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Dutch modal complement ellipsis

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1 Introduction

Contrary to what has been claimed in the literature (by Lobeck 1995, among others), Dutch displays a limited kind of verb phrase ellipsis: the infinitival complement of deontic modal verbs can be left out, as in (1). I will call this phenomenon 'modal complement ellipsis' or MCE.

(1) A: Wie wast er vanavond af? — B: Ik kan niet.
who washes there tonight off — I can not
Who is doing the dishes tonight? — I can't. [Dutch][1]

A phenomenon like this can be analyzed in at least three possible ways. We can see it as deletion of a fully specified verb phrase, as has been claimed to be the case in English VP ellipsis (VPE; cf. Ross 1969; Johnson 1996, 2001; Merchant 2001, 2007); or as involving a null verbal proform (see Lobeck 1995, Depiante 2000). Or, more radically, we could claim that the modal does not have a complement at all, i.e. that it can be used intransitively (cf. Napoli 1985).

Although reminiscent of VP ellipsis in English, the Dutch data differ from the English counterpart. More importantly, they differ from English VPE when it comes to certain arguments in favour of a deletion approach. For instance, they do not allow for A'-extraction out of the ellipsis site. Therefore, at first sight it seems that the Dutch MCE ellipsis site does not contain any syntactic structure, unlike in English, and that these data have to be analyzed in a different way. However, a closer look reveals that there must indeed be a syntactic VP structure in Dutch MCE: A-extraction out of the ellipsis site, for instance, is allowed in both Dutch and English. In this paper I argue that Dutch MCE involves deletion of a fully specified structure, just like English. The contrast between the languages is derived from the difference in licensing head and ellipsis site. I claim that the ellipsis site is sent off to Spell-Out for non-pronunciation (see Gengel 2007) when the licensor is merged. In other words, to escape ellipsis a phrase has to

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[1] In what follows, all the non-English examples are in Dutch.

move out of the ellipsis site before the licensor is merged. Therefore, a landing site has to be available in an intermediate position that is higher than the ellipsis site but lower than the licensor. In Dutch ellipsis of the verb phrase is licensed by the modal head V^0, which selects a TP complement, and the ellipsis site is VoiceP. This means that the only projection between the two is TP, and only A-movement is allowed to [Spec,TP]. Therefore, all constituents normally undergoing A'-movement are stuck in the ellipsis site from the moment the modal is merged. In English, on the other hand, VPE is licensed by T^0 and vP is the constituent which gets elided. This means that the phase head $Voice^0$ (see Baltin 2007), which is in between the licensing head and the ellipsis site in this case, can attract all constituents with unvalued features to the phase edge prior to the merger of the ellipsis-licensing head, allowing them to escape deletion.

In the next section I will go into some basic properties of Dutch MCE and compare it to English VPE. I show that this kind of ellipsis differs from English in some crucial aspects. Nevertheless, I argue for a deletion approach in both cases. In section 3 I discuss the analysis of Dutch MCE in detail and section 4 does the same for English VPE, demonstrating how the analysis presented here accounts for the contrast between the two languages. Finally, in section 5 I conclude.

2 Dutch modal complement ellipsis (MCE): Basic data

2.1 Introduction

Although VP ellipsis (VPE) has been attested in several languages, its distribution is still considered rather limited compared to wide-spread types of ellipsis such as sluicing. German and Dutch, for instance, have been claimed not to have VPE. Contrary to this claim, however, I argue that Dutch does display a limited kind of verb phrase ellipsis in the complement of deontic modal verbs, as in (2).[2]

[2]Modal verbs can be interpreted in two ways: epistemic and deontic. In the epistemic reading the modal modifies a whole proposition, i.e. it expresses the possibility or necessity of the proposition's truth.

(i) Mina must be home by now.
EPISTEMIC: It is necessarily the case that Mina is home now.

The deontic interpretation, on the other hand, expresses a relation of, for instance, permission or obligation with a goal, mostly the subject.

(ii) Mina must be in the office at nine.
DEONTIC: Mina has the obligation to be in the office at nine.

It seems that when the infinitival complement of the modal is elided, only the former reading is allowed, as is shown in (iii). I will, however, not go into this contrast between epistemic and deontic modals here.

(iii) a. A: Komt Thomas ook naar je lezing? — B: Hij moet.
comes Thomas also to your talk - he has.to
Is Thomas coming to your talk too? — He has to. = deontic

b. A: Zou Klaas nu op zijn bureau zijn? — B: * Hij moet wel. Hij werkt altijd op zaterdag.
would Klaas now on his office be - he must PRT he works always on Saturday
INTENDED READING: It is necessarily the case that he is in his office. = epistemic

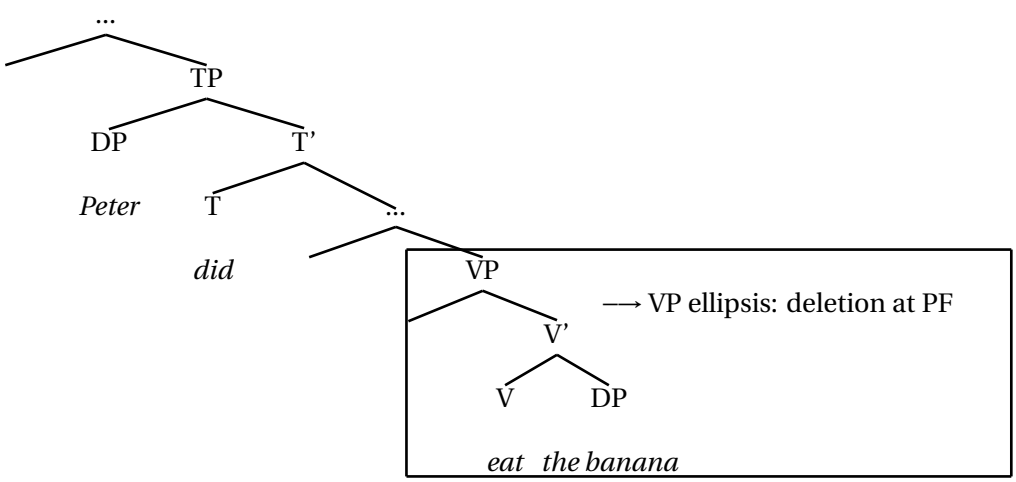
(2) A: Wie wast er vanavond af? — B: Ik kan niet.
who washes there tonight off I can not
Who is doing the dishes tonight? — I can't.

In this example the answer given by B should be interpreted as *I can't do the dishes tonight*, but the verb phrase *do the dishes tonight* is left out. As is clear from the translation, the Dutch example is reminiscent of VP ellipsis as we see it in English. Therefore we might suspect that both constructions receive a parallel analysis. Let us therefore briefly look at how English VP ellipsis is derived. In the example in (3), the verb phrase *eat the banana* is not pronounced in the second conjunct, but it can still be interpreted because it has a local antecedent in the first conjunct.

(3) Mina didn't eat the banana, but Peter did [~~eat the banana~~].

VP ellipsis (VPE) is a widely discussed phenomenon, especially for English. Throughout the literature it has been claimed to involve deletion of a fully specified structure (Ross 1969, Johnson 1996, 2001 Merchant 2001, 2007, 2008a,b).[3] The tree structure in (4) illustrates that, syntactically, the whole verb phrase is present. The only difference with the non-elliptical counterpart is that it does not get a phonological representation, i.e. it is specified for non-pronunciation at PF.[4] There are several arguments in favour of this deletion account, one of the most important ones being extraction, such as wh-extraction or pseudo-gapping.

(4)



As we will see in the next subsection, however, comparing English VPE and Dutch MCE makes certain differences apparent, suggesting that the two phenomena should be analyzed differently.

[3] Other analyses of English VPE which have been argued for in the literature, involve a null proform instead of a full structure (see Lobeck (1995), among others).

[4] Earlier I have hinted at an analysis deleting vP and most recent analyses of (English) VPE also claim that it is vP rather than VP which is elided (Merchant 2007, Johnson 2001). The tree structure in (4) displays deletion of VP for the sake of simplicity.

2.2 Comparison to English VPE

2.2.1 Differences

In this part of the paper I will compare Dutch MCE to English VPE, and we will see first of all that Dutch MCE has a much more restricted distribution than English VPE. However, I will focus especially on a second difference, namely extraction properties, as extraction is an argument brought forward in favour of the deletion account for English VPE. I show that English, but not Dutch, allows for object extraction out of the ellipsis site. Such a movement operation is possible only if there is a syntactic position which the object can move out of. It will soon become clear that a deletion analysis such as the one existing for English is not straightforwardly available for Dutch MCE.

First of all, Dutch MCE is more restricted than English VPE. English VPE is allowed with all kinds of verbs and auxiliaries, while Dutch only licenses deletion of the infinitival complement of deontic modal verbs, as is shown in (5).

(5) a. * Kim ging naar Italië, maar Tom deed niet.
Kim went to Italy but Tom did not
Kim went to Italy, but Tom didn't.

b. * Lara zal er niet zijn vanavond, maar ik zal.
Lara will there not be tonight but I will
Lara won't be there tonight, but I will.

c. * Thomas is niet gearresteerd, maar Jonas is.
Thomas is not arrested but Jonas is
Thomas is not arrested, but Jonas is.

d. * Jessica heeft gebeld gisteren, maar Sofie heeft niet.
Jessica has called yesterday but Sofie has not
Jessica has called yesterday, but Sofie hasn't.

e. Je mag me wel helpen, maar je moet niet.
You may me PRT help but you must not
You are allowed to help me, but you don't have to.

A second difference between English and Dutch is an essential one for the "deletion versus proform" discussion. It involves several kinds of object extraction out of the ellipsis site and extraction has always been seen as one of the main arguments for a deletion account of English VPE. In English, phrases which are base-generated inside the verb phrase can survive the ellipsis, i.e. can be extracted out of it prior to ellipsis if they need to be. Therefore, the ellipsis site must contain enough syntactic structure to host the trace of this movement. First, I look at extraction of wh-objects, and then we go into pseudogapping, which involves movement of a remnant constituent out of the ellipsis site. Finally, I show that object scrambling, which is normally allowed in Dutch, is excluded in MCE.

