Verb phrase ellipsis in Dutch and English

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Main claims:
1 Dutch displays a limited kind of verb phrase ellipsis I call modal complement ellipsis or MCE.
2 MCE involves PF deletion, triggered by checking of an E feature against the ellipsis licensing head via Agree.
3 The licensing head and the ellipsis site do not have to be in a strictly-local head-complement relation. There can be material in between.
4 The projections between the elided constituent and the licensing head play a crucial role in determining the extraction possibilities out of the ellipsis site.

1 DUTCH MODAL COMPLEMENT ELLIPSIS (MCE)

Overview
1.1 Introduction
1.2 Dutch modals and their complements
1.3 Ellipsis: proform or deletion?
1.4 Objects cannot extract out of the MCE ellipsis site
1.5 Subjects can extract out of the MCE ellipsis site
1.6 Summary

1.1 Introduction

• Dutch allows the infinitival complement of a modal to be missing (similar to VP ellipsis in English):

(1) Ik wil je wel helpen, maar ik kan niet.
\[ I \text{ want you help but I can not} \]
\[ 'I want to help you, but I can't.' \]

= modal complement ellipsis (MCE)

• MCE is only allowed with root modals: 
  willen ‘want to’, mogen ‘be allowed to’,
  kunnen ‘can’, hoeven ‘need’, moeten ‘have to’

(2) A: Komt Thomas ook naar je lezing?
   – B: Hij moet.
\[ \text{comes Thomas also to your talk he has to} \]
\[ 'Is Thomas coming to your talk too?' – 'He has to.' \]

= root

(3) A: Zou Klaas nu op zijn bureau zijn?
   Would Klaas now on his office be
B: *Hij moet wel. Hij werkt altijd op zaterdag.
\[ \text{he must PRX he works always on Saturday} \]
\[ 'It must be the case that he is in his office.' \]

INTENDED READING: ‘It must be the case that he is in his office.’
no temporal auxiliaries: *zullen* ‘shall/will’, *zijn* ‘be’, *hebben* ‘have’

comes Thomas also to your talk he will not
is Thomas also to your talk come he is not
has Katrien yesterday called she has not

1.2 Dutch modals and their complements

Claim: Dutch (deontic) modals are raising V°s that select a non-finite TP.

Arguments:

• Dutch deontic modals are raising verbs (see also Barbiers 1995, Wurmbrand 2001)

① Deontic modals can have inanimate subjects, just like raising verbs and unlike control verbs:

(7) a. De *auto* moet gewassen worden. [deontic modal]
the car must be washed.
‘The car must be washed.’
b. De *auto* lijkt gewassen te worden. [raising verb]
the car seems to be washed.
‘The car seems to be being washed.’
c.* De *auto* probeert gewassen te worden. [control verb]
the car tries to be washed.
‘The car tries to be washed.’

② Deontic modals, like raising verbs and unlike control verbs, allow impersonal passives:

(8) a. Er moet gedanst worden. [deontic modal]
there has.to danced become
‘Someone has to dance.’
b. Er lijkt gedanst te worden. [raising verb]
there seems danced to become
‘There seems to be dancing going on.’
c.* Er probeert gedanst te worden. [control verb]
there tries danced to become
‘There tries dancing to become’

③ Both deontic modals and raising verbs allow weather-*it* as their subject, while control verbs do not.

(9) a. Het moet regenen. [deontic modal]
it must rain
‘It must rain.’
b. Het lijkt te regenen. [raising verb]
it seems to rain
‘It seems to be raining.’
c.* Het probeert te regenen. [control verb]
it tries to rain
‘It tries to rain’

④ There is no change in meaning when the complement of a deontic modal or raising verb is passivized; there is a change in meaning with control verbs.

