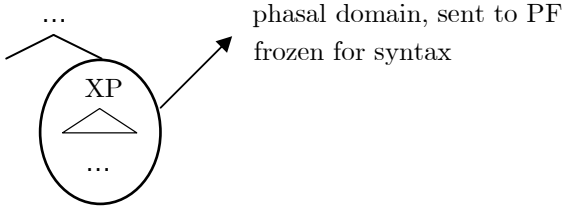
[101] I elaborate on this choice in chapter 4 when sluicing and VPE are discussed.

these licensors are phase heads. Moreover, the phasal domains do not necessarily coincide with the ellipsis sites either. The phasal domains are the complements of phase heads, i.e. TP for the C phase head and vP for the Voice phase head. On the other hand, the ellipsis sites for the phenomena mentioned above are the complement of T for MCE, TP itself for sluicing, vP for VPE and pseudogapping and VP for British English *do*. In short, the set of possible licensing heads and ellipsis sites does not coincide with the set of phase heads and phasal domains.

Finally, the effect of ellipsis is wider than that of phase heads. Phase heads have an effect on one phasal domain, which they render inaccessible for syntax. They cannot reach into a phasal domain that has been sent to PF already by another phase head. Ellipsis on the other hand, has scope over the whole ellipsis site. I define the ellipsis site as the entire complement of the head bearing [E]. As a result, it also affects phasal domains that have been sent to PF prior to ellipsis.

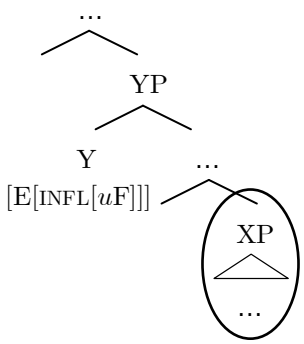
Note that the effect of ellipsis is twofold: (a) it freezes the ellipsis site for any further syntactic operations, and (b) it marks it for ellipsis at PF, i.e. it prevents lexical insertion. The first effect is the same as the one a phase head has on a phasal domain. The second effect, however, implies that ellipsis can overrule phases. Consider a phasal domain XP that is sent to PF by a phase head, cf. (53).

(53)



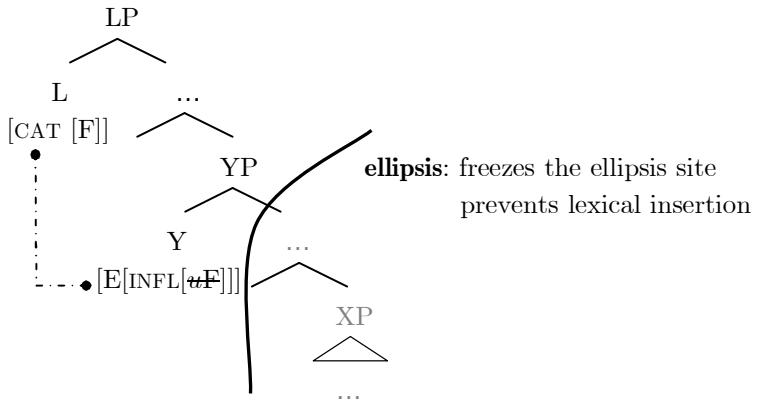
Suppose that XP is part of an ellipsis site, the complement of YP, as is illustrated in (54):

(54)



When the licensing head L is merged and checks the [E]-feature, the ellipsis site is frozen (cf. (55)). XP is not affected by this, because it has been frozen already. However, the whole ellipsis site is also marked for ellipsis, which means that its terminal nodes will not be assigned phonological content at PF. This aspect affects XP as well. Hence, ellipsis overrules phases.

(55)



Essentially, if ellipsis can access the phasal domains that have already been sent to PF, this implies that the deletion effect of ellipsis, i.e. the blocking of lexical insertion, cannot be a syntactic operation. It has to be a PF phenomenon. This conclusion is in contrast to Baltin (2007), who claims that deletion occurs in narrow syntax.[102]

[102] More on Baltin's (2007) analysis in chapter 4.

In conclusion, the present section has shown that there are crucial dissimilarities between ellipsis and phases and that the two cannot be considered two sides of the same coin.

3.2.5 Interaction between ellipsis and phases: predictions

Phases and ellipsis are not directly related, but they can interact in several possible ways. In this section this interaction, i.e. the co-occurrence of their triggers (phase heads and licensors), is looked at in detail.

There are two relevant cases to consider: (a) there is a phase head in between the ellipsis site and the licensor, or (b) there is no phase head in between the ellipsis site and the licensor.[103] This difference has important consequences for extraction: it explains why in some cases the extraction possibilities in ellipsis differ from the non-elliptical counterpart, while in others they do not.

3.2.5.1 An intervening phase head

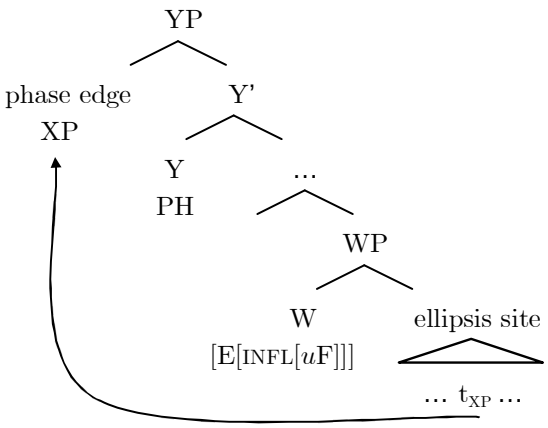
Consider the first case, where there is a phase head intervening between the ellipsis licensor and the ellipsis site. Suppose there is a constituent XP in the ellipsis site WP that has to move to a position higher up in the structure. When the phase head Y is merged, XP is automatically attracted to the phase edge [Spec, YP]. This situation is depicted in (56).

[103] For completeness' sake I list all possible interactions of two phase heads (PH), an ellipsis licensor L and an [E]-feature:

(i)	a.	L	PH_1	[E]	PH_2
	b.	PH_1	L	PH_2	[E]
	c.	L	[E]	PH_1	PH_2
	d.	PH_1	PH_2	L	[E]
	e.	PH_1	L	[E]	PH_2
	f.	L	PH_1	PH_2	[E]

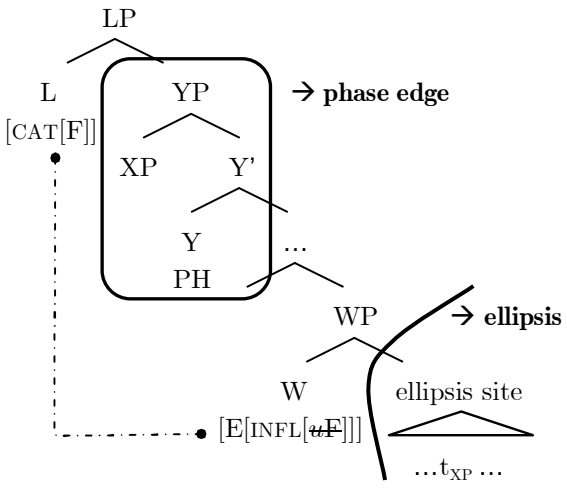
The possibilities in (i)a,b are two instances of the case where there is a phase head intervening between licensor and ellipsis site. Possibilities (i)c,d,e fall under the option where this is not the case. The last logical possibility, with two phase heads intervening, is blocked by locality: the licensor and [E] are too far apart. More on locality in section 3.5 below.

(56)



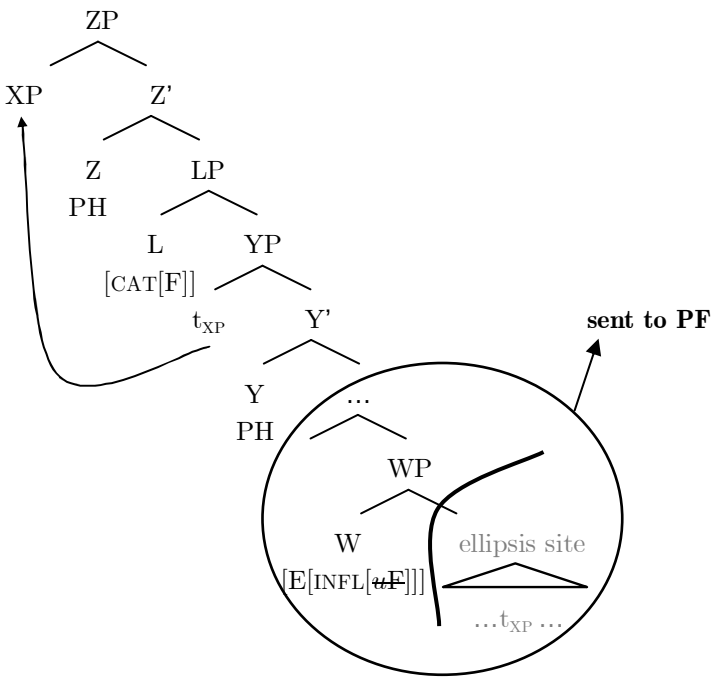
When in (57) the ellipsis licensor L is merged, the ellipsis site is sent off to PF for non-pronunciation. Since XP is no longer in the ellipsis site, it is not deleted.

(57)



In (58) the next phase head Z sends the lower phasal domain off to PF and attracts XP to its edge.

(58)



In short, the phase head between the licensor and the ellipsis site can attract constituents to its phase edge and hence out of the ellipsis site, providing an automatic escape hatch for any constituent that needs to undergo further operations. As a result, the extraction possibilities in this case are the same in ellipsis and its non-elliptical counterpart.

The data in (59) and (60) illustrate that this is the case in English VPE and – Dutch and English – sluicing. The a-examples display extraction of a *wh*-subject, while in the b-sentences it is the *wh*-object that has been extracted. All the sentences are fine, whether ellipsis has applied or not.

(59) a. So you say Ryan went to Australia last summer, but then who didn't [~~t_{who} go to Australia last summer~~]?

b. I don't remember which songs Tim could play, but I know which ones he couldn't [~~play $t_{which\ ones}$~~].

(60) a. Iemand is naar Australië geweest vorige zomer, maar
someone is to Australia been last summer but
ik weet niet meer wie [~~t_{wie} naar Australië gegaan is~~].
I know not more who to Australia been is
'Someone went to Australia last summer, but I don't recall

who [~~t$_{who}$ went to Australia last summer~~].' (Dutch)

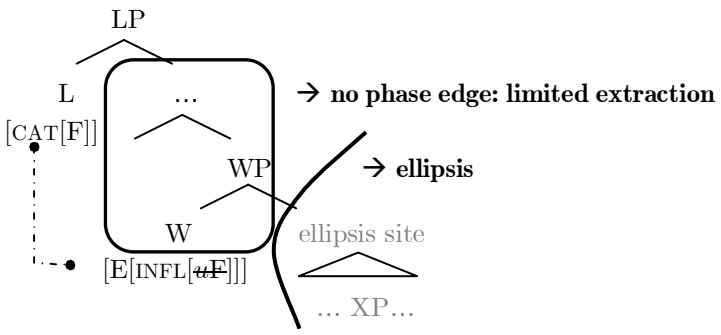
b. Tim kon een paar liedjes spelen, maar ik weet
Tim could a couple songs play but I know
niet meer welke [~~Tim kon spelen t$_{welke}$~~]. (Dutch)
not more which Tim could play
'Tim could play some songs, but I don't remember which ones [~~Tim could play t$_{which\ ones}$~~].'

In the next chapter I discuss these constructions in more detail and show that in these cases there is indeed a phase head intervening between the licensor and the ellipsis site. Consequently, both the object and the subject have already moved out of the ellipsis site before ellipsis takes place.

3.2.5.2 No intervening phase head

Next, I consider the case where there is no such phase head providing an escape hatch out of the ellipsis site prior to the merger of the ellipsis licensor, extraction possibilities are more limited than in non-ellipsis. This is shown schematically in (61). When the ellipsis licensor L is merged, the [E]-feature on W is checked and the ellipsis site is sent off to PF.

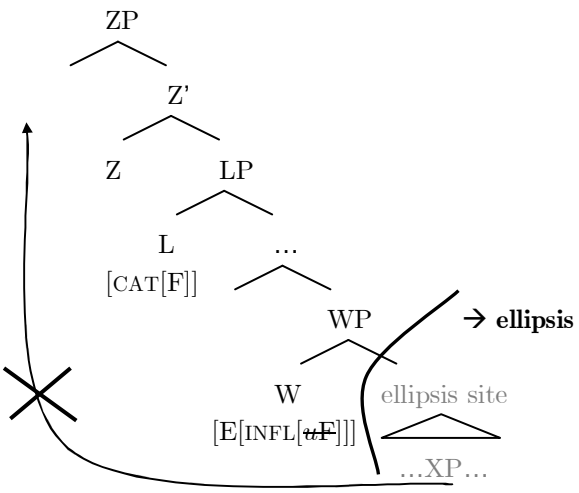
(61)



Unlike in (56), there is no phase edge attracting XP out of the ellipsis site before L is introduced.[104] XP has no automatic escape hatch through the specifier of a phase head – which would attract every constituent that needs to undergo further operations – and is stuck in the ellipsis site, as in (62).

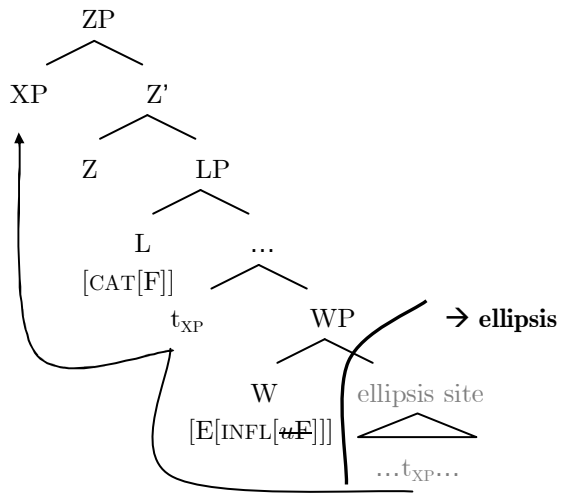
[104] Note that the ellipsis site can contain a phase (as in options (i)a,c,e in footnote 103), but this will not affect the extraction possibilities. What is crucial is that the absence of a phase head between the ellipsis site and the licensor means that there is no automatic escape hatch for all XPs that need to undergo further operations.

(62)



However, XP can escape ellipsis if it is attracted to a position between the licensor and the ellipsis site for some other reason. In the tree in (63), XP can be attracted by the higher head Z if it has already moved out of the ellipsis site before the merger of L.

(63)



The extraction pattern observed in Dutch MCE can be accounted for along the lines just sketched: the subject in MCE has a position to move to between the licensor and the ellipsis site (not a phase edge) and hence survives the ellipsis, while objects do not have such a position, resulting in the extraction contrast repeated in (64).

(64) a. Ik weet niet wie er KAN komen naar het feestje
I know not who there can come to the party
vanavond, maar ik weet wel **wie** er niet MAG
tonight but I know PRT who there not is.allowed
[~~komen naar het feestje vanavond~~].
come to the party tonight
'I don't know who CAN come to the party tonight, but I do know who isn't ALLOWED to.'

b. * Ik weet niet wie Thomas MOET uitnodigen, maar ik
I know not who Thomas must invite but I
weet wel **wie** hij niet MAG.
know AFF who he not is.allowed
'I don't know who Thomas HAS TO invite, but I do know who he isn't ALLOWED to.'

The next section shows in more detail how exactly MCE is derived, i.e. how the approach outlined in the present sections applies to the specific case of MCE.

3.3 The analysis of MCE

The past two sections of this chapter have laid out my analysis of ellipsis licensing. The main claims are the following:

(65) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.

b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point, the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

In the present section, this approach is applied to the elliptical phenomenon presented in chapter 2: Dutch modal complement ellipsis (MCE). First, I determine the two ingredients, the licensing head and the ellipsis site.

The licensing head of an elliptical construction is the head that needs to be present for ellipsis to be allowed. In chapter 2 I demonstrated that MCE is only possible in the presence of a root modal. Minimally differing sentences with epistemic modals and aspectual auxiliaries, for instance, showed that these

cannot have their complement deleted. As I proposed such comparison of minimal sentences as a test to determine the licensor of an elliptical phenomenon (see section 3.1.1 above), I take the licensing head of MCE to be a root modal verb.

Furthermore, chapter 2 showed that it is not the entire modal complement that is elided. The ellipsis site includes VP and the aspectual and voice auxiliaries, but high adverbs adjoined to TP and the associate of *there*-expletive subjects are not deleted. It is the complement of T that is affected by MCE. Hence, I take T to be the head bearing the ellipsis feature. This results in the following feature specification for $[E]_{MCE}$ in (66): $[E]_{MCE}$ resides on a T head, as is specified in its SELectional features and it bears an uninterpretable INFLectional feature that needs to be checked against the CATegory feature of a root modal.

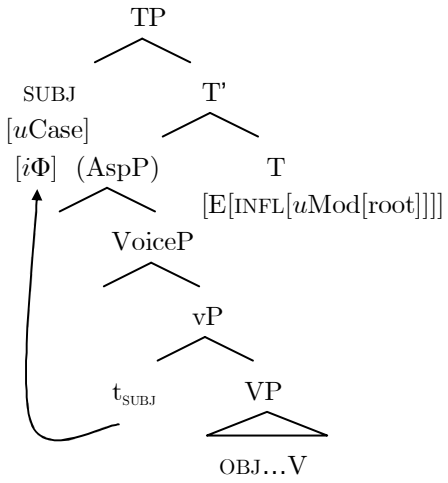
(66)
$$[E]_{MCE} \quad \begin{pmatrix} \text{CAT} & [\text{E/X}] \\ \text{INFL} & [u\text{Mod}[\text{root}]] \\ \text{SEL} & [\text{T}] \end{pmatrix}$$

Next, I demonstrate how the ellipsis mechanism is applied to MCE by placing these ingredients in an abstract tree structure. The tree in (67) depicts the TP complement of a modal, with a transitive embedded verb phrase and T bearing the MCE [E]-feature. The embedded T's deficient phi-features attract the subject, which has an unchecked Case feature, to the specifier of TP (see Chomsky 1995, 1998).[105]

[105] Because of this unchecked Case-feature, the subject first moves to the clause-internal phase edge [Spec, VoiceP]. However, I have not represented this movement here, because it is irrelevant at this point: the phase edge is included in the ellipsis site.

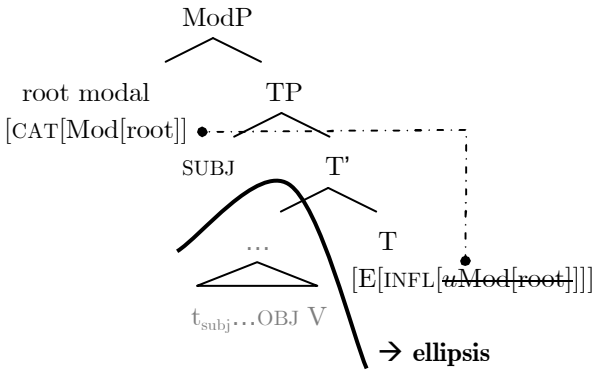
Note that this implies that the subject first undergoes A'-movement – to the phase edge – and then A-moves to [Spec, TP], which would be an instance of improper movement. The problem could be solved by saying that movement to the phase edge because of an unchecked Case-feature is not A'-movement. This issue is not specific to my account, however, and goes beyond the scope of this dissertation.

(67)



In the following step the root modal is merged into the structure. At this point the [E]-feature on T is checked and T's complement is sent to PF and hence, it is frozen for syntactic operations. Given that the subject is not contained in the ellipsis site, it survives, while the rest of the complement is elided as is illustrated in (68). This fact will prove to be crucial in explaining the extraction contrast between subjects and objects in MCE in the next section.

(68)



Now that it is clear how my theory of ellipsis licensing can be applied to MCE, I return to the properties of this phenomenon.

3.4 Explaining the properties of MCE

Chapter 2 introduced the phenomenon in Dutch dubbed modal complement ellipsis or MCE and presented seven basic properties of this phenomenon, listed in (69).

(69)
a. MCE is only allowed with root modals.
b. MCE affects a complete constituent.
c. MCE exhibits limited extraction.
d. MCE allows for *there*-expletive subjects.
e. MCE blocks the IPP effect.
f. MCE does not impose restrictions on the position of the antecedent.
g. MCE allows form mismatches between the antecedent and the ellipsis site.

On the one hand, some of these properties are directly built into the analysis. To these properties I will not devote a separate section; I only briefly explain how they are built into the analysis.

The first property I mentioned is that MCE is only allowed with root modals. This is built into the analysis, as I claim that root modals are the heads licensing this kind of ellipsis. The pressing question is what makes a head a licensor for ellipsis, however. Why is it that only root modals allow for ellipsis, for instance, and epistemic ones do not? Moreover, why is the dynamic interpretation of *kunnen* excluded in MCE (cf. section 2.2.1 in the previous chapter)? This is part of a much larger question that goes well beyond the scope of the present study.[106]

Secondly, the fact that MCE affects a complete constituent is captured by the analysis as well: MCE deletes the complement of the embedded T. It should be noted that most works on ellipsis claim that ellipsis deletes constituents (see

[106] In order to solve the question of why only root modals allow for MCE, the fixed order in which epistemic and root modals occur (see Cinque 1999, cf. footnote 39) might be worth looking at, as well as other possible syntactic differences between epistemic and root modals. See also Gergel (2005) for a discussion of modals in English and their interaction with ellipsis. As for why dynamic *kunnen* does not occur in MCE contexts, note that this modal also behaves exceptionally in the raising/control diagnostics, cf. section 2.1.2.2: it patterns with the deontic modals and other raising verbs in all tests except the impersonal passive. Dynamic *willen*, however, behaves like a control verb in all tests and still allows for MCE. At this moment, I have no explanation for this puzzle and I hope to investigate it further in future research.

Ross 1969b, Jayaseelan 1990, Lasnik 1995b, Merchant 2001, Fortin 2007). However, there are accounts arguing for deletion of separate words as well; see Hankamer (1973, 1979); Williams (1997); Depiante & Hankamer (2005) and Ackema & Szendroi (2002), for instance.

Next, there is a property the analysis does not really have to explain. The fact that in MCE there are no severe restrictions on the position of the antecedent, parallel to English VP ellipsis and unlike in gapping, is accounted for in the sense that the analysis does not impose any such restrictions. An analysis of gapping, for instance, will indeed need to account for the restrictions, but that is not an issue the present work is dealing with.

On the other hand, there are properties that do deserve more attention, namely: (c) MCE exhibits limited extraction, (d) MCE allows for *there*-expletive subjects and (e) MCE blocks the IPP effect. For each of these I explain below how they fall out from the analysis.

The property in (g) about the form mismatches between the antecedent and the ellipsis site ties in with the debate on the recoverability condition on ellipsis. A pressing question in this discussion is whether the ellipsis site has to be syntactically identical to the antecedent or not. As this study is only concerned with the licensing requirement, I will not discuss this issue here. However, the voice mismatches that are observed in MCE will provide an argument against a language-universal syntactic identity approach in the section on pseudogapping in chapter 4.[107]

3.4.1 Extraction

Dutch MCE displays limited extraction. It allows subjects, even derived subjects, to survive the ellipsis (cf.(70)a), while no object can move out of the ellipsis site (cf. (70)b). Adjuncts can only remain if they are attached higher than the ellipsis site to begin with (cf. (70)c); otherwise, they are not allowed to extract either (cf. the VP modifier in (70)d).[108]

[107] At this point I do not have a satisfactory explanation for why MCE only allows voice mismatches in one direction (see section 2.2.7), but I hope to come back to this issue in further research.

[108] For a distinction of adverbs in terms of structural position, see Jackendoff (1972), Zubizarreta (1987) and Sportiche (1988) who argue that verb modifying adverbs are adjoined to the verb phrase, while sentential adverbs are attached higher, at the TP level. See also Cinque (1999) for a hierarchy of adverb placement. Whether adverbs adjoin to a projection or occur in the specifier of a functional projection (cf. Cinque 1999) is immaterial to the discussion at hand.

(70) a. Die broek MOET nog niet gewassen worden, maar **hij**
those pants must still not washed become but he
MAG al wel [$t_{\text{die rok}}$ ~~gewassen worden~~].
may already PRT washed become
'Those pants don't have to be washed yet, but they can be.'

b. * Ik weet niet wie Thomas MOET uitnodigen, maar ik
I know not who Thomas must invite but I
weet wel **wie** hij niet MAG.
know AFF who he not is.allowed
INTENDED: 'I don't know who Thomas HAS to invite, but I do know who he isn't ALLOWED to.'

c. Gisteren moest ik nog volgende week optreden
yesterday must.PAST I still next week perform
en nu moet ik pas **de week erna** [~~optreden~~].
and now must I only the week there.after perform
'Yesterday I had to perform next week still, and now I only have to the week after that.'

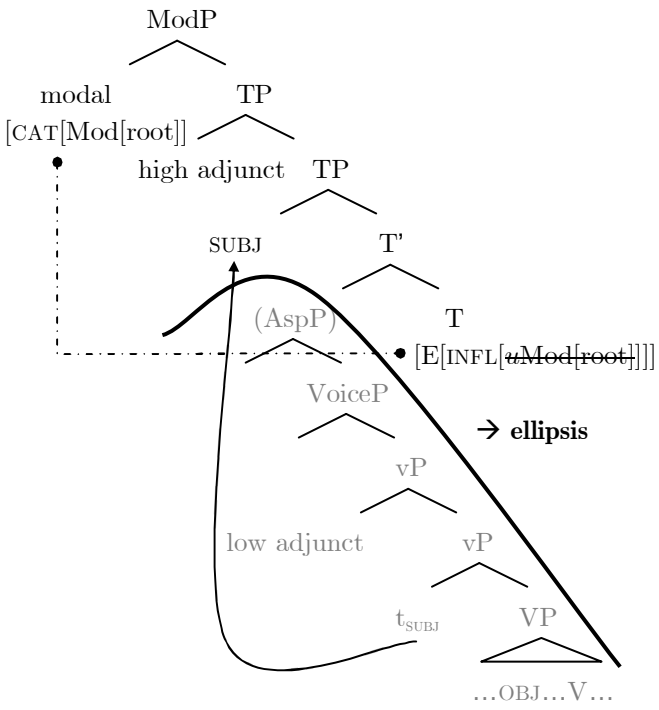
d. * Je hoeft niet per se snel te schrijven; je moet vooral
you need not per se fast to write you must most.of.all
mooi.
beautifully
INTENDED: 'You don't have to write quickly per se; most of all you should write beautifully.'

