Licensing ellipsis as Agree

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OUTLINE OF THE TALK

1 Dutch modal complement ellipsis: deletion or proform?
2 Ellipsis = deletion: the mechanisms behind ellipsis
3 The analysis of Dutch MCE: deletion
4 Dutch modal complement ellipsis compared to English VPE
5 Other elliptical constructions and further research
6 Conclusions

Main claims: ① Dutch modal complement ellipsis involves deletion.
   ➔ Further claim: All ellipses involve deletion. The extraction
   differences between the different kinds of ellipsis are the result
   of the interaction between the size of the ellipsis site and the
   (position of the) licensing head.
② Ellipsis is triggered by checking of a feature against the licensing
   head via Agree. In other words, ellipsis licensing is subject to
   syntactic locality, not to adjacency.
③ When the feature gets checked, the ellipsis site gets sent off to
   Spell-Out and is therefore no longer available for any syntactic
   operations.
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: DELETION OR PROFORM?

• Dutch allows the infinitival complement of (deontic) modals to be deleted:

   (1) Ik wil je wel helpen, maar ik kan niet.
       I want you PRT help but I can not
       ‘I want to help you, but I can’t.’

   ➔ Two possible analyses:

   ① The modal selects a null proform (e.g. Lobeck 1995, Depiante 2000).
   ② Deletion of a fully specified syntactic structure (parallel to English VP ellipsis,
      e.g. Merchant 2001, Johnson 1996, 2001)

   • Argument for deciding between the 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 paradox: Dutch modal complement ellipsis (MCE)
      objects cannot extract out of the ellipsis site
      subjects can extract out of the ellipsis site

Overview
1.1 Dutch modals and their complements
1.2 Objects cannot extract out of the ellipsis site
1.3 Subjects can extract out of the ellipsis site
1.4 Summary
1.1 Dutch modals and their complements

• Claim: Dutch (deontic) modals are raising V° heads which select a non-finite TP complement.

I will go over every aspect of this claim.

• Dutch deontic modals are raising verbs: arguments (see Barbiers 1995, Wurmbrand 2003)

① Deontic modals can have inanimate subjects when their complement is passive, just like raising verbs and unlike control verbs:

(4) a. De auto moet gewassen worden. [deontic modal]
    the car has.to washed become
    ‘The car must be washed.’

    b. De auto lijkt gewassen te worden. [raising]
    the car seems washed to become
    ‘The car seems to be being washed.’

    c.* De auto probeert gewassen te worden. [control]
    the car tries washed to become

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

(5) a. Er moet gedanst worden. [deontic modal]
    there has.to danced become
    ‘Someone has to dance.’

    b. Er lijkt gedanst te worden. [raising]
    there seems danced to become
    ‘There seems to be dancing going on.’

    c.* Er probeert gedanst te worden. [control]
    there tries danced to become

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

(6) a. Het moet regenen. [deontic modal]
    it must rain
    ‘It must rain.’

    b. Het lijkt te regenen. [raising]
    it seems to rain
    ‘It seems to be raining.’

    c.* Het probeert te regenen. [control]
    it tries to rain
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Licenting ellipsis as Agree

• Dutch modals are V° heads, not T° heads as in English (see Ijbema 2002, Wurmbrand 2003):

① English modals lack inflection, unlike Dutch modals.

(7) a. Ik/ Jij/ Hij moet naar de supermarkt gaan.
   I you he must to the supermarket go
   ‘I/You/He/We/They must go to the supermarket.’

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.’

→ singular/plural distinction in Dutch > < no 3rd person inflection in English

(8) 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 PRT
   ‘He was never able to do that.’

→ past tense in Dutch > < no past tense in English

(9) Hij zal niet mogen komen.
   he will not may.INF come
   ‘He won’t be allowed to come.’

→ infinitive in Dutch > < no infinitive in English

② English modals cannot co-occur, while Dutch modals can.

(10) 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.’

③ English modals cannot take DP complements, while Dutch modals can.

(11) Hij mag een koekje.
    he may a cookie
    ‘He is allowed to have a cookie.’

• Deontic modals select a non-finite TP complement.

① The complement of the modal can contain past tense.

(12) Hij moet voor acht uur tien kilometer gelopen hebben.
    he must before eight hour ten kilometre run have
    ‘He must have run ten kilometres before eight o’clock.’

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

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

→ Analysis: Modals are raising verbs that select a non-finite TP complement.

(14) Alex moet werken.
    Alex has.to work

(15) \[ CP \[ TP Alex \[ VP moet \[ TP I_Alex \[ VoiceP \[ VP I_Alex \[ VP werken]]]]\]].