As can be seen in (6), English allows for extraction of a wh-object out of the VP.

(6) I don't know who Mina should invite, but I know who she shouldn't.

A sentence such as this one can easily be analyzed as in (7): the wh-phrase *who* moves from its base-generation position out of the ellipsis site to end up in [Spec, CP], prior

to deletion of the verb phrase. In order for this to be possible, however, the ellipsis site has to contain enough syntactic structure to host the trace of the wh-phrase.

(7) I don't know who Mina should invite, but I know who she shouldn't [$_{vP}$ ~~invite t$_{who}$~~].

In Dutch MCE, on the other hand, wh-extraction of objects is not allowed, as is illustrated in (8).

(8) * Ik weet niet wie Katrien moet uitnodigen, maar ik weet wie ze niet moet.
I know not who Katrien must invite but I know who she not must
INTENDED READING: I don't know who Katrien should invite, but I know who she shouldn't.

A second instance of object extraction out of the ellipsis site is pseudogapping. The English sentence in (9) can be analyzed as involving movement of the object out of the vP. What kind of movement exactly moves the object out has been subject to debate, but that is irrelevant for the argument here. After the movement the vP gets elided, as in (10). Pseudogapping is therefore considered a special kind of VPE (for the different analyses, see Jayaseelan 1990; Johnson 1996; Lasnik 1999a,b, 2001; Takahashi 2004).

(9) Mina can roll up a newspaper and Peter can a magazine.

(10) Mina can roll up a newspaper and Peter can a magazine [$_{vP}$ ~~roll up t$_{a\ magazine}$~~].

Again, Dutch differs from English: Dutch MCE does not display pseudogapping. The object cannot move out of the ellipsis site prior to deletion, as (11) shows.

(11) * Katrien kan het brood gaan kopen en Bert kan de melk.
Katrien can the bread go buy and Bert can the milk
INTENDED READING: ...and Bert can go buy the milk.

A last case of object extraction involves object scrambling, a phenomenon that occurs in Dutch, but not in English. In non-elliptical sentences Dutch definite objects, including pronouns such as *je* 'you' in (12), obligatorily scramble across negation and other adverbs.

(12) a. * Ik wil [je helpen], maar ik kan niet [je helpen].
I want you help but I can not you help

b. Ik wil [je helpen], maar ik kan je niet [t$_{je}$ helpen].
I want you help but I can you not help
I want to help you, but I cannot help you.

However, when the infinitival complement of the modal is missing, the object cannot appear, even though the negation, which would normally follow it, is still pronounced. This is illustrated in (13).

(13) Ik wil je helpen, maar ik kan (* je) niet.
I want you help but I can you not
I want to help you, but I cannot.

All in all, we can conclude that object extraction out of an elided Dutch verb phrase is impossible. As extraction is one of the main arguments in favour of PF-deletion of a full structure, an analysis along these lines might not apply to Dutch. The next section shows, however, that subject extraction out of the Dutch MCE ellipsis site is possible, a fact that disrupts the clear pattern leading towards a proform analysis.

2.2.2 Subject extraction: In favour of a deletion analysis

As was said before, when looking at ellipsis cases there are at least three possible ways to go: deletion of a fully-fledged syntactic structure, a null proform or no complement at all. A central argument to decide between these options concerns the possibility of extraction out of the ellipsis site. If such an extraction is allowed, there must be enough syntactic structure present to host the trace; if extraction is impossible, this can be attributed to the lack of internal syntactic structure, i.e. the presence of a proform, or the absence of any complement. This test has led to a deletion account for English VPE (Merchant 2007, 2008a), pseudogapping (Jayaseelan 1990; Johnson 1996; Lasnik 1999a,b, 2001; Takahashi 2004), stripping (Merchant 2003) and sluicing (Ross 1969, Merchant 2001), for instance, and to a proform analysis of Null Complement Anaphora (Depiante 2000). Dutch MCE, however, disrupts this simple picture. It was shown above that objects cannot be extracted out of the ellipsis site, but we will see now that subjects can.

It turns out that Dutch MCE, although it does not allow objects to move out of the ellipsis site, does let subjects escape deletion, as (14) and (15) illustrate.

(14) a. A: Niet iedereen mocht de koning een hand geven.
not everyone was.allowed the king a hand give
Not everyone was allowed to give the king a hand.
B: Oh? Wie mocht (er) dan niet?
oh who was.allowed there then not
Oh? So who wasn't allowed to?

b. A: Niet iedereen moet werken. — B: Oh, wie moet (er) dan niet?
not everyone must work oh who must there then not
Not everyone had to work. — Oh, who didn't have to?

(15) a. A: Niet alle blokken mochten vallen.
not all cubes were.allowed.to fall
B: Oh? Welke mochten (er) dan niet?
oh which were.allowed.to there then not
Not all cubes were allowed to fall? — Oh? Which weren't allowed to?

b. Deze broek moet vandaag niet gewassen worden, maar die rok moet wel
this pants must today not washed become but that skirt must PRT
These pants don't need to be washed today, but that skirt does.

I subscribe to the VP-internal subject hypothesis, which implies that the subject is base-generated inside the vP of the verb selecting it as its — external or internal — argument. In (14a) the subject is the external argument of the ditransitive verb *geven*

'give', while (14b) extracts the external argument of an unergative verb *werken* 'work' out of the elided verb phrase. The sentences in (15a) and (15b), with unaccusatives and passives, are even more interesting because here the derived subject is extracted from the complement position of the verb, i.e. from the same position we could not move an object out of earlier.

These examples do indeed involve movement out of the ellipsis site. Following Barbiers (1995) and Wurmbrand (1999, 2003) I assume that deontic modals are not control verbs, but raising verbs, just like epistemic ones. They do not assign an Agent θ-role to their subject.

There are some diagnostic tests for the raising versus control distinction. Firstly, raising verbs can have inanimate subjects, because they do not assign an Agent θ-role to it, as in (16a). The control example in (16b), on the other hand, is ungrammatical.

(16) a. De auto lijkt gewassen te zijn.
the car seems washed to be
The car seems to be washed.

b. * De auto probeert gewassen te worden.
the car tries washed to become

Secondly, raising verbs allow impersonal passive, unlike control verbs (cf. (17)).

(17) 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

Thirdly, only raising modals can occur with weather expletives as their subject:

(18) a. Het lijkt te regenen.
it seems to rain
It seems to be raining.

* Het probeert te regenen.
it tries to rain

Comparing deontic modals to raising and control verbs, we see that they pattern with the former and not with latter. They allow inanimate subjects when their complement is passive, they allow impersonal passives and weather expletive subjects:

(19) De auto kan/ moet/ mag gewassen worden.
the car can must is.allowed.to washed become
The car can/has to/may be washed.

(20) Er kan/ moet/ mag gedanst worden.
there can must is.allowed.to danced become
Someone can/must/may dance.

(21) Het moet/ kan/ mag regenen.
it must can is.allowed.to rain
It must/can/may rain.

Therefore I analyze modals as raising verbs that select a non-finite TP complement.[5] A simple sentence such as the one in (22) thus gets a tree structure as in (23).

(22) Peter moet werken.
Peter has.to work

[5]There are two arguments for the claim that modals select a TP complement and not a VP or vP complement. First, the complement can contain time modification different from that in the matrix clause.

(i) Gisteren moest ik volgende week komen en nu zijn de plannen alweer veranderd
yesterday must.PAST I next week come and now are the plans again changed
Yesterday I had to come next week and today the plans have changed again.

Secondly, Dutch has one modal *hoeven* 'need' that behaves exactly like the other modals except in that it combines with a to-infinitive and that it is an Negative Polarity Item (NPI), as you can see in (ii).

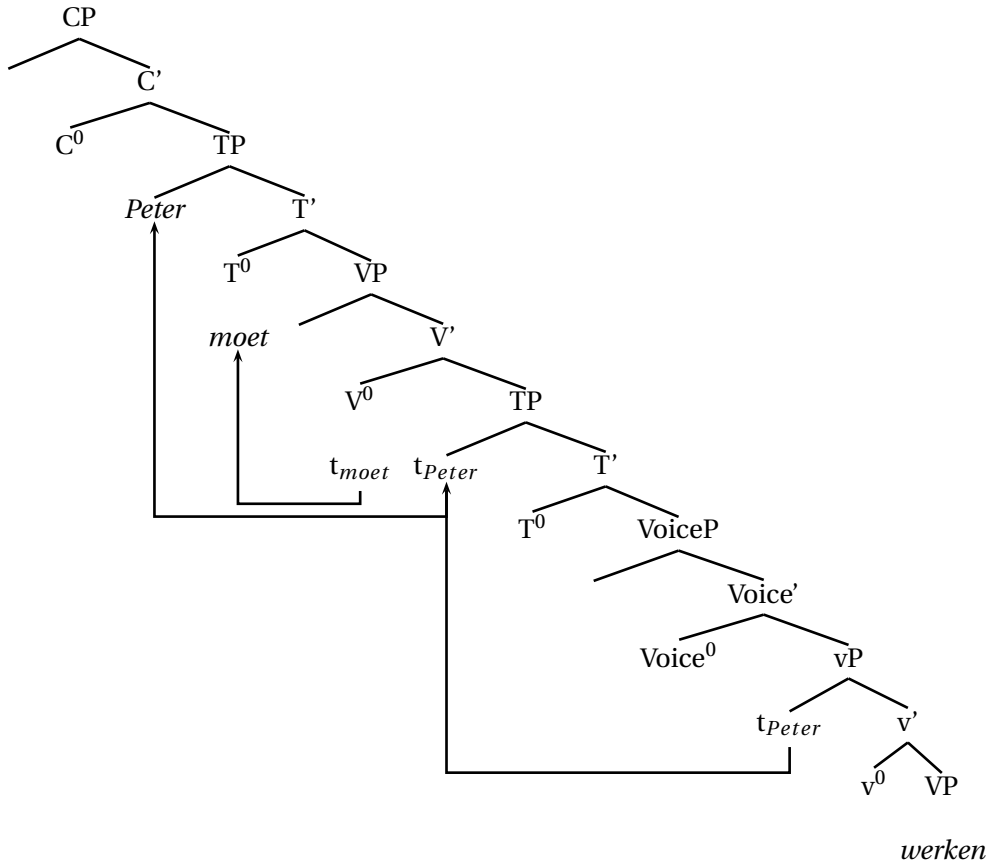
(ii) a. De auto hoeft niet gewassen te worden.
the car needs not washed to become
The car doesn't need to be washed.

b. Er hoeft niet gedanst te worden.
there needs not danced to become
There doesn't have to be someone dancing.

c. Het hoeft niet te regenen.
it needs not to rain
It doesn't have to rain.

d. Je mag komen, maar je hoeft niet.
you are.allowed.to come but you need not
You're allowed to come, but you don't have to.