The analysis presented above straightforwardly accounts for this contrast: because ellipsis takes place during the course of the derivation, i.e. as soon as the licensing root modal is merged into the structure, only phrases that have moved out of the ellipsis site prior to the merger of the licensor can escape the ellipsis. From the moment the root modal has been merged and ellipsis has occurred, nothing else can be extracted.[109] As it happens, there is a position for the subject to move to between the ellipsis site and the licensor, namely the embedded [Spec, TP], as is shown in (71). However, if an object has to move out of the ellipsis site, for instance to satisfy a *wh*-feature higher up in the structure or in order to undergo scrambling or topicalization, it has no position to move to before the root modal triggers ellipsis.[110] Therefore, it is stuck in the ellipsis site

[109] In chapter 4 I show that the licensor itself can still attract an element out of the ellipsis site. This is not crucial in MCE, but it will play a role in the analysis of British English *do*.
[110] For expository purposes I do not represent the movement to the clause-internal phase head here because this position is also included in the ellipsis site.

and gets deleted. The same reasoning applies to adjuncts: high adjuncts adjoin to a position outside of the ellipsis site, while low adjuncts do not (cf. (71)).

(71)



In other words, only phrases that move to – or are base-generated in – a position between the ellipsis site and the licensor can survive the ellipsis. Given that subjects have an escape hatch to move to prior to ellipsis, while objects do not, this analysis predicts precisely the contrast observed in Dutch MCE. Next, I go over the derivation of the different extraction cases separately. In section 3.4.1.6 I present some antecedent-contained deletion (ACD) cases that cannot be captured by the analysis, however.

First, I look at subject extraction out of the ellipsis site.

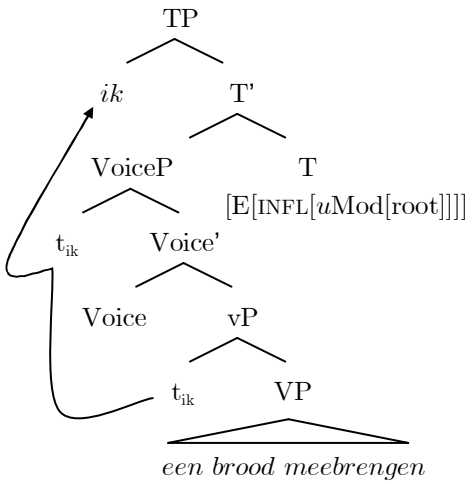
3.4.1.1 Subject extraction with transitive verbs

Consider the sentence in (72). Given that modals are raising verbs, the subject *ik* 'I' of the second conjunct is extracted out of the ellipsis site.

(72) Ik wil wel een brood meebrengen, maar ik kan niet.
I want PRT a bread along.bring but I can not
'I do want to bring you a loaf of bread, but I can't.'

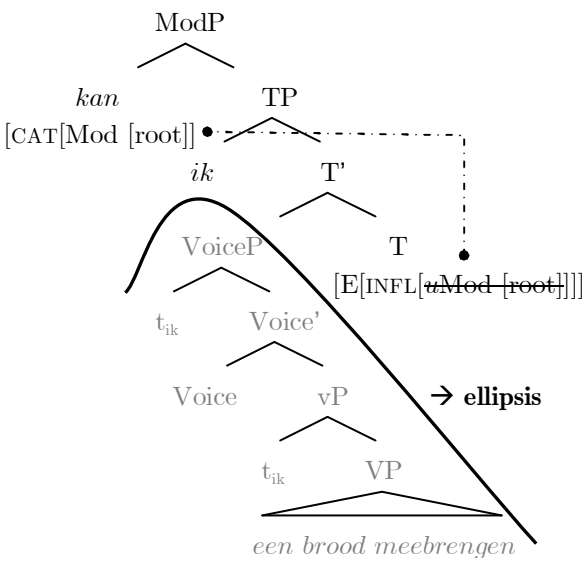
The embedded verb is transitive. Hence, the subject is base-generated in the specifier position of the embedded vP and moves – through the clause-internal phase edge – to the embedded [Spec,TP]. This is illustrated in (73).

(73)



Next, the licensor is merged and checks the [E]-feature (cf. (74)). Consequently, the ellipsis site is sent to PF. Since the subject has already moved out of it, it is not deleted, resulting in the sentence in (72) above.

(74)



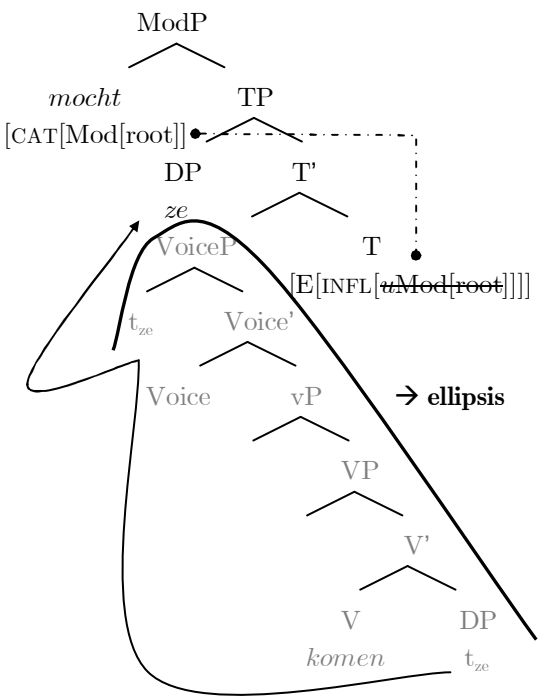
3.4.1.2 Extraction of a derived subject

The previous section demonstrated how the subject of an embedded transitive verb can escape from the ellipsis site. Here I go over the derivation of MCE with a derived subject. An example is given in (75), where the subject *ze* 'she' is base-generated in the complement position of the embedded unaccusative verb *komen* 'come'.

(75) Dorien wou wel komen, maar ze mocht niet.
Dorien wanted PRT come but she was.allowed not
'Dorien did want to come, but she wasn't allowed to.'

The subject again moves from its base position through the phase edge to the embedded [Spec, TP], cf. (76). When the modal checks [E], the subject is outside of the ellipsis site and is not elided.

(76)



3.4.1.3 Extraction of a *wh*-object

The derivations above illustrate that the analysis of MCE presented in the first half of this chapter correctly predicts that subjects, even derived subjects, can be extracted out of the ellipsis site. The present section and the next one deal with illicit extractions of objects. First I discuss the derivation of a sentence with a *wh*-object and next, I turn to object scrambling.

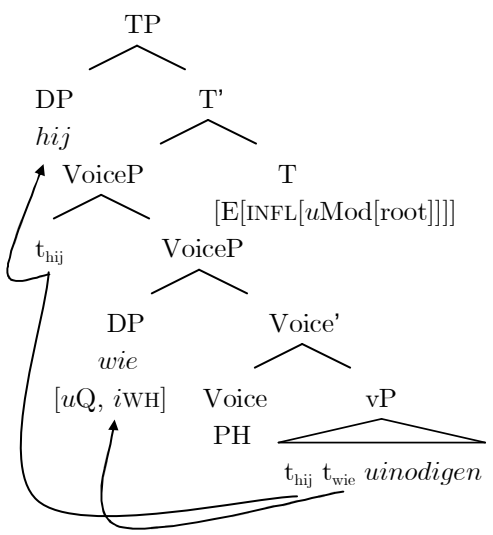
Consider the ungrammatical sentence in (77).

(77) * Ik weet niet wie Thomas MOET uitnodigen, maar ik weet
I know not who Thomas must invite but I know
wel **wie** hij niet MAG.
AFF who he not is.allowed
'I don't know who Thomas HAS to invite, but I do know who he isn't ALLOWED to.'

Because the *wh*-object has an uninterpretable [Q]-feature that has to be checked against an interrogative C head, it moves to the clause-internal phase edge

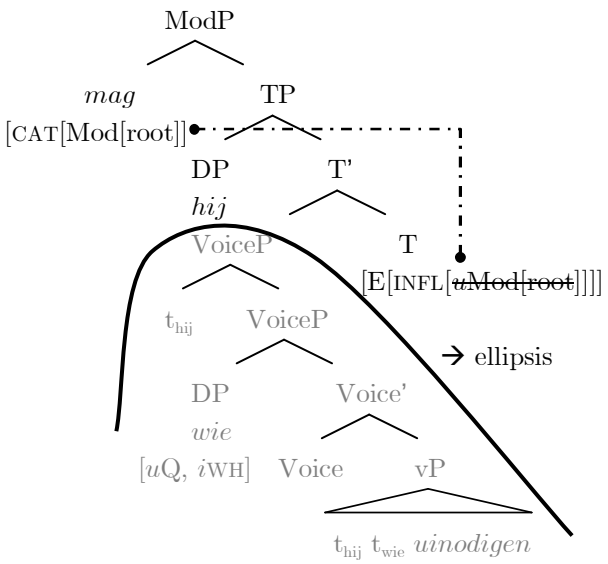
[Spec, VoiceP]. As before, so does the subject before moving on to the embedded [Spec, TP]. This is shown in (78).

(78)



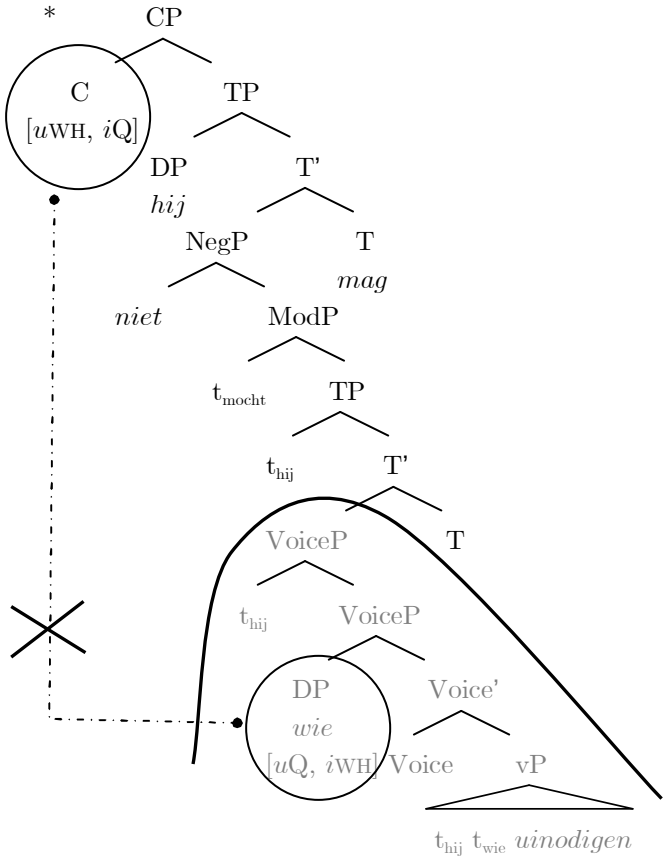
In the next step the root modal *mocht* 'was allowed to' is merged. At this point the complement of T is sent off to PF. In other words, from then on the ellipsis site is frozen for any syntactic operations. The subject sits in a position outside of the ellipsis site. The *wh*-object on the other hand, is stuck inside and is elided together with the rest of the clause (cf. (79)).

(79)



When the interrogative C [*i*Q, *u*WH] is merged, this head probes down in order to get its uninterpretable *wh*-feature checked. Because the *wh*-object is already elided at this point and is hence inaccessible for any syntactic operation, the [*u*WH] on C cannot be checked and the derivation crashes, cf. (80).

(80) ..., maar ik weet wel...



Summarizing, *wh*-object extraction is impossible in MCE because the object does not have a position to move to between the ellipsis site and the licensing head, in contrast to the subject.

3.4.1.4 Object scrambling

Another ungrammatical instance of extraction out of an MCE ellipsis site involves object scrambling, as in (81). I show that in this case as well, the object cannot move out of the ellipsis site prior to ellipsis.

(81) * Ik wil je wel helpen, maar ik kan je niet.
I want you PRT help but I can you not

I assume that an object in Dutch scrambles to a position in the (lower) middle field of the clause, i.e. outside the verb phrase but lower than T (see also Haegeman 1996).[111] In modal sentences, however, it can also scramble to the middle field of the matrix clause, higher than the base position of the modal.[112] Empirical evidence for such a claim is provided by negation and *there*-associates. The data in (82) show that objects scramble across these elements in non-elliptical sentences. In the case of negation, the object obligatorily scrambles to the matrix clause, preceding negation, whereas it is allowed to stay in te embedded middle field in (82)b.

(82) a. Ik kan <je> **niet** <* je> helpen.
I can you not you help
'I can't help you.'

b. Je hoeft niet alles alleen te schilderen. Er kan
you need not everything alone to paint there can
< je> toch **IEMAND** < je> helpen.
you prt someone you help
'You don't have to paint everything on your own. SOMEONE can help you at least.'

---

[111] To which position the object scrambles and what triggers the movement are questions that are beyond the scope of the present dissertation. I refer the interested reader to the literature on object scrambling (Bennis & Hoekstra 1983; Vanden Wyngaerd 1989; Mahajan 1992; Neeleman & Reinhart 1997, among others)

[112] This is parallel to languages such as Italian, for instance, where an object clitic of the embedded clause can either raise to the matrix clause containing a modal, as in (i)a, or stay in the embedded clause (cf. (i)b).

(i) a. La vorrei vedere oggi.
her I.would.want see today

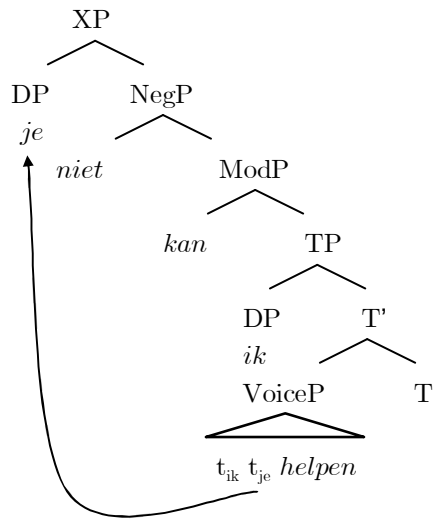
b. Vorrei vederla oggi
I.would.want see.her today
'I would like to see her today.'

Note that the negation in (82)a is interpreted in the matrix clause, not in the embedded clause, as (83) illustrates.[113]

(83) Ik kan je niet helpen.
I can you not help
= 'I am not able/available to help you.'

Consequently, if the negation is part of the matrix clause and the scrambled object precedes it, then object scrambling must take the object to a position in the matrix clause as well, higher than the modal, cf. (84). Which position this is exactly is irrelevant for the analysis presented here.

(84)



[113] The negation can be interpreted as embedded under the modal when it is heavily stressed, as section 2.2.2 in the previous chapter showed.

(i) Ik kan je ook NIET helpen.
I can you also not help
'I am also able to NOT help you.'

However, the default unmarked reading has the negation in the matrix clause, even when the object precedes it. This shows that scrambling moves the object to a position in the middle field of the matrix clause in (82)a.

Whether the object has also scrambled to the matrix clause in (i), or to the middle field of the embedded clause, is irrelevant to the discussion. If it scrambles to the matrix clause, it resides in a position higher than the modal; otherwise it is situated in the complement of the embedded T. Either way it is deleted in MCE, since it does not move to a position between the licensor and the ellipis site.

Moreover, observe that an object cannot scramble to a position c-commanding the subject in the same clause, as is illustrated in (85). This shows that the scrambled object in (82)b has not moved to a position inside the modal complement, i.e. to a position between the modal and the embedded [Spec, TP].

(85) Ik weet dat <*je> hij < je> niet geholpen heeft.
I know that you he you not helped has
'I know he didn't help you.'

In short, object scrambling can move an object to the middle field of the modal complement, or to that of the matrix clause, to a position c-commanding ModP.

Turning to MCE, this means that under both options the object is elided. Object scrambling out of the modal complement has not yet taken place when the modal is merged into the structure. Hence, the object is still inside the ellipsis site and as a result it is deleted, as (86) shows.[114]

[114] Because not all objects undergo object scrambling, I assume that it is not triggered by any strong feature on a head c-commanding the object, but by a strong feature on the object itself (see Platzack 1996; van Riemsdijk 1997; Koeneman 2000; Zwart 2004 and van Craenenbroeck 2006 on foot driven movement). For expository purposes I represent the position the object moves to as [Spec, XP] and I call the feature that triggers the movement [F*]. The asterisk indicates that [F] is a strong feature on the object.

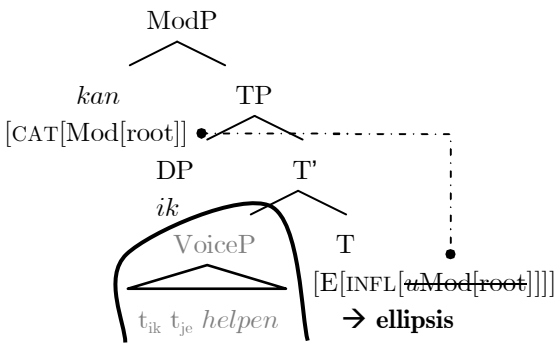
(i) $[_{TP}$ SUBJ [T [... $[_{XP}$ OBJ$_{[uF^*]}$ [X$_{[iF]}$ $[_{VP}$ V t$_{OBJ}$]]]]]]

Consequently, the absence of object scrambling in MCE does not render the sentence ungrammatical, as it did with *wh*-objects. The strong feature is deleted together with the object and the resulting sentence is perfectly fine:

(ii) Ik wil je wel helpen, maar ik kan (*je) niet.
I want you PRT help but I can you not
'I want to help you, but I can't.'

In other words, ellipsis functions as a repair strategy: if a strong feature fails to trigger movement, ellipsis of the feature makes sure the derivation does not crash (see Lasnik 1995b, 2001; Merchant 2001, 2008a; Johnson 2001; Fox & Lasnik 2003; van Craenenbroeck & Den Dikken 2006 for other accounts involving ellipsis as a repair strategy).

(86)



3.4.1.5 Adjuncts

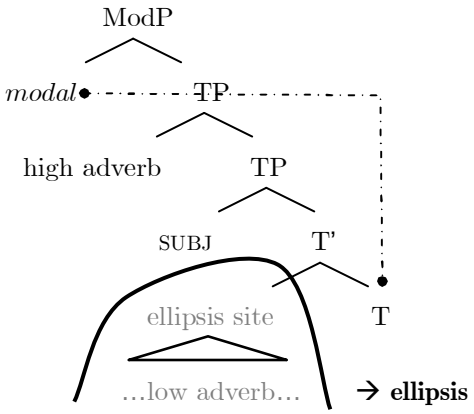
Finally, I turn to adjuncts. The examples in (87) illustrate that verb modifying adverbs are obligatorily included in the MCE ellipsis site, while high adverbs are not (see Jackendoff 1972, Cinque 1999, among others, for a classification of adjuncts).

(87) a. Gisteren moest ik nog volgende week optreden
yesterday must.PAST I still next week perform
en nu moet ik pas **de week erna** [~~optreden~~].
and now must I only the week there.after perform
'Yesterday I had to perform next week still, and now I only have to the week after that.'

b. * Je hoeft niet per se snel te schrijven; je moet vooral
you need not per se fast to write you must most.of.all
mooi.
beautifully
INTENDED: 'You don't have to write quickly per se; most of all you should write beautifully.'

I assumed in section 2.2.2 that high adverbs are adjoined as high as TP, i.e. they are not part of the ellipsis site to begin with, while low adverbs adjoin to the verb phrase (cf. (88), see also Zubizarreta 1987, Sportiche 1988, among others). As these low adverbs do not have a position to move to between the ellipsis licensor and the ellipsis site, they are elided.

(88)



3.4.1.6 Antecedent-Contained Deletion

The previous sections have demonstrated how the theory of ellipsis licensing proposed in this work captures the extraction contrast between subjects and objects in MCE. This section, however, presents a set of data that are unexpected in this light, namely MCE in antecedent-contained deletion (ACD) contexts. An example of VPE in such a context is given in (89): the ellipsis site is part of its own antecedent [*read every book* ...].

(89) Marko read every book Sarah did.

Such examples involve relative clauses, which traditionally receive an analysis involving movement out of the relative clause to the embedded [Spec, CP]. The element that moves is either an abstract operator or the relative pronoun (see Chomsky 1977, 1981) or the nominal head of the relative clause itself (see Kayne 1994, among others).[115] I adopt Chomsky's approach here, although nothing in the discussion hinges on this, and demonstrate the movement for English in (90), and for Dutch in (91).

(90) a. Kim read every book Dorien recommended.
b. Kim read every book Op_i [Dorien recommended t_i].

(91) a. Kim leest elke verhandeling die ik haar aanraad.
Kim reads every dissertation that I her recommend

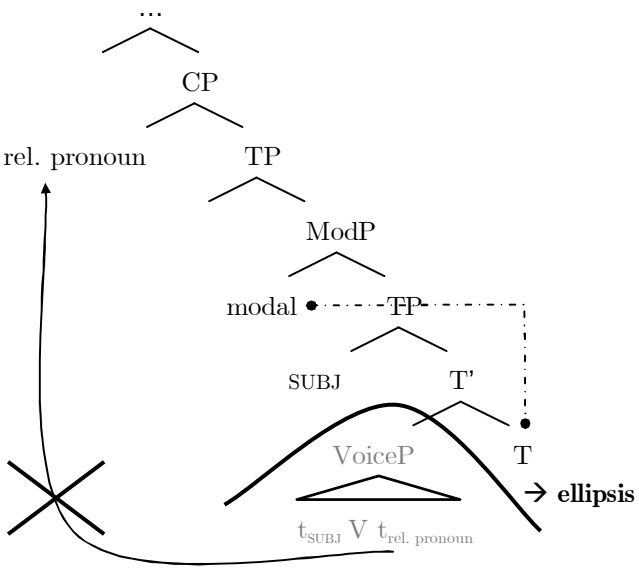
[115] For an extensive overview of the different approaches of relative clauses, see the State-of-the-Article papers by Bianchi (2002a, 2002b).

'Kim reads every dissertation I recommend to her.'

b. Kim leest elke verhandeling die ik haar t_{die} aanraad.

Given this analysis of relative clauses, MCE inside a relative clause is expected to be ungrammatical, since extraction of the relative pronoun from the object position would be prevented in the same way object extraction is: ellipsis takes place before the pronoun has moved out of the ellipsis site. This is shown in the simplified tree structure in (92).

(92) *



However, it turns out that MCE is allowed in ACD contexts, as the examples in (93) illustrate. This suggests that extraction of the relative pronoun out of the ellipsis site is possible.

(93) a. $Olaf_i$ leest elk boek **dat** hij_i wil [~~lezen t_{dat}~~].
Olaf reads every book that he wants read
'Olaf reads every book he wants.'

b. $Olaf_i$ heeft elk boek gelezen **dat** hij_i moest [~~lezen t_{dat}~~].
Olaf has every book read that he must.PST read
'Olaf read every book he had to.'

c. $Olaf_i$ zal uitnodigen **wie** hij_i mag [~~uitnodigen t_{wie}~~].
Olaf will invite who he is.allowed invite
'Olaf will invite who he's allowed to.'

A closer look at the data on the other hand, reveals that MCE in ACD contexts is subject to a remarkable restriction: it is only allowed when the subject in the antecedent is coindexed with the subject in the ellipsis site (as was the case in (93)). If the subjects have different referents, MCE is illicit, as (94) illustrates.

(94) a. * Olaf leest elk boek dat ik wil [~~lezen t_{dat}~~].[116]
Olaf reads every book that I want read
'Olaf reads every book I want to read.'

b. * Olaf heeft elk boek gelezen dat David moest
Olaf has every book read that David must.PST
[~~lezen t_{dat}~~].
read
'Olaf read every book David had to.'

A similar restriction has been observed in other elliptical constructions as well, see Haik (1985, 1987), Merchant (2001) and Lasnik (2006). Haik (1985, 1987) mentions the following contrast in English VPE:[117]

---

[116] Under a different reading the sentence in (94)a is grammatical, namely when the ellipsis site is interpreted as a finite CP:

(i) Olaf leest elk boek dat ik wil [dat hij leest].
Olaf reads every book that I want that he reads
'Olaf reads every book that I want him to read.'

Willen 'want' is the only modal that can select a finite CP complement when its subject is not an expletive. The reason for this is that *willen* is the only control verb among the modals.

[117] Note that a seemingly related contrast is found in contexts other than ACD (examples adapted from Lasnik (2006)):

(i) a. Chris$_i$ wanted PRO$_i$ to read books and Jason$_j$ [~~wanted PRO$_j$ to read~~] magazines. (gapping)
b. * Chris$_i$ wanted Ryan to read books and Jason$_j$ [~~wanted Ryan to read~~] magazines.
c. ? Karen$_i$ wants to study astronomy, but she doesn't [~~want PRO$_i$ to study~~] meteorology. (pseudogapping)
d. * Karen$_i$ wants her son to study astronomy, but she doesn't [~~want him$_i$ to study~~] meteorology.
e. ? Someone$_i$ wanted PRO$_i$ to talk about something, but I don't know who$_j$ [~~wanted PRO$_j$ to talk~~] about what. (multiple sluicing)
f. * Someone wanted Karen to talk about something, but I don't know who$_i$ [~~wanted Karen to talk~~] about what.

The contrast in these cases should not be considered the same as in (95), however. In the examples in (i) the subjects of the elided VPs can have different referents. However, the subject of the embedded clauses inside the antecedent and elided verb phrase have to be coindexed with the matrix subject.

(95) a. Robert$_i$ talked to everyone who wanted him$_i$ to. (Haik 1985:180)
b. * Robert$_i$ talked to everyone who wanted Albert$_j$ to.

I first present her approach and then show that the explanation she provides for these facts cannot account for the contrast in Dutch MCE, however.

Haik (1987) analyzes the ellipsis site as an empty anaphor that is referentially dependent on its antecedent verb phrase. Due to the Principle of Referential Dependency, given in (96), this empty VP has to be bound inside the antecedent in order to avoid circularity: "an antecedent cannot contain an element anaphoric to it [i.e. to the antecedent, LA] which is not internally bound [to the antecedent, LA]" (Haik 1987:515).

(96) **Principle of Referential Dependency**
In [$_{XPi}$ ...x$_j$...], if x referentially depends upon some antecedent XP$_j$, then XP$_i$ is annotated as referentially dependent upon the antecedent, unless x$_j$ is bound inside XP$_i$. [Haik 1987:506]

She argues that the empty VP is bound by the relative operator (or relative pronoun), as is shown in (97)b for the grammatical VPE example in (97)a.[118]

(97) a. Karen talked to everyone Guido did.
b. Karen talked to everyone ***Op$_i$*** (that) Guido did **[$_{VP}$ e]$_i$**.

In the sentences in (95), however, the operator cannot bind the empty VP because it already binds the subject trace, as is depicted in (99).

(98) a. Robert talked to everyone who wanted him to.
b. * Robert talked to everyone who wanted Albert to.

(99) a. Robert [talked to everyone **who$_k$ t$_k$** wanted him to [$_{VP}$ e]$_i$]$_i$.
b. * Robert [talked to everyone **who$_k$ t$_k$** wanted Albert to [$_{VP}$ e]$_i$]$_i$.