(10) a. De politie moet de dief arresteren. [deontic modal]
the police must the thief arrest
‘The police has to arrest the thief.’
a’. De dief moet gearresteerd worden door de politie.
the thief must arrested become by the police
‘The thief has to be arrested by the police.’
b. De politie lijkt de dief te arresteren. [raising verb]
the police seems the thief to arrest
‘The police seems to arrest the thief.’
b’. De politie lijkt gearresteerd te worden door de politie.
the thief seems arrested to become by the police
‘The thief seems to be arrested by the police.’

c. De politie probeert de dief te arresteren. [control verb]
the police tries the thief to arrest
‘The police tries to arrest the thief.’

c’. De dief probeert gearresteerd te worden door de politie.
the thief tries arrested to become by the police
‘The thief tries to be arrested by the police.’

- Dutch (deontic) modals are V° heads, not T° heads as in English (see Ijbema 2002, Wurmbrand 2001):

1. English modals lack inflection, unlike Dutch modals.

   (11) a. Hij mocht niet buiten spelen.  \(\rightarrow\) past tense
       he may,PST not outside play
       ‘He was not allowed to play outside.

   b. Hij heeft dat nooit gekund.  \(\rightarrow\) past participle
       he has that never can,PST PRT
       ‘He was never able to do that.’

   c. Hij zal niet mogen komen.  \(\rightarrow\) infinitive
       he will not may,INF come
       ‘He won’t be allowed to come.’

2. English modals cannot be stacked, while Dutch modals can.

(12) a.* He mayed/might not play outside.  \(\rightarrow\) no past tense
     INTENDED: ‘He was not allowed to play outside.’

   b.* He has never could/canned that.  \(\rightarrow\) no past participle

   c.* He will not may come.  \(\rightarrow\) no infinitive

- Deontic modals select a non-finite TP complement.

1. The modal complement can contain time modification that differs from that in the matrix clause.

   (14) Gisteren moest ik nog volgende week komen en nu zijn de plannen alweer veranderd.
   the plans again changed
   ‘Yesterday I had to come next week, and now the plans have changed.

2. One of the modals selects a complement with an overt T° head te ‘to’.

(15) Hij hoeft niet te werken vandaag.
   he needs not to work today
   ‘He doesn’t have to work today.’

\(\rightarrow\) Analysis: Modals are raising verbs that select a non-finite TP complement.

(16) Alex moet werken.
   Alex has to work
1.3 Ellipsis: proform or deletion?

- Two possible analyses for ellipsis:
  ① The ellipsis site is a null proform (e.g. Lobeck 1995, Depiante 2000).

→ Argument for deciding between these analyses = (im)possibility of extraction:
  extraction out of the ellipsis site is illicit → proform, no structure to host a trace
  extraction out of the ellipsis site is allowed → deletion of syntactic structure

A puzzle for MCE: objects cannot extract out of the ellipsis site
♀
subjects can extract out of the ellipsis site

1.4 Objects cannot extract out of the MCE ellipsis site

- Dutch MCE does not allow wh-extraction of an object out of the ellipsis site:

(18) a.* Ik weet niet wie Kaat moet uitnodigen, maar ik weet wel
   I know not who Kate must invite but I know AFF
   wie ze niet moest.
   who she not must
   INTENDED READING: ‘I don’t know who Kate should invite, but I do know who she shouldn’t.’

b. Ik weet niet wie Kaat moet uitnodigen, maar ik weet wel
   I know not who Kate must invite but I know AFF
   wie ze niet moet uitnodigen.
   who she not must invite
   ‘I don’t know who Kate should invite, but I do know who she shouldn’t.’

- Dutch MCE disallows object scrambling out of the ellipsis site:

(19) 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 can’t.’

Contrast with non-elliptical variant: definite object scrambles obligatorily.