(23)



In this tree structure the modal V^0 *moet* selects the TP complement *Peter werken*. The external argument of the unergative verb *werken* 'work' moves from its base position in [Spec,vP] through the specifier position of the embedded TP to the surface subject position.[6] This means that the subject moves from inside the verb phrase. In the case of MCE, as in (24), this means that the subject is extracted out of the ellipsis site.

(24) Mina moet werken vanavond, maar Peter moet niet [t_{Peter} ~~werken~~].
Mina must work tonight but Peter must not work
Mina has to work tonight, but Peter doesn't have to.

2.3 Summary

So far we have seen that Dutch MCE provides us with a paradox: it differs from English VPE in not allowing object extraction, which is an argument against a deletion account. Subject extraction, however, is allowed, even when the subject is the internal argument of the embedded infinitive, leading us to suspect that there is indeed syntactic structure to host the trace of this movement.

The claim I make in this paper is that Dutch MCE does involve deletion of a fully-fledged verb phrase. Why object extraction is not allowed I will show to be due to another factor. In the next section I explain how ellipsis works exactly and then I apply

[6] I have also indicated the V-to-T movement that the modal verb undergoes, but this movement is irrelevant for the discussion presented here.

this analysis to Dutch MCE. Section 4 takes us back to English and shows how VPE is derived. The details of these analyses will explain the differences between both languages.

3 Dutch modal complement ellipsis: Analysis

3.1 The mechanism behind ellipsis

Before I can present the actual analysis for Dutch MCE, I have to elaborate more on how ellipsis works, i.e. what I see as the mechanisms behind ellipsis in the Minimalist framework. The core ingredients of my analysis are the following:

(25) Licensing of ellipsis
  (1) Ellipsis is triggered by a checking relation between the ellipsis site XP and the licensing head L^0.[7]
  (2) There is a feature [E] which occurs in X^0 and marks XP for non-pronunciation at PF (parallel to Merchant's 2001 [E]-feature).
  (3) When L^0 is merged, [E] is checked via Agree, sending XP off to Spell-Out and hence deletion takes place.
  (4) As a result, the ellipsis site is no longer accessible for any syntactic operations.

An important question we have to ask here is: what is the nature of this [E]-feature?[8] As said above, the [E]-feature is parallel to the ellipsis feature introduced in Merchant (2001) and further developed in Merchant (2004). Now, Merchant's [E]-feature has a specific syntax. I also claim this to be the case for this [E]-feature: it is a feature that can only occur on a specific head X^0 — the head of the constituent that will be elided. It also has uninterpretable inflectional (INFL) features that can be checked against the category (CAT) features F of another specific head L^0, the head licensing the ellipsis. In (26) I show what the lexical entry of such an [E]-feature would look like.

(26) The syntax of E^0

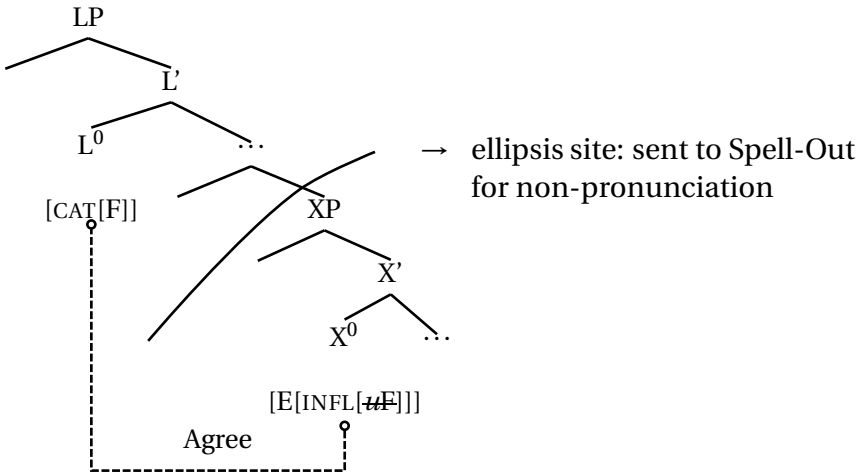
$$E \begin{bmatrix} \text{INFL} & [u\text{F}] \\ \text{SEL} & [\text{X}] \end{bmatrix}$$

How this licensing process works is illustrated in the schematic tree structure below. (In the trees that follow, the ellipsis site is marked by a curved line.)

[7] It has been shown in Lobeck (1995) that only certain heads can license ellipsis.

[8] We could see [E] as a feature with several subfeatures, or as the name we give to a certain bundle of co-occurring features. This bundle can only merge with a specific head it is specified for (parallel to Merchant 2001) and when it occurs on this head, this implies that this whole phrase is spelled out as null. How exactly this can be implemented I defer to further research.

(27)



One of the immediate consequences of ellipsis licensing via Agree is that the licensing head and the ellipsis site do not have to be adjacent, i.e. they do not have to be in a head-complement relation, whereas this is required in Merchant's analysis. That this is a welcome consequence can be shown for English VPE. For a sentence such as the one in (28) it has been assumed that the head that licenses the ellipsis is the finite auxiliary in T^0, *should* (see Zagona 1982, 1988; Martin 1992, 1996 and Lobeck 1995).

(28) I wasn't thinking about that.
- Well, you SHOULD have been [~~thinking about that~~].

This licensor is obviously not in a head-complement relation with the elided constituent. It is separated from the ellipsis site by *have been*. In an account where the licensing is done via Agree this is not a problem.

The aspect that will be of most importance in this paper, however, concerns what is stated in the fourth point, repeated in (29).

(29) As a result [of the checking relation], the ellipsis site is no longer accessible for any syntactic operations.

This point makes a very clear prediction: if the ellipsis site is not available for syntax anymore after the licensing head has been merged, nothing can move out of the elided constituent anymore. In other words, the projections between the licensing head and the ellipsis site play a crucial role in determining the extraction possibilities: only phrases that move to a position in between, or to the specifier of the licensing head, can survive the ellipsis. Movement out of the ellipsis site to a position higher than LP is not allowed.

So far I have simply presented the mechanisms I claim are operative in licensing ellipsis: the ellipsis site bears an ellipsis feature with an uninterpretable INFL and the CAT-features on the licensing head can check this via Agree. Due to this checking the ellipsis site is sent off to Spell-Out and is therefore no longer accessible to syntax. Differences in licensing head and ellipsis site, depending on the language and the type of ellipsis, therefore imply differences in extraction possibilities. The next subsection illustrates this effect for Dutch modal complement ellipsis.

3.2 Licensing Dutch MCE

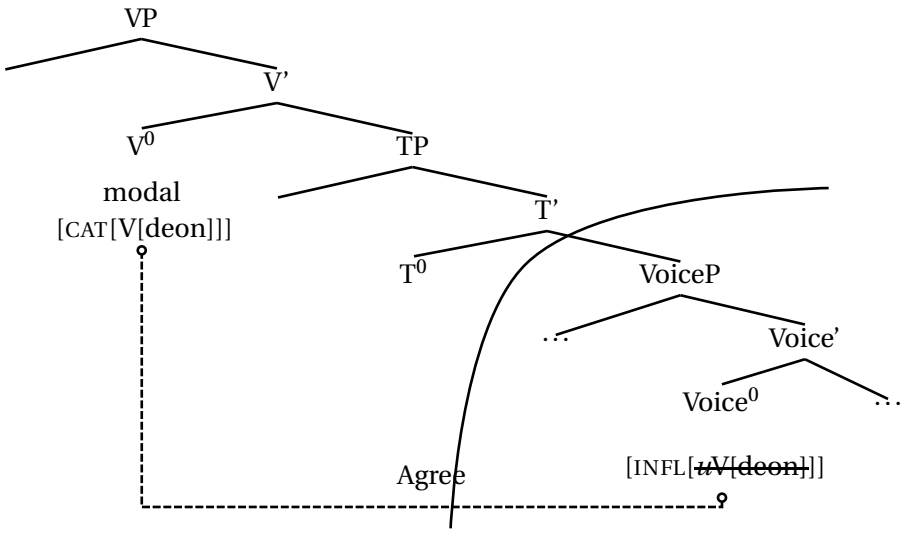
Recall the discussion in 2.2 above about the properties of Dutch MCE: object movement out of the ellipsis site is degraded, while subjects can be extracted without any problem. We will see in this subsection that applying the analysis of ellipsis presented here to Dutch MCE provides us with a straightforward account of this extraction puzzle.

What varies across languages and ellipsis types is the specification of the [E]-feature, namely which is the head X^0 it selects and which head can act as the licensing head checking the INFL value. I suggest that for Dutch MCE the modal V^0-head is the licensing head, since only (deontic) modals license ellipsis of their infinitival complement. As for the ellipsis site itself, Dutch MCE elides VoiceP, as I will show below. This means [E] for Dutch MCE has the lexical entry in (30).

(30) $E_{MCE}\begin{bmatrix} \text{INFL} & [u\text{V [deon]}] \\ \text{SEL} & \text{[Voice]} \end{bmatrix}$

The tree in (31) illustrates how the ellipsis is licensed given what has just been said: when the licensing modal is merged, the [E]-feature gets checked against the category features on V^0. Consequently, VoiceP gets sent off to Spell-Out and is thus no longer visible for syntax. Note that I distinguish $Voice^0$ from v^0 here (see Merchant 2007, 2008a; Baltin 2007) and that I consider $Voice^0$ to be the clause-internal phase head rather than v^0 (see Baltin 2007).