Lasnik notes that this contrast also occurs in non-ellipsis, for instance with reciprocal binding, as in (ii). I refer the reader to Lasnik (2006) for more examples and discussion.

(ii) a. Alice and Megan wanted PRO to visit each other.
b. * Alice and Megan wanted Kristina to visit each other.

[118] Under her account the ellipsis site does not contain internal structure. Hence, the operator is not extracted out of the ellipsis site but is base-generated in [Spec, CP].

Hence, the empty VP has to find another binder inside the antecedent in order to avoid circularity. Haik assumes that the subject of this verb phrase can be such a binder, following Williams (1977c) according to whom "there exists a formal relation between the external argument of a predicate and the predicate, which is established syntactically as coindexing between the two" (Haik 1987:516):

(100) a. Robert [talked to everyone who$_k$ t$_k$ wanted **him$_i$** to **[$_{VP}$ e]$_i$**].
b. * Robert [talked to everyone who$_k$ t$_k$ wanted **Albert$_i$** to **[$_{VP}$ e]$_i$**].

The reason why this binding is illicit in (100)b is the condition on binding given in (101).

(101) **Condition on Binding**
If A is bound by B without being in a chain with it, then all occurrences of A must be bound by some occurrence of B.
[Haik 1987:516]

In (100)a the empty verb phrase is bound by *him*, which refers to Robert, and the antecedent verb phrase is also bound by *Robert*. In (100)b on the other hand, the empty VP is bound by Albert, while the antecedent VP is bound by Robert, violating the condition on binding.

In short, according to Haik (1985, 1987) an ellipsis site in ACD contexts should be bound either (a) by an operator inside the antecedent, or (b) by the same subject as its antecedent.

I now return to the MCE examples in ACD contexts and show that Haik's analysis cannot explain the contrast observed there. Suppose that in ACD contexts the ellipsis site is indeed an empty anaphor and not a fully-fledged structure. The sentence in (102)a can be depicted as in (102)a' and the ungrammatical sentence in (102)b receives the representation in (102)b'.

(102) a. Marijke heeft elk boek gelezen dat ze moest. (Dutch)
Marijke has every book read that she had.to
'Marijke read every book she had to.'
a'. Marijke heeft elk boek gelezen **dat$_i$** ze moest **[e]$_i$**.
b. * Marijke heeft elk boek gelezen dat Evelien moest.
Marijke has every book read that Evelien had.to
b'. * Marijke heeft elk boek gelezen **dat$_i$** Evelien moest **[e]$_i$**.

Because in neither case the relative pronoun has to bind a subject trace, it can bind the null anaphor and both sentences are predicted to be grammatical (parallel to (97)), contrary to fact. Hence, the contrast between (102)a and (102)b remains unexplained.

Recall that a deletion approach does not yield any better results. Under such an account the sentences can be represented as in (103).

(103) a. Marijke heeft elk boek gelezen **dat**$_i$ ze moest [~~lezen t$_i$~~].
b. * Marijke heeft elk boek gelezen **dat**$_i$ Evelien moest [~~lezen t$_i$~~].

The operator has moved out of the object position in the ellipsis site. Because in Dutch MCE object extraction is illicit, both sentences are predicted to be unacceptable, contrary to fact.

Observe that the subject of the ellipsis site is allowed to differ from the antecedent one in non-ACD contexts with MCE:

(104) Elke bakt de taart vanavond, want haar moeder kan niet
Elke bakes the cake tonight because her mother can not
[~~t$_{\text{haar moeder}}$ de taart bakken~~].
the cake bake
'Elke is baking the cake tonight, because her mother can't.

Another difference between ACD contexts and other environments is that in ACD the dynamic modal *kunnen* 'can' licenses MCE as well (cf. (105)), whereas this is impossible in non-ACD contexts (cf. section 2.2.1).

(105) Olaf$_i$ heeft elk boek gelezen dat hij$_i$ kon.
Olaf has every book read that he could
'Olaf read every book he could.'

At this point I do not have an explanation as for why MCE behaves unexpectedly in ACD contexts and why there is a contrast between non-coindexed and coindexed subjects. I have to leave this as a topic for further research.

3.4.1.7 Summary

Recapitulating, I have demonstrated how the analysis of Dutch MCE explains why objects and low adjuncts cannot be extracted out of the MCE ellipsis site,

while there is no such restriction on subjects. The subject has an escape hatch between the ellipsis site and the licensing modal, namely [Spec, TP]. The object and the low adverbs on the other hand, have no position outside the ellipsis site to move to before MCE takes place. High adjuncts are base-generated outside of the ellipsis site to begin with and are therefore not elided.

The fact that MCE is allowed in ACD contexts, but only when the subject of the ellipsis site is coindexed with the one in the antecedent, is an issue that deserves closer investigation.

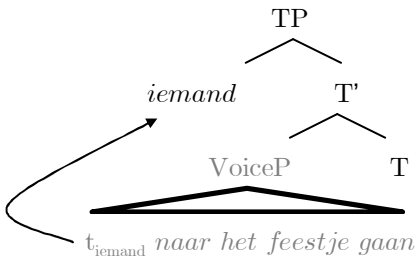
3.4.2 There-*expletives and MCE*

As was demonstrated in the previous chapter and is repeated in (106), Dutch MCE can apply to sentences with the expletive *er* 'there' as their subject, but the associate of *er* 'there' has to be overt, i.e. it has to survive the ellipsis.

(106) A: Gaat er iemand naar het feestje morgen?
goes there someone to the party tomorrow
B: Er moet toch IEMAND [~~naar het feestje gaan~~].
there must still someone to the party go
'Is anyone going to the party tomorrow?' – 'Well, SOMEONE has to.'

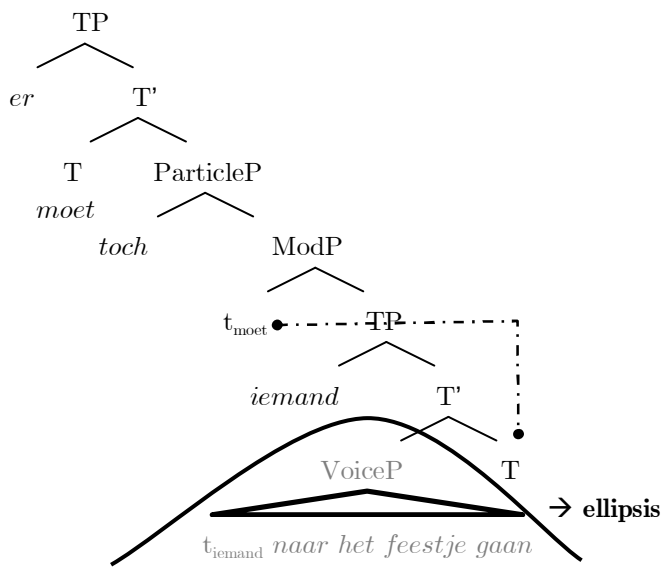
This is expected under the present analysis: the associate moves to the specifier position of the embedded TP as in (107), parallel to the subject of a sentence without *er* 'there'.

(107)



When the modal is merged and establishes an Agree relation with [E], the ellipsis site is frozen for syntactic operations. As the associate is no longer part of the ellipsis site at the point, it survives MCE (cf. (108)).

(108)



Recall that the presence of the *there*-associate in MCE provides an argument for the fact that the TP projection is not included in MCE.

3.4.3 MCE blocks the IPP effect

In non-elliptical sentences modal verbs display the IPP effect: they occur as an infinitive, not as a past participle. When the complement of the modal is deleted on the other hand, there is no IPP effect, i.e. the modal appears as a past participle.

The IPP effect is usually considered a consequence of verb clustering in Dutch:[119] in matrix clauses all non-finite verbs cluster together at the end of the clause, as in (109)a, and in embedded clauses the finite verb is included in the verb cluster as well (cf. (109)b); see Evers (1975); Haegeman & van Riemsdijk (1976); Bennis & Hoekstra (1989); Vanden Wyngaerd (1994b) and Wurmbrand (2003) for a discussion of verb clustering.[120]

[119] See Ijbema (1997), however, for a critical overview of the data, and Wurmbrand (2004a) for a rejection of the direct causal relation between IPP and verb clustering. Wurmbrand observes that "there are constructions displaying the IPP effect but lacking verb cluster reordering" (Wurmbrand 2004a:19).

[120] A full understanding of verb clustering and verb raising is well beyond the scope of this dissertation.

(109) a. Niko zal de gitaar moeten hersteld hebben.
Niko will the guitar must.IPP repaired have
'Niko will have had to repair the guitar.'

b. Ik denk dat Niko de gitaar zal moeten hersteld hebben.
I think that Niko the guitar will must.IPP repaired have
'I think that Niko will have had to repair the guitar.'

Wurmbrand (2004b) claims that "semantically vacuous word order changes [which she claims verb cluster reordering to be, LA] are not part of the syntax proper, but rather occur in a post-syntactic (PF) component" (Wurmbrand (2004b:284). Moreover, she argues that because IPP infinitives are interpreted as past participles, and not as infinitives, they still are past participles in the syntax and at LF. They are only realized as infinitives at PF (see also Schmid 2005 for IPP as a last resort repair strategy at PF). Historically, the IPP effect can be considered as an assimilation of the modal to the form of the infinitive in its complement "to facilitate the long verb clusters that are characteristic of the modern continental West-Germanic languages" (Coupé & Kemenade 2006).

This view on verb clustering and IPP implies that neither occurs in MCE: ellipsis blocks vocabulary insertion of the infinitive in the modal complement. Hence, the modal does not display the IPP effect either, but appears as a past participle, as it would if there were no infinitival complement. Consider the sentences in (110). In (110)a the modal *willen* selects a DP complement. There is no infinitive in its complement; hence, no IPP-effect: the modal appears as a past participle, unlike in (110)b where the modal selects an infinitival complement.[121] The MCE example in (110)c shows that the absence of the infinitive in the modal complement at PF results in a lack of IPP, as is demonstrated in (111).

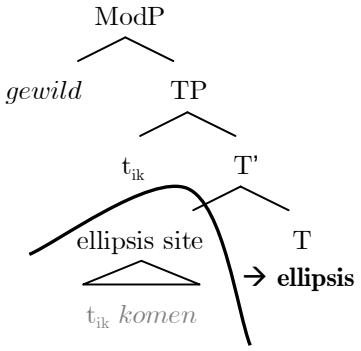
(110) a. Ik had ook een ijsje gewild.
I had also an ice.cream wanted
'I also wanted to have an ice cream.'

b. Ik had ook een ijsje willen eten.
I had also an ice.cream want.IPP eat
'I also wanted to eat an ice cream.'

[121] Note that according to Vanden Wyngaerd (1994a) and van Riemsdijk (2002) there is a deleted or null infinitival verb present in the modal complement in such cases as well. Either way, the lack of IPP here is expected if IPP is a PF phenomenon.

c. Mijn broer kon niet komen, maar ik had wel graag gewild [~~komen~~].
my brother could not come but I had AFF gladly wanted come.
'My brother couldn't come, but I would have wanted to.'

(111) *...maar ik had wel graag*



3.5 THE LOCALITY RESTRICTION ON AGREE

Section 3.1.3 made clear that ellipsis licensing cannot involve a simple head-complement relation, as there can be material between the licensor and the ellipsis site. Therefore I claim that ellipsis is licensed via an Agree relation. In 3.1.4 the featural implementation of this Agree relation was presented. The present section returns to the Agree relation and its properties.

The syntactic operation Agree is subject to a locality restriction (see Chomsky 2000, 2001). In other words, an Agree relation between an element α and an element β can only be established if the two are sufficiently close to each other in the structure. If ellipsis is indeed licensed via Agree, I expect this licensing to be subject to the same restrictions as other Agree relations: it should also obey the locality condition.[122]

[122] A second restriction on Agree involves intervention effects: "A goal is accessible to a probe only if there is no intervening element with the relevant set of features; that is, relativized minimality holds" (Hornstein et al. 2005:306). In other words, in a derivation where an element α has to Agree with an element β to check a certain feature F, an intervening element γ which also has a − checked or unchecked − feature F blocks an Agree relation between α and β. In the configurations in (i) an Agree relation between α and β is blocked by the intervening γ.

Chomsky (1999, 2001, 2005) argues that syntactic operations are restricted by the Phase Impenetrability Condiction, given in (112).

(112) **Phase Impenetrability Condition** (PIC, Chomsky 2000:108)
In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

Hence, an element c-commanding a phase can only establish an Agree relation with an element in the phase edge, i.e. with the phase head or its specifier.[123] More concretely, Agree cannot cross an intervening phase head to reach into the phase head's domain.

I show that the Agree relation I propose for ellipsis licensing obeys the PIC.[124] In order to illustrate the effect of locality on ellipsis licensing, I discuss several concrete elliptical phenomena. First, I deal with MCE. Next, locality in sluicing and VPE is dealt with. The detailed analysis of these two phenomena is given in chapter 4 below.

I first illustrate locality effects in Dutch MCE. As was shown in section 3.3, the licensor in this case is a root modal and the [E]-feature sits on the T head of the modal complement. Consider the grammatical sentence in (113).

(113) Hilke wil ook graag meekomen, maar ze mag niet
Hilke wants also gladly with.come but she is.allowed not
[~~meekomen~~] van haar mama.
with.come of her mum
'Hilke wants to come along too, but her mum doesn't allow her to.'

(i) a. $[\ldots\beta_{[iF]}\ldots[\ldots\gamma_{[F]}\ldots[\ldots\alpha_{[uF]}\ldots]]]$
b. $[\ldots\beta_{[uF]}\ldots[\ldots\gamma_{[F]}\ldots[\ldots\alpha_{[iF]}\ldots]]]$

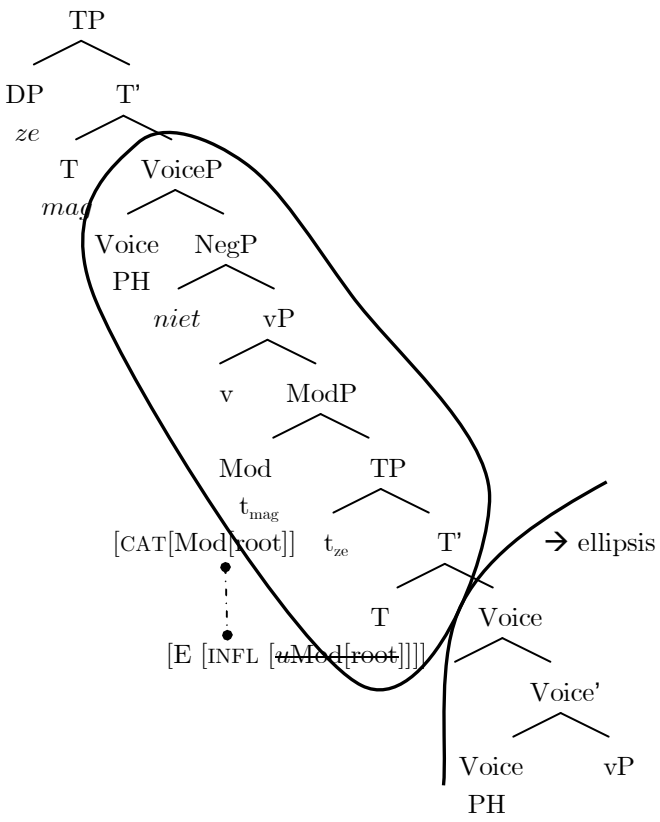
I will not discuss intervention effects, however, because in cases with possible interveners the Agree relation is blocked by locality anyway (see below for discussion).

[123] On the basis of Icelandic and Tzec object agreement data Andrews (1982), Boeckx (2004) and Polisky & Potsdam (2001) have argued for an extended version of the PIC, for which the phasal domain of a phase head remains accessible until the next phase head is merged. Moreover, Stjepanović & Takahashi (2001), Bošković (2003), Lee (2003), Bobaljik and Wurmbrand (2005) and Bošković (2007) have recently claimed that Agree and movement are not necessarily restricted by the same kind of locality. In the present study, however, I do not consider their proposals but claim that locality for Agree can be defined in terms of the PIC as proposed in Chomsky (2000).

[124] This means that there can be no phase head between the licensor and the head bearing [E], i.e. the head selecting the ellipsis site. Note that this implies that in ellipses with all extraction possibilities, i.e. with a phase head providing an escape hatch prior to ellipsis (cf. section 3.2.5.1 above), either the licensor itself or the head bearing [E] are phase heads. If any other head between the licensor and the ellipsis site were a phase head, ellipsis would violate locality. I illustrate that this prediction is borne out.

The tree structure in (114) makes clear that the [E]-feature on the embedded T can be checked by the root modal *mag* 'is allowed': they are in the same phasal domain. Note that I argue that Voice instead of little v is the clause-internal phase head (PH), following Baltin (2007); see also section 4.2 below.

(114) ...*maar*



Examples such as the ones in (115) on the other hand, illustrate that a potential licensor cannot check the [E]-feature if the former situated too far from the ellipsis site, i.e. if the licensor has to reach into the phasal domain of an intervening phase head.

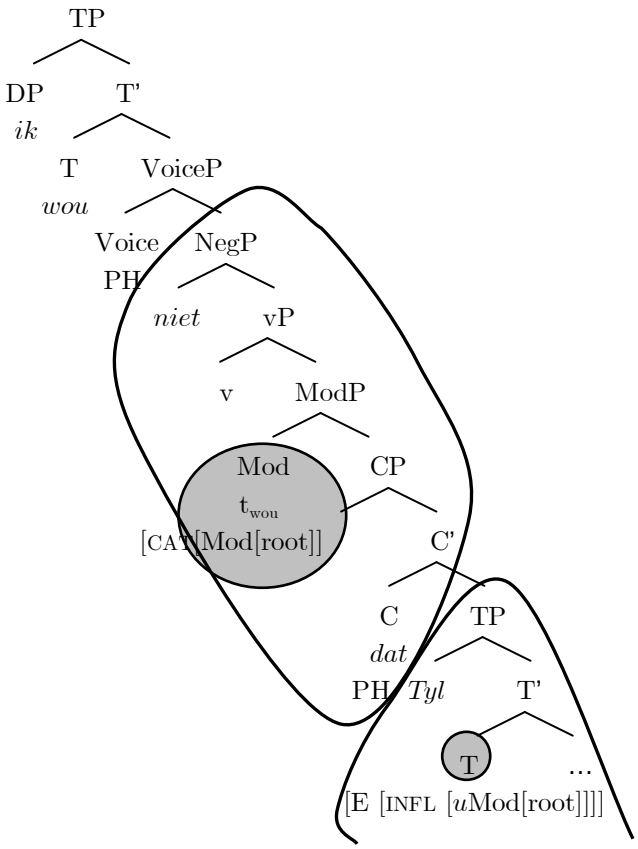
(115) a. * Tyl had de taart al gezien, maar hij **wou** niet dat
Tyl had the pie already seen but hij wanted not that
hij [~~de taart al had gezien~~]
he the pie already had seen

b. * Koen kan niet dansen, maar hij zal wel **moeten**
Koen can not dance but he will PRT must
[leren [~~dansen~~]].
learn dance

c. Koen wil niet leren dansen, maar hij zal wel **moeten**
Koen wants not learn dance but he will PRT must
[~~leren [dansen~~]].
learn dance
'Koen doesn't want to learn how to dance, but he'll have to.'

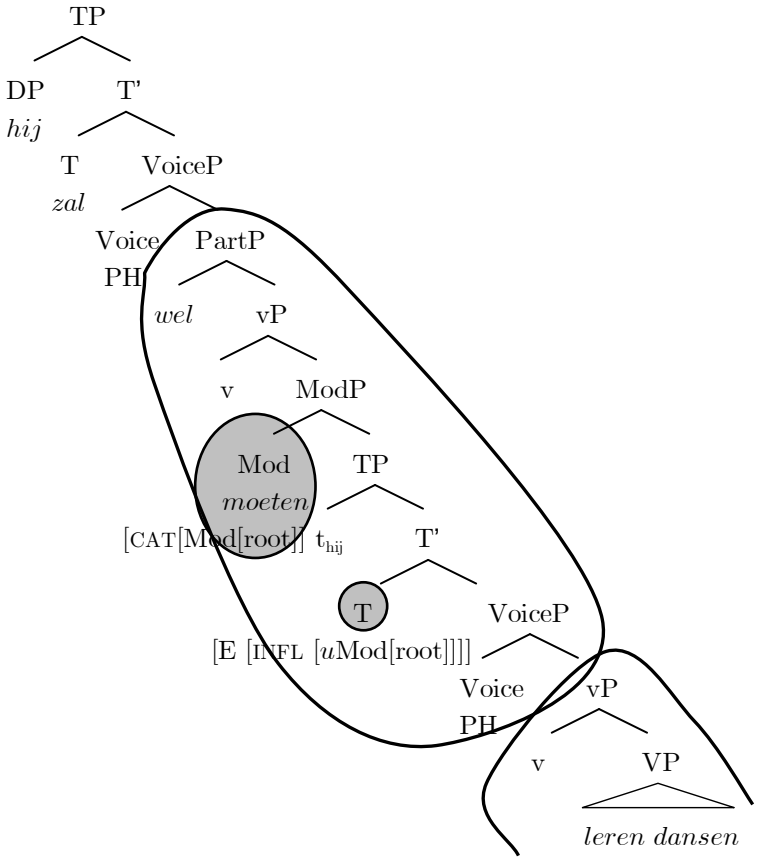
In (115)a the licensor is the modal *wou* 'wanted', but the ellipsis site is inside the CP complement of the modal, i.e. the head bearing the [E]-feature is inside the phasal domain of the intervening phase head C, as shown in (116).

(116)



The sentences in (115)b,c show that a modal can license ellipsis of its own infinitival complement, namely *leren dansen* 'learn to dance' in (115)c, but ellipsis of an infinitival clause embedded in the complement of the modal is illicit. This is predicted if ellipsis is subject to the PIC: the licensor cannot Agree with an element inside the phasal domain of the Voice head of its own complement. It can only Agree with the [E]-feature on the first T head in its complement. This is illustrated in the tree in (117).

(117)



However, the ungrammaticality of (115)b could receive another explanation as well. The [E]-feature in MCE resides on a T head. Hence, if the infinitival complement of *leren* 'learn' is not a TP, but only a vP or VoiceP, there cannot be an ellipsis feature lower down in the structure anyway, and therefore, no lower ellipsis site. In order to see whether it is really locality that is at stake

here, a sentence is required with two verbs selecting a TP infinitival complement.

Consider the case in (118) with two root modals, both of which select a TP complement. However, the second modal is not a licensor for MCE. In the context provided *kunnen* 'be able to' is most readily interpreted as the dynamic modal expressing ability, which does not license MCE (see chapter 2). If *kunnen* is included in the ellipsis site as in (118)a, the sentence is grammatical, but (118)b shows that *moeten* 'must' cannot license MCE across dynamic *kunnen*.[125]

(118) a. Hij zal geen Frans kunnen spreken,maar ik vind dat
he will no French be.able speak but I find that
hij eigenlijk wel moet [? ~~Frans spreken~~/? ~~Frans kunnen~~
he actually PRT must French speak French be.able
~~spreken~~].
speak
'He won't be able to speak French, but I think that he actually should (speak French/be able to speak French).'

b. * Hij zal geen Frans kunnen spreken,maar ik vind dat
he will no French be.able speak but I find that
hij eigenlijk wel moet kunnen [~~Frans spreken~~]
he actually PRT must be.able French speak

In short, MCE is subject to the Phase Impenetrability Condition: a root modal can check an [E]-feature that sits on the T head of its own TP complement, but not one residing on any lower T head.

I now turn to locality in other elliptical phenomena, namely sluicing and VPE. The next chapter discusses these in more detail. I argue, following the literature (see Merchant 2001; van Craenenbroeck 2004, to appear), that sluicing is licensed by the interrogative C head, which I call C_1 as it occurs highest in the split CP layer. The sluicing ellipsis site is TP, hence the [E]-feature sits on the head selecting TP, the lower C head C_2. Moreover, I claim that the lower C head is a phase head. Consider the ungrammatical sluicing example in (119)a. The tree structure in (119)c makes clear that the [E]-feature is not in the phase edge that is reachable by the licensor, rendering the sluice ungrammatical. Sluicing cannot apply to an embedded TP in the TP that is embedded under the

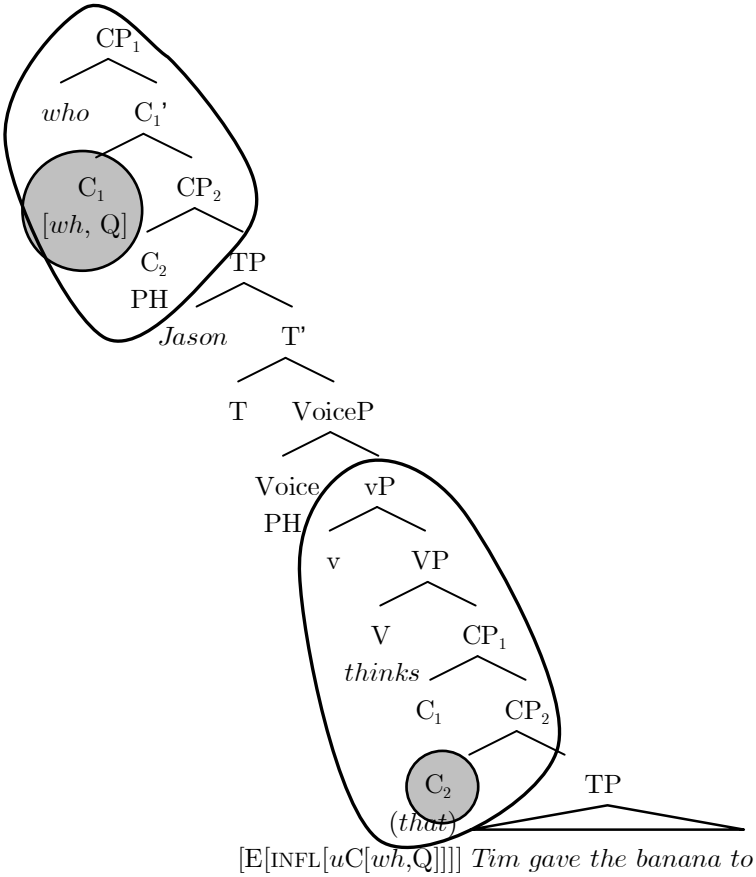
[125] Note that in this case dynamic *kunnen* 'can' could also count as a defective intervener: it is also of the category modal verb (Mod/V), but does not license MCE (cf. footnote 122).

interrogative C_1. If the [E]-feature occurs on the highest C_2, sluicing is allowed (cf. (119)b).