(20) Ik wil je helpen, maar ik kan <je> niet <*je> helpen.
    I want you help but I can you not you help
    ‘I want to help you, but I can’t help you.’
1.5 Subjects can extract out of the MCE ellipsis site

- The subject can survive the ellipsis, regardless of whether the embedded verb is transitive, unergative, unaccusative or passive:

  (21) a. Ik wil je wel helpen, maar ik kan niet. [transitive]
      \( I \) want you help but I can’t.
      ‘I do want to help you, but I can’t.’
   
   b. Tom wou niet werken, maar hij moest. [unergative]
      Tom wanted not work but he must.
      ‘Tom didn’t want to work, but he had to.’
   
   c. Mina kan komen, maar Tom kan niet. [unaccusative]
      Mina can come but Tom can not.
      ‘Mina can come, but Tom can’t.’
   
   d. Die broek moet niet gewassen worden vandaag, maar die rok moet wel. [passive]
      that pants must not washed become today but that skirt must.
      ‘Those pants don’t need to be washed, but that skirt does.’

- Subject wh-extraction is allowed:

  (22) a. Niet iedereen moet een gedicht voordragen. – Oh, wie moet not everyone must a poem recite oh who must er dan niet?
      there then not
      ‘Not everyone has to recite a poem.’ – ‘Oh, who doesn’t have to?’
   
   b. Ik weet dat er iemand niet mocht komen, maar wie I know that there someone not may come but who mocht er ook weer niet?
      may there also again not
      ‘I know that someone wasn’t allowed to come, but who wasn’t again?’

Note: Given that deontic modals are raising verbs, the examples in (21) and (22) involve extraction out of the ellipsis site.

1.6 Summary

- Dutch modals are raising V° heads selecting a non-finite TP complement.
- Dutch MCE: paradox
  
  objects cannot be extracted out of the ellipsis site \( \rightarrow \) proform analysis
  
  subjects can be extracted out of the ellipsis site \( \rightarrow \) deletion account

Claim: Dutch MCE = deletion of a fully-fledged syntactic structure.
Consequence: The restriction on object extraction cannot be due to the lack of syntactic structure.
ELLIPSIS = DELETION: THE MECHANISMS BEHIND ELLIPsis

• Core ingredients of the analysis:

① There is a head E selecting the head X° of the constituent that will be elided (comparable to Merchant’s 2001, 2004 [E]-feature).
② E projects an EP, but its category (CAT) is the same as the CAT of X (EP is transparent for selection, parallel to Co(ordination)P).
③ E marks the whole EP, including XP, for deletion at PF (see Johnson 2004).
④ E also has an uninterpretable feature F in its INFL(ection) matching a CAT feature on a head L° licensing the ellipsis.
⑤ When L° is merged, the uninterpretable feature on E is checked via an Agree relation (see Von Stechow & Zeijlstra 2008 for reverse Agree).
⑥ After checking, EP is sent off to Spell-Out and as a result, the ellipsis site is no longer accessible for any syntactic operations.

(23) **The syntax of E** (in general)

\[
E \rightarrow \begin{array}{c}
\text{CAT} \\
\text{INFL} \\
\text{SEL}
\end{array} \left[ \begin{array}{c}
\text{X} \\
\text{[uF]} \\
\text{[X]}
\end{array} \right]
\]

(24) **LP**

\[
L' \rightarrow \begin{array}{c}
L° \\
[\text{CAT} \ [F]]
\end{array} \rightarrow \text{non-pronunciation at PF}
\]

**Consequences:**

① The licensing head and the ellipsis site do not have to be in a head-complement relation (contra Merchant 2001, 2004).

→ There can be material between licensor and ellipsis site.

(English) VPE: T° is the licensing head in English VPE; see Zagona (1982, 1988); Martin (1992, 1996) and Lobeck (1995).

Head-complement approach: predicts everything following the finite auxiliary to be elided.
Checking/Agree approach: there can be lexical items following T° after ellipsis.

(25) I wasn’t thinking about that. - Well, you **should have been** [thinking about that].

→ **have** and **been** follow the auxiliary in T° but are not included in the ellipsis site.