(31)



Recall that Dutch MCE disrupted the simple extraction pattern: object extraction out of the ellipsis site is not allowed, while subject extraction is. The relevant examples are repeated in (32).

(32) a. * Ik weet niet wie Katrien moet uitnodigen, maar ik weet wie ze niet
I know not who Katrien must invite but I know who she not
moet.
must
INTENDED READING: I don't know who Katrien should invite, but I know who she shouldn't.

b. Deze broek moet vandaag niet gewassen worden, maar die rok moet
this pants must today not washed become but that skirt must
wel.
PRT
These pants don't need to be washed today, but that skirt does.

Now that we have seen how the ellipsis mechanism works and how it can be applied to Dutch MCE, we can look at some examples to see whether these extraction facts come out right. First, I demonstrate that subject extraction is correctly predicted to be allowed in this system. Next, the wh-object extraction data are shown to fall out of the analysis. Finally, I take a closer look at object scrambling and explain why it is illicit when the infinitival complement is elided.

3.3 Subject extraction is allowed

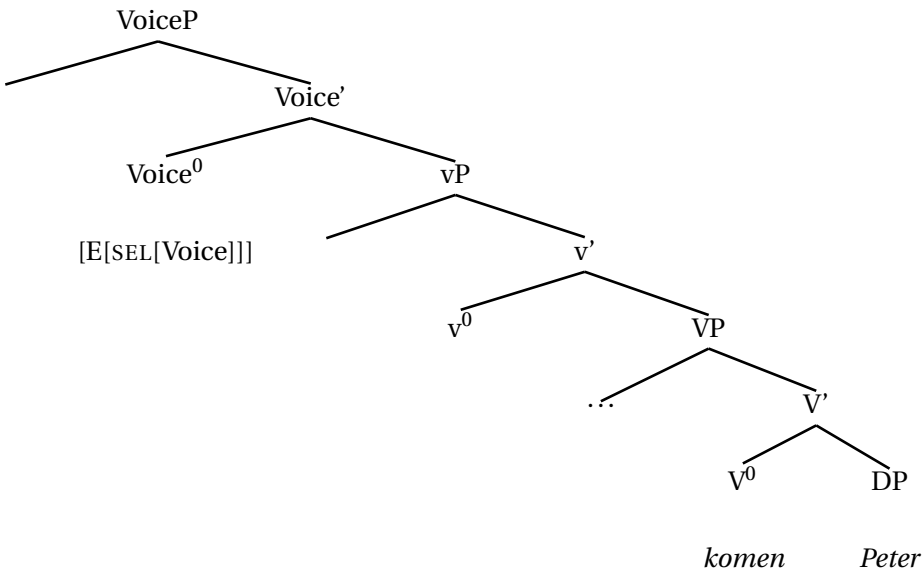
We have seen above that modals are raising verbs, which means that the subject is base-generated in a position below the modal. When the embedded verb is a transitive or unergative verb, the subject is base-generated in [Spec,vP] inside the embedded TP. When the embedded clause contains an unaccusative verb or is passive, on the other hand, the subject is base-generated in the complement position of the main verb. Because it is even more obvious that the subject is extracted out of the ellipsis site in the latter cases, I take a sentence with an unaccusative verb and go over the derivation step by step.

(33) Mina kan komen, maar Peter kan niet.
Mina can come but Peter can not
Mina can come, but Peter can't.

In the first step we generate VoiceP, since it is not until we get to Voice^0 that the derivation deviates from the derivation of a non-elliptical sentence. In the tree structure in (34) we can see that the derived subject *Peter* is base-generated in the complement position of main verb *komen* 'come' and that Voice^0 bears an [E]-feature.[9]

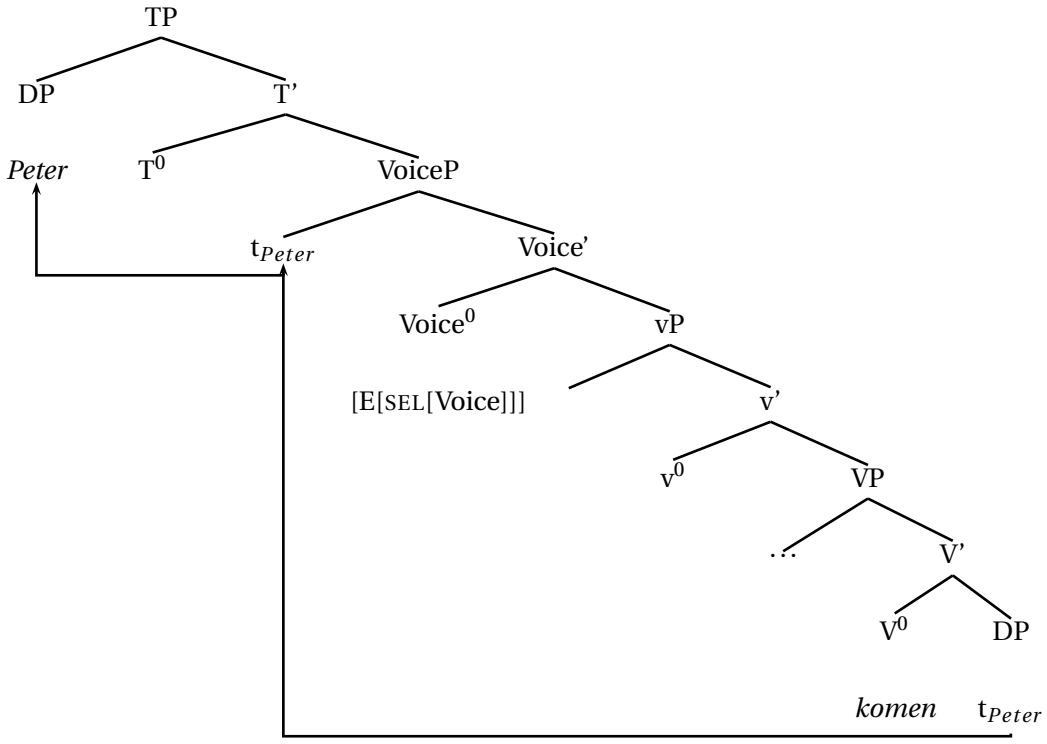
[9]Since Voice^0 is a phase head, it attracts all the constituents bearing uninterpretable or unvalued features to its specifier, in order to save them from being sent off to Spell-Out already. Consequently, it attracts the subject, which has an unvalued CASE-feature, to its specifier position. This movement could be considered improper movement, however: the subject moves to an A'-position, but still has to move to an A-position later in the derivation for its CASE-feature to be valued. One could claim, on the other hand, that movement to the edge of a phase in order to be able to check A-features — i.e. the features triggering A-movement — later on is not considered A'-movement. Only if a phrase would move to an A'-position to check an A'-feature — where [EPP] does not denote an A'-feature — and move to an A-position afterwards would it be considered improper movement.

(34)



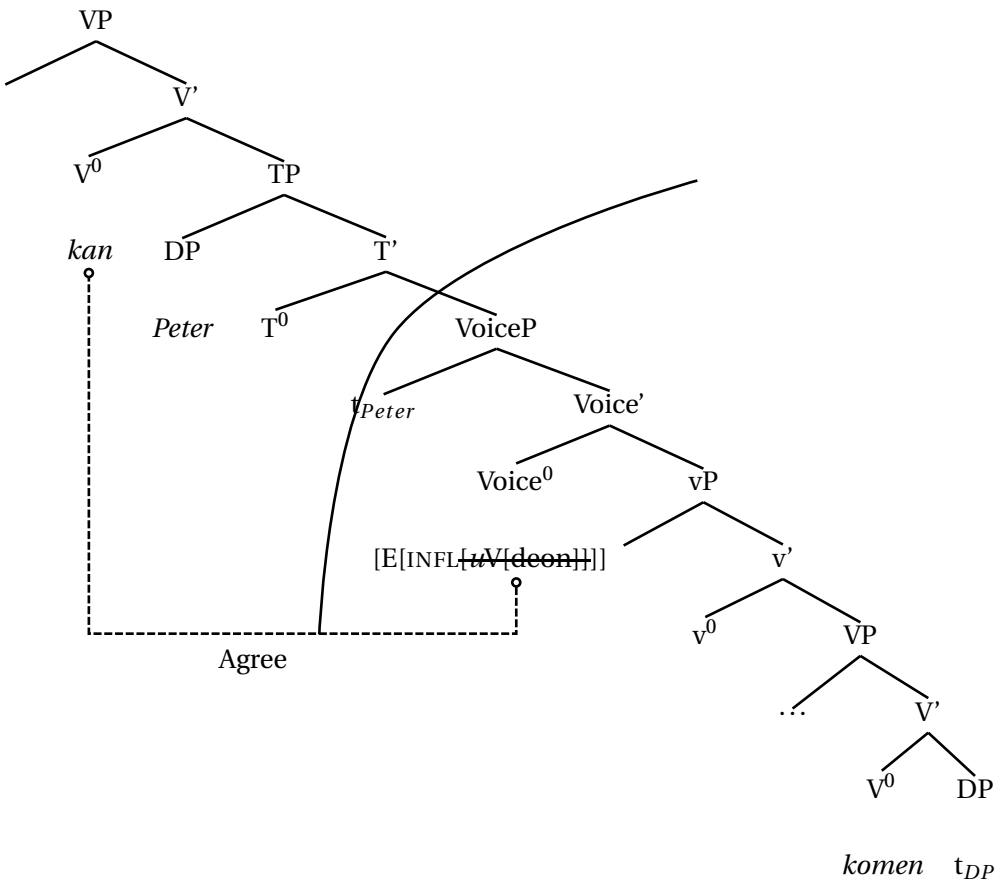
A second step in the derivation merges T^0 and the TP projection. As we can see in (35), the subject *Peter* moves to [Spec,TP] (via [Spec,VoiceP], see footnote 9) because of an [EPP] feature on T^0 which requires the specifier position of T^0 to be filled.

(35)



Finally, the licensing head V^0 is merged. The uninterpretable INFL of the ellipsis feature on $Voice^0$ is checked against the category feature of V^0 via Agree, and VoiceP is sent off to Spell-Out for non-pronunciation and is hence no longer available for syntactic operations.