(119) a. * I think Tim gave the banana to Francis, but I don't know who [Jason thinks [(~~that) [Tim gave the banana to~~]]].

b. I know Tim gave the banana to someone, but I don't know who [~~Tim gave the banana to~~].

c. *...*but I don't know*



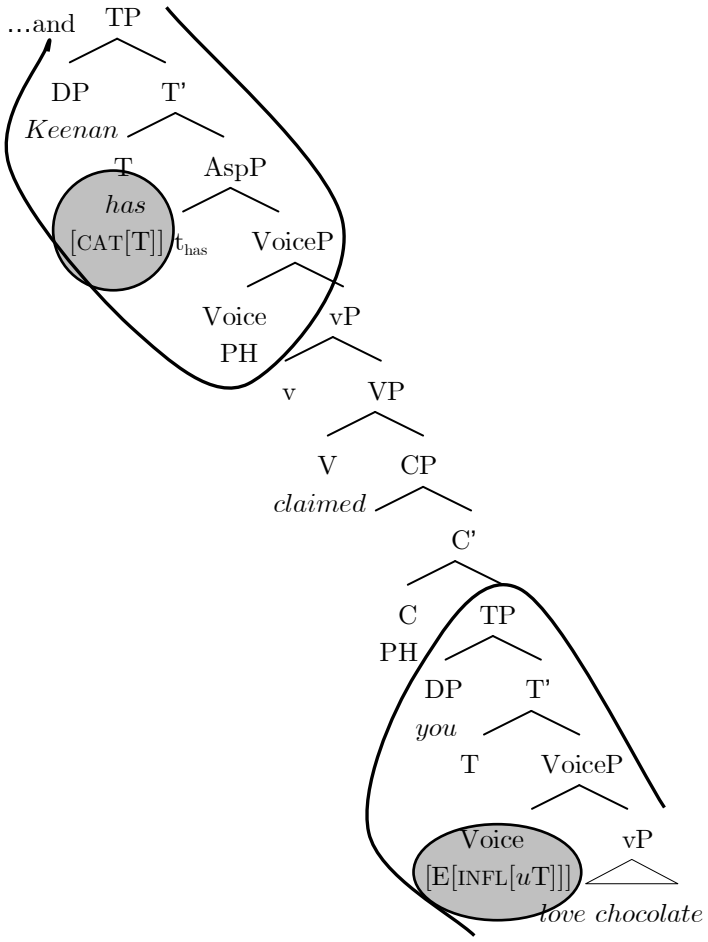
[E[INFL[*u*C[*wh*,Q]]]] *Tim gave the banana to*

Hence, sluicing is also restricted by locality. Finally, I turn to VPE. As I will argue in the next chapter, VPE is licensed by T and elides vP. Consequently, the ellipsis feature sits on Voice, the clause-internal phase head. Again, the Agree relation between the licensor and [E] can be shown to be subject to locality, as is demonstrated in (120). Although there is a finite auxiliary in the

main clause of the second conjunct in (120)a, this cannot licence VPE in the embedded clause (cf. the tree in (120)b).[126, 127]

(120) a. * Brian loves chocolate and Keenan **has** claimed that you [~~love chocolate~~], too.

b. * ...and



In (121) the [E]-feature does not have to cross an intervening CP layer to find its licensor, as in (120), but there is an intervening clause-internal phase head, as the trees in (122) show. If on the other hand, the highest Voice head bears an

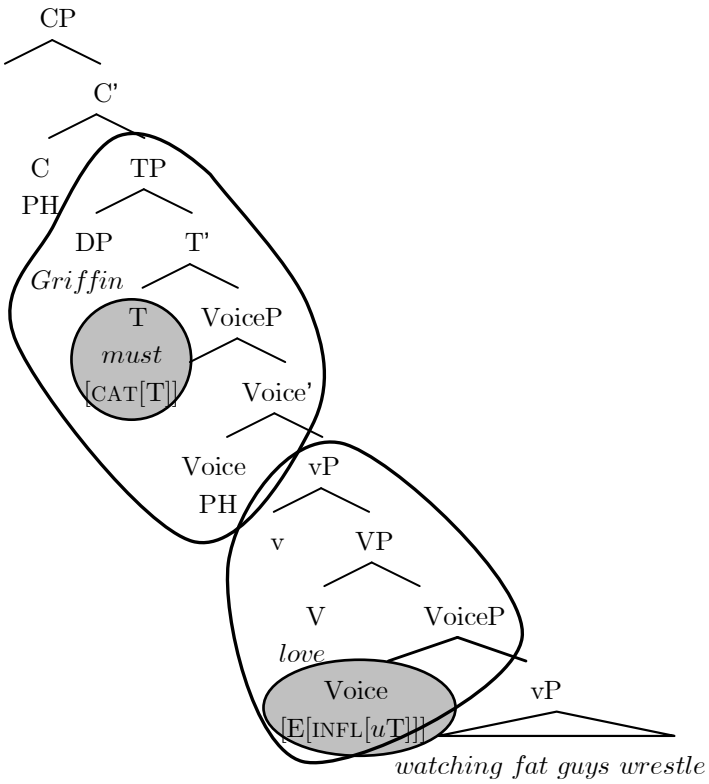
[126] For explanatory purposes, I have left out irrelevant projections, as well as the split CP. This is of no consequence to the argument.
[127] Inserting dummy *do* in the embedded T makes the sentence grammatical again, since in that case there is a licensor in the same Agreement domain as the [E]-feature.

ellipsis feature, VPE can take place, but in that case it will include *love* and (*always*) *preferred*, respectively, resulting in grammatical sentences.

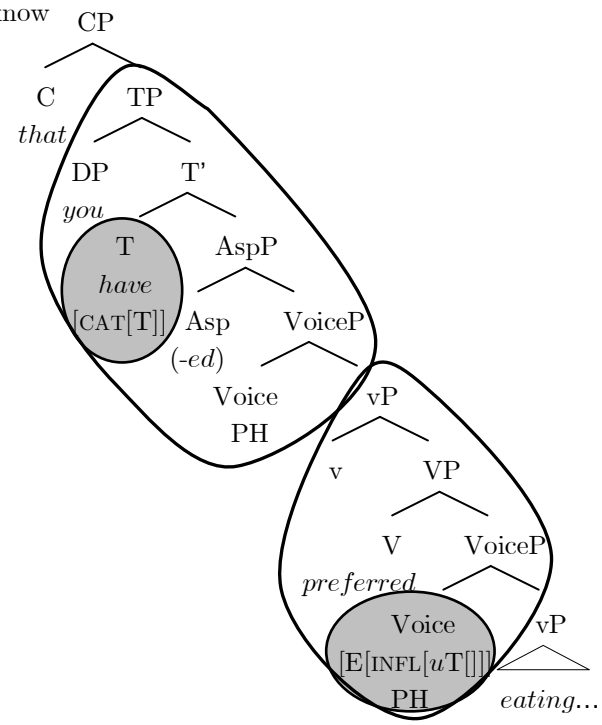
(121) a. * Brian loves watching fat guys wrestle and Griffin **must** [love [~~watching [fat guys wrestle]~~]], too.

b. * I have always preferred eating a piece of cake to eating a pickle, and I know that you have always [preferred [~~eating a piece of cake to eating a pickle~~]], as well.

(122) a. * *...and*



b. * ...I know



This supports the claim that ellipsis is subject to the PIC: a licensor can only establish an Agree relation with an [E]-feature in the same phasal domain, i.e. it cannot cross a phase head.

3.6 Summary

The present chapter has introduced a theory of ellipsis licensing in terms of Agree. The main claims put forward in the preceding sections are repeated in (123).

(123) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.

b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site is inaccessible for any further syntactic operations and lexical insertion at PF is prevented.

I argue that ellipsis is licensed via an Agree relation that is established between the licensing head and an [E](llipsis)-feature. The [E]-feature is checked by the category feature on the licensor as soon as the latter is merged, and at this point ellipsis occurs, i.e. the ellipsis site is sent off to PF. Ellipsis has two effects: it freezes the ellipsis site for narrow syntax and marks it so that lexical insertion is blocked.

A consequence of this analysis is that extraction is only possible until the licensor is merged. In other words, elements can only escape ellipsis if they have an (intermediate or final) landing site between the ellipsis site and the licensor.

Since ellipsis sends off part of the structure to PF in the course of the derivation, it is tempting to draw a connection with phases, as Gengel (2007a) does. I made clear, however, that there are certain crucial differences between ellipsis and phases that make such a connection implausible.

The interaction between the two is interesting on the other hand. Recall that extraction is only possible until the licensor enters the derivation. I demonstrated how an intervening phase head between the ellipsis site and the licensor provides an automatic escape hatch for all elements that still need to undergo syntactic operations. As a result, there is no difference in extraction possibilities between ellipsis and non-ellipsis in this case. When there is no intervening phase head, extraction in ellipsis is more limited.

This approach can explain the extraction contrast between objects and subjects in Dutch MCE. In this elliptical construction there is no intervening phase head. Subjects move to the embedded [Spec, TP], a position outside the ellipsis site, prior to the merger of the root modal, but objects do not have such an escape hatch and are deleted. Applying the analysis to Dutch MCE also accounts for the other properties listed in chapter 2. However, the ACD cases remain problematic and will be investigated in future research.

Furthermore, I have shown that the Agree relation in ellipsis obeys the general locality constraint Agree relations are subject to.

The main aim of this thesis is to develop a theory of the syntactic licensing of ellipsis. Therefore, it does not suffice that the analysis I propose can only handle one elliptical construction, MCE. The next chapter turns to other elliptical phenomena and shows that these can be analyzed in these terms as well.

Le silence est l'esprit des sots, et l'une des vertus du sage.

"Silence is the genius of fools, and one of the virtues of the wise."

~ Bernard de Bonnard

Chapter 4
Extending the analysis to other ellipses

The previous two chapters focused on Dutch modal complement ellipsis. In chapter 2 I introduced Dutch modals and presented the phenomenon of MCE. Chapter 3 laid out the analysis of ellipsis licensing, which contains the main ingredients repeated in (1).

(1) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.

b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

Applying this theory to MCE I argued that MCE is licensed by Agree between a root modal and an ellipsis feature on the embedded T, and that T's complement is sent to PF when the root modal is merged. This explains the extraction data in MCE.

In the present chapter I first discuss two kinds of ellipsis that have received the most attention throughout the literature, namely sluicing and VP ellipsis; next, I turn to pseudogapping and finally, I discuss ellipsis with British English *do*. It will become clear that the approach presented in chapter 3 involving derivational ellipsis, i.e. ellipsis taking place during the derivation, can be applied to these phenomena as well. British English *do* displays the same extraction contrast between objects and subjects as MCE and I show that the analysis can account for these data as well. In the case of VPE, sluicing and pseudogapping, the limited extraction out of the ellipsis site that was observed in MCE does not occur. However, I demonstrate that the extraction data of these phenomena are captured by the derivational approach too.

4.1 Sluicing

Sluicing is a case of ellipsis in which a whole clause is deleted, except a *wh*-phrase. This phenomenon was first observed and named by Ross (1969b), and received extensive discussion in Merchant (2001), among many others. Examples of sluicing in English and Dutch are given in (2). The sentence in (2)a is an example of embedded sluicing, while (2)b illustrates that matrix clause sluicing is allowed as well.

(2) a. Iemand heeft mijn fiets gestolen, maar ik weet niet
someone has my bike stolen but I know not
wie [~~mijn fiets gestolen heeft~~]. (Dutch)
who my bike stolen has
'Someone stole my bike, but I don't know who [~~stole my bike~~].'

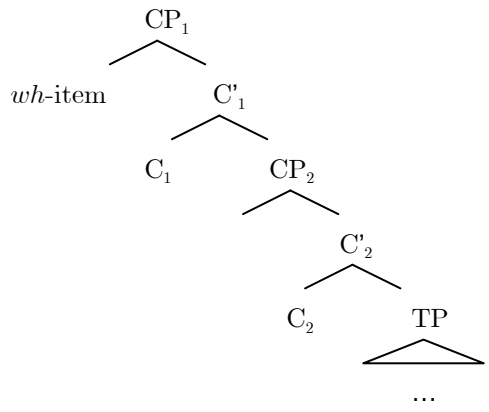
b. A: Iemand heeft mijn fiets gestolen. (Dutch)
someone has my bike stolen
B: Wie [~~heeft je fiets gestolen~~]?
who has your bike stolen
'Someone has stolen my bike.' – 'Who [~~has stolen your bike~~]?'

First, the Agree aspect of the analysis (see (1)a) is discussed. I determine what the licensing head of sluicing is and what is elided, following the bulk of literature on this topic. Next, section 4.1.2 deals with the derivational ellipsis aspect (cf. (1)b) and shows that the analysis can cover the extraction data in sluicing.

4.1.1 The licensing head and ellipsis site for sluicing

Traditionally, sluicing is analyzed as clausal ellipsis, i.e. deletion of TP (see Ross 1969b, Merchant 2001, Lasnik 2001, Stjepanovic 2003).[128] Lobeck (1995) and Merchant (2001) argue that it is the interrogative C head that licenses the ellipsis. In a framework with a split CP domain the licensor would therefore be the highest C head, the one attracting *wh*-items (for the split CP, see Reinhart 1981; Hoekstra & Zwart 1994, 1997; Rizzi 1997; Bennis 1997, 2000 and van Craenenbroeck 2004).[129] Van Craenenbroeck labels the projections in CP as in the tree in (3), where CP_1 represents the clause typing head – comparable to ForceP in Rizzi (1997) – and CP_2 is "the projection where operator/variable dependencies are being created" (van Craenenbroeck 2004:32), parallel to FocP in Rizzi (1997).

(3)



[128] There are also accounts of sluicing without deletion, such as the analyses proposed by Williams (1977c), Lobeck (1995) and Chung et al. (1995), which involve a null proform, or the semantic approaches in Dalrymple et al. (1991), Jacobson (1992), Hardt (1993, 1999) and Culicover & Jackendoff (2005). I adopt the PF deletion account for all these ellipses, however, as the extraction data show that the ellipsis site should contain syntactic structure.

[129] Note that in Hungarian wh-items do not target the highest [Spec, CP] (van Craenenbroeck & Lipták 2005, 2006b). An interesting question would be to see how the analysis proposed in the present study can be extended to such languages as Hungarian.

That it is indeed the interrogative C that licenses sluicing is clear from the fact that only in *wh*-questions can the rest of the clause be left out. Sentences such as the ones in (4), with the declarative complementizer *dat* 'that' or the *yes/no*-question complementizer *of* 'whether', are ill-formed. Hence, I take the interrogative C head to be the licensor of sluicing (see also van Craenenbroeck & Lipták 2005, 2006b).

(4) a. * Ik weet niet of Jelle komt, maar Wim zegt wel
I know not whether Jelle comes but Wim says PRT
dat [~~Jelle komt~~]. (Dutch)
that Jelle comes
* 'I don't know whether Jelle is coming, but Wim says **that** [~~Jelle is coming~~].

b. * Pieter zegt dat hij komt, maar ik weet niet zeker
Pieter says that he comes but I know not certain
of [~~hij komt~~]. (Dutch)
whether he comes
* 'Pieter says he is coming, but I'm not sure **whether** [~~he is coming~~].

Next, I focus on what is elided. In most work sluicing is argued to involve ellipsis of TP. First of all, the examples in (5) show that the subject position [Spec, TP] is included in the ellipsis site.

(5) a. Christina bought something cute for her husband, but I don't remember what [~~Christina bought t_{what} for her husband~~].

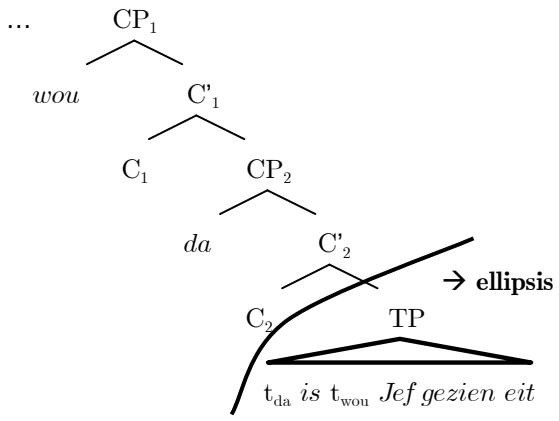
b. Hilke heeft iets leuks gekocht voor haar vriendje,
Hilke has something cute bought for her boyfriend
maar ik weet niet wat [~~Hilke t_{wat} gekocht heeft voor~~
but I know not what Hilke bought has for
~~haar vriendje~~]. (Dutch)
her boyfriend
'Hilke bought something cute for her boyfriend, but I don't know what.'

Sluicing does not elide the lower CP, however: there are several elliptical phenomena related to sluicing that suggest that this CP_2 is not included in the ellipsis site (see also section 3.1.3 in the previous chapter). Van Craenenbroeck (2004) for instance discusses a kind of sluicing in several Dutch dialects which he

dubs 'spading', i.e. Sluicing Plus A Demonstrative In Non-insular Germanic. In spading the specifier position of the lower CP is occupied by a demonstrative *da* 'that' (see van Craenenbroeck 2004 for empirical evidence supporting this analysis and for an extensive discussion of the properties of spading). In other words, [Spec,CP_2] is not elided.[130] An example is given in (6)a and its analysis in (6)b.[131]

(6) a. Jef eit iemand gezien, mo ik weet nie wou da.
Jef has someone seen but I know not who that
'Jef saw someone, but I don't know who.' (Wambeek Dutch)

b.



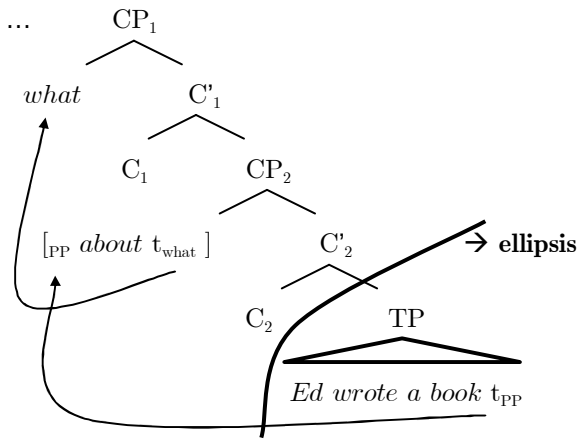
Moreover, Van Craenenbroeck (2004) discusses another construction called 'swiping', which also illustrates that [Spec, CP_2] is not part of the ellipsis site. The term 'swiping' was introduced in Merchant (2002) and is short for 'Sluiced *Wh*-word Inversion with Prepositions in Northern Germanic'. An example in English is given in (7)a. The order of the *wh*-item and the preposition is reversed in this sentence, as opposed to (7)b where the preposition precedes its complement.

(7) a. Ed gave a talk yesterday, but I don't know what about.
b. Ed gave a talk yesterday, but I don't know about what.

[130] Note that van Craenenbroeck observes that complex *wh*-phrases – as opposed to simplex *wh*-words – cannot occur in spading. He argues that in that case it is CP_2 that is elided, not TP.
[131] This tree structure is a simplified version of the one in van Craenenbroeck (2004).

Van Craenenbroeck argues that the PP *about what* moves to the specifier position of the lower CP, followed by further movement of the *wh*-item alone to [spec,CP_1], stranding the preposition in [Spec,CP_2]. Consequently, sluicing does not delete CP_2; its target has to be lower than that, hence TP (cf. (8), see van Craenenbroeck (2004:73)).

(8)



Having established the main ingredients, I now extend the analysis of Dutch MCE to sluicing: the licensing head of sluicing is the interrogative C head and the ellipsis site is TP.[132]

[132] A long-standing thorn in the side of an analysis that deletes only TP is the absence of the finite verb in C_2 under sluicing. If sluicing deletes TP, the expectation is that this finite verb remains, since it sits higher than the ellipsis site. This prediction is not borne out (see also Merchant 2001:62-74):

(i) a. A: Tom heeft mij een cadeautje gekocht. (Dutch)
Tom has me a present.DIM bought
B: Ah, wat (*heeft)?
oh what has
'Tom bought me a present.' – 'Oh, what (*did)?'

b. A: Luis was humming something. – B: What (*was)?

There have been several accounts arguing that ellipsis bleeds verb movement to C, see Lasnik (1999b); Merchant (2001); Boeckx & Stjepanovic (2001). Lasnik (1999) and Merchant (2001) explain this bleeding effect of ellipsis by assuming that verb movement takes place after ellipsis and that either (1) in this case only the features of the verb move to C, not the phonological realization, since it has been deleted at PF, or (2) that T-to-C movement is triggered by a strong feature on T. Because T is deleted movement of the verb is unnecessary, since the deleted feature can no longer cause a PF crash (see also Merchant 2006).

Van Craenenbroeck & Lipták (2006a,b; 2008) provide corroborating evidence from Hungarian for the bleeding of verb movement. They show that the interrogative *yes/no*-suffix *–e* obligatorily attaches to the verb in C_2 in non-sluiced questions (cf. (ii)a), while in sluicing it attaches to the focal remnant in [Spec,CP_2] (cf. (ii)b). This can be explained

4.1.2 Applying the analysis to sluicing

4.1.2.1 An [E]-feature for sluicing

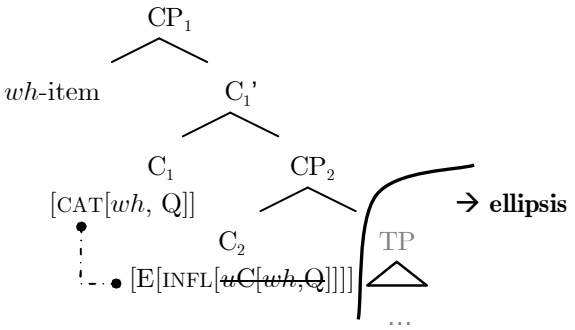
The previous section determined the licensor and the ellipsis site for sluicing. Given these ingredients, the [E]-feature for sluicing can be represented as in (9).

(9) [E] for sluicing (in English and Dutch):

$$E_S \begin{pmatrix} \text{CAT} & [E/C_2] \\ \text{INFL} & [u\text{C } [\text{WH, Q}]] \\ \text{SEL} & [C_2\ [\text{FOC}]] \end{pmatrix}$$

In other words, the [E]-feature for sluicing occurs on the C_2 Focus head and can be checked by the interrogative C head in constituent questions, see (10).

(10)



The next subsection shows that the analysis proposed in the previous chapter, with ellipsis taking place as soon as the licensor is merged, can capture the extraction data in sluicing as well.

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if sluicing blocks verb movement to C_2. If sluicing deleted C_1 as well, the suffix would be expected to elide as well, contrary to fact.

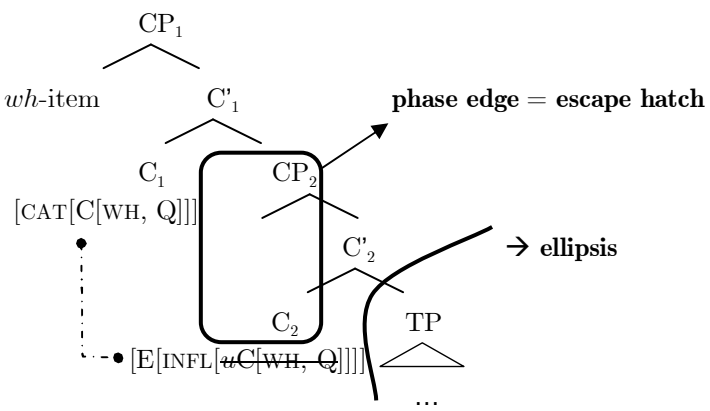
(ii) a. Nem tudom, hogy Annát meghívta*(-e) János. (Hungarian)
not I.know COMP Anna invited*(-**Q**) Janos
'I don't know if Janos invited Anna.'
b. János meghívott egy lányt,de nem tudom hogy ANNÁT*(-e).
Janos invited a girl but not I.know COMP Anna-**Q**
'Janos invited a girl, but I don't know if it was Anna.'

Note that not all problems are solved under this analysis. For instance, it does not account for the absence of overt complementizers in sluicing, see Merchant (2001), van Craenenbroeck (2004).

4.1.2.2 Predictions for extraction

Consider how sluicing fares under the analysis presented in the previous chapter. Since it is licensed by the interrogative C head, sluicing occurs when C_1 is introduced into the structure, as is represented in the tree structure in (11):

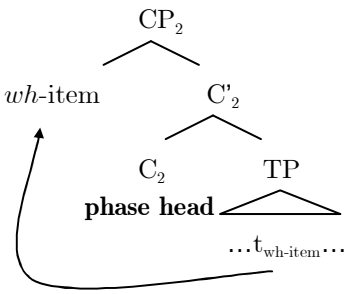
(11)



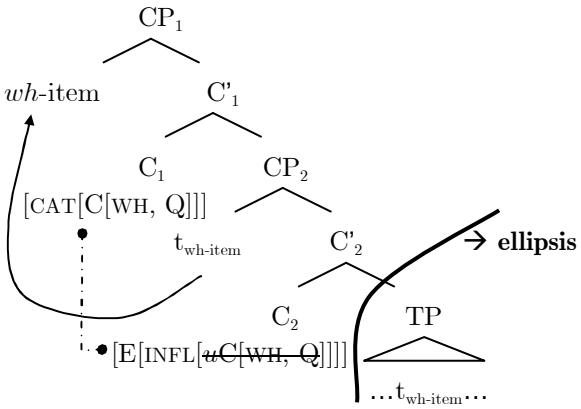
Chomsky (2001, 2005) claims that C is a phase head. In the split CP hypothesis, this means that either CP_1 or CP_2 is phasal (or both). I take the lower C, C_2, to be a phase head, but under either scenario – phasal CP_1, phasal CP_2, or both – there is a phase edge providing an escape hatch prior to ellipsis.[133] The phase head attracts all constituents that still have to undergo movement to its specifier, as a consequence of the Phase Impenetrability Condition (Chomsky 2000, 2001). In other words, any constituent that needs an escape hatch out of the ellipsis site has one: the specifier of CP_2. A *wh*-item, for instance, moves to [Spec, CP_2] first, as in (12),[134] and is already outside of the ellipsis site when the licensing head is merged and triggers the ellipsis (cf. (13)).

[133] If C_2 is a phase head, there is a phase edge between the ellipsis site and the licensing head, and if it is C_1 that is a phase head, this does not change the extraction possibilities of sluicing either, as I claim that the licensor can still attract prior to ellipsis.
[134] See also van Craenenbroeck (2004).

(12)



(13)



Consequently, unlike for Dutch MCE, the analysis predicts that sluicing allows all kinds of extraction out of the ellipsis site, not only subjects. This prediction is borne out: as (14) shows, the sluiced *wh*-item can be a subject, a direct object, an indirect object, a locative or an adjunct, in both Dutch and English.