1.2 Objects cannot extract out of the ellipsis site

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

(16) * 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.
    who she not must
    INTENDED READING: ‘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:

(17) 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.’

This contrasts with the non-elliptical variant, where the definite object scrambles obligatorily:

(18) 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.’

Pseudogapping is not allowed in Dutch MCE.

Pseudogapping = movement of the remnant out of the ellipsis site prior to ellipsis (see Jayaseelan 1990; Johnson 1996; Lasnik 1999a, 1999b, 2001)

(19) Mina can roll up a newspaper and Tom can a magazine[noll...]

No pseudogapping in Dutch MCE:

(20) Katrien kan brood kopen en Bert kan melk *(kopen).
Katrien can bread buy and Bert can milk buy

INTENDED READING: ‘…and Bert can buy milk.’

1.3 Subjects can extract out of the ellipsis site

The subject can survive the ellipsis, 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 PRT help but I can not  
‘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.PAST  
‘Tom didn’t want to work, but he had to.’

c. Mina kan koken, 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 [passive]
that pants must not washed become today but that skirt 
moet wel.
must PRT  
‘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 [22un]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 [22de]I know that there someone not may.PAST come but who 
mocht er ook weer niet?  
may.PAST 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) indeed involve extraction out of the ellipsis site.
1.4 Summary

- Dutch modals are raising V° heads selecting a non-finite TP complement.
- Dutch MCE: paradox

\[ \text{objects cannot be extracted out of the ellipsis site} \rightarrow \text{proform analysis} \]

\[ \text{subjects can be extracted out of the ellipsis site} \rightarrow \text{deletion account} \]

\[ \rightarrow \text{Claim: Dutch MCE = deletion of a fully-fledged syntactic structure.} \]

Consequence: The restriction on object extraction must be due to something else.

2 ELLIPSIS = DELETION: THE MECHANISMS BEHIND ELLIPSIS

- Core ingredients of the analysis:
  ① There is a feature bundle 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 is the same as the CAT of X. In other words, EP is transparent for selection (parallel to CoordinationP).
  ③ E marks the whole EP, including XP, for non-pronunciation at PF (see Johnson 2004).
  ④ E also has an uninterpretable feature F in its INFL 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 and EP is sent off to Spell-Out.
  ⑥ As a result, the ellipsis site is no longer accessible for any syntactic operations.

(24) The syntax of E (in general)

\[ \begin{align*}
E & \begin{cases}
\text{CAT} & [X] \\
\text{INFL} & [uF] \\
\text{SEL} & [X]
\end{cases}
\end{align*} \]

(25) \[ \rightarrow \text{non-pronunciation at PF} \]
• **Consequence**: The licensing head and the ellipsis site do not have to be in a head-complement relation (contra Merchant 2001, 2004).

Importance to (English) VPE (assuming $T^o$ is the licensing head in English VPE; see Zagona 1982, 1988; Martin 1992, 1996 and Lobeck 1995):

Head-complement approach: You predict everything following the finite auxiliary to be elided.

Checking/Agree approach: It is possible that there are some lexical items following $T^o$ after ellipsis, because the licensing head does not have to be adjacent to the ellipsis site.

→ *have* and *been* follow the auxiliary in $T^o$ but are not included in the ellipsis site:

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

• The semantics of E (in general)

Definitions:

(27) **The semantics of E**

$$[[E]] = \lambda p : e\text{-GIVEN}(p) [p]$$

(28) **e-GIVENness** (Merchant 2001: 26)

An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo $\exists$-type shifting,

(i) A entails $F\text{-clo}(E)$, and

(ii) E entails $F\text{-clo}(A)$.

(29) **F-closure**

The F-closure of $\alpha$, written $F\text{-clo}(\alpha)$, is the result of replacing F(ocus)-marked parts of $\alpha$ with $\exists$-bound variables of the appropriate type (modulo $\exists$-type shifting).

(30) **Focus condition on VP ellipsis** (Merchant 2001: 26)

A VP $\alpha$ can be deleted only if $\alpha$ is e-GIVEN.

Example:

(31) Abby called Chuck an idiot after BEN did.

a. = …after Ben did **call** Chuck an idiot.

b. $\neq$ …after Ben did **insult** Chuck.

(32) a. $F\text{-clo}(VP_A) = \exists x. x \text{ called Chuck an idiot}$

b. $F\text{-clo}(VP_{Ea}) = \exists x. x \text{ called Chuck an idiot}$

c. $F\text{-clo}(VP_{Eb}) = \exists x. x \text{ insulted Chuck}$

• The phonology of E (in general)

A lexical item having an [E] in its feature bundle is pronounced as null.