(36)



Note that from its position in [Spec,TP] the subject is free to undergo further operations. It can either end up in the specifier of the higher TP (subject raising, as in (37)) or move further on to [Spec,CP], in case the subject is a wh-phrase, cf. (38). In other words, this analysis shows how A- and A'-extraction of the subject are allowed in Dutch MCE.

(37) Mina kan komen, maar **Peter** kan niet.
Mina can come but Peter can not
Mina can come, but Peter can't.

(38) Ik weet wie er niet mocht komen en **wie** er wel mocht.
I know who there not was.allowed.to come and who there AFF was.allowed.to
I know who was allowed to come and who wasn't.

3.4 Wh-object extraction is ungrammatical

Contrary to the subjects, objects are not allowed to extract out of the ellipsis site, as is repeated in (39) for a wh-object. I will demonstrate how my account predicts this by going over the derivation of the ungrammatical elliptical sentence step by step.

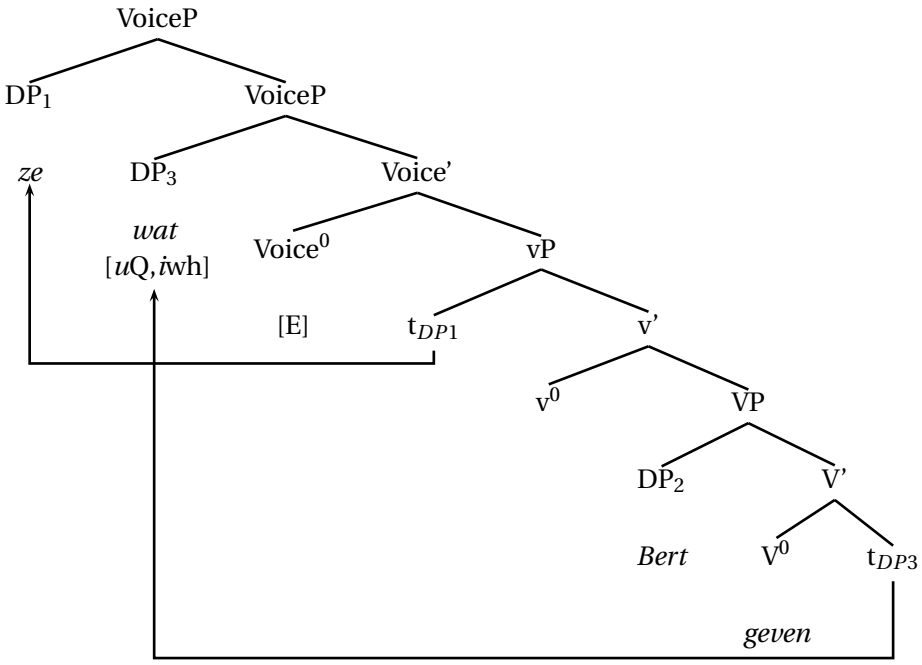
(39) A: Wat gaat Katrien Bert geven?
what goes Katrien Bert give

B: Dat weet ik niet. **Wat** moet ze *(Bert geven)?
that know I not what should she Bert give

INTENDED READING: What should she give Bert?

Firstly, we start out from VoiceP again. As before, the head Voice^0 bears the [E]-feature. Because both the subject and the wh-object still bear unchecked uninterpretable features — an unvalued Case-feature in the case of the subject and a Q-feature in the object's — they both move to the phase edge [Spec,VoiceP] in order to escape being sent off to Spell-Out before the features get valued.[10]

(40)

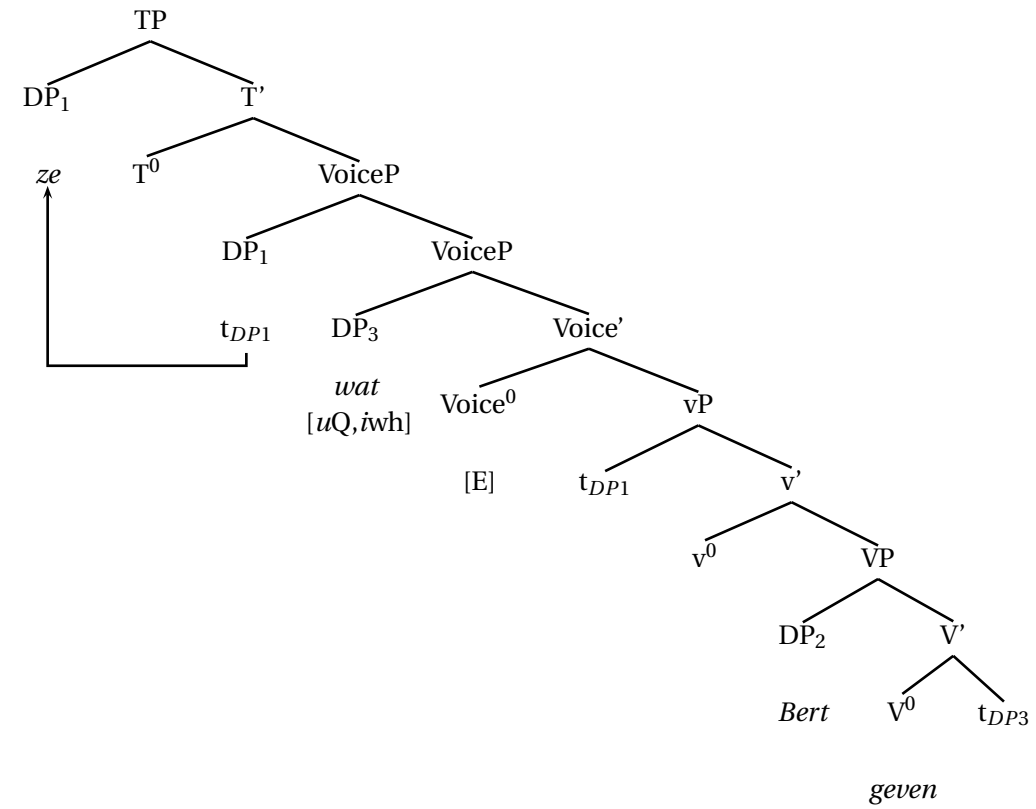


Next, we merge T^0 and project TP as in (41). The subject ze she' moves to [Spec,TP], to check the [EPP]-feature on the T^0 head.[11]

[10] In the tree structures I only show what is relevant for the derivation later.

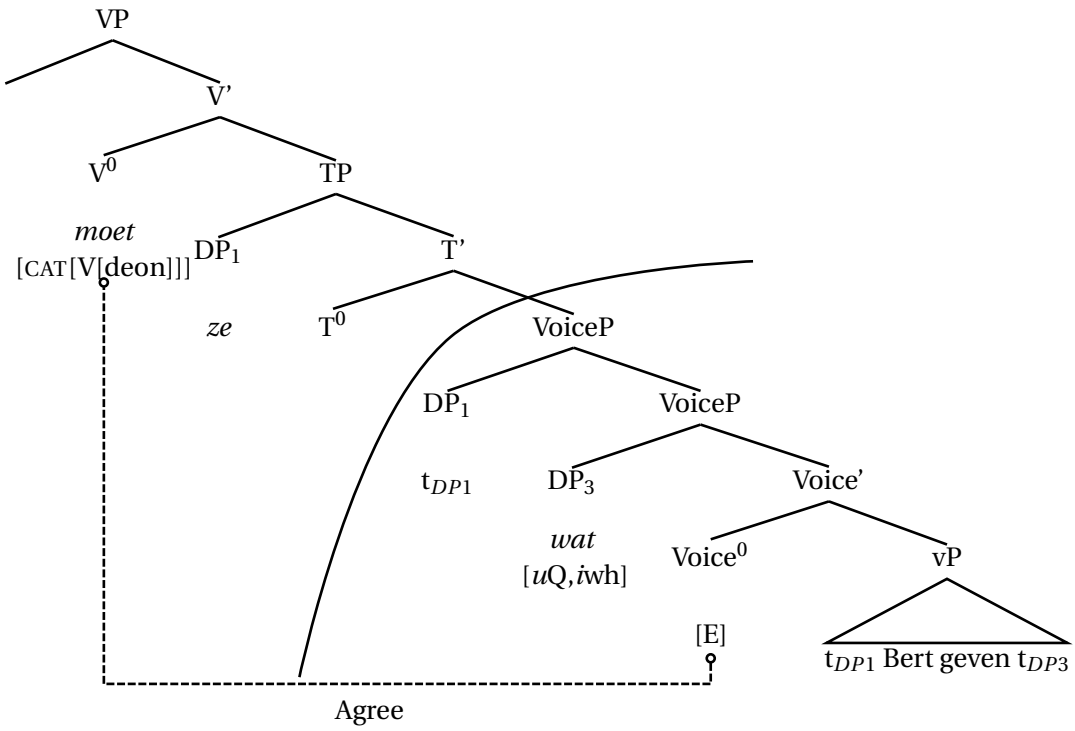
[11] One could say that both object and subject are equidistant with respect to T^0 and that T^0 could just as well attract the object to its Spec (thanks to Patricia Cabredo Hofherr for pointing this out to me). A tentative explanation for this would be that the [EPP]-feature on T^0 opts for the subject because that still has an unvalued [Case]-feature, unlike the object.