(14) a. Iemand heeft mijn fiets gestolen, maar ik weet niet
someone has my bike stolen but I know not
wie [~~t_{wie} mijn fiets gestolen heeft~~]. (Dutch)
who my bike stolen has
'Someone stole my bike, but I don't know **who** [~~t_{who} stole my bike~~].'

b. Tom heeft mij iets gekocht, maar ik weet niet
Tom has me something bought but I know not
wat [~~Tom mij t_{wat} gekocht heeft~~]. (Dutch)
what Tom me bought has
'Tom bought me something, but I don't know **what** [~~Tom bought me t_{what}~~].'

c. Erik heeft een cadeautje gekocht, maar hij wil niet
Erik has a present bought but he wants not
zeggen voor wie [~~hij een cadeautje gekocht heeft $t_{\text{voor wie}}$~~].
say for who he a present bought has (Dutch)
'Erik bought a present, but he won't say for who [~~he bought a present $t_{\text{for who}}$~~].'

d. Nana had de vaas ergens op gezet, maar ik weet
Nana had the vase somewhere on put but I know
niet waarop [~~Nana de vaas t_{waarop} gezet had~~]. (Dutch)
not where.on Nana the vase put had
'Nana had put the vase on something, but I don't know on what [~~Nana had put the vase $t_{\text{on what}}$~~].'

e. Johan zou vanavond langskomen, maar hij heeft
Johan would tonight pass.by but he has
niet gezegd wanneer [~~hij zou langskomen t_{wanneer}~~].
not said when he would pass.by (Dutch)
'Johan said he'd pass by tonight, but he didn't say when [~~he'd pass by t_{when}~~].'

4.1.3 Summary

Recapitulating, the analysis that has been developed in the previous chapter can also be applied to sluicing. Just like MCE does not delete the whole embedded TP complement of the modal, sluicing does not elide the complement of its licensor C_1, but rather targets TP. This is made possible because sluicing is licensed via Agree.

The mechanism that was used to account for the puzzling extraction data in Dutch MCE – i.e. ellipsis taking place in the course of the derivation, as a consequence of the merger of the licensor – leads to the correct extraction results for sluicing as well. Because in sluicing the position between the licensor and the ellipsis site is a phase edge, all extraction out of the sluicing site is permitted. In the next section, I demonstrate that this analysis can also be applied to English VP ellipsis.

4.2 ENGLISH VP ELLIPSIS

A second elliptical construction that is discussed in this chapter is VP ellipsis (VPE). Since this phenomenon has already been widely discussed for English (see Zagona 1982, 1988a, 1988b; Lobeck 1987, 1995; Hardt 1993, 1999; Potsdam 1996; Johnson 2001), I also restrict the discussion to English VPE at this point. Some examples are given in (15).

(15) a. Kirsten likes to dance, but her husband doesn't [~~like to dance~~].
b. Bartek can eat a whole chocolate cake and Anne can [~~eat a whole chocolate cake~~] too.

First, I establish what the licensor of English VPE is and what is included in the ellipsis site. In section 4.2.3 it will become clear that the interaction between the licensor and the ellipsis site - or more precisely, the projections that occur between the two – can account for the extraction possibilities in VPE. Finally, some more properties of VPE in which it differs from Dutch MCE are presented and I demonstrate how these, too, can be accounted for by the analysis.

4.2.1 The licensing head of English VP ellipsis

As was first noted by Sag (1976), Williams (1977c) and Zagona (1982, 1988a, 1988b) and further explored by Martin (1992, 1996), Lobeck (1993, 1995) and Johnson (2001), VPE is only allowed when there is a T head containing lexical material. In other words, "the ellipsis site must be in construction with, or perhaps governed by, a member of "Aux", where these can be understood to be just those terms that are able to occupy the highest of the functional projections which clauses are made up of" (Johnson 2001:1). Johnson argues that modals, the auxiliaries *have*, *be* and *do* and the infinitival marker *to* are the instantiations of these "Aux" elements.[135] Examples are given in (16).

(16) a. Jasmin can draw an elephant, but Ryan **can't** [~~draw an elephant~~].

[135] Recall that English modals are instantiations of T, unlike Dutch modals; see chapter 2.

b. I have never travelled to America. **Have** you [~~ever travelled to America~~]?
c. Uriel was drinking coffee and Aviad **was** [~~drinking coffee~~] too.
d. I hadn't been thinking about that. – Well, you **should** have been [~~thinking about that~~]!
e. Bettina couldn't make it, but she really wanted **to** [~~make it~~].

English main verbs do not undergo verb movement to T, unlike French, German or Dutch main verbs (Emonds 1976, 1978; Pollock 1989; see also Lasnik 1995a). Consequently, VPE without a modal or aspectual auxiliary would leave the inflectional morphemes in T without a host.[136] Hence, dummy *do* is inserted, as (17) illustrates.

(17) a. * Ed doesn't like cats and dogs, but Chris **likes** [~~cats and dogs~~].
b. Ed doesn't like cats and dogs, but Chris **does** [~~like cats and dogs~~].

No other verbal elements or aspectual verbs selecting non-finite clauses license VPE, as the following sentences adapted from Johnson (2001) illustrate:

(18) a. * Mina Penguina started running down the street, but only after Nao **started** [~~running down the street~~].
b. * Mina Penguina made Bojana laugh, and then Nao **made** [~~Bojana laugh~~].
c. Mina Penguina started running down the street, but only after Nao **did** [~~start running down the street~~].
d. Mina Penguina made Bojana laugh, and then Nao **did** [~~make Bojana laugh~~].

In the previous chapter I have demonstrated that it is indeed the finite auxiliary that needs to be present and not simply any auxiliary. Non-finite *have* and *be* do not license VPE, as shown in (19).

(19) a. * I hadn't been thinking about it, but I recall Morgan **having been** [~~thinking about it~~].

[136] In other words, the fact that T in clauses without an auxiliary, modal or infinitival marker does not seem to license VPE is not an effect of the licensing criteria on ellipsis. Consequently, I claim T is the licensor of VPE, and the reason that this T has to be lexically filled is because the tense and inflectional affixes require a host.

b. * I hadn't thought about it, but I recall Morgan **having** [~~thought about it~~].
c. * Max having come to dinner, and Jessi not **having** [~~come to dinner~~], we decided to wait for her.
d. * Sarah hated him having been late for dinner and I hated him **having been** [~~late for dinner~~], too.
e. * Sarah hated him having arrived late for dinner and I hated him **having** [~~arrived late for dinner~~] , too.
f. * Pat having shown up at the game and Pete not **having** [~~shown up at the game~~] was a surprise to everyone.

Consequently, in the example in (16)d, repeated in (20), it is *should* that licenses VPE, and not the non-finite auxiliaries *have* or *been*. By the same reasoning, in (21) *to* is the licensor, not *have* or *been*.

(20) I hadn't been thinking about that. – Well, you **should** have been [~~thinking about that~~]!

(21) a. Ezra hasn't finished yet, but I really want him **to** have [~~finished~~].
b. Morgan hadn't been thinking about it, although it certainly would have been wise for him **to** have been [~~thinking about it~~].
c. Morgan hadn't thought about it, but it certainly would have been wise **to** have [~~thought about it~~].

Taking stock, I claim that English VPE is licensed by T. In the cases of finite auxiliaries *have*, *be* and *do* and the modal verbs this claim is fairly straightforward that these reside in T, either by base-generation or by having moved to this position, as was shown above (see also Gergel 2005). The infinitival marker *to* on the other hand, deserves somewhat more attention. Firstly, there has been much debate on the base position of *to*. Although many people have argued that the infinitival marker originates in T (see Akmajian et al. 1979; Stowell 1982; den Besten 1979; van Gelderen 1996, 1997 and Hoekstra 1997), Wurmbrand (2003), Abraham (2004) and Christensen (2007) claim it is base-generated in a lower position. Christensen compares English and the Scandinavian languages with respect to the infinitival marker. He concludes that it is base-generated in a functional position c-commanding the verb phrase, and moves to T in certain languages, such as English and Swedish, but remains in the lower position in others (e.g. Faroese). In the sentences in (22) *to* precedes

the aspectual auxiliaries of the embedded clause and can also precede high adverbials.

(22) a. She wanted **to be** reading that book.
b. She wants **to be** loved.
c. She would like **to have** finished that book by Tuesday.
d. She started **to fully** understand the problem.
e. He convinced her **to intentionally** walk within earshot of her opponent.
f. **To boldly** go where no man has gone before. (Christensen 2007:148)

Whether *to* moves to T or is base-generated there is an issue the present study is not concerned with. Either way I take the infinitival marker that fills the T head to license VPE.[137]

Secondly, however, it has been noted in the literature (see Zagona 1982, 1988a, 1988b; Lobeck 1987, 1995, 1999; Johnson 2001) that not all occurrences of *to* allow VPE. The sentences in (23), where the infinitival clause is a complement of the verb, are grammatical, but in (24), where the infinitival clause is an adjunct, VPE is illicit.

[137] The position of *to* with respect to negation complicates matters, since negation can occur on either side of *to*, as is illustrated in (i).

(i) a. She wanted **to not** miss her train for once.
b. She started **not to** care anymore.

In VPE, negation obligatorily precedes the infinitival marker if there is an auxiliary left in the embedded clause.

(ii) a. She wanted to be reading that book, but I wanted **not to** (be).
b. She wanted to be reading that book, but I wanted **to not** *(be).
c. She wanted to leave, but I wanted **not to**/***to not**.

Christensen (2007) assumes there to be a position for negation c-commanding T as well as a position lower than T, and argues that *not* can occur in either position.

Negation provides an additional problem for the licensing of VPE, as it seems to be able to act as a licensor itself (Lobeck 1995; Potsdam 1996; Johnson 2001). Consider the sentences in (iii).

(iii) a. He says he's not working, but he is.
b. * He says he's not working, but he's.
c. He says he's working, but he's not.

In (iii)a,b VPE is shown to be illicit if the auxiliary is contracted. If *not* is added, however, as in (iii)c, the sentence is grammatical. Although this is an interesting issue, I will not consider it in this work, but defer it to further research.

(23) a. Bettina wants to hear Susanna's story, and I also want to.
b. Bettina tried to go jogging every day, and Lizet also tried to.
c. Bettina didn't want to go jogging every day, but I convinced her to.
d. Even though he doesn't like to, Ron jogs every day.
(Lobeck 1995)

(24) a. * Even though he could jog to, Ron doesn't do anything to stay in shape. (Lobeck 1995)
b. * Mag Wildwood came to read Fred's story, and I also came to.
(Johnson 2001)

Moreover, Lobeck (1987, 1992, 1995) observes that VPE in an infinitive clause in subject position is illicit as well, as is illustrated in (25)a.[138] The sentence in (25)b shows that VPE is allowed if the infinitival occurs in complement position.

(25) a. * You shouldn't play with rifles because to [~~play with rifles~~] is dangerous.
b. You shouldn't play with rifles because it is dangerous to [~~play with rifles~~].

I follow Zagona (1988a, 1988b) in claiming that the examples in (24) and (25) are not ruled out because of licensing conditions on VPE, but because of restrictions on *to*. She states, following Zwicky (1981), that *to* must have a phonological host to its left when VPE has occurred. Under her account *to* has to undergo head movement (see Chomsky 1986) to attach to the preceding material. However, head movement out of the infinitival clause is blocked when the infinitival is an island.[139] In (24) the infinitival is an adjunct island and in (25) we are dealing with a subject island; hence *to* does not have a host and consequently, VPE is not allowed.

Supporting evidence for this claim comes from examples where the infinitival island itself contains material preceding *to* to which it can attach. Zagona

[138] Note that the non-elliptical variant of (25)a, given in (i), is not fully acceptable either.

(i) ??To play with rifles is dangerous.

[139] This implies that this PF phenomenon is sensitive to syntactic structure. See also Embick and Noyer (1999, 2001), who distinguish between two kinds of Merger, one that operates in terms of hierarchical structure and one that operates in terms of linear adjacency.

(1988a:101) provides the example in (26)a where *to* can attach to the preceding *wh*-element, and in (26)b,c *to* can attach to the negation.[140]

(26) a. Niko wants to go on vacation, but he doesn't know **when** to.
b. Mag Wildwood came to introduce the barkeep, but I came (precisely) **not** to. (Johnson 2001:(30a))
c. You should unload rifles because **not** to is dangerous. (Johnson 2001:(30b))

Recapitulating, English VPE is licensed only by a T head. More concretely, it requires the presence of a finite auxiliary, a modal or the infinitival marker *to*. Note that these elements do not have to remain in T. Sentences in which they undergo T-to-C movement allow VPE as well:

(27) a. Are you coming to the party? – I don't know yet. Is your brother?
b. Are you worried? – Should I be?

4.2.2 The VP ellipsis site

In the previous section I claimed that VPE requires a T head in order to be licensed, thus providing the first ingredient that is needed in order to apply the analysis proposed in this work to VPE. The second ingredient is the ellipsis site: I argue that the ellipsis site is deleted at PF as soon as the licensor checks the [E]-feature on the head selecting the ellipsis site. In order to check whether this approach is applicable to English VPE, the next step to take is to determine what exactly is elided. I argue, following some of the recent literature on VPE (Johnson 2001; Merchant 2001, 2007, 2008b), that VPE involves ellipsis of vP.

Firstly, the sentences in (28) make clear that VPE deletes more than just the verb; it takes away the objects as well.

(28) a. Keenan can eat a whole chocolate pie and Brian can [~~eat a whole chocolate pie~~] too.
b. Colin said something nice to Griffin, but Dylan didn't [~~say anything nice to Griffin~~].

[140] Recall that Christensen (2007) argues that there is a position for negation c-commanding T in an infinitival clause and that *to* can either stay in T or move to a position higher than this negation (see footnote 137).

Secondly, unlike in Dutch MCE, the aspectual and voice auxiliaries are not deleted in VPE.[141]

(29) a. Aspectual auxiliaries: perfective *have* and progressive *be*
I hadn't been thinking about that. – Well, you should **have been** [~~thinking about that~~].

b. Aspectual auxiliary: perfective *have*
I hadn't thought about it. – Well, you should **have** [~~thought about it~~].

c. Aspectual auxiliary: progressive *be*
I'm not even thinking about it. – Well, you'd better **be** [~~thinking about it~~].

d. Voice auxiliary: passive *be*
The trash is taken out whenever it's apparent that it should **be** [~~taken out~~].

e. Aspectual and Voice auxiliaries: perfective *have* and passive *be*
This skirt has been washed, but it shouldn't **have been** [~~washed~~].

Hence, it turns out that VPE deletes the VP, but not the aspectual and voice auxiliaries dominating it.[142] If there are no auxiliaries present in the ellipsis

[141] A peculiar property of the passive auxiliary *be*, however, is that it is optionally elided when the antecedent contains the same form of *be* as the ellipsis clause.

(i) The trash need to **be** taken out whenever it is apparent that it should (**be**).

When the passive auxiliary takes the progressive *-ing* suffix, it even has to be elided.

(ii) He thought he was **being** mugged, but he wasn't (***being**) [~~mugged~~].

On the other hand, in cases where there is no identical form of *be* in the antecedent, for instance in case of a voice mismatch as (iii)a,b or when *be* is finite in the antecedent (cf. (iiic)), the passive auxiliary cannot be left out.

(iii) a. ? Someone should replace the bulb in the staircase, but it can't **be** because it's jammed.
b. * Someone should replace the bulb in the staircase, but it can't because it's jammed.
c. The trash is taken out whenever it is apparent that it should *(**be**).

At this point I have no explanation for this fact, but I suspect it is a property of *be* that is relatively independent of/separate from VPE, to be further investigated in future research. See also Lasnik (1995a), Potsdam (1996) for discussion of these data.

[142] The fact that VPE does not elide the Voice head accounts for the possibility of Voice mismatches according to Merchant (2007, 2008b).

clause, as in (30), the sentences are interpreted differently: the interpretation of the ellipsis site does not include the auxiliaries.[143]

(30) a. I hadn't been thinking about that. – Well, you should have [~~thought about that~~].
b. I hadn't been thinking about that. – Well, you should [~~think about that~~].

This can also be shown in infinitival clauses. The aspectual or voice auxiliaries following the infinitival marker *to* can survive VPE.

(31) a. She wanted to be reading that book, and I also wanted to **be**.
b. She wanted to have finished the book by then and I wanted to **have** too.
c. She wanted to be loved, and I also wanted to **be**.

Little vP is included in the ellipsis site, however (see also Johnson 2001, 2004; Merchant 2001, 2007, 2008a). In sentences with a *there*-expletive subject the associate of *there* is elided as well, cf. (32) (see also 4.2.4.2 below).

(32) At first I didn't believe there was an elephant in the garden, but there was [~~an elephant in the garden~~].

Most *there*-sentences involve unaccusative verbs or copular *be*; hence, the correlate of *there* is base-generated inside VP. In such cases, eliding only VP takes away the correlate as well. However, there are also examples in which the verb is unergative or transitive, as in (33). Consequently, eliding less than vP would leave the subject base-generated in [Spec, vP] intact, contrary to fact.

(33) I didn't know there was someone talking to Rebecca, but there was [~~someone talking to Rebecca~~].

Another argument in favor of this analysis is provided by Johnson (2004). The adverb *again* has two readings: a repetitive one and a restitutive one (see von Stechow 1996 and Sapp & von Stechow 1999). These readings are illustrated in (34) (taken from Johnson 2004:8).

[143] Thanks to Ryan Bochnak, Peter Klecha, Ezra Keshet and Jasmin Urban for helping me with the data collection on VPE.

(34) She closed the door again.
  a. She closed the door, and someone had closed it before. (repetitive)
  b. She closed the door, and it had been in that state before. (restitutive)

Which of the two readings emerges is dependent in the position of *again*: if it modifies vP, which denotes the event, it gets a repetitive interpretation. On the other hand, if it modifies the VP, which denotes the resulting state, *again* receives the restitutive reading.

In VPE only the repetitive reading is available, as is shown in (35), adapted from Johnson (2004).

(35) a. Jane closed the door, and then Isabelle closed it again.
  b. Jane closed the door, and then Isabelle did again. (repetitive)
  c. The wind blew the door open, and no-one closed it. Finally, Antonio closed it again.
  d. The wind blew the door open, and no-one closed it. *Finally, Antonio did again. (restitutive)

Consequently, only when *again* modifies vP can it survive VPE. The lower position for *again*, modifying VP, would be included in the ellipsis site. Johnson (2004) concludes from this that VPE elides vP and not VP, as the latter would leave the lower *again* intact.[144]

Merchant (2007, 2008b) also claims that VPE deletes little v, because argument structure alternations are not allowed in VPE (see also Sag 1976; Johnson 2004; Houser, Mikkelsen & Toosarvandani 2007). The argument, based on his claim that ellipsis (in English) obeys a strict syntactic identity condition, goes as follows: there are certain verbs that have multiple possible argument structures, and the locus of this difference is little v, which can be specified as [+transitive] or [+unaccusative], for instance. The verb *freeze* can take one or two arguments: *the water froze* and *the cold froze the water* (for the original observation and analysis, see Perlmutter 1978. See also Alexiadou et al. 2005 for discussion). Alternations between intransitive/unaccusative and transitive versions of such verbs are allowed in non-elliptical clauses (cf. (36)a), but the

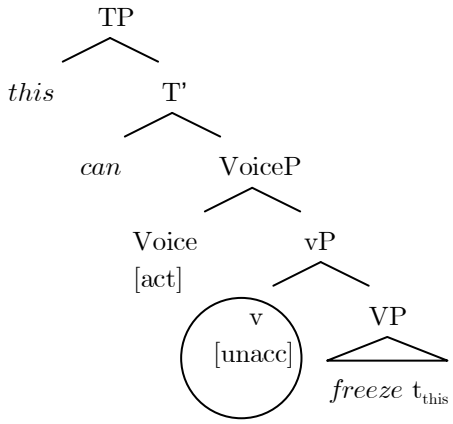
[144] Johnson (p.c.) notes that *again* can either be in the specifier of a functional projection c-commanding vP or VP (in accordance with Cinque 1999) or adjoin to the verb projection it modifies. In the latter case, VPE targets the intermediate vP projection, which includes the subject position [Spec, vP], but excludes the adjunction site of *again*. This is the option that is proposed in Johnson (2004).

intransitive *freeze* in the first sentence in (36)b cannot serve as an antecedent for the elided transitive verb phrase in the second sentence.

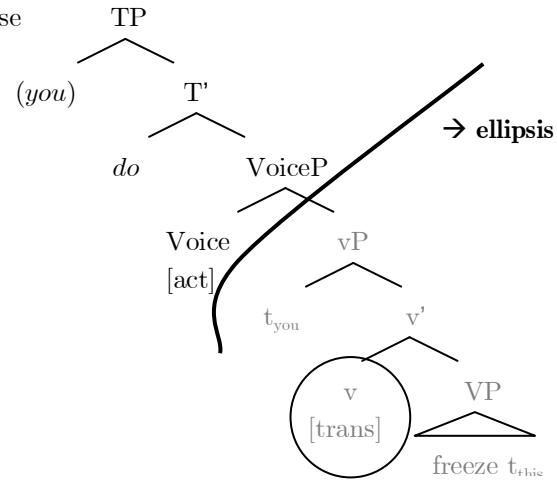
(36) a. This can freeze. Please freeze this.
b. This can freeze. * Please do [~~freeze this~~]. (Johnson 2004: 7)

Merchant (2007) explains these data stating that the little v head is included in the ellipsis site, so the argument structure specification of the elided clause cannot differ from the one in the antecedent clause; otherwise it would not be recoverable. The tree structures in (37) illustrate this account.

(37) a.



b. * Please



In what follows, I assume together Merchant (2007, 2008a) and Johnson (2004) that English VPE targets vP, rather than VP.

4.2.3 Applying the analysis to VPE

The analysis of ellipsis licensing in the previous chapter consisted of the following main claims:

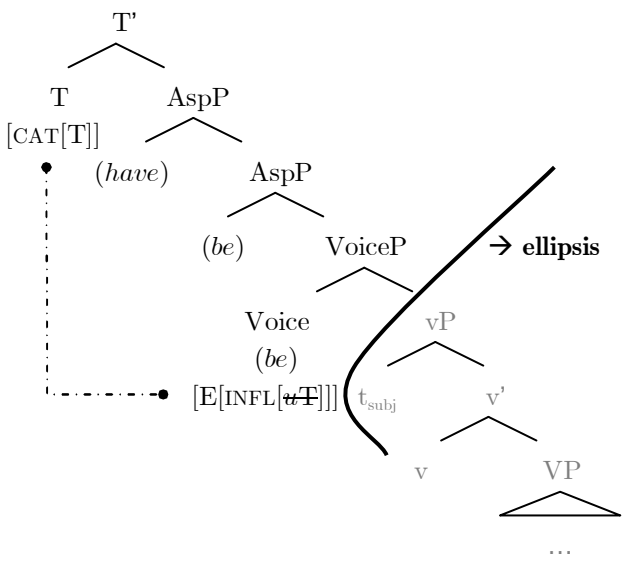
(38) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.
b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

The two elements in this analysis that can vary from phenomenon to phenomenon and from language to language are the licensor and the ellipsis site. The previous sections defined both these elements for English VPE. English VPE is only allowed when there is a T head, containing an auxiliary or a modal, or the infinitival marker *to* (see Zagona 1982, 1988; Lobeck 1995, 1999; Martin 1992, 1996 and Johnson 2001, among many others). Secondly, I have argued that the English VP ellipsis site is vP. Consequently, I propose the [E]-feature in (39) and the structure in (40) for VPE.

(39) [E] for English VPE:

$$\mathrm{E}_{\mathrm{VPE}} \begin{pmatrix} \textsc{cat} & [\mathrm{E/Voice}] \\ \textsc{infl} & [u\mathrm{T}] \\ \textsc{sel} & [\mathrm{Voice}] \end{pmatrix}$$

(40)



In short, VPE is licensed by an ellipsis feature on Voice that has to be checked against a T head via Agree. The fact that ellipsis is licensed via Agree accounts for the presence of non-finite auxiliaries following the licensing head in VPE sentences, such as the *have* and *been* in (20), repeated as (41). These data remain unexplained under an account which takes ellipsis to be licensed in a head-complement configuration.

(41) I hadn't been thinking about that. – Well, you should have been [~~thinking about that~~]!

Next, I show that this analysis accounts for some other properties of VPE in which it differs from MCE.

4.2.4 Accounting for the properties of VPE

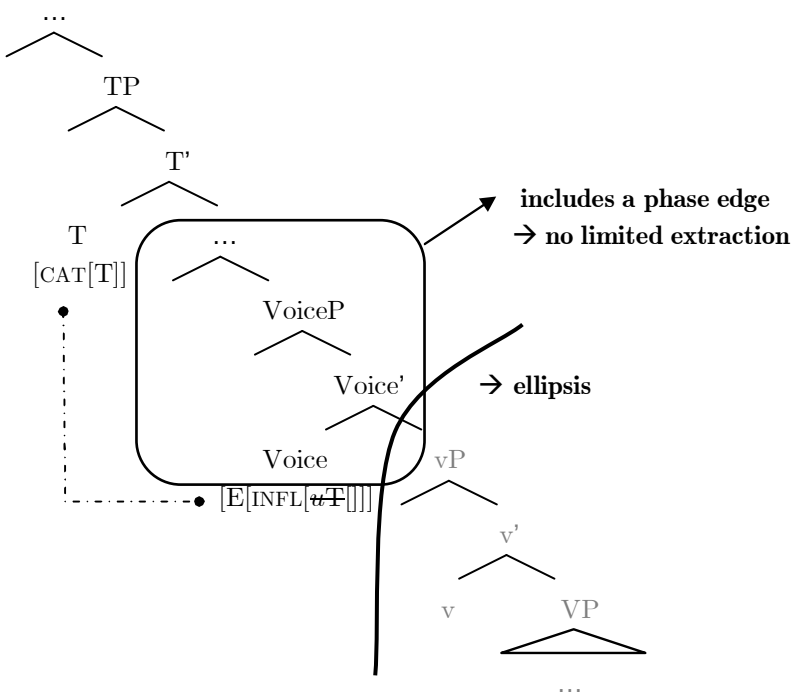
4.2.4.1 Extraction

A first difference between MCE and VPE is that VPE does not display a contrast in extraction possibilities for subjects and objects. The analysis developed above captures this difference: there is a phase head intervening between the licensor and the ellipsis site.

I argue that the clause-internal phase head is not little v, but Voice, following Baltin (2007). Standard phase theory (see Chomsky 1999, 2000, 2001, 2005) takes there to be two phase heads, C and little v. However, Kratzer (1994), Collins (2005) and Merchant (2007, 2008b) have proposed that the functional projection vP should be split up into VoiceP and vP. As a result, the question as to which of these two heads is the clause-internal phase head should be reconsidered. I claim, together with Baltin (2007), that it is not v, but Voice that is the phase head. A conceptual consequence of this claim, noted by Baltin (2007), is that both the phases and the phasal domains (or, alternatively, the derivative phases, see Chomsky 2005) are functional projections under this approach. If little v were a phase head, the clause-internal phasal domain would be the lexical projection VP, whereas the higher phasal domain TP is functional. A further parallel between the two phases is that for both the CP phase and the VoiceP phase the specifier of the phasal domain, [Spec, TP] and [Spec, vP] respectively, is a subject position. Hence, I claim that Voice is the clause-internal phase head instead of little v.