→ The whole EP is ‘marked for non-pronunciation at PF’

After checking of the feature $F$ against the licensor, EP is sent off to Spell-Out → not pronounced.
3 THE ANALYSIS OF DUTCH MCE: DELETION

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

(33) $E_{\text{MCE}}$

(34)

Note: ① Voice° is distinguished from v° here (see Merchant 2007, to appear a; Baltin 2007).
② Voice° is the clause-internal phase head rather than v° (see Baltin 2007).
**Step 2**: merger of $T^\circ$ and projection of TP

→ The subject moves to [Spec,TP] because of an [EPP] feature on $T^\circ$ (via [Spec,VoiceP])

(37)

**Step 3**: merger of the licensing head $V^\circ$

→ The uninterpretable V-feature on E is checked against the [V [deon]] category feature of $V^\circ$ via Agree. This activates the E and sends EP off to Spell-Out for non-pronunciation.

(38)

• **Note**: From its position in [Spec,TP] the subject is free to undergo further operations → $A'$-extraction of the subject = allowed.
3.2 *Wh-object extraction = ungrammatical*

(39) *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.

(40)

**Step 2: merger of T° and projection of TP**

→ The subject moves to [Spec,TP].

(41)

**Step 3: merger of the licensing head V°**

→ The uninterpretable V-feature on E is checked against the [V [deon]] category feature of V° via Agree.
  This activates the E and sends EP off to Spell-Out for non-pronunciation.
→ The wh-object is stuck in the ellipsis site.
Step 4: merger of TP and CP

→ The modal first moves to $T^\circ$ and then to $C^\circ$
  The subject moves to the higher [Spec,TP]
  $C^\circ$ bears an uninterpretable [wh]-feature, but cannot attract the wh-object anymore
to check it.
→ The derivation crashes

3.3 Object scrambling = ungrammatical

(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.’
• The object normally scrambles from [Spec, VoiceP] 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:

(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.’

② Negation sits in the higher 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.’

⇒ Object scrambling goes to a position in the higher clause as well:

• However: Ellipsis takes place before the object can move out of the ellipsis site.

⇒ Analysis of an elliptical sentence:

(48) 

⇒ Only subjects survive Dutch MCE, because they move out of the ellipsis site to a position in between the ellipsis site and the ellipsis licensing head.
4 Dutch Modal Complement Ellipsis Compared to English VPE

4.1 English VPE

- In English VPE, both objects and subjects can be extracted out of the ellipsis site (cf. Schuyler 2002, Merchant to appear b).

  ① Object extraction:

  (49) a. What is Tom going to buy? – I don’t know. **What** should he [buy __]?
     b. Mina rolled up a newspaper and Tom did a magazine [roll up __ magaziner]

  ② Subject extraction:

  (50) a. I know Peter can’t come to my talk, but **who** can [come __ to my talk]?
     b. Mina wasn’t arrested, but she should be [arrested __].

→ Why this contrast with Dutch?

English: ① The head licensing English VPE is the modal or auxiliary in T° (see above).


(51)

\[
E_{VPE} \quad \begin{array}{c}
\text{CAT} \quad [v] \\
\text{INFL} \quad [\text{aT}] \\
\text{SEL} \quad [v]
\end{array}
\]

Evidence for Dutch deleting more than English: the passive auxiliary is deleted in Dutch, but not (necessarily) in English.

(52) a. Deze broek wordt best niet gewassen, maar die rok mag wel (* worden).

  → 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.

  • Derivation of (49)a:

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

Step 1: EP

→ E° selects a vP as its complement.

(54)
**Step 2:** merger of the phase head Voice° and projection of VoiceP

\[ \text{Voice° attracts the subject and the wh-object to the phase edge.} \]

\[(55)\]

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

\[ \text{The subject moves to [Spec,TP].} \]
\[ \text{The uninterpretable T-feature on E is checked against T°'s category feature via Agree.} \]
\[ \text{This activates the E and sends EP off to Spell-Out for non-pronunciation.} \]

\[(56)\]

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

\[ \text{The wh-object moves to [Spec,CP] to check C°'s [uwh].} \]
\[ \text{The auxiliary moves to C°.} \]
4.2 Summary

Core of the analysis: The projection(s) between the elided constituent and the licensing head play(s) a crucial role in extraction (im)possibilities out of the ellipsis site.

English VPE: The intervening projection VoiceP is a phase.
  ➔ Movement to the phase edge prior to ellipsis provides an escape hatch.