(41)



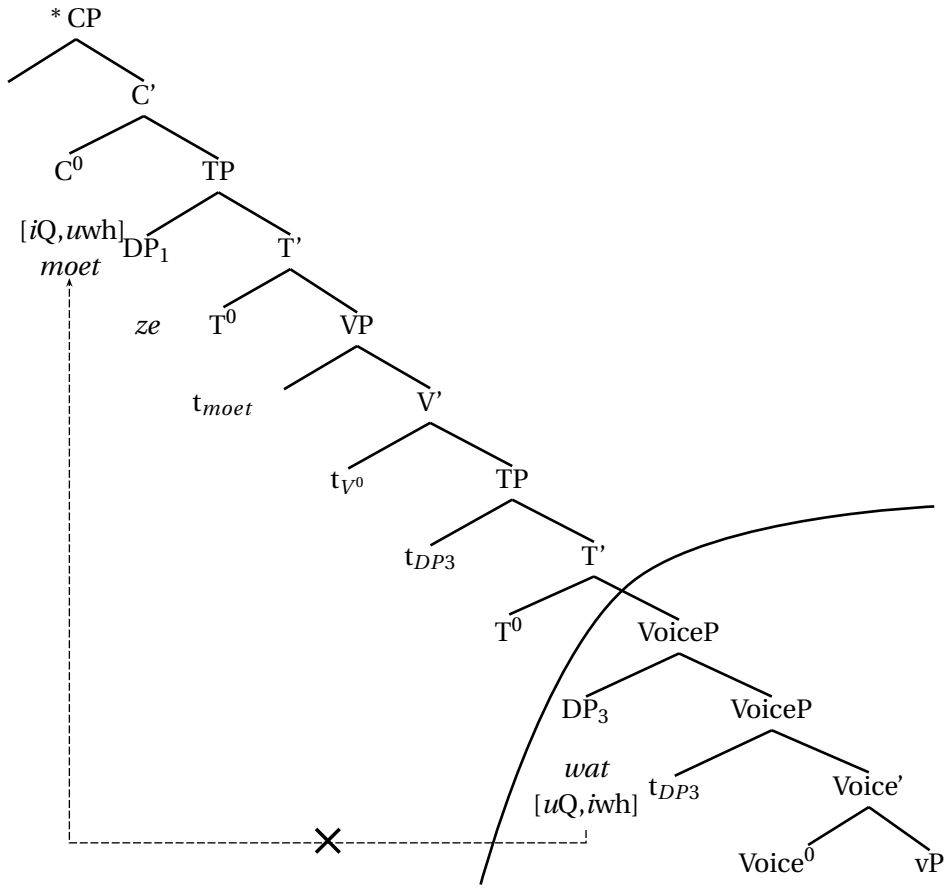
The next step is the merger of the licensing modal head V^0, bearing the right category features to Agree with [E] and consequently, VoiceP is sent off to Spell-Out for non-pronunciation. The wh-object, which has moved as far as [Spec,VoiceP] but not further, is therefore stuck in the ellipsis site, unlike the subject, which moved to [Spec,TP] prior to merger of the licensing head.

(42)



Finally, we merge the TP and the CP projection. C^0 bears an uninterpretable [wh]-feature that cannot be checked. In non-elliptical sentences it would attract the wh-object, but in this case it cannot, for the object is elided. Furthermore, the [*u*Q]-feature on the object also remains unchecked. As a result the derivation crashes.[12]

(43)



[E] t_{DP1} *Bert geven* t_{DP3}

This subsection has shown us why wh-object extraction out of the ellipsis site is disallowed in Dutch modal complement ellipsis. Next I will illustrate how this account also correctly blocks object scrambling.

3.4.1 Object scrambling is ungrammatical

As we have seen above, Dutch MCE does not allow the definite object to scramble across negation, as in (44). I claim that this is because object scrambling is from a position inside the ellipsis site to a position outside the ellipsis site, but this movement would take place after the merger of the licensing head.

(44) Ik wil je helpen, maar ik zal (* je) niet kunnen.
I want you help but I will you not can
I want to help you, but I will not be able to.

[12] As can be seen in the tree structure in (43), the modal first moves to T^0 to pick up Tense and then further moves on to C^0. The subject, in turn, moves to the higher [Spec,TP] to get its Case-feature valued. Both of these movement operations are rather irrelevant to the analysis, however.

In Dutch non-elliptical sentences a definite object scrambles from [Spec,VoiceP] to a position in the higher clause, higher than the modal.[13] Evidence for such a claim comes from a combination of data. First of all, a definite object obligatorily precedes negation in non-elliptical sentences, as in shown for the pronoun *je* 'you' in (45).

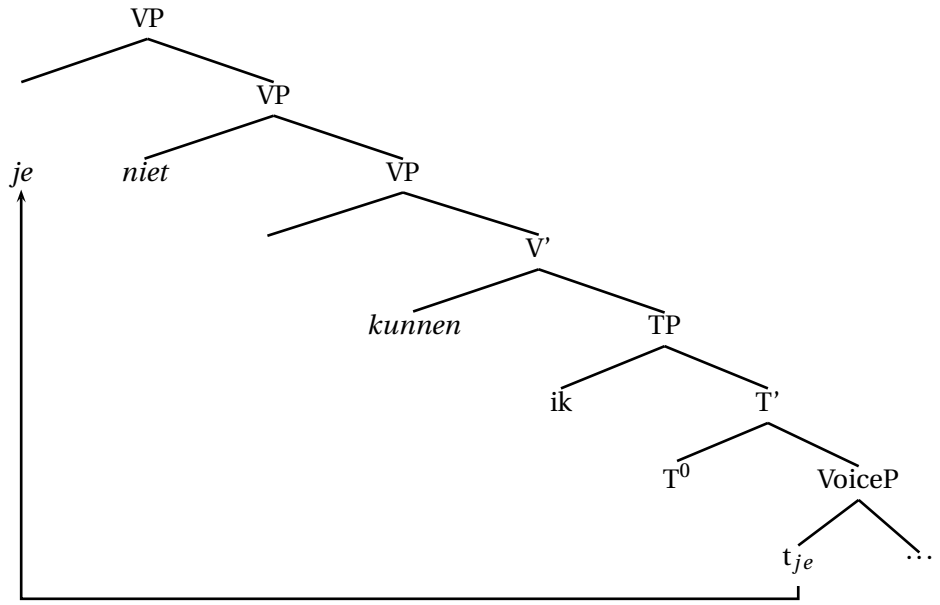
(45) Ik wil je helpen, maar ik zal <je> niet <* je> kunnen helpen.
I want you help but I will you not you can help
I want to help you, but I will not be able to help you.

Secondly, the meaning of the example in (46) tells us that negation scopes in the higher clause. It cannot get the interpretation where the negation is inside the scope of the modal, inside the embedded infinitive clause.

(46) Ik zal je niet kunnen helpen.
I will you not can help
= I will not be able to help you
≠I will be able not to help you.

This means that object scrambling takes the object to a position in the higher clause as well. For convenience's sake, I adjoined both the scrambled object and the negation to VP in the tree below, leaving aside their exact position. Crucially, they both occur higher than the modal's base-generation position, as is shown in (47).

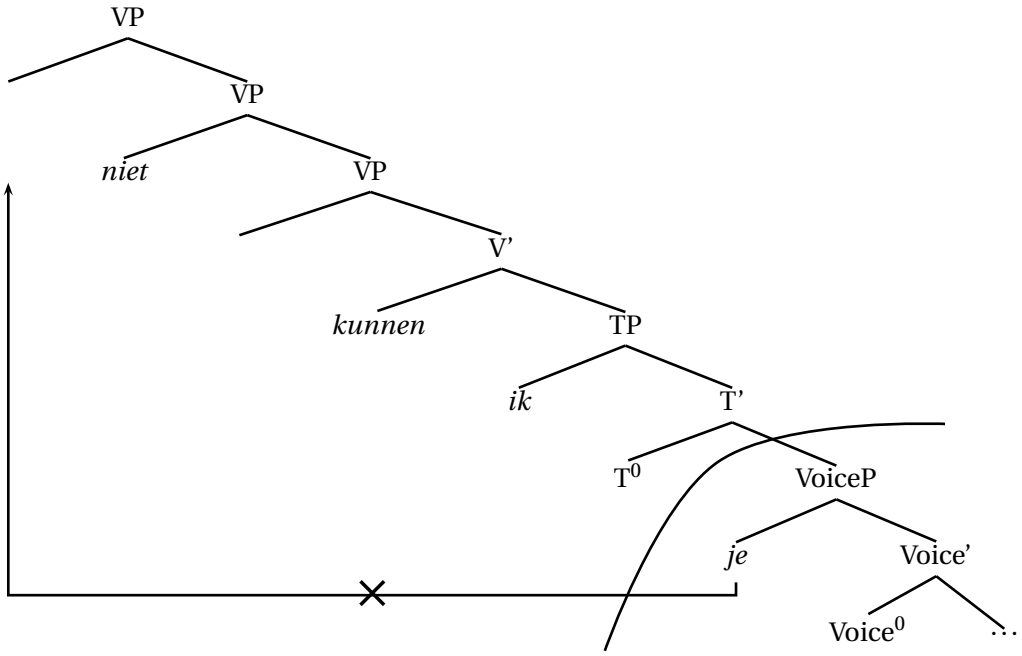
(47)



In the elliptical sentence in (44) this means that ellipsis takes place before the object can move out of the ellipsis site.

[13] The exact reason for this movement could have to do with some [topic]-feature on the definite object, but that is immaterial to the analysis in this paper.

(48)



Summing up, I have demonstrated how the account presented here explains the contrast between subjects and objects regarding modal complement ellipsis in Dutch. Only subjects survive Dutch MCE, because they move out of the ellipsis site to a position between the ellipsis site and the ellipsis licensing head. Since objects do not have any position to move to prior to the merger of the ellipsis licensing head, they are stuck in the ellipsis site and do not get pronounced.

4 English VP ellipsis: Analysis

The previous section was dealing with ellipsis of a verbal phrase in Dutch. The phenomenon of VP ellipsis (VPE) is, however, much more widely discussed for English. A typical VPE example is the sentence in (49): the verb phrase *go to Italy* is not pronounced in the second conjunct because it has a local antecedent in the first conjunct.

(49) Kim didn't go to Italy, but Tom did.

We have seen above that there are certain differences between English VPE and the Dutch counterpart eliding infinitival complements of modals, but the one that concerns us here is extraction. In English VPE, both objects and subjects can be extracted out of the ellipsis site (cf. Schuyler 2002, Merchant 2008b). The sentence in (50a) displays movement of a wh-object out of the ellipsis site, while the pseudogapping in (50b) is considered to involve extraction of the object remnant out of the verb phrase prior to deletion. Just like Dutch, English also allows subjects to extract, as is illustrated in (51a) for unaccusatives and in (51b) for passives.