This means that [Spec, VoiceP] is a phase edge, attracting all constituents that still need to undergo syntactic operations. Consequently, the analysis predicts that such elements survive the ellipsis as well. In other words, given that the phase edge [Spec, VoiceP] lies outside the ellipsis site but lower than the licensing head T, extraction out of a VP ellipsis site is predicted not to differ from extraction in a non-elliptical sentence, as in (42).

(42)



This prediction is borne out: English VPE allows the same extractions that are allowed in the non-elliptical counterpart, as is shown in (43).[145]

(43) a. *Wh*-object extraction:
I don't remember what Ryan made for our Valentine's Tea,
but I know **what** Alice did [~~make t_{what} for our Valentine's Tea~~].

b. Derived *wh*-subject extraction:
If Pat isn't coming tonight, then **who** is [~~coming t_{who} tonight~~]?

c. Derived subject extraction:
This shirt has been washed but **these pants** should be [~~washed $t_{these\ pants}$~~] too.

d. *Wh*-adjunct extraction:
I know how fast Adam could run, but I don't remember **how fast** Hilary could [~~run $t_{how\ fast}$~~].

[145] Recall that Schuyler (2002) points out that there are restrictions on *wh*-movement out of a VP ellipsis site (cf. footnote 54 in chapter 2). For instance, parallel extraction in the antecedent greatly improves *wh*-extraction in the ellipsis clause, and ellipsis also needs contrastive focus.

e. PP adjunct extraction:
They threw a surprise party for Max, but **for Karen** they didn't [~~throw a surprise party t~~$_{\text{~~for Karen~~}}$].

Summing up, if the analysis developed for Dutch MCE is applied to English VPE, the licensing head is (filled) T and when this T is merged into the structure, vP is sent off to PF. Because there is a phase edge between the ellipsis site and the licensor, ellipsis does not affect the extraction possibilities: all constituents that can move out of the verb phrase in non-elliptical sentences can still do so in VPE because they are attracted to the phase edge prior to the ellipsis. Hence, the analysis can account for the extraction data.

4.2.4.2 VPE and *there*-expletives

One of the arguments put forward in favor of a deletion account of English VPE is the fact that it allows a *there*-expletive as its subject (see Ross 1969b), as in (44).

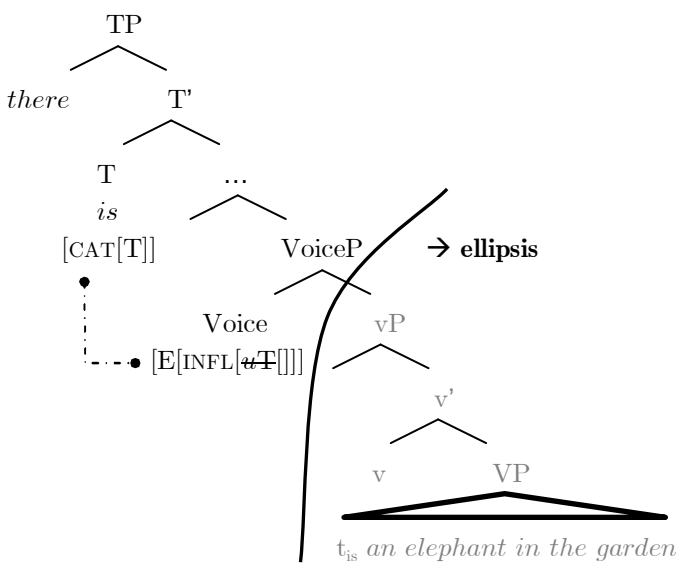
(44) a. There's no elephant is the garden! – Yes, there is!
b. I think there arrived a parcel for you yesterday – No, there didn't. It was a parcel for my father.

Given that *there* needs an associate DP, the ellipsis site has to contain enough syntactic structure to host such an associate. Consequently, VPE does not involve a null VP proform (as has been argued by Lobeck 1995, among others), but (PF) deletion of a fully-fledged verb phrase (Ross 1969b; for more references, see Johnson 2001, Merchant 2007).

In English VPE sentences with a *there*-expletive as their subject, the associate of *there* is included in the ellipsis site, unlike in Dutch MCE. These associates are base-generated inside the VP, as a complement to the verb. A simplified structure for the answer in (45)a is given in (45)b. VPE deletes vP, which contains the associate. Therefore, the associate of *there* does not appear in English VPE.

(45) a. There is no elephant in the garden! – Yes, there is [~~an elephant in the garden~~]!

b.



4.2.5 Summary

The present subsection has applied the analysis of ellipsis to English VPE. English VPE is licensed by a T head and deletes vP, but leaves the aspectual and passive auxiliary heads untouched. Because I assume, following Baltin (2007), that Voice is the clause-internal phase head instead of little v, there is a phase edge between the licensor and the ellipsis site. Consequently, the analysis correctly predicts that an English VPE sentence is not more restricted with respect to movement than its non-elliptical counterpart: both objects and subjects can be extracted out of the ellipsis site.

4.3 PSEUDOGAPPING

The next elliptical phenomenon that is discussed in this thesis is pseudogapping.[146] Pseudogapping is an elliptical phenomenon that looks like VPE with one extra remnant.[147] The term 'pseudogapping' dates back to Stump

[146] Many thanks to Ryan Bochnak, Ezra Keshet, Peter Klecha, Jason Merchant and Jasmin Urban for their help with the data.
[147] This construction is called pseudogapping because it looks like a mixture of VPE and gapping, examples of which are given in (i)a and (i)b, respectively.

(1977) and the construction received extensive discussion in Levin (1978, 1986). An example is given in (46).[148]

(46) Some brought roses and others did lilies. (Merchant 2007)

In most recent works, pseudogapping is analyzed as involving movement of a constituent out of the VP followed by deletion of the remainder of the verb phrase (see Jayaseelan 1990; Lasnik 1995b, 1999a, 2001; Gengel 2007b; Merchant 2007, 2008b). This is represented in (47).

(47) a. **Step 1**: Some brought roses and others did lilies [bring t_{lilies}].

b. **Step 2**: Some brought roses and others did lilies [~~bring t_{lilies}~~].

There has been some debate as to which kind of movement is responsible for moving the remnant out of the ellipsis site. Jayaseelan (1990) argues that Heavy NP Shift (HNPS) is involved, while Lasnik (1995b) claims the remnant to have undergone Object Shift (OS) to the specifier of AgrOP (Chomsky 1991; Koizumi 1995). Takahasi (2004) takes pseudogapping to be derived by either of these two operations. Gengel (2007b) on the other hand, takes Focus movement to be at stake, because the pseudogapping remnant always bears contrastive focus (see also Jayaseelan 2001). Which kind of movement is involved is discussed in section 4.3.2 below.

I first determine the main ingredients of the analysis, namely the licensing head and the ellipsis site, and propose an [E]-feature for pseudogapping. Next, the predictions made by the analysis are considered.

4.3.1 The licensor and the ellipsis site of pseudogapping

4.3.1.1 The licensing head

Pseudogapping is licensed by the same head as VPE: a filled inflectional head. It is allowed with modals, dummy *do* and aspectual auxiliaries; cf. (48). As (49)

(i) a. Some brought roses and others didn't.
b. Some brought roses and others lilies.

[148] Note that pseudogapping gives rise to gradient acceptability. People fully accept it in comparative contexts, but judgments go from fully grammatical to unacceptable for certain speakers in coordinate or (non-comparative) subordinate contexts.

illustrates, finite main verbs or other aspectual verbs do not license it, parallel to VPE (see 4.2.1).

(48) a. Does that make you mad? It **would** me! (Gengel 2007b:20)
b. He realized that he could make more money in some other position than he **could** farming. (Levin 1978:229, her (3a))
c. Some brought roses and others **did** lilies.
d. Tom has read more books for his son than he **has** for his daughter. (adapted from Gengel 2007b)
e. They were playing more new songs than they **were** covers.
f. I'm not citing their analysis so much as I **am** their data. (Levin 1986:12, her (4))

(49) a. * It started bothering me more than it **started** her.
b. * He seems to care about his job more than he **seemed** about his family.
c. * She gave a doll's house to her son and he **gave** to his daughter.
d. * You read the book yesterday and I **read** today.

As was the case with VPE, pseudogapping needs a finite auxiliary, not a non-finite one.

(50) a. ?* I hadn't been thinking about my paper, but I recall Morgan **having been** about his.
b. ?* I hadn't thought about my paper, but I recall Morgan **having** about his.
c. * Max having gone to work, and Jessi not **having** to school, I decided to take her to the seaside.
d. ?* Sarah hated him having {been/arrived} late for lunch and I hated him **having** (**been**) for dinner, too.
e. * Pat having finished his paper and Pete not **having** his squib was a surprise to everyone.

However, it turns out that the distribution of pseudogapping is more restricted than that of VPE: the infinitival marker *to* does not license it (cf. (51)).[149] Hence, only a finite inflectional head is a proper licensor.

[149] Recall that the VPE counterparts of these examples are acceptable; see section 4.2.

(51) a. ? * Bettina wants to hear Susanna's story sooner than she wants to Eric's.
b. * Bettina tried to write down a nice quote every day, and Lizet tried to a song title.
c. * Bettina tried to read the paper before she tried to the book.

In short, I argue that the licensing head of pseudogapping is a finite T head. The next subsection deals with the target of pseudogapping, i.e. what is elided.

4.3.1.2 The pseudogapping ellipsis site

I take pseudogapping to elide vP, parallel to VPE. Firstly, it deletes at least the VP, including the main verb and the objects that are not remnants, as is shown in (52).

(52) Tom has read more books to his son than he has to his daughter [~~read books t~~$_{\text{~~to his daughter~~}}$].

On the other hand, aspectual auxiliaries are not included in the ellipsis site, parallel to VPE:

(53) a. ? I have been reading more books than you have been papers.
b. ? I will have read your book sooner than I will've your paper.[150]
c. ? I won't have read your book by tomorrow, but I will've your paper.

Furthermore, the passive auxiliary is not elided either (see also Gengel 2007b):[151]

(54) a. The roses can be carried by the girls and the lilies can *(be) by the boys.
b. More people should be invited by the bride herself than should *(be) by her mother.

[150] I use the contracted form *will've* instead of *will have* to avoid confusion with main verb *have*. Thanks to Peter Klecha for pointing this out to me.
[151] Note that pseudogapping differs from VPE in this respect, because in VPE *be* is optionally elided when the antecedent contains an identical form of *be*. At this point I have no explanation for this contrast nor for the fact that *be* can be elided in VPE, and I defer the issue to further research.

With respect to the aspectual auxiliaries, Agbayani & Zoerner (2004) and Gengel (2007b) claim that pseudogapping, unlike VPE, only allows one auxiliary outside of the ellipsis site. Consider the following contrast, based on examples from Johnson (2001:440) and Gengel (2007b:237):

(55) a. Jonas should have eaten cake, and Dany should have [~~eaten cake~~], too. (VPE)
b. ?? Jonas should have eaten cake, and Dany should have [~~eaten~~] crisps. (pseudogapping)
c. Jonas should have eaten cake, and Dany should've [~~eaten~~] crisps. (pseudogapping)

From these examples Gengel (2007b) concludes, together with Agbayani & Zoerner (2004), that whereas VPE allows for multiple auxiliaries, pseudogapping deletes the non-finite auxiliaries following the finite one. She notes that the sentence improves when the second auxiliary is contracted (deaccented) as in (55)c (and the examples in (53)b,c). The sentence in (53)a above illustrates, however, that contraction is not always obligatory. Moreover, Gengel admits that the judgments for such cases vary: speakers of American English accept sentences such as (55)b, while speakers of British English tend to reject them, and even then the judgments are rather murky. I argue on the basis of the data I collected from my (American English) informants that pseudogapping does not elide the aspectual auxiliaries (in American English).[152] Why some British English speakers do not allow for multiple auxiliaries is a question I cannot answer in the present study.

Furthermore, I reject Gengel's conclusion that in pseudogapping the principle of MaxElide (see Merchant 2008a) is at work in the case of multiple auxiliaries. This principle states that ellipsis targets the largest constituent that can be elided if the ellipsis site contains an A'-trace. In pseudogapping such a trace is provided by the moved remnant. The reason for rejecting this as an explanation for the contrast in (55) is that an ellipsis site that includes these non-finite auxiliaries does not render the sentence grammatical. It even makes it less so: the ellipsis site in (56) cannot be interpreted as including a perfective auxiliary:

(56) *Jonas should have eaten cake, and Dany should [~~have eaten~~] crisps.

[152] Moreover, if pseudogapping elides the aspectual auxiliaries as Gengel claims, the fact that the passive auxiliary is not elided remains unexplained.

Hence, because the judgments point towards an analysis where the auxiliaries are not elided, I claim that pseudogapping targets vP. With this claim I follow most accounts of pseudogapping in the literature, which assume VPE and pseudogapping to target the same part of the structure.

One argument that has been brought forward against the claim that VPE and pseudogapping elide the same portion of the structure concerns voice mismatches (see Merchant 2007, 2008b). Merchant provides supporting evidence for the claim that pseudogapping elides a larger part of the structure than VPE by considering voice mismatches between the antecedent and the ellipsis clause. Such mismatches are illicit in pseudogapping, while they are allowed in VPE (cf. Merchant 2007; 2008b; but also Sag 1976, 2006; Dalrymple et al. 1991; Hardt 1993; Fiengo & May 1994; Johnson 2001, Kehler 2002, Frazier & Clifton 2006 and Arregui et al. 2006 for more examples and discussion):[153]

(57) a. This problem was to have been looked into, but obviously nobody did. (VPE; Kehler 2002: 53)

b. The janitor must remove the trash whenever it is apparent that it should be. (VPE; Merchant 2008b: 169)

c. * More people were invited to Beth's reception by her mother than Beth herself did to her wedding! (Pseudogapping, Merchant 2008b: 170)

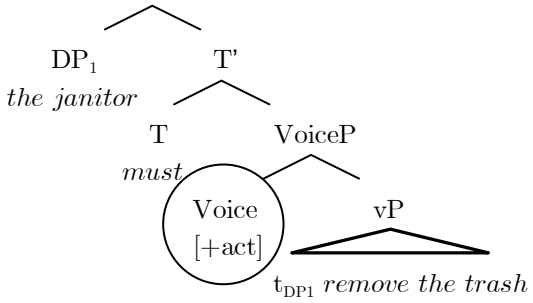
d. * Beth's mother invited more people to her wedding than by Beth herself! (Pseudogapping; Merchant 2008b: 170)

Merchant assumes ellipsis to be subject to a strict syntactic identity condition, which states that the morpho-syntactic specification of the ellipsis site matches that of the antecedent. He explains the contrast in (57) arguing that VPE elides vP, thus not including the Voice head in the ellipsis site, while pseudogapping targets VoiceP. Because in the latter case, the Voice head is included in the ellipsis site, the Voice specification in the ellipsis site has to be the same as in the antecedent. As a result, voice mismatches are illicit. The tree structures in (58) and (59) illustrate this:[154]

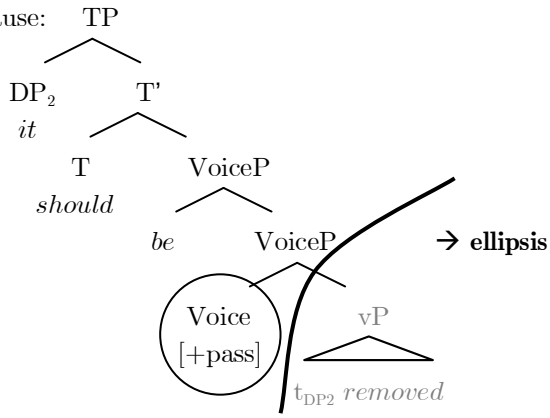
(58) a. The janitor must remove the trash whenever it is apparent it should be.

[153] For more examples and discussion, see also Sag (1976); Hardt (1993); Johnson (2001) and Arregui et al. (2006).
[154] These structures are adapted from Merchant (2008b:172-176).

b. Antecedent: TP …*whenever it is apparent that*…

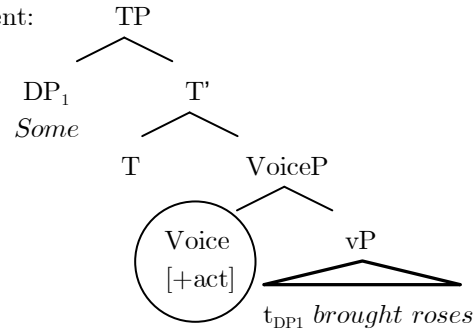


c. Ellipsis clause: TP

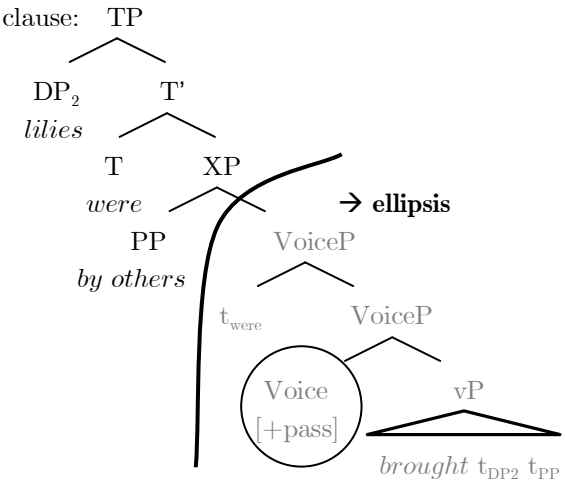


(59) a. * Some brought roses and lilies were by others.

b. Antecedent: TP



c. Ellipsis clause:



However, recall that MCE allows for voice mismatches, but can at the same time be shown to elide the Voice head (and even the aspectuals dominating VoiceP). The relevant examples are repeated in (60) (see also section 2.2.7).

(60) a. ? A: Dat cadeautje kan afgegeven worden door Yves.
that present can off.given become by Yves
B: Ralf mocht vandaag toch [~~dat cadeautje afgeven~~]?
Ralf may today PRT that present off.give
'That present can be handed over by Yves.' – 'I thought Ralf was allowed to do that today?'

b. ? Dit programma kan gebruikt worden door iedereen
this programme can used become by everyone
die wil [~~dit programma gebruiken~~].
that wants this program use
'This programma can be used by everyone who wants.'

This implies that there is no correlation in MCE between the (im)possibility of having voice mismatches and eliding the Voice head. Consequently, the strict syntactic identity condition cannot be taken to be language-universal. Moreover, even in English there are cases of VPE where the ellipsis site is not syntactically identical to the antecedent. Consider the examples in (61) with VPE taking a noun phrase antecedent (taken from Hardt 1993:34-35).[155]

[155] See Johnson (2001), however, for an account of these examples according to which the NP antecedent contains an underlying verb phrase.

(61) a. David Begelman is a great [laugher], and when he does [~~laugh~~], his eyes crinkle at you the way Lady Brett's did in *The Sun also rises*.
(from *You'll never Eat Lunch in This Town Again*; Hardt's (111))

b. Today there is little or no official [harassment of lesbians and gays by the national government, although autonomous governments might [~~harass lesbians and gays~~]. (Hardt's (117))

c. The candidate was dogged by charges of infidelity and [avoiding the draft], or at least trying to [~~avoid the draft~~].
(Hardt's (120))

Furthermore, Coppock (2001:2), Johnson (2003:24) and Gengel (2007b:250) observe that even in English pseudogapping the voice mismatch data are not as clear as they at first seem. The examples in (62) are significantly better than the ones in (57)c,d.

(62) a. ? That should be explained to individual students by the TA, but the professor will to the class in general.

b. ? The budget cuts might be defended publicly by the Chancellor, but surely she wouldn't her labor policies.

In short, there is evidence against a strict syntactic identity condition in Dutch MCE and English VPE, and the voice mismatch judgments are not conclusive for English pseudogapping. Consequently, I reject Merchant's proposal that pseudogapping affects a bigger part of the structure than VPE, but claim that the pseudogapping ellipsis site is vP, parallel to VPE.

The present section defined the licensing head and the ellipsis site for pseudogapping. Before proceeding to the analysis in terms of the [E]-feature, however, I first discuss the movement operation that moves the pseudogapping remnant out of the ellipsis site.

4.3.2 The movement operation in pseudogapping

As was said above, pseudogapping is traditionally analyzed as involving movement of a remnant constituent out of the ellipsis site prior to ellipsis (see Jayaseelan 1990; Lasnik 1995b, 1999a, 2001; Gengel 2007b; Merchant 2007, 2008b):

(63) a. **Step 1**: Some brought roses and others did lilies [bring t_{lilies}].

b. **Step 2**: Some brought roses and others did lilies [~~bring t_{lilies}~~].

Crucially, this movement does not seem to take place in non-elliptical sentences. Otherwise, the order of the verb and this remnant would be the reverse of what is attested, cf. (64).[156]

(64) a. Some brought roses and others brought lilies.
b. * Some brought roses and others lilies brought t_{lilies}.

Which kind of movement is involved in pseudogapping is a much debated question. Some accounts claim A-movement to be involved, while others propose the remnant undergoes A-bar-movement out of the ellipsis site. I discuss some of the proposals below and argue, following Gengel (2007b), that pseudogapping involves focus movement. For an extensive discussion of the arguments for and against A- and A'-movement in pseudogapping I refer the reader to Gengel (2007b).

4.3.2.1 Heavy NP Shift

Jayaseelan (1990) argues that it is Heavy NP Shift (HNPS) that moves the remnant out of the ellipsis site, as in (65). The remnant adjoins to the right of the clause.

(65) Some brought roses and others did [~~brought t_{lilies}~~] lilies.

The examples below, however, show that the remnant is not necessarily a heavy NP (or PP): it can also be a pronoun, where these cannot undergo HNPS (cf. (66)a,b). Consider also the example in (66)c, taken from Kennedy and Merchant (1997:11), where the remnant, the predicate of a small clause, cannot be moved by HNPS (cf. (66)d).

(66) a. Did it frighten you to hear that they found a bomb as much as it did **me**?

[156] This is the reverse of what was found with MCE (and British English *do* in the next section). In MCE certain movement operations that are possible in non-ellipsis are blocked when ellipsis occurs. In other words, ellipsis bleeds movement. In this case, on the other hand, a certain movement operation is only allowed when ellipsis occurs, i.e. ellipsis feeds movement.

b. * Did it frighten you to hear that they found a bomb as much as it frightened to hear that they found a bomb **me**?
c. Herman strikes psychiatrists as friendly more often than he does **as psychotic**.
d. * Herman struck psychiatrists before he committed those terrible crimes **as friendly**.

Moreover, Takahashi (2003, 2004) argues against an approach relying on HNPS only on the basis of pseudogapping with multiple remnants. The example in (67)a cannot be derived by rightward movement of both remnants out of the ellipsis site because multiple applications of HNPS are disallowed on independent grounds (cf. (67)b; see also Jayaseelan 1990; Gengel 2007b).

(67) a. Although he wouldn't give the book to Bill, he would [~~give~~] the paper to Susan.
b. * It proved to the jury his guilt that Michel was seen with the murder weapon.
(vs. It proved his guilt to the jury that Michel was seen with the murder weapon.)

Lasnik (1995b, 1999a) furthermore observes that unlike pseudogapping, HNPS is impossible with the first object of a double object construction. Compare the sentences in (68).

(68) a. ? Steven will give Bill a car and Susan will ~~give~~ Anne ~~a car~~.
b. * Steven [gave t_i a lot of money] [the fund for wildlife and nature preservation]$_i$.

Hence, it seems that HNPS cannot fully account for moving the pseudogapping remnant out of the ellipsis site.

4.3.2.2 Object Shift

Lasnik (1995b, 1999a and subsequent work) claims that the remnant undergoes Object Shift (OS) to the specifier of AgrOP (Chomsky 1991; Koizumi 1995; Vanden Wyngaerd 1989). This movement is triggered by an [EPP]-feature on AgrO, a feature which is optional but when present attracts the pseudogapping remnant. For English Lasnik additionally takes the main verb to move to a

position preceding the object in non-elliptical sentences. In pseudogapping such verb movement is blocked. The verb stays inside VP and is deleted.

However, there are certain differences between the movement in pseudogapping and Scandinavian OS, on which Lasnik bases his account. Firstly, Scandinavian OS does not target prepositional objects (see (69)a), unlike pseudogapping in both English (see (69)b) and Scandinavian (see Gengel 2007b:98).

(69) a. Jón talaði <*__við Maríu__> ekki <__við Maríu__>. (Icelandic)
John spoke to Mary not to Mary
'John didn't speak to Mary.'

b. He gave more lollypops to his son than he did **to his daughter**.

Secondly, Scandinavian OS is blocked when an auxiliary is present in the sentence, i.e. OS only occurs when the main verb also moves out of the verb phrase (Holmberg's Generalization, cf. Holmberg 1986). Given that in pseudogapping there crucially is an auxiliary present, the two phenomena do not pattern together (see also Gengel 2007b).

In short, object shift does not seem to be responsible for the movement of a pseudogapping remnant either.

4.3.2.3 Focus movement (Gengel 2007b)

Lasnik (1995b) compares pseudogapping to other instances of object movement in English, such as particle constructions (cf. (70)a) and ECM cases (cf. (70)b). The object optionally moves out of the (lower) verb phrase in these cases as well. Gengel (2006, 2007b), however, takes these examples to show that the movement operation involved in pseudogapping is not the same as the movement in particle constructions and ECM. She observes that, unlike pseudogapping, these cases do not require a special focus structure, where the moved element bears contrastive focus (see also Jayaseelan 2001).

(70) a. Astrid made <Chris> out <Chris> to be a fool.

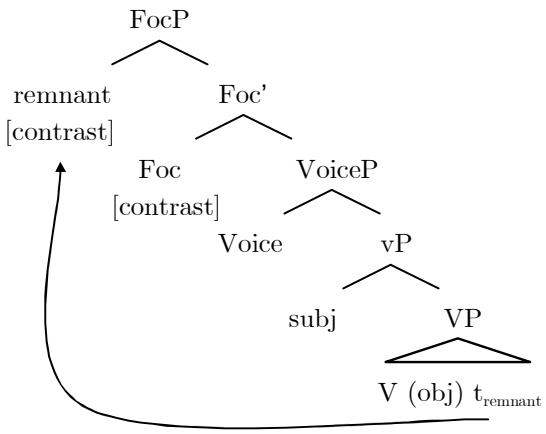
b. Keenan believes everyone [$t_{everyone}$ not to be there yet].

Therefore, she argues that Focus movement is at stake in pseudogapping, not OS or HNPS.

