What ellipsis can do for phases and what it can’t, but not how

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What ellipsis can do for phases and what it can’t, but not how

1. Introduction: Phases and ellipsis
2. Extraction contrasts casting doubt
3. One step beyond
4. Testing the waters: implementation
5. Conclusion
Phases and ellipsis (1)

Chomsky (1995, 2000, 2001, 2005): clauses consist of several derivational domains, which are the complements to what he calls phase heads.

Merger of phase head $\rightarrow$ complement sent to PF (Spell-Out)

+ Phase Impenetrability Condition (Chomsky 2000: 108):

In phase $\alpha$ with head $H$, the domain of $H$ is not accessible to operations outside $\alpha$, only $H$ and its edge are accessible to such operations.
Phases and ellipsis (2)

Revised PIC (Chomsky 2001): a phasal domain is accessible to syntax until the next phase head is merged.

= merger of a phase head triggers the domain of the previous phase head to be sent to PF.

→ Movement happens cyclically, through intermediate phase edges, to avoid being sent to Spell-Out prematurely and being frozen for syntactic operations.
Phases and ellipsis (3)

Tempting to see ellipsis as special kind of Spell-Out:

What is targeted by ellipsis is always the phasal domain (complement of phase head)

Phases and ellipsis (4)

Both ellipsis and Phase Theory affect the spell-out of certain domains and rely on the merger/presence of a specific trigger.

- Ellipsis: licensing head
- Phases: phase head

Suppose that ellipsis is always licensed by phase heads.
- Take XP to be a phasal domain. When phase head Y is merged, XP is sent to PF and has a choice of being pronounced or not.
Phases and ellipsis (5)

\[ \text{YP} \]
\[ \text{Y} \]
\[ \text{XP} \]
\[ \text{PH} \]

pronunciation at PF

non-pronunciation at PF = ellipsis

→ Ellipsis = flipside of spell-out: phasal domain is sent to PF after merger of the phase head, for either spell-out or non-spell-out.
Phases and ellipsis (6)

→ Elegant approaches towards VP ellipsis and sluicing:
  
  VPE elides VP complement of the v phase head
  Sluicing elides TP complement of the C phase head

→ Gallego (2009): we only need to postulate one set of heads with an effect on PF. The E-feature (Merchant 2001) would be intrinsic to phase heads.
Phases and ellipsis (7)

Some of the problems:
1. Ellipsis sites differ depending on the phenomenon:
   VPE elides more than British English *do* (Baltin 2007, Aelbrecht 2010)
   Pseudogapping elides more than VPE (Merchant 2007 and his discussion of Voice mismatches)

→ Solution: dynamic phases/Phase sliding?
Phases and ellipsis (8)

2. Extraction differences between ellipsis and non-ellipsis

→ Some phrases can move in non-ellipsis but are not allowed to be extracted out of an ellipsis site.

= unexpected if ellipsis is simply the non-spell-out of a phasal domain: if an element can move out of a phase in non-ellipsis, why can’t it in ellipsis?
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Extraction contrasts casting doubt

A. The data: Dutch modal complement ellipsis (MCE)
B. A way out of the paradox
C. Back to phases and ellipsis
Extraction contrasts casting doubt: The data (1)

A. The data: Dutch modal complement ellipsis (MCE)

(1) Ik wil naar je optreden komen, maar ik kan niet [naar
      I want to your gig come but I can not to
je—optreden komen].

 your gig come

‘I want to come to your gig, but I can’t.’
Extraction contrasts casting doubt: The data (2)

Only with (deontic) modals, not with aspectual auxiliaries:

(2) a.* Hij zei dat hij naar de winkel was gegaan, maar hij was niet
    he said that he to the shop was gone but he was not
    [naar de winkel gegaan].
    to the shop gone
    ‘He said he had gone to the shop, but he hadn’t.’

b.* Ik dacht dat hij gehuild had, maar hij had niet [gehuild].
    I thought that he cried had but he had not cried
    ‘I thought he had cried, but he hadn’t.’
Extraction contrasts casting doubt: The data (3)

Analysis for Dutch MCE (Aelbrecht 2010):
Deletion of syntactic structure or null proform?

→ Extraction test: if an element can be extracted from the ellipsis site, there has to be enough syntactic structure present to accommodate the base position of that element.

! Dutch MCE: paradoxical results

Object extraction is disallowed → proform analysis?
Subject extraction is fine → deletion analysis?
Extraction contrasts casting doubt: The data (4)

No object extraction:

(3) * Ik weet wie Thomas MOET uitnodigen, maar ik weet niet

   I know who Thomas must invite but I know not

   wie hij niet MAG.

   who he not is allowed

   ‘I know who Thomas has to invite, but I don’t know who he isn’t allowed to.’
Extraction contrasts casting doubt: The data (5)

Subject extraction?
(Dutch) deontic modals are raising verbs (Vanden Wyngaerd 1994; Barbiers 1995; Bhatt 1998 and Wurmbrand 2003)

(4) Denk je dat het vannacht gaat regenen? – Het moet/ het mag niet!

‘Do you think it’s going to rain tonight? – It has to/It can’t!’

→ Subject is base-generated inside the modal complement clause.
Extraction contrasts casting doubt: The data (6)

(5) Sanne moet morgen optreden.
Sanne has.to tomorrow perform
‘Sanne has to perform tomorrow.’
= Sanne moet [TP morgen t_{Sanne} optreden]

(I take the modal complement to be a TP, see Aelbrecht 2010 for arguments.)
Extraction contrasts casting doubt: The data (7)

→ Subject of MCE has been extracted from ellipsis site:

(6) a. Ik wil naar je optreden komen, maar ik **kan** niet [naar je **I want to** your gig **come** but I **can not to** your optreden **t**].
    gig come
b. De rok kan al **worden gewassen**, maar de **bloes** moet **the skirt can already become washed** but **the blouse has to** nog niet [**worden t**].
    still not become washed

‘The skirt can be washed already, but the blouse doesn’t need to be yet.’
Extraction contrasts casting doubt: The data (8)

No object extraction in Dutch MCE
   → Null proform analysis?