(50) a. What is Tom going to buy? – I don't know. **What** should he [~~buy t~~$_{\sout{what}}$]?

b. Mina rolled up a newspaper and Tom did **a magazine** [~~roll up t~~$_{\sout{a\ magazine}}$]

(51) a. I know Peter can't come to my talk, but **who** can [~~come t_{who} to my talk~~]?
b. Mina wasn't arrested, but **she** should be [~~arrested t_{Mina}~~].

If we want to apply the analysis put forward for Dutch MCE to English VPE, we should be able to account for these differences. First of all we have to determine what is the head licensing VPE in English and which part of the sentence exactly gets deleted. I assume that the head licensing English VPE is the modal or auxiliary in T^0 (see Zagona 1982, 1988; Lobeck 1995; Johnson 2001) and that v^0 is the head bearing the [E]-feature (see Merchant 2007, 2008a). The lexical entry for English VPE [E] is given in (52).

(52) $E_{VPE} \begin{bmatrix} \text{INFL} & [u\text{T}] \\ \text{SEL} & [\text{ v }] \end{bmatrix}$

Next, I present the evidence for these differences from the analysis for Dutch. In Dutch MCE the licensing head is a modal too, but there the modal is not in T^0; rather, it is a V^0 head selecting a TP complement. This explains why only modals can license Dutch MCE, and not auxiliaries. The claim that English modals, on the other hand, are T^0 heads, just like temporal auxiliaries, however, is not new. They behave differently from Dutch modals (see IJbema 2002, Wurmbrand 2003). Firstly, unlike Dutch modals, English modals lack inflection. In (53a/b) we see that Dutch modals make a distinction between singular and plural inflection on the finite modal verb, just like regular verbs. English modals, on the other hand, do not display person inflection: there is no form **musts* for the third person singular, for instance. The sentences in (54) show that Dutch modals occur in the past tense and have a past participle, unlike their English counterparts, and (55) contains a modal infinitive in Dutch, while English modals do not occur in the infinitive.

(53) a. Ik/ Jij/ Hij **moet** naar de supermarkt gaan.
I you he must to the supermarket go
b. Wij/ Jullie/ Zij **moeten** naar de supermarkt gaan.
we you.pl they must to the supermarket go
I/You/He/We/They must go to the supermarket.

(54) a. Hij **mocht** niet buiten spelen.
he may.PAST not outside play
He was not allowed to play outside.
b. Hij heeft dat nooit **gekund**.
he has that never can.PST PRTC
He was never able to do that.

(55) Hij zal niet **mogen** komen.
he will not may.INF come
He won't be allowed to come.

Secondly, English modals cannot be stacked, while Dutch modals can, witness (56).

(56) Hij **kan** niet **willen mogen** komen.
he can not want may come
It is possible that he doesn't want to be allowed to come.

Thirdly, deontic modals in Dutch can take DP complements (see Barbiers 1995). English modals, on the other hand, cannot, as is clear from the translation in (57).

(57) Hij **mag** een koekje.
he may a cookie
He is allowed to have a cookie.

These facts provide evidence for the claim that English and Dutch modals are not base-generated in the same position. English modals are T^0 heads, while Dutch modals are V^0 heads. Thus, the VPE ellipsis licensing head is T^0 in English. Now I will show that English VPE also differs from Dutch MCE in the constituent it elides. English VPE involves deletion of a smaller part of the sentence: it deletes vP (see Merchant 2007, 2008a,b) instead of VoiceP. Empirical evidence is provided by sentences with a passive auxiliary. This passive auxiliary is deleted in Dutch, but not (necessarily) so in English.

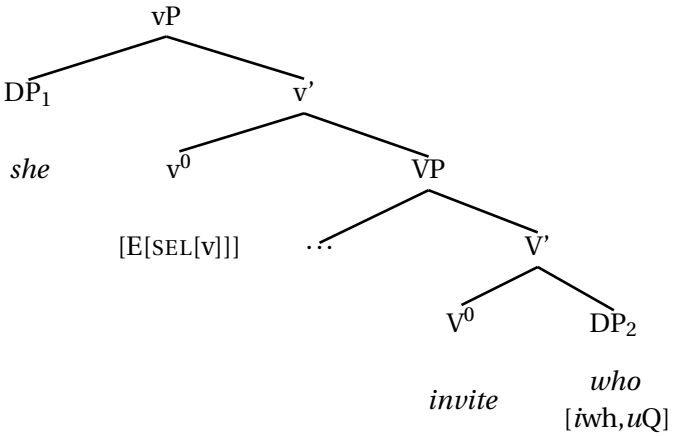
(58) a. Deze broek wordt best niet gewassen, maar die rok mag wel (*
this pants become best not washed but that skirt may PRT
worden).
become
These pants don't have to be washed, but this skirt can be washed.
b. The trash is taken out whenever it is apparent that it should be.

Now, how do these differences explain the difference in extraction possibilities between English and Dutch? Let us go over the derivation of the sentence in (59) with wh-object movement out of the ellipsis site.

(59) I don't know who Mina shouldn't invite, but I know who she should [$_{vP}$ ~~invite~~ ~~t$_{who}$~~].

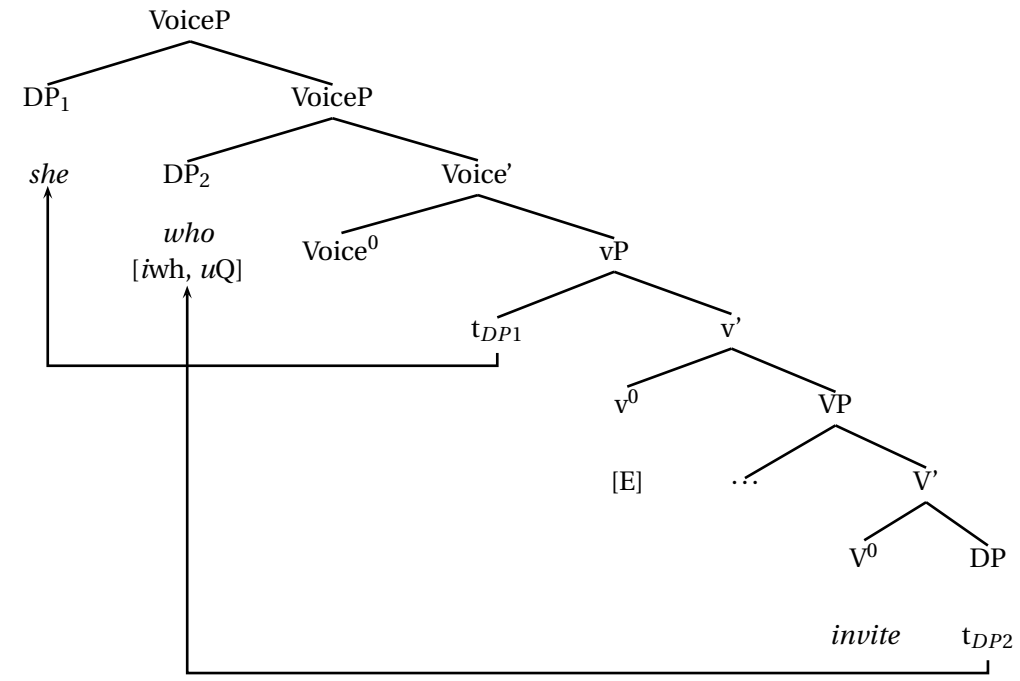
We start out from the derivation of vP this time, because this is the constituent which is elided in English VPE. As illustrated in the tree structure in (60), v^0 is the head bearing an [E]-feature.

(60)



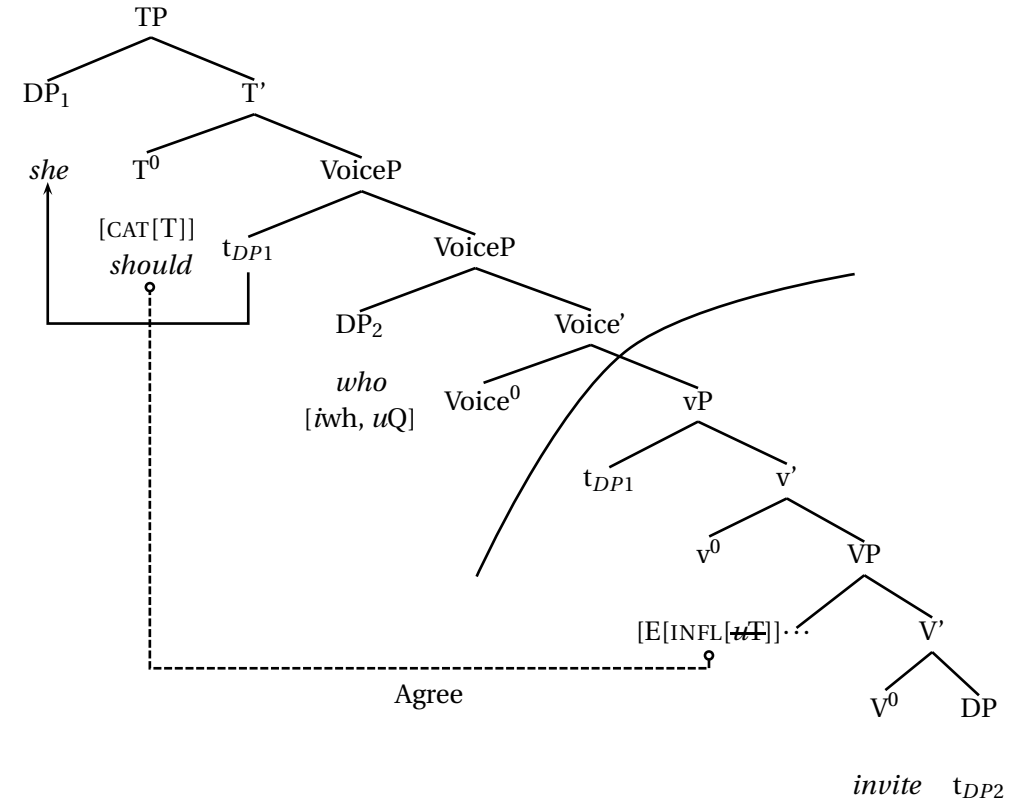
The next step in the derivation is merger of the phase head $Voice^0$ and the projection of VoiceP. Because $Voice^0$ is a phase head it attracts the subject and the wh-object to the phase edge, as in (61).