Gengel assumes that there is a clause-internal focus projection above VP that attracts the pseudogapping remnant to its specifier. For arguments in favor of

such a focus position, see Belletti & Shlonsky (1995) for Italian and Hebrew and Kíss (1998) for Hungarian. I follow Gengel's approach in proposing the remnant moves to a clause-internal focus position dominating the verb phrase (parallel to Jayaseelan 2001 for Malayalam and cleft constructions in English), as is shown in (71). The next section presents my analysis of pseudogapping.

(71)



4.3.3 Applying the analysis to pseudogapping

4.3.3.1 An [E]-feature for pseudogapping

I follow Gengel (2007b) in claiming that there is a Focus Phrase (FocP) immediately dominating the verb phrase. The focus head attracts the contrastive element out of vP. Since the ellipsis site is vP, the Voice head bears an ellipsis feature for pseudogapping, parallel to VPE. The feature specification of the [E]-feature for pseudogapping is given in (72): the licensor is a finite T head and the ellipsis site is vP, selected by Voice.

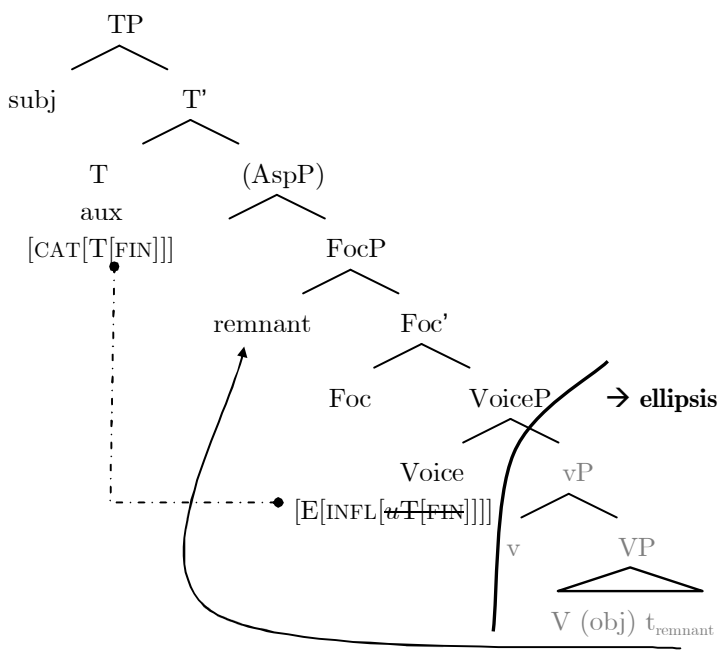
(72) [E] for pseudogapping:

$$E_{\text{pseudogapping}} \begin{pmatrix} \textsc{cat} & [\text{E/Voice}] \\ \textsc{infl} & [u\text{T}[\textsc{fin}]] \\ \textsc{sel} & [\text{Voice}] \end{pmatrix}$$

The abstract derivation of a sentence with this [E]-feature looks like (73). The remnant moves out of the verb phrase to the specifier position of FocP. When

the auxiliary is merged in T, the [E]-feature on Voice is checked. As a result, vP is sent to PF.[157]

(73)



One of the main characteristics a pseudogapping analysis has to account for is the fact that the remnant only moves in case ellipsis takes place (cf. (64), repeated as (74)).

(74) a. Some brought roses and others brought lilies.
b. * Some brought roses and others lilies brought t_{lilies}.

I link this movement to the presence of a clause-internal FocP. I claim, however, that the movement of a contrasted element to the specifier of FocP also occurs without ellipsis. Only, in that case PF obligatorily spells out the lower copy, the effect being covert movement (cf. Bobaljik (2002), see also section 3.2.3.2 above). Such a derivation results in the non-pseudogapped counterpart in (75)b of the sentence in (75)a. In both sentences *roses* and *lilies* are contrasted.[158]

[157] For expository purposes I have not represented the movement of the pseudogapping remnant through the phase edge.
[158] I use gray font here to indicate that the higher copy of *lilies* in (75)b is not spelt out.

(75) a. Overt movement (Spell-out of the higher copy)
Some brought roses and others did [$_{\text{FocP}}$ lilies [$_{\text{vP}}$ ~~bring lilies~~]].

b. Covert movement (Spell-out of the lower copy)
Some brought roses and others [$_{\text{FocP}}$ lilies [$_{\text{vP}}$ brought lilies]].

In order to explain why overt movement, i.e. Spell-out of the higher copy – is not possible in non-ellipsis, I combine Bobaljik's (2002) theory of movement with Richards (2001). Richards argues that PF has to receive unambiguous instructions about which element in a chain to pronounce. Movement operations triggered by a strong feature provide such information and consequently, PF pronounces the highest copy. If movement is triggered by a weak feature on the other hand, it can only apply covertly. However, if ellipsis deletes the lower copy of a weak movement chain, PF again receives unambiguous information to pronounce the higher copy (see Richards 2002). Applying this analysis to pseudogapping, I assume that the Foc head bears a weak [contrast]-feature in English. In non-ellipsis this feature causes the contrasted element to move covertly to [Spec, FocP], i.e. the movement operation occurs in syntax, but PF obligatorily spells out the lower copy (Bobaljik 2002, cf. (76)).

(76) ...and others [$_{\text{FocP}}$ lilies [Foc$_{\text{[contrast]}}$ [$_{\text{vP}}$ brought lilies]].

If the Voice head bears an [E]-feature on the other hand, this triggers deletion of the lower copy of the contrasted element. This provides PF with unambiguous instructions about which copy to spell out, even though the movement of the pseudogapping remnant was triggered by a weak feature. As a result, PF can spell out the higher copy, yielding the pseudogapped sentence in (77).[159]

(77) ...and others did [$_{\text{FocP}}$ lilies [Foc$_{\text{[contrast]}}$ [$_{\text{vP}}$ ~~bring lilies~~]].

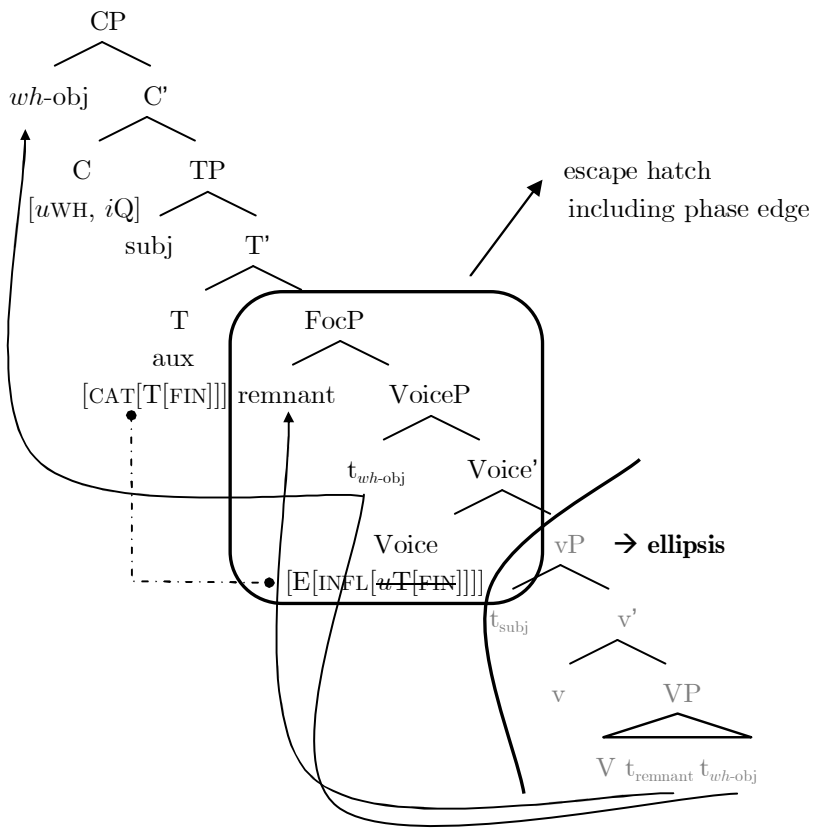
This mechanism captures the fact that overt movement of the contrasted element is restricted to pseudogapping contexts.

[159] Note that PF is not required to spell out the higher copy in case of deletion.

4.3.3.2 Predictions for extraction

I now look at the predictions this analysis of pseudogapping makes concerning extraction possibilities out of the ellipsis site. As could already be seen in the tree structure in (73) above, there is a phase head intervening between the ellipsis site and the licensing head T: the clause-internal phase head Voice (for discussion on Voice being a phase head, see section 4.2.4 above). Consequently, I expect all extraction to be possible that is allowed in non-ellipsis. The remnant element is extracted out of the ellipsis site, because it moves to a (focus) position prior to the merger of T. Moreover, a *wh*-object moves to the clause-internal phase edge [Spec, VoiceP], out of the ellipsis site and from there can move on to [Spec, CP].[160, 161] This is shown schematically in (78).

(78)



[160] Both the subject and the remnant undergo movement through the phase edge on their way to their final landing site. I have not represented this movement in the tree.
[161] This last step in the movement chain takes place after ellipsis, but at that point the *wh*-element as already escaped from the ellipsis site.

In short, because there is a phase edge intervening between the ellipsis site and the licensor T, the analysis predicts pseudogapped sentences to exhibit all extractions that are possible in their non-elliptical counterparts.[162] This prediction is borne out: all examples of pseudogapping in comparative contexts involve extraction of the comparative operator out of the ellipsis site (cf. Chomsky 1977; Klein 1980; von Stechow 1984; Heim 1985; Larson 1988, Hazout 1995 and Kennedy & Merchant 2000, among others).

(79) a. I read books more often than you do magazines.
b. I read books more often than *Op* you do magazines [~~t$_{Op}$ read t$_{magazines}$~~].

Moreover, the sentences in (80) display *wh*-object extraction and extraction of the manner adverb question word *how*.

(80) a. ?? What did YOU give to SARAH and what did TOM to CARL?[163]
b. ? I know what I would give to SARAH, but I don't know what I would to CARL.
c. ? I know how TOM can write PAPERS, but I don't know how BILL can SQUIBS.

Summing up, the prediction that pseudogapping allows for extraction out of the ellipsis site is borne out.

4.3.4 Summary

The present section has discussed pseudogapping and has applied the analysis proposed in the previous chapter to this phenomenon. I claim that its licensor is a finite T head and the target for ellipsis is vP. Parallel to VPE, the Voice head carries an [E]-feature for pseudogapping. Moreover, it is dominated by a clause-internal FocP that attracts the remnant to its specifier.

Such an approach predicts that pseudogapping does not exhibit limited extraction, unlike MCE: the phase head Voice intervenes between the ellipsis site and the licensing head.

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[162] As before, modulo the Contrast Condition of Schuyler (2002).
[163] Following Schuyler (2002), the examples involve parallel extraction and contrastive focus. The relative markedness is expected because pseudogapping is marked when occurring in non-comparative contexts. The reason why (80)a is more marked than the sentences in b and c is because extraction out of an ellipsis site in root clauses is less acceptable than in embedded clauses, cf. Schuyler (2002).

Most importantly, the present and previous sections have shown that my analysis, which involves derivational ellipsis, i.e. ellipsis that occurs during the derivation, makes the correct predictions for constructions that do not have limited extraction, as well. The next section in this chapter turns to a last elliptical phenomenon, British English *do*, which does display limitations when it comes to extraction out of the ellipsis site, parallel to MCE. I show that the analysis can account for these facts too.

4.4 BRITISH ENGLISH *DO*

British English *do* (BE *do*), a phenomenon that is reminiscent of English VPE, is discussed in Baltin (2004, 2005, 2007) and Haddican (2006). In the examples in (81) the verb phrase *run the race* is elided and there is a finite auxiliary present. Hence, in the VPE sentence in (81)b there is no *do* inserted. In British English on the other hand, an additional *do* can appear (cf. (81)a).

(81) a. Luis will run the race and Nana will **do** [~~run the race~~], too.
b. Luis will run the race and Nana will [~~run the race~~], too.

This *do* can only occur when the verb phrase is elided, as is shown in (see Baltin 2007).

(82) * Luis will run the race and Nana will do run the race, too.

Baltin (2007) shows that BE *do* provides a puzzle when the extraction test for internal structure of the ellipsis site is applied to it, parallel to MCE.

4.4.1 The properties of British English do[164]

Baltin (2004, 2005, 2007) observes that BE *do* does not allow extraction of a *wh*-object out of the ellipsis site, as in (83)a. The parallel sentence with English VPE in (83)b on the other hand, is perfectly acceptable.

[164] I am very grateful to my informants, David Adger, Paul Elbourne, Damien Hall and Bernadette Plunkett, as well as to Mark Baltin and Bill Haddican for helping me with the data collection.

(83) a. * Although I don't know who Thomas will visit, I do know who Aga will do [~~visit t$_{who}$~~]. [adapted from Baltin (2007:(14))]
b. Although I don't know who Thomas will visit, I do know who Aga will [~~visit t$_{who}$~~]. [adapted from Baltin (2007:(13))]

As noted in Haddican (2006), ACD and pseudogapping, which both involve movement of a non-subject – an operator in ACD and a contrastive remnant in pseudogapping –, are also ungrammatical in BE *do* (cf. (84)).[165] The VPE examples in (85) are again fully acceptable.

(84) a. * Ed can eat anything *Op* that Ronny can do [~~eat t$_{Op}$~~]. (ACD)
b. * Although she won't eat pizza, she will do pasta [~~eat t$_{pasta}$~~] (pseudogapping)

(85) a. Ed can eat anything *Op* that Ronny can [~~eat t$_{Op}$~~].
b. Although she won't eat pizza, she will pasta [eat t$_{pasta}$].

These data lead Baltin (2004, 2005) and Haddican (2006) to the conclusion that the ellipsis site of BE *do* is a null verbal proform and consequently does not contain enough structure to host the movement trace, thus accounting for the ungrammatical data in (83)a and (84).

Subject extraction, however, suggests that the ellipsis contains internal structure (see Baltin 2007): (86)a exhibits subject-to-subject raising out of the ellipsis site and (86)b displays movement of the derived subject from the complement position of an unaccusative to the surface subject position.

(86) a. ? Brynne might seem to enjoy that, and James might do [~~seem to t$_{James}$ enjoy that~~], too. [adapted from Baltin (2007:(17))]
b. ? The river will freeze solid, and the lake will do [~~freeze solid t$_{the\ lake}$~~], too. [adapted from Baltin (2007:(18))]

[165] BE *do* does not allow for ACD when the subject is coindexed with the antecedent's subject either, unlike MCE, cf. (i). At this point I have no answer to this puzzle.

(i) a. Ed must read every article he can. (VPE)
b. ?* Ed must read every article he can do. (BE *do*)
c. ? Ed eats anything he can. (VPE)
d. ?* Ed eats anything he can do. (BE *do*)
e. Ed reads every book he should. (VPE)
f. ?* Ed reads every book he should do. (BE *do*)

4.4.2 The analysis of British English do

British English *do* displays the same extraction properties as Dutch MCE: it does not allow A'-movement out of the ellipsis site, while derived subjects can move out. Extending my analysis of MCE to BE *do*, I argue that British English *do* involves deletion of a fully-fledged syntactic structure. First, the licensing head of BE *do* is determined; next, I show that this phenomenon deletes a smaller part of the structure than VPE and finally, I illustrate how the analysis captures the extraction data.

4.4.2.1 The licensor of British English *do*

I claim that the licensing head of BE *do* is *do* itself. This element is analyzed as the (optional) lexicalization of the little v head in British English (see Haddican 2006; Baltin 2005, 2007). First I elaborate on the categorial status of *do* and then I show that BE is licensed by the presence of *do* and does not require a T head, unlike VPE.

I follow Stroik (2001), Haddican (2006) and Baltin (2005, 2007) in assuming that BE *do* is the (optional) lexicalization of the little v head in British English. These authors argue that BE *do* is not the same as the dummy *do* that is inserted in T. Whereas dummy *do* is always finite, this is not the case for British English *do*, as is clear in the examples in (87), adapted from Baltin (2007).

(87) a. Monika has run the race, and Tommy has done too.
b. Monika is running the race, and Tommy is doing too.

These examples illustrate that British English *do* occupies a position lower than the aspectual auxiliaries, i.e. perfective *have* and progressive *be*, unlike dummy *do*.[166] On the other hand, this *do* is not main verb *do* that occurs in constructions such as *do it* either because unlike the main verb, British English *do* can occur with statives:

[166] Interestingly, BE *do* cannot be passivized (cf. (i), adapted from Baltin 2007), despite the fact that it can occur as a past participle (cf. (87)a above).

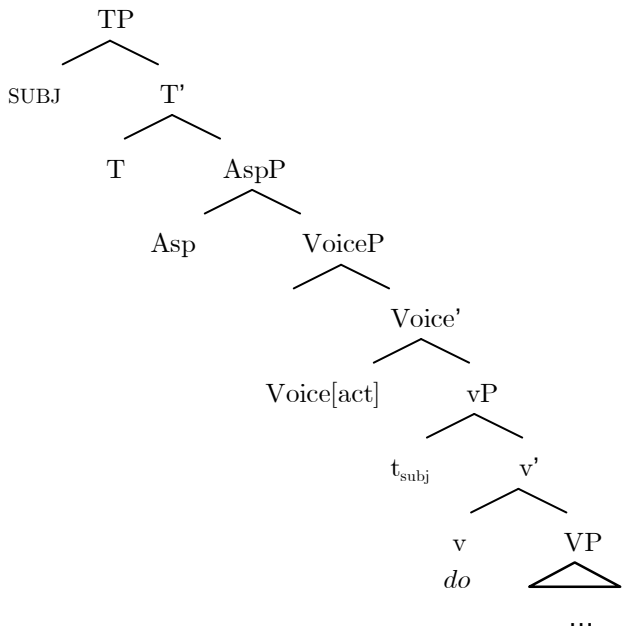
(i) *The steak was eaten by Dany, and the fish was done [~~eaten~~] too.

Baltin (2007) assumes that the passive Voice head cannot select for a little v head in its complement when this little v is lexicalized by *do*. Only active Voice can take a *do* complement.

(88) a. * Monika will feel bad, and Tommy will do it too.
b. Monika will feel bad, and Tommy will do too.

Hence, Stroik (2001), Haddican (2006) and Baltin (2005, 2007) claim that BE *do* is a little v head. This leads to the schematic structure in (89).

(89)



Next, evidence is provided in favor of the claim that *do* is the licensing head of the BE *do* ellipsis construction. Unlike VPE, BE *do* can occur in non-finite clauses without a T head. Compare the sentences in (90) and (91).

(90) a. * Max not having arrived yet and Morgan not **having** either, we decided to wait.
b. * Max finally having arrived and Morgan also **having**, we could start ordering.
c. * Pat having shown up at the game and Pete not **having** was a surprise to everyone.

(91) a. ? Max not having arrived yet and Morgan not **having done** either, we decided to wait.[167]
b. ?? Max finally having arrived and Morgan also **having done**, we could start ordering.
c. ? Pat having shown up at the game and Pete not **having done** was a surprise to everyone.
d. ? Pat showing up at the game and Pete not **doing** was a surprise to everyone.[168]
e. ? Pat smoking again and Pete not **doing** anymore was a surprise to everyone.

The VPE examples in (90) are excluded because there is no T head licensing the ellipsis, i.e. no finite auxiliary or infinitival marker *to*. Adding *do* to the sentences, as in (91), greatly improves them. In other words, BE *do* does not require the presence of an inflectional head; it is licensed by *do* itself.[169] In the next section the ellipsis site is defined.

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[167] Note that the finite counterparts of the sentences in (91)a,b,c are also slightly marked, hence the relative markedness is expected.

[168] The VPE counterparts of (91)d,e are illicit as well but this is because there would not be any auxiliary – finite or non-finite – left:

(i) a. * Pat showing up at the game and Pete not was a surprise to everyone.
b. * Pat smoking again and Pete not anymore was a surprise to everyone.

Note that the finite version of the *do*-sentences in (91)d,e are marked as well:

(ii) a. ? That Pat was showing up at the game and that Pete wasn't doing was a surprise to everyone.
b. ? That Pat was smoking again and that Pete wasn't doing anymore, was a surprise to everyone.

[169] However, consider the sentences in (i), where the non-finite absolute (i.e. adjunct) clause contains the *ing*-form of *do*.

(i) a. * (With) Max smoking again and Morgan doing too, I am the only non-smoker in the company tonight.
b. ?* (With) Max not talking to his wife anymore and Morgan not doing either, we were up for a fun weekend off.

The ungrammaticality of these examples cannot be due to a restriction on *do* as a gerund or in the progressive because the gerundives in (91)d,e and the finite counterparts in (ii) are significantly better. Also, without ellipsis, the non-finite clauses are fully acceptable, cf. (iii) (not taking into consideration the redundancy).

(ii) a. ? Max is smoking again and Morgan is doing too.
b. ?? Max wasn't talking to his wife anymore and Morgan wasn't doing either.

(ii) a. (With) Max smoking again and Morgan smoking too, I am the only non-smoker in the company tonight.

4.4.2.2 The ellipsis site of BE *do*

After having established which head functions as a licensor, the second task is to determine the size of the ellipsis site. I follow Baltin's (2007) claim that BE *do* elides VP. First of all, the examples in (87), repeated in (92), illustrate that the aspectual heads are not included in the ellipsis site.

(92) a. Monika has run the race, and Tommy has done too.
b. Monika is running the race, and Tommy is doing too.

British English *do* itself, which I argue occupies the little v head, is not deleted either. What is deleted on the other hand, are the main verb and its internal arguments:

(93) a. Ines will eat pasta and Finn will do [~~eat pasta~~], too.
b. Jessica will give Guido a present and Ellen will do [~~give Guido a present~~] too.

The same holds for verb modifying adverbs, which adjoin to the VP (Jackendoff 1972; Zubizarreta 1987; Sportiche 1988; Dowty 1989; Parsons 1990): the sentence in (94)a shows that a verb modifier cannot survive the ellipsis and (94)b illustrates that the adverb is obligatorily interpreted as included in the ellipsis site.

(94) a. ?* Morgan will write that paper slowly, but Yaron will do fast.
b. Morgan will write that paper fast, and Yaron will do [~~write that paper *(fast)~~] too.

On the basis of these empirical facts, Baltin (2007) argues that BE *do* elides VP, so that the position of *do* and the functional projections dominating it, e.g. VoiceP and AspP, are not included in the ellipsis.

---

b. (With) Max not talking to his wife anymore and Morgan not talking to his wife anymore either, we were up for a fun weekend off.

Because this ungrammaticality only shows up in these specific cases with *doing* as the only non-finite verb in an absolutive clause, I assume that it is due to independent reasons, however, and does not contradict the claim that *do* licenses the ellipsis. I do not yet have an explanation as to the nature of these independent factors, however.

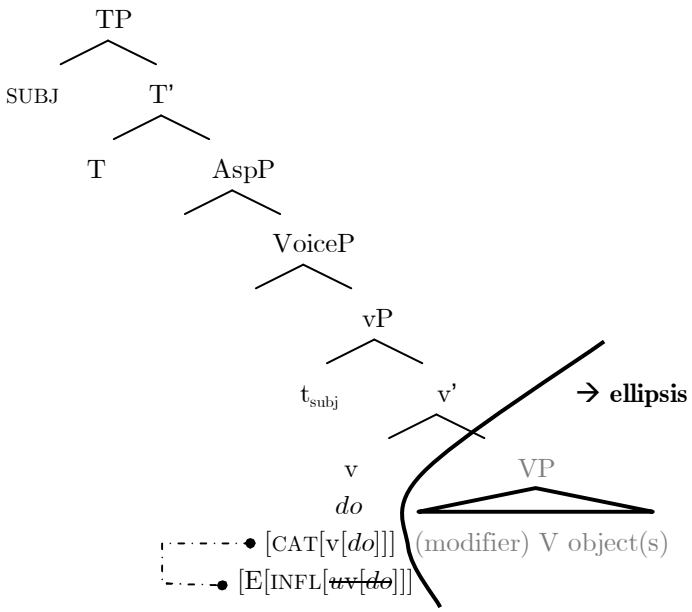
4.4.2.3 An [E]-feature for British English *do*

The discussion above can be captured in the feature specification for [E] in (95), and the tree in (96). The v head *do* is the licensor and its VP complement is the ellipsis site. This implies that [E] needs to establish an Agree relation with an element of category [v[*do*]] – as is specified in its inflectional features – and that resides on *do* – as is specified in its selectional features –, respectively.

(95) [E] for British English *do*:

$$E_{\text{BE do}} \begin{pmatrix} \text{CAT} & [\text{E/v}[do]] \\ \text{INFL} & [u\text{v}[do]]] \\ \text{SEL} & [\text{v}[do]] \end{pmatrix}$$

(96)



Note that this structure differs from what we have seen so far: the licensor in this case is also the head bearing the [E]-feature. This explains why ellipsis is obligatory when BE *do* lexicalizes little v (cf. (82) repeated as (97), see Baltin 2007).

(97) * Luis will run the race and Nana will do run the race too.

Based on the data presented in sections 4.4.2.1 and 4.4.2.2 concerning the ingredients of the analysis, i.e. the licensing head and the ellipsis site, I assume that the little v head lexicalized as *do* obligatorily carries the [E]-feature. Whenever v is lexicalized as *do*, it carries the [E]-feature. As a result, ellipsis and the lexicalized little v *do* always come together.

This implies that, although they do not need to, the licensor and the ellipsis site can occur in a head-complement configuration under my account. If the licensor is also the head bearing the ellipsis feature, it will automatically elide its complement. In case the licensor is not a phase head, such ellipsis leads to limited extraction possibilities. I examine this issue in the following section.

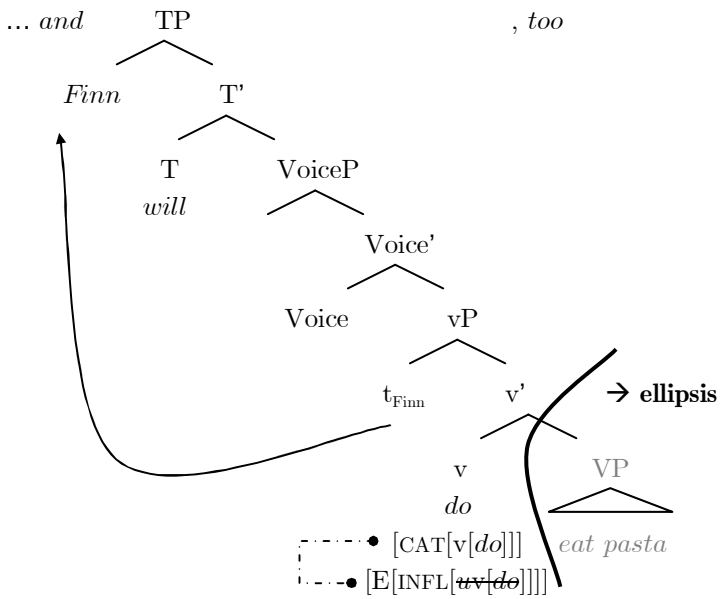
4.4.3 Accounting for the extraction data

Having established what the licensor and the ellipsis site of BE *do* are, the present section illustrates how the analysis accounts for the extraction data.