② Deletion after the licensor is merged → Extraction out of the ellipsis site is only possible if the element moves to a position between the ellipsis site and the licensing head (see next section).
3 THE ANALYSIS OF DUTCH MCE: DELETION

- Applying these mechanisms to Dutch MCE:
  1. The deontic modal V°-head is the licensing head.
  2. The phase head Voice° is selected by E.

\[(26)\]  
\[E_{MCE} \left\{ \begin{array}{l}
\text{CAT} \quad \text{[Voice]} \\
\text{INFL} \quad [nV \ [\text{deon}]] \\
\text{SEL} \quad \text{[Voice]} 
\end{array} \right\} \]

\[(27)\]  
\[
\begin{array}{c}
\text{VP} \\
\ \ \ \ V' \\
\ \ \ \ V^\circ \\
\ \ \ \ TP \\
\ \ \ \ \text{modal} \\
\ [\text{CAT} \ [V \ [\text{deon}]]) \\
\ \ \ \ T', \\
\ \ \ \ EP \\
\ \ \ \ E' \\
\ \ \ \ \text{[INFL} \ [nV \ [\text{deon}]) \\
\ \ \ \ \text{Voice'} \\
\ \ \ \ \ \text{Voice}° \\
\ \ \ \ \ \ \ ...
\end{array} \]

Note: 1. Voice° is distinguished from v° (see Merchant 2007, 2008a; Baltin 2007).
2. Voice° rather than v° is the clause-internal phase head (see Baltin 2007).

Overview:
3.1 Wh-object extraction
3.2 Object scrambling
3.3 Subject extraction

3.1 Wh-object extraction

\[(28)\]  
*Ik weet wie Kaat mag uitnodigen, maar ik weet niet
[I know who Kate may invite but I know not
wie ze moet.
who she may
INTENDED READING: ‘I know who Kate is allowed to invite, but I don’t
know who she should.’

Step 1: EP

- The subject and the wh-object move to the phase edge [Spec, VoiceP].
- E selects VoiceP as its complement.

\[(29)\]
Step 2: merger of $T^\circ$ and projection of TP

- The subject moves to [Spec,TP].

(30)

Step 3: merger of the licensing modal head

- The uninterpretable feature on E is checked against the [V[deon]] category feature of $V^\circ$ via Agree $\rightarrow$ this activates E and sends EP off to Spell-Out for deletion.
- The wh-object is stuck in the ellipsis site.

Step 4: merger of TP and CP

- $C^\circ$ bears an uninterpretable [wh]-feature, but cannot attract the wh-object anymore to check it.
  $\rightarrow$ The derivation crashes

(31)
3.2 Object scrambling

(33) 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 help you.’

→ **Claim**: ellipsis takes place before the object could move out of the ellipsis site.

- **Object scrambling**: to a position in the higher clause, higher than the modal.

Argumentation in 2 steps:

① The object obligatorily precedes negation in non-elliptical sentences:

(34) 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.’

② Negation scopes in the higher clause:

(35) 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.’

→ Object scrambling goes to a position in the higher clause as well:
• MCE: ellipsis takes place before the object could scramble out of the ellipsis site.

(37) VP
    \[\text{kan} \rightarrow \text{deletion at PF}\]
    \[\text{DP} \quad \text{T'} \quad \text{T°} \quad \text{EP}\]
    \[\text{V°} \quad \text{t} \quad \text{DP}\]
    \[\text{V' \quad V°} \quad \text{t} \quad \text{DP}\]
    \[\text{V'} \quad \text{VP}\]
    \[\text{niet} \quad \text{V'} \quad \text{TP} \quad \text{ik} \quad \text{T'} \quad \text{T°} \quad \text{EP}\]

3.3 Subject extraction

(38) Mina kan komen, maar Tom kan niet. [unaccusative]
    Mina can come but Tom can not
    ‘Mina can come, but Tom can’t.’

• The derived subject is base-generated in the complement position of main verb komen ‘come’ and first moves to the phase edge [Spec,VoiceP] and then to [Spec,TP] because of an [EPP] feature on T°.
• The licensing head is only merged after the subject has escaped from the ellipsis site.

(39) VP
    \[\text{deletion at PF}\]
    \[\text{Tom} \quad \text{T°} \quad \text{EP} \quad \text{VoiceP} \quad \text{Voice'} \quad \text{Voice°} \quad \text{…}\]

• Note: From its position in [Spec,TP] the subject is free to undergo further operations \(\Rightarrow\) A’-extraction of the subject = allowed.