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

English:

Dutch:

➔ Both subjects and objects can survive English VPE 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°.
5 OTHER ELLIPTICAL CONSTRUCTIONS AND FURTHER RESEARCH

5.1 TP ellipsis: sluicing, stripping, fragment answers

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.

\[ \text{Sluicing instantiates such a case.} \]

- Sluicing allows extraction of both objects and subjects:

\( (58) \)

\begin{align*}
\text{a. I saw something, but I don’t know what} & \quad [\text{TP I saw that something}] \\
\text{b. Someone stole my bike, but I don’t know who} & \quad [\text{TP someone stole my bike}] \\
\end{align*}

\[ \text{Because the movement of the wh-element and the checking of the [uE]-feature happen simultaneously, the wh-element survives the ellipsis.} \]

2 Stripping

\( (61) \) I gave MINA a present, but not THOMAS [\text{I gave to MINA a present}].

\[ \text{Analysis:} \]

- There is a NegP dominating CP and Neg° 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 (in this analysis).

\[ E_{STR} \]

\[ \begin{array}{c}
\text{CAT} \\
\text{INFL} [\text{uNeg}] \\
\text{SEL} [\text{T}] \\
\end{array} \]

\[ \text{(62) (63) The remnant constituent moves to a position between the licensing head Neg° and the ellipsis site TP and therefore survives the ellipsis.} \]
Fragment answers

(64) A: Who did you give a present? – B: Mina \( [\text{I gave } \text{Mina a present}] \).

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

(65) \[
\begin{array}{c}
\text{CAT} \\
\text{INFL} \\
\text{SEL} \\
\end{array}
\begin{array}{c}
[T_e] \\
[u^C] \\
[T] \\
\end{array}
\]

(66) \[
\begin{array}{c}
\text{DP} \\
[j\text{Foc}] \\
\end{array}
\begin{array}{c}
\text{CP} \\
\end{array}
\begin{array}{c}
\text{C'} \\
\text{E'} \\
\text{TP} \\
\end{array}
\]

\rightarrow deletion at PF

\rightarrow The remnant constituent moves to the specifier of the ellipsis licensing head and therefore survives the ellipsis.

British English \textit{do} (Baltin 2007)

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

\bullet BE \textit{do} does not allow object extraction, but subjects can move out of the ellipsis site:

(68) a.* Although I don’t know who Tom will visit, I do know \textbf{who} Lara will do.
    b. The river will freeze solid and \textit{the lake} will do too.

\rightarrow Analysis:
- \( v^\circ \) \textit{do} is the licensing head (Baltin 2007).
- VP is the constituent that is elided (Baltin 2007) \rightarrow \( E \) selects VP.
- \( v^\circ \) is not a phase head (Baltin 2007).
- Subjects are either base-generated in [Spec,vP] or move there (derived subjects).

(69) \[
\begin{array}{c}
\text{CAT} \\
\text{INFL} \\
\text{SEL} \\
\end{array}
\begin{array}{c}
[V_e^\circ] \\
[u^V \{\text{do}\}] \\
[V] \\
\end{array}
\]

(70) \[
\begin{array}{c}
\text{DP}_1 \\
\text{Bill} \\
\end{array}
\begin{array}{c}
vP \\
\text{\textit{do}} \\
\end{array}
\begin{array}{c}
v^\circ \\
\text{E'} \\
\text{TP} \\
\end{array}
\]

\rightarrow deletion at PF

\rightarrow Vices are either base-generated in [Spec,vP] or move there (derived subjects).
5.2 Further research

- Now we have all these different (lexical entries of) E heads, for the different elliptical constructions in different languages.

  > How can these different E’s be explained? How are they related to each other?

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

  - Does this analysis work for all other ellipsis cases that have been analyzed as deletion, such as pseudogapping (Merchant 2007, to appear a), gapping and NP ellipsis?

- Does this analysis work for ellipsis cases that have been analyzed as a null proform, such as clausal complement deletion (Kennedy & Merchant 2000) and null complement anaphora (Depiante 2000)?

- Licensing of ellipsis via Agree should be subject to the same restrictions as other cases of Agree, such as intervention effects.  → I will test this in the near future.

→ Towards a unified analysis of ellipsis?

6 CONCLUSIONS

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

- Ellipsis is non-pronunciation at PF (cf. Gengel 2006), triggered by Agree between the licensing head and an E-feature bundle. This E selects the ellipsis site as its complement and is sent off to Spell-Out after checking of its INFL feature by the licensing head.

- 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 between the licensing head and the ellipsis site and the specifier of the licensing head itself are possible escape hatches.
REFERENCES