Consider first a sentence with a transitive verb. Because it is only VP that is elided, the subject is base-generated outside the ellipsis site in this case. An example such as the one in (98)a is represented as (98)b. Both the verb and the direct object are included in the ellipsis, while the subject position is not. When the licensing head *do* is merged, VP is sent off to PF. The subject is free to move further to [Spec, TP].

(98) a. Ines will eat pasta and Finn will do [~~eat pasta~~], too.

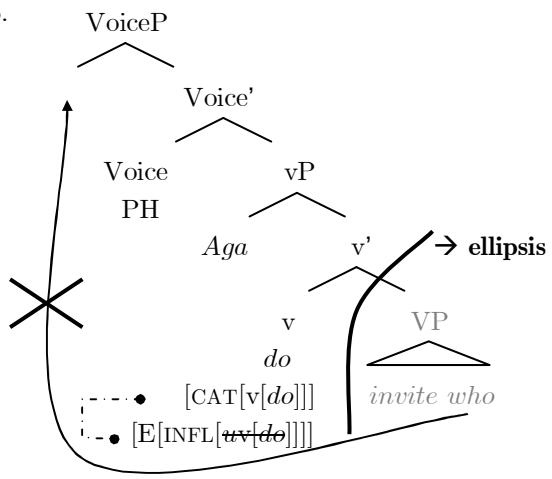
b.



Objects on the other hand, cannot survive BE *do*. The analysis I propose accounts for this ban on object extraction in BE *do*, because I assume, following Baltin (2007), that Voice instead of little v is the clause-internal phase head (see also section 4.2 on VPE and section 4.3 and pseudogapping above). The phase edge [Spec, VoiceP] is not situated between the ellipsis site and the licensing head and consequently, the *wh*-object *who* in (99)a cannot be extracted out of the ellipis site. In a non-elliptical sentence this object is able to move to the phase edge, but in BE *do*, ellipsis deletes it together with the rest of the ellipsis site at the moment the licensor is merged, before the object has the chance to move out of the ellipsis site. The subject is base-generated outside the ellipsis site and survives deletion. This is shown in the tree structure in (99)b.

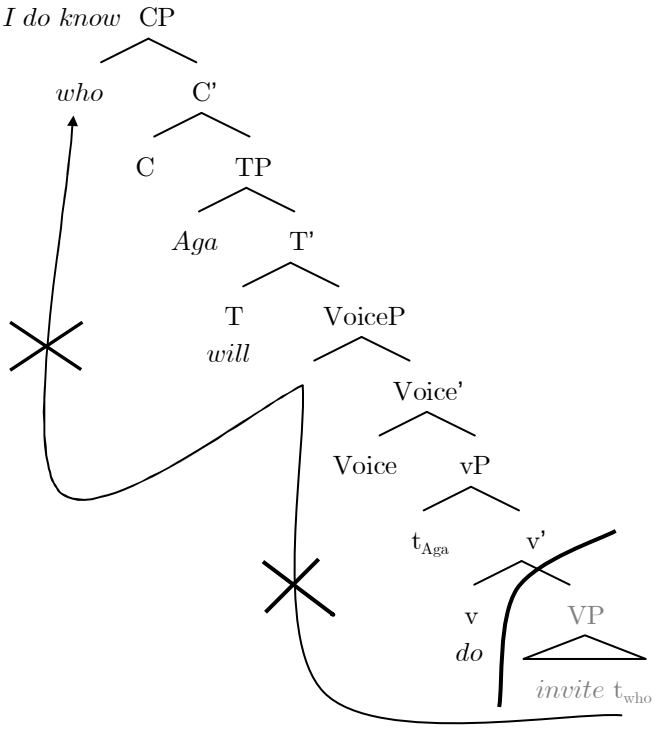
(99) a. * Although I don't know who Thomas will invite, I do know **who** Aga will do [~~invite t_{who}~~].

b.



Because the object has not moved out of the ellipsis site prior to ellipsis, it can no longer be attracted to [Spec, CP], as (100) shows. As a result, the sentence in (99)a is ungrammatical.

(100)

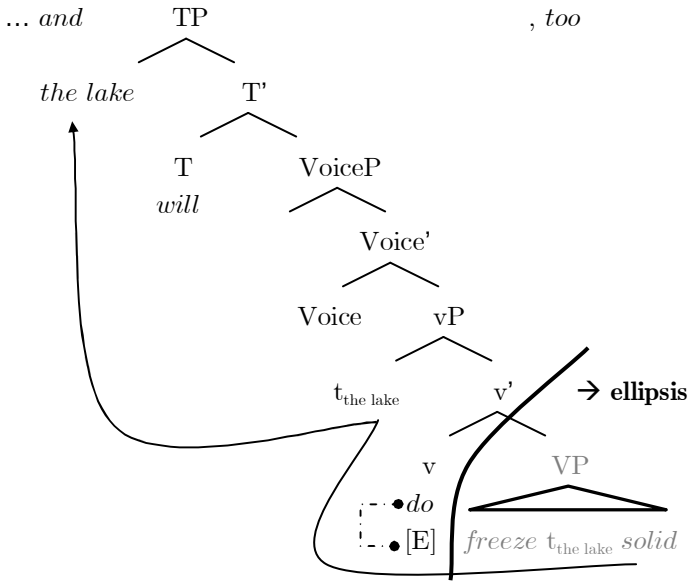


Summing up, the analysis explains why objects cannot be A'-moved out of the BE *do* ellipsis site: there is no position for them to move to before *do* is merged. Subjects of transitive and unergative verbs are base-generated outside of the ellipsis site, namely in [Spec, vP]. I now discuss the case where the subject is a derived subject, i.e. when it is base-generated in the object position of an unaccusative verb, as in (101).

(101) ? The river will freeze solid and the lake will do [~~freeze solid t~~$_{\text{~~the lake~~}}$], too.

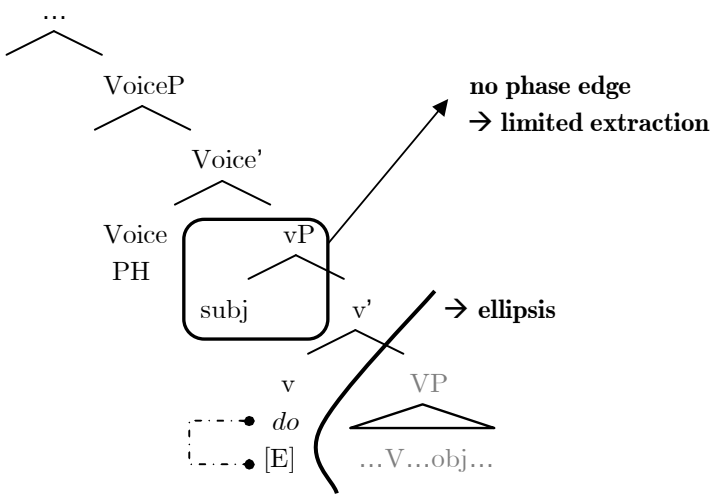
Unlike the object, a derived subject does survive the ellipsis. Following Baltin (2007), I assume that a derived subject always moves through [Spec, vP], the position where subjects are normally base-generated. Hence, the subject is attracted out of the ellipsis site by the licensor itself prior to ellipsis. This results in the structure in (102) for the sentence in (101).

(102)



Thus, in BE *do* there is no projection between the licensor *do* and the ellipsis site. Only the licensor v itself can attract elements to its specifier. Given that little v is not a phase head, the analysis accounts for the limited extraction possibilities in BE *do*. Schematically, this is represented by the simplified tree structure in (103).

(103)



In the next section, I present Baltin's (2007) account of BE *do* and show that although there are similarities between his approach and the one in this thesis,

there are also differences which show the latter is to be preferred over the former.

4.4.4 Baltin (2007)

Baltin (2007) also proposes a deletion account for BE *do*. Under his analysis as well, is British English *do* the lexicalization of little v, and Voice instead of little v is the clause-internal phase head triggering A'-movement to its specifier. Moreover, he makes the following assumptions:

(104) a. The deletion involved in British English *do* deletes the VP [...],
b. the deletion involved in what is conventionally termed VP-ellipsis actually deletes the VoiceP [...],
c. deletion occurs as soon as possible, in accordance with Chomsky's (2004, 2005) No Tampering Condition [...],
d. deletion is actually deletion of formal and phonological features. [Baltin 2007:17]

This accounts for the extraction differences between subjects and objects: although he does not specify *do* as the licensing head of BE *do*, Baltin assumes deletion of VP to take place when *do* is encountered. At that point, subjects have already vacated the ellipsis site: they are either base-generated in [Spec, vP] – in the case of transitive and unergative verbs – or undergo A-movement to this position, attracted by little v – in the case of unaccusatives and passives. A *wh*-object on the other hand, has not yet moved out of the VP to the phase edge [Spec, VoiceP] when ellipsis occurs and is deleted.[170]

I follow Baltin in several respects: I also take *do* to be the lexicaization of the little v head and the ellipsis site of BE *do* to be VP. Moreover, my account also has Voice as the clause-internal phase head instead of little v.

However, my account also differs from Baltin's. Firstly, it explicitly specifies little v *do* as the licensing head for ellipsis. Baltin (p.c.) assumes that BE *do* is licensed by T, parallel to VPE. Secondly, I take VPE to elide vP, not VoiceP. Thirdly, Baltin argues that deletion takes place in narrow syntax, erasing formal and phonological features, while leaving semantic features intact. Under my approach ellipsis happens as soon as the licensing head is merged, freezing it for

[170] It is unclear to me, however, when VPE, which involves VoiceP deletion, occurs under his account and how it allows for extraction out of the ellipsis site, as deletion includes the clause-internal phase edge.

further syntactic operations, but nothing is deleted in narrow syntax. The main argument why Baltin takes deletion to happen in narrow syntax involves the scope properties presented in the previous chapter: certain scope ambiguities that are present in non-elliptical sentences and VPE, disappear in BE *do*. The sentence in (105)a can be interpreted with *some woman* taking scope over the deleted *every book* (surface scope), or *every book* can QR to take scope over *some woman* (inverse scope). In the BE *do* example in (105)b the inverse scope reading disappears.

(105) a. Some man will read every book and some woman will [~~read every book~~], too. [some > every; every > some]

b. Some man will read every book and some woman will do, too. [some > every; *every > some]

Baltin takes this to be an argument in favor of his claim that deletion does not happen at PF, but in the syntax: if the object is deleted in syntax, it can no longer undergo QR at LF.

The account I present in this thesis also captures the loss of scope ambiguities; see section 3.2.3.2. I take ellipsis to involve an Agree relation between an [E]-feature and a licensing head. As soon as the ellipsis feature is checked, the ellipsis site is sent to PF. In other words, from that moment on the ellipsis site is no longer accessible to any syntactic operations. Following Bobaljik (2002), I assume that all movement operations occur in the syntax. Hence, inverse scope is not the result of movement at LF, but of movement in the syntax of which PF spells out the lower copy. An important consequence of this approach is that inverse scope is blocked whenever overt extraction is impossible. In BE *do* objects cannot extract overtly because they do not have a position to move to between the ellipsis site and the licensor. Similarly, objects cannot take high scope over the subject either. In short, my analysis accounts for these scope data as well.

Summing up, my account follows Baltin (2007) in arguing for a deletion analysis of BE *do*, where the ellipsis site is VP. I also take Voice to be the clause-internal phase head and *do* to be an instance of little v. On the other hand, I have shown that BE *do* is not licenced by T but by *do* itself, contrary to Baltin (p.c.). Moreover, it is unclear to me how Baltin (2007) can account for the extraction data in VPE if ellipsis targets the phase VoiceP, including the phase edge. Furthermore, I have shown here and in the previous chapter that the PF deletion account with ellipsis occurring derivationally, combined with Bobaljik's (2002) proposal of having all movement operations in the syntax

proper, captures the scope data as well. Finally, the account I propose has wider empirical coverage in that it also provides an analysis for MCE, sluicing and pseudogapping.

4.4.5 Summary

Recapitulating, I have illustrated that British English *do* displays the same extraction contrast as Dutch MCE: objects cannot extract out of the ellipsis site, while subjects, even derived subjects, survive the ellipsis. The analysis I have presented accounts for this contrast: BE *do* involves ellipsis of the VP as soon as the licensor, the little v head *do*, is merged. Because I assumed that Voice is the clause-internal phase head, the object does not have a position to move to between the ellipsis site and the licensor. Consequently, it is obligatorily deleted. The subject on the other hand, is either base-generated in [Spec, vP], which is a position not included in the ellipsis site, or moves to this position prior to ellipsis.[171]

4.5 SUMMARY

This chapter has shown that the analysis I developed in the previous chapter for Dutch MCE can be applied to other elliptical phenomena as well. I have presented an account for sluicing, English VP ellipsis, pseudogapping and British English *do*.

A consequence of the claim that ellipsis happens derivationally is that any constituent that has not moved out of the ellipsis site at the point when the licensor checks [E] is deleted and hence cannot undergo further syntactic operations. In sluicing, VPE and pseudogapping all extractions that are allowed in non-elliptical sentences are also possible under ellipsis. The analysis can account for this fact because there is a phase edge between the ellipsis site and the licensor. The phase head attracts all constituents with unvalued features before the licensor is merged.

[171] Because the licensor is also the head attracting the subject to its specifier, both operations, i.e. the movement operation and establishing the Agree relation that triggers ellipsis and freezes the ellipsis site, occur simultaneously. In other words, strictly speaking the subject does not move out of the ellipsis site *prior to* ellipsis, but rather *simultaneously with* ellipsis.

BE *do* on the other hand, disallows A'-extractions, while allowing A-movement out of the ellipsis site. I have shown that in this case there is no phase head between the ellipsis site and the licensor. Hence, there is no automatic escape hatch and extraction depends on the specific heads intervening between licensor and ellipsis site: if a constituent can move to a position between the ellipsis site and the licensing head for some reason (or to the specifier of the licensing head), it can escape ellipsis. If there is no such position, no such trigger of movement, the constituent is stuck and is thus elided.

I have shown that my analysis can be applied to all these elliptical constructions. One of the main reasons why this account can capture both the limited extraction data in MCE and British English *do* and the less restricted extraction in sluicing and VPE is that I take ellipsis not to be licensed through a head-complement relation, but through Agree.

Do not too hastily conclude that silence is indifference. Indifference is not to care, not to act, not even to think or breathe. Indifference is inhuman and inhumane. Silence, on the other hand, is almost always premeditated, a willful act. Without silence there would be no sound.
~ Justin Bryan Snider

Chapter 5
Conclusion and issues for further research

Ellipsis is subject to two conditions: recoverability and syntactic licensing. The former roughly implies that the semantic content of the material that is left out has to be recoverable for the hearer and the latter means that ellipsis can only occur in the proper syntactic environment. The present work has focused mainly on the second condition and has presented a theory of ellipsis licensing. The analysis of ellipsis I proposed is repeated in (1).

(1) a. Ellipsis is licensed via an Agree relation between an [E]-feature and the ellipsis licensing head.
b. Ellipsis occurs in the course of the derivation, as soon as the licensing head is merged. At this point the ellipsis site becomes inaccessible for any further syntactic operations, and vocabulary insertion at PF is blocked.

First, I have argued that the ellipsis site and the ellipsis licensing head are not necessarily in a head-complement relation. There can be non-elided material between them, as was shown for English VP ellipsis (VPE, cf. (2)), pseudogapping (cf. (3)), several types of sluicing (cf. (4) and (5)) and Dutch modal complement ellipsis (MCE, cf. (6)).

(2) a. I hadn't been thinking about that. – Well, you should **have been** [~~thinking about that~~]! (VPE)
b. Ezra hasn't finished yet, but I really want him to **have** [~~finished~~]. (VPE)

(3) ? Jonas has been reading more books than you have **been** [~~reading~~] papers. (pseudogapping)

(4) Jef eit iemand gezien, mo ik weet nie wou **da**.
Jef has someone seen but I know not who that
'Jef saw someone, but I don't know who.'
(spading, Wambeek Dutch, van Craenenbroeck 2004)

(5) Astrid was talking, but I don't know who **with**.
(swiping, van Craenenbroeck 2004)

(6) Gisteren mocht Tyl volgende week zijn nieuwe auto gaan
yesterday was.allowed Tyl next week his new car go
halen, en vandaag mag hij pas **over een maand**.
get and today is.allowed he only in a month
'Yesterday Tyl was allowed to go get his new car next week and today he's only allowed to go get it in a month.' (Dutch MCE)

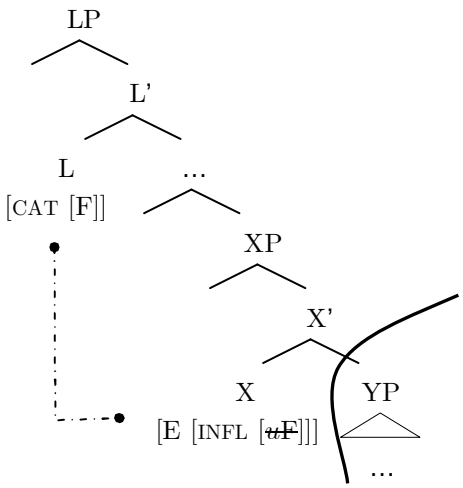
This observation cast doubt on the analysis of ellipsis licensing proposed by Merchant (2001, 2004) and many others after him in which the licensing head bears an ellipsis feature [E] that marks its complement for non-pronunciation at PF. I propose a similar ellipsis feature, also situated on the head selecting the ellipsis site, but this head is not necessarily the licensor. Moreover, [E] needs to check its uninterpretable inflectional feature against the category feature of a specific head higher up in the structure. This head is the licensor, and I argue that the uninterpretable feature is checked via an Agree relation between [E] and the licensor. The featural specification of [E] is given in (7), while the tree in (8) illustrates how Agree is established. YP is the ellipsis site, selected by a head X

bearing an ellipsis feature. The head L of category F checks the uninterpretable [F]-feature on [E] via Agree and hence licenses the ellipsis of YP.

(7)

$$\text{E} \begin{bmatrix} \text{CAT} & [\text{E/X}] \\ \text{INFL} & [u\text{F}] \\ \text{SEL} & [\text{X}] \end{bmatrix}$$

(8)



Licensing ellipsis via Agree accounts for the fact that there can be material between the ellipsis site and the licensor. Furthermore, I have shown that ellipsis licensing obeys locality, parallel to other Agree relations.

The second major claim of the analysis is that ellipsis occurs in the course of the derivation, i.e. derivational ellipsis. When the licensor enters the derivation, it checks the ellipsis feature and from that moment on the ellipsis site is frozen for any further syntactic operations. It is sent to PF marked for ellipsis, which means that vocabulary insertion will be blocked for this part of the structure. Evidence for such an approach comes from elliptical phenomena with limited extraction out of the ellipsis site. I discussed two such phenomena: Dutch MCE and British English *do* (BE *do*). In both cases subjects – whether they are derived or not – can be extracted out of the ellipsis site, whereas this is disallowed with objects. This is shown in (9) for MCE and in (10) for BE *do*.

(9) a. Die broek MOET nog niet gewassen worden, maar **hij**
those pants must still not washed become but he
MAG al wel [$t_{\text{die rok}}$ ~~gewassen worden~~]. (Dutch)
may already PRT washed become
'Those pants don't have to be washed yet, but they can be.'

b. ?* Ik weet niet wie Anneleen MOET uitnodigen, maar ik
I know not who Anneleen must invite but I
weet wel **wie** ze niet MAG. (Dutch)
know AFF who she not is.allowed
'I don't know who Anneleen HAS to invite, but I do know who she isn't ALLOWED to.'

(10) a. ? George might seem to enjoy that, and **James** might do [~~seem to t_{James} enjoy that~~], too. (BE, adapted from Baltin 2007:(17))

b. ? The river will freeze solid, and **the lake** will do [~~freeze solid $t_{\text{the lake}}$~~], too. (BE, adapted from Baltin 2007:(18))

c. * Although I don't know who Thomas will visit, I do know **who** Aga will do [~~visit t_{who}~~]. (BE, adapted from Baltin 2007:(14))

In the non-elliptical counterparts in (11) such restrictions do not hold. Hence, the limited extraction is caused solely by ellipsis.

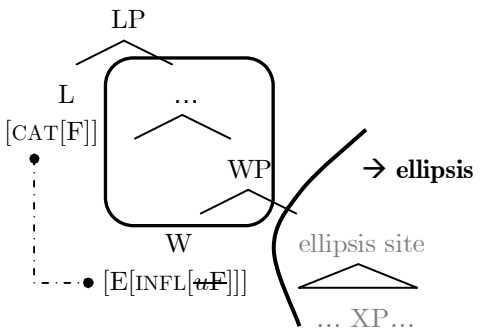
(11) a. Ik weet niet wie Anneleen MOET uitnodigen, maar ik
I know not who Anneleen must invite but I
weet wel **wie** ze niet MAG uitnodigen. (Dutch)
know AFF who she not is.allowed invite
'I don't know who Anneleen HAS to invite, but I do know **who** she isn't ALLOWED to.'

b. Although I don't know who Thomas will visit, I do know who Aga will visit t_{who}. (BE, adapted from Baltin 2007:(13))

This contrast is explained under a derivational ellipsis approach: when the [E]-feature is checked, the ellipsis site becomes inaccessible to the syntax. Any element that has not vacated the ellipsis site by then is stuck and will be elided. As a result, the projections intervening between the licensor and the ellipsis site play a crucial role in determining the extraction possibilities, cf. (12). I argue that in MCE and BE *do* only the subject has a position to move to prior to ellipsis. As objects do not have such an escape hatch, they are necessarily elided.

The analyses of these constructions were presented in chapter 3 and chapter 4, respectively.

(12)



The fact that ellipsis renders part of the structure inaccessible to syntax makes it tempting to view ellipsis and phases as two sides of the same coin, as Gengel (2007a,b) does. However, I have demonstrated that such an approach is not on the right track, as it leaves the extraction data unexplained. On the other hand, the interaction between ellipsis and phase heads leads to interesting predictions, all of which are borne out. Constituents that still need to undergo further operations have an intermediate landing site in the specifier of a phase head, i.e. the phase edge. Consequently, a phase head intervening between the ellipsis site and the licensor provides an automatic escape hatch for ellipsis, and the same extractions are predicted to be possible as are allowed in non-ellipsis. I showed this to be the case in VPE, pseudogapping and sluicing (see chapter 4). Dutch MCE and BE *do* on the other, do not have such an intervening phase head; and I have demonstrated that this accounts for the extraction contrast between subjects and objects.

There is an important consequence to this analysis involving the question of whether ellipsis is deleted structure or a null proform. I have pointed out in the introduction that there are several approaches to elliptical phenomena, especially when it comes to the question of how much syntax is involved in an ellipsis site. There are three main points of view on this issue. First, one could claim that there is nothing more in the syntax than what is actually pronounced (cf. the *Simpler Syntax* approach of Culicover & Jackendoff 2005). Second, the ellipsis site could be a null proform. In other words, there is somewhat more syntax than what is pronounced, but the proform does not contain any internal structure. Or thirdly, ellipsis can be argued to involve phonological deletion of a fully-fledged syntactic structure. A crucial diagnostic that has been put forward to decide whether there is syntactic structure or not are the extraction

possibilities out of the ellipsis site. If such extraction is allowed, the ellipsis site has to contain enough syntactic structure to host the trace of the movement. On the other hand, if extraction is illicit, this points towards a proform – or *Simpler Syntax*-style – analysis. This diagnostic has led to the classification of phenomena such as VPE and sluicing as ellipses involving deleted structure, because extraction is allowed (see Johnson 2001; Merchant 2001, 2007, 2008b). On the basis of this same diagnostic, Null Complement Anaphora (NCA, exemplified in (13)) have been analyzed as containing a null proform, because extraction out of the ellipsis site is illicit, as is illustrated in (14) (Depiante 2000).

(13) I asked him to help me, but he refused.

(14) * I don't know which paper he read, but I remember **which paper** he refused.
INTENDED: '...which paper he refused to read.'

However, if my analysis is on the right track, extractability – or more precisely, lack thereof – can no longer be considered a foolproof test to detect the lack of syntactic structure inside an ellipsis site. The test only works in one direction: if the ellipsis site allows extraction out of it, it must contain syntactic structure. If not, this does not necessarily mean that there is no structure. It is possible to have a fully-fledged syntactic ellipsis site that does not allow extraction, because there are no positions external to the ellipsis site to move to prior to the merger of the licensor.

The unidirectionality of the extraction diagnostic already suggests a first topic for further research. In the light of the analysis I proposed, it is interesting to have a closer look at elliptical phenomena that have been analyzed as proforms, such as NCA. If the lack of extraction with these ellipses can also be accounted for under the deletion approach, this could lead to a unified analysis of ellipsis. Furthermore, there are still other constructions I have not dealt with in the present work that could be captured by my analysis, such as stripping, gapping, fragments answers and NP ellipsis (NPE). Examples of these in English are given in (15).

(15) a. ANASTASIA helped me; (and) not GEORGE (stripping)
b. GUIDO bought a bottle of WINE and MARIJKE some CHEESE. (gapping)

c. A: What did Adrienn bring? – B: A delicious chocolate bar. (fragment answers)

d. Marijke bought three books and Adrienn bought two. (NPE)

Another important question in ellipsis licensing is the following: what determines that a certain head can act as an ellipsis licensor? I have shown that it is possible to define the licensor for an elliptical phenomenon by comparing minimal pairs of sentences. However, the overarching question remains unsolved: why is it that a certain head can license ellipsis, whereas others cannot? For instance, why can root modals license Dutch MCE, but not epistemic ones? Why is VPE possible in English, Portuguese, Danish, Hebrew and Irish, but not in other languages such as German, Dutch, French, Spanish and Italian? Moreover, which other languages that do not license VPE display MCE? Why does Dutch MCE not allow object extraction, whereas the similar construction in French does? At this moment I do not yet have an answer to these questions, but I hope to examine these issues more closely in future research.

Finally, there are certain theoretical issues and questions I have dealt with in this dissertation that are not directly related to ellipsis but that require closer investigation nevertheless. Firstly, the syntactic behaviour of modal verbs and other restructuring verbs, in Dutch as well as other languages, deserve more attention. The phenomenon of verb raising, displayed by such restructuring verbs, has been discussed extensively in the literature, but no consensus has been reached to this day as to how it should be analyzed. Related to this question is also the issue of infinitival clauses in general and the position of the infinitival marker. Thirdly, there is another reordering operation that needs to be looked at in greater detail, namely scrambling. Finally, it has become clear that a lot of work is to be done on ACD contexts (cf. section 3.4.1.6), and I hope to investigate this issue in the future.

With the present study I hope to have contributed to the discussion on ellipsis licensing in a constructive manner, and therefore to a better understanding of language in general.

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