\(\Rightarrow\) Subjects survive Dutch MCE, because they move out of the ellipsis site to a position between the ellipsis site and the ellipsis licensing head.
\(\Rightarrow\) Objects don’t have a position between the ellipsis site and the licensing head to move to, so they are elided.
4 English VP Ellipsis

4.1 Some differences with MCE

- English VP ellipsis (VPE) is allowed after finite auxiliaries, modals and dummy do.

  (40) a. Alice wasn’t drinking tea, but Peter was [drinking tea].
  b. Jasmin can draw an elephant and Ryan can [draw an elephant] too.
  c. Adam doesn’t sing well, but Jessi does [sing well].


  ① Object extraction:

    (41) a. What is Ed going to buy? – I don’t know. What should he [buy + t..]?  
    b. Mina rolled up a newspaper and Tom did a magazine [roll up + t.., magazine]

  ② Subject extraction:

    (42) a. I know Ed can’t come to my talk, but who can [come + t.. to my talk]?
    b. Mina wasn’t arrested, but she should be [arrested + t..].

- English VPE elides less than Dutch MCE: the passive auxiliary is deleted in Dutch, but not (necessarily) in English.

  (43) a. Deze broek wordt best niet gewassen, maar die rok mag wel (* worden) [gewassen + t..].  
  b. The trash is taken out whenever it is apparent that it should be.

4.2 The analysis

- English: ① The head licensing English VPE is the modal or auxiliary in T°  
  ② E selects a vP rather than a VoiceP  
    (vP ellipsis rather than VoiceP ellipsis, see Merchant 2007, 2008a).

→ Derivation of (41)a (repeated here):

(44) What is Tom going to buy? – I don’t know. What should he [buy + t..]?

Step 1: EP

- E° selects a vP as its complement.
**Step 2:** merger of the phase head Voice° and projection of VoiceP

- Voice° attracts the subject and the wh-object to the phase edge.

(47)

**Step 3:** merger of ellipsis licensing head T°

- The uninterpretable T-feature on E is checked against T°’s category feature via Agree → this activates E and sends EP off to Spell-Out for deletion.

(48)

**Step 4:** merger of C° and projection of CP

- The wh-object moves to [Spec,CP] to check C°’s [rwh].
5 CONCLUSIONS AND FURTHER RESEARCH

1. Dutch displays a restricted form of verb phrase ellipsis that involves the deletion of a fully-fledged VoiceP.

2. Ellipsis is non-pronunciation at PF triggered by Agree between the licensing head and an E(llipsis) head. This E selects the ellipsis site as its complement and is sent off to Spell-Out after checking of its INFL(ection) feature by the licensing head.

3. The only constituents that can survive ellipsis are those that move out of the ellipsis site before the licensing head is merged. This means that the projections in between the licensing head and the ellipsis site (and the specifier of the licensing head itself) are possible escape hatches.

English VPE: The intervening projection VoiceP is a phase.

→ Movement to the phase edge prior to ellipsis provides an escape hatch.

Both subjects and objects can extract out of the English VP ellipsis site because they can move out prior to the ellipsis process taking place.
Dutch MCE: The intervening projection is a TP.

→ Only what moves to [Spec,TP] or adjoins to TP can extract out of the ellipsis site

Further research

① Can we go past the descriptive level of E heads and explain the distribution of ellipsis on other grounds? For instance, why does English have VPE with auxiliaries, while Dutch and German don’t?

② Can we reduce the traditional distinction between deep and surface anaphora (cf. Hankamer & Sag 1976) to the size of the deleted constituent?

→ Other cases that have been analyzed as deletion, such as pseudogapping (Merchant 2007, 2008a), gapping and NP ellipsis?

→ Cases that have been analyzed as a null proform, such as clausal complement deletion (Kennedy & Merchant 2000) and NCA (Depiante 2000)?