(61)



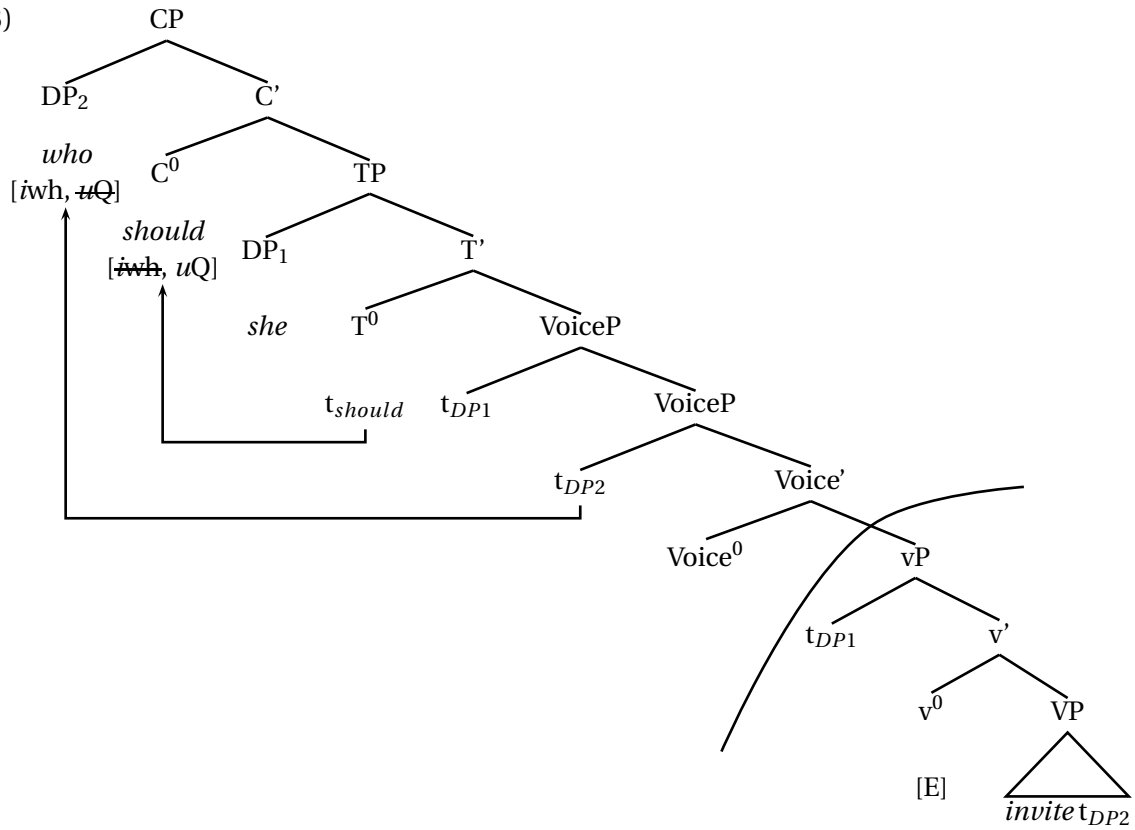
Then we merge the T^0 head, which licenses the ellipsis. The subject moves to [Spec,TP] to get its Case feature valued and to check off the uninterpretable [ϕ]-features on T^0. The [E]-feature on v^0 is also checked against the category feature on T^0 and consequently the little vP is sent off to Spell-Out, marked for non-pronunciation.

(62)



Finally, the C^0 head is merged, projecting the CP. As you can see in (63), the wh-object moves from the phase edge [Spec,VoiceP] to [Spec,CP] to check C^0's [*u*wh] and to get its own [*u*Q] feature checked. The finite verb should moves to C^0 and as a result we get the grammatical sentence in (64).[14]

(63)

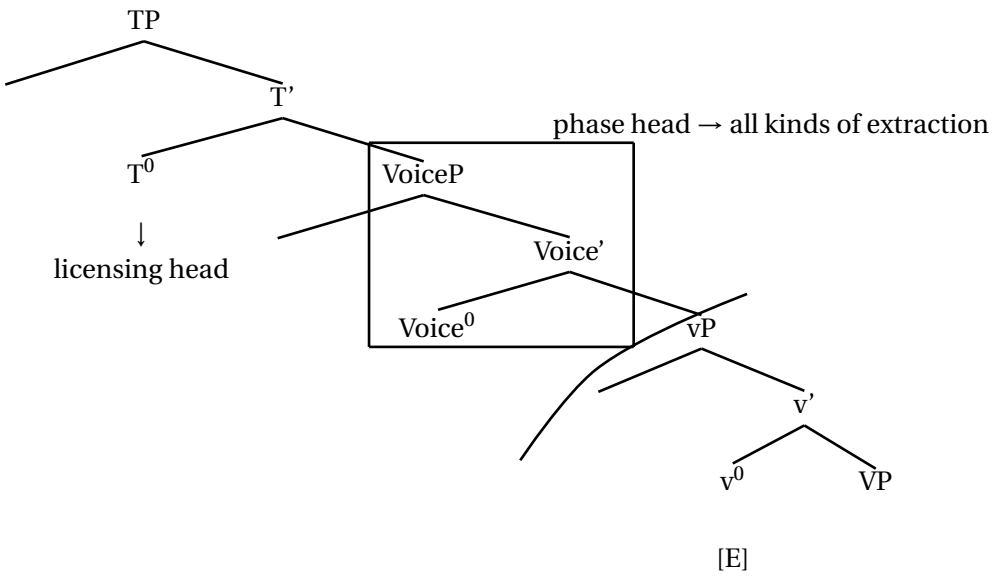


(64) (I don't know who Mina shouldn't invite, but I know) who she should.

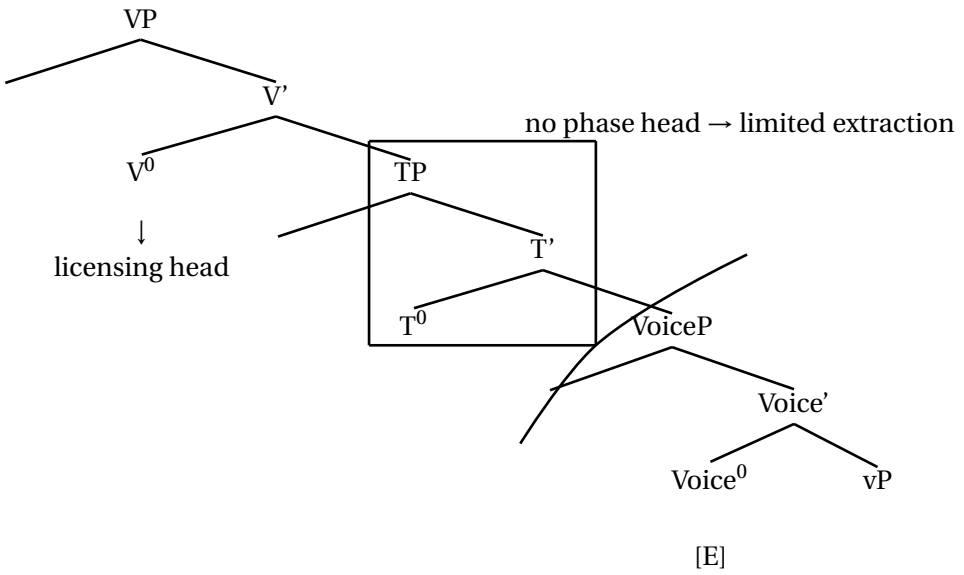
Summing up, we have seen that in English both subjects and objects can survive VP ellipsis because they can move out of the ellipsis site to the clause internal phase edge [Spec,VoiceP] prior to merger of the ellipsis licensing head T^0. In this analysis the projections between the licensing head and the constituent that is elided play a crucial role when it comes to determining what can be extracted out of the ellipsis site and what cannot. We predict to see the same pattern as in English every time when there is a phase head intervening: all constituents that move in non-elliptical sentences also move in ellipsis, as in (65). In cases similar to Dutch MCE, on the other hand, we expect only limited extraction. Only constituents moving to [Spec,TP] or adjoining to TP can survive the ellipsis (cf. (66)).

[14] I leave out the derivation of the rest of the sentence, because it is irrelevant for the analysis of ellipsis.

(65)



(66)



5 Conclusion

In this paper I argued for a deletion account of Dutch modal complement ellipsis (MCE). This phenomenon, in which the infinitival complements of deontic modal verbs are missing, looks very similar to verb phrase ellipsis in English. The fact that it does not allow objects to extract out of the ellipsis site, however, at first sight seemed to hint at a proform analysis instead of the deletion approach taken for English VPE in the literature. A closer look showed that MCE disrupts the simple pattern of "extraction means deletion; non-extraction means proform": unlike objects, subjects can be extracted.

I claim that Dutch MCE does indeed involve deletion of a full verb structure and that the illicitness of object extraction is due to the fact that Dutch does not provide an escape hatch for objects prior to the merger of the licensing head, unlike English. More in general, I claim that ellipsis is triggered by an Agree relation between the licensing head and an [E]-feature on the head of the ellipsis site. From the moment this Agree

relation is established, the ellipsis site is sent off to Spell-Out, not to be pronounced but to be deleted at PF due to the [E]-feature. Any constituent that has not moved out of the ellipsis site before this point in the derivation is deleted with the rest of the verb phrase. This means that the projections between the ellipsis site and the licensing head play a crucial role: if a phrase moves to a position on one of the intervening projections, it survives the ellipsis; if not, it is elided. In this paper I have demonstrated that this derives the extraction differences between English and Dutch. Dutch only provides an escape hatch for the subject, as the only intervening projection is TP, while in English anything can get out, for there is a phase head Voice^0 between the licensing head and the elided vP. Further research will hopefully show that this licensing of ellipsis can be applied to other elliptical constructions as well, so that we can come to a unified treatment of ellipsis in terms of deletion instead of the division between proforms and deletion approaches.

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