③ Licensing of ellipsis via Agree should be subject to the same restrictions as other cases of Agree, such as intervention effects.

6 APPENDIX: OTHER ELLIPTICAL CONSTRUCTIONS

① Sluicing

• Prediction: not only constituents moving to a position between the ellipsis site and the licensing head can survive ellipsis, constituents moving to the specifier position of the licensing head can too.

→ Sluicing instantiates such a case.

• Sluicing allows extraction of both objects and subjects:

(50) a. I saw something, but I don’t know what [\_I saw \_what ]
   b. Someone stole my bike, but I don’t know who [\_stole my bike]

→ Analysis:

- Sluicing is licensed by C° bearing [wh, Q] (see Merchant 2001).
- Sluicing deletes TP (Merchant 2001) → E selects a TP.
- C° attracts the wh-element to its spec to check [wh].

(51) Eₜ

(52) CP

→ deletion at PF
Because the movement of the wh-element and the checking of the \([uE]\)-feature happen simultaneously, the wh-element survives the ellipsis.

Stripping

(53) I gave Mina a present, but not Thomas \([\underline{\underline{I\ give\ to\ \underline{\underline{Mina}}\ a\ present}}]\).

Analysis:
- There is a NegP dominating CP and \(\text{Neg}^\circ\) is the head licensing stripping. (Merchant 2003)
- The contrasted constituent moves to [Spec,CP] to check a [FOCUS]-feature (cf. Merchant 2003).
- Stripping elides TP \(\Rightarrow E\) selects a TP

(54) \(E_{STR}\)

\[
\begin{array}{c|c}
\text{CAT} & [T] \\
\text{INFL} & [u\text{Neg}] \\
\text{SEL} & [T] \\
\end{array}
\]

(55) \(\text{NegP}\)

\[
\begin{array}{c|c}
\text{Neg}^\circ & \text{not} \\
\text{Neg'} & \text{CP} \\
\text{[CAT [Neg]] DP} & [\underline{\underline{\text{[fFoc]}}} \text{C'}] \Rightarrow \text{deletion at PF} \\
\end{array}
\]

The remnant constituent moves to a position between the licensing head \(\text{Neg}^\circ\) and the ellipsis site TP and therefore survives the ellipsis.

Fragment answers

(56) A: Who did you give a present? – B: Mina \([\underline{\underline{I\ give\ to\ Mina\ a\ present}}]\).

Analysis:
- \(C^\circ\) is the licensing head.
- The contrasted constituent moves through [Spec,CP] to check a [FOCUS]-feature (Merchant 2004).
- \(E\) selects a TP.

(57) \(E_F\)

\[
\begin{array}{c|c}
\text{CAT} & [T] \\
\text{INFL} & [uC] \\
\text{SEL} & [T] \\
\end{array}
\]

(58) \(\text{DP}\)

\[
\begin{array}{c|c}
\text{CP} & [\underline{\underline{\text{C'}\ E'}}] \Rightarrow \text{deletion at PF} \\
\text{[uFoc]} & \text{EP} \\
\text{[CAT [C]]} & \text{E}^\circ \\
\text{[INF [uC]]} & \text{TP} \\
\end{array}
\]

The remnant constituent moves to the specifier of the ellipsis licensing head and therefore survives the ellipsis.
British English *do* (Baltin 2007)

(59) Mina will run the race and Bettina will do, too.

- BE *do* does not allow object extraction, but subjects can move out of the ellipsis site:

(60) a.* Although I don’t know who Ed will visit, I do know who Tim will do.
    b. The river will freeze solid and the lake will do too.

→ Analysis:
   - Non-phase head *v° do* is the licensing head (Baltin 2007).
   - VP is the constituent that is elided (Baltin 2007) → $E$ selects VP.
   - Subjects are either base-generated in [Spec,vP] or move there (derived subjects) in BE *do*.

(61) $E_{DO}$

(62) *

→ Same as in Dutch MCE: only the subject has an escape hatch position before the EP is sent off to Spell-Out.
REFERENCES