Subject is extracted from inside the ellipsis site
   → Deletion of syntactic structure?

= paradox

(Same paradox occurs in British English *do*, see Baltin 2007; Aelbrecht 2010)
Extraction contrasts casting doubt: The data (9)

Puzzle: proform or deletion?

→ Deletion approach (Aelbrecht 2010)
→ Ban on object extraction is due to the timing of ellipsis

Next section: A way out of the paradox with a different theory of ellipsis licensing
Extraction contrasts casting doubt

A. The data: Dutch modal complement ellipsis (MCE)
B. A way out of the paradox
C. Back to phases and ellipsis
Extraction contrasts casting doubt: A way out (1)

B. A way out of the paradox: Derivational ellipsis

Aelbrecht 2010: Ellipsis licensing

(i) Ellipsis is licensed via an Agree relation with a licensing head that is not necessarily adjacent to the ellipsis site.

(ii) Ellipsis happens in the course of the derivation, as soon as the licensor is merged and establishes the Agree relation.
Extraction contrasts casting doubt: A way out (2)

(i) Ellipsis is licensed via an Agree relation with a licensing head that is not necessarily adjacent to the ellipsis site.

Assumptions:

- Ellipsis is licensed by a licensing head

- I adopt Merchant’s E-feature, which marks the complement of the head it occurs on for non-pronunciation at PF.
Extraction contrasts casting doubt: A way out (3)

Merchant’s E-feature implies that the licensor (with the E-feature) and the ellipsis site always stand in a head-complement relation to one another.

! Aelbrecht (2010): There can be material between the two.

→ Proposal: Ellipsis is licensed via Agree

  = Slight adaptation of Merchant’s approach so that the licensor and ellipsis site do not have to be adjacent.
Extraction contrasts casting doubt: A way out (4)

→ Agree relation between the licensor L and the E-feature on the head X selecting the ellipsis site YP.

→ Checking E marks YP for non-pronunciation.

= non-adjacent licensor and ellipsis site
Extraction contrasts casting doubt: A way out (5)

(ii) Ellipsis happens in the course of the derivation.
    = Derivational ellipsis

Ellipsis happens as soon as the licensor is merged and establishes the Agree relation.

The ellipsis site is sent to PF, marked for non-pronunciation, and from that point is unavailable for syntactic operations.
Extraction contrasts casting doubt: A way out (6)

= Solution to extraction puzzle:

An element can move out of the ellipsis site until the licensor is introduced, but not after that.

Only elements with landing sites between the licensor and the elided part (or spec of licensor) can escape ellipsis.
Extraction contrasts casting doubt: A way out (7)
Extraction contrasts casting doubt: A way out (8)

Back to Dutch MCE: in a nutshell...

- Only with modal verbs → modal is licensor
- Modal complement is a TP
- Ellipsis site is the complement of T: aspectual auxiliaries are elided, but not the material in the embedded T projection

(For details and argumentation, see Aelbrecht 2010)
Extraction contrasts casting doubt: A way out (9)

→ modal is licensor
→ establishes Agree relationship with E-feature on embedded T
→ complement of T is sent to PF
Extraction contrasts casting doubt: A way out (10)

This captures the extraction puzzle:

- subject moves to embedded SpecTP, below licensor
- object has no intermediate landing site and cannot move out
Extraction contrasts casting doubt

A. The data: Dutch modal complement ellipsis (MCE)
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Extraction contrasts casting doubt: Back to phases and ellipsis (1)

Derivational ellipsis = reminiscent of approach that takes ellipsis to be the flipside of phasal spell-out:

If ellipsis – sending something to PF for non-pronunciation – occurs during the derivation, it seems logical that it would target the chunks of structure that are sent to PF at certain points anyway (i.e., phasal domains).
Extraction contrasts casting doubt: Back to phases and ellipsis (2)

Combining that with Agree:

E-feature occurs on phase heads and we adopt the revised PIC: the higher phase head sends the phasal domain of the lower phase head to PF.

→ no obligatory adjacency between licensor and constituent sent to PF
Extraction contrasts casting doubt: Back to phases and ellipsis (3)

! We would miss something crucial in the data:
The object cannot move out of the MCE ellipsis site.

(7) * Ik weet wie Thomas MOET uitnodigen, maar ik weet niet
I know who Thomas must invite but I know not
wie hij niet MAG.
who he not is allowed
‘I know who Thomas has to invite, but I don’t know who he isn’t allowed to.’
Extraction contrasts casting doubt: Back to phases and ellipsis (4)

Crucially, this object movement is fine without ellipsis.

(8) Ik weet wie Thomas MOET uitnodigen, maar ik weet niet
    I know who Thomas must invite but I know not
    wie hij niet MAG uitnodigen.
    who he not is.allowed invite

‘I know who Thomas has to invite, but I don’t know who he isn’t allowed to.’
Extraction contrasts casting doubt: Back to phases and ellipsis (5)

→ Wh-movement that is impossible under ellipsis is fine when the extraction site is pronounced.

= contrast between ellipsis and non-ellipsis with regards to movement possibilities

! If ellipsis and cyclic spell-out are instantiations of the same process involving phases, these data remain unexplained.
Extraction contrasts casting doubt: Back to phases and ellipsis (6)

Although ellipsis and phases seem closely linked, it is not the case that whenever the appropriate domain is sent to PF, there is a choice between pronunciation or non-pronunciation:

• In non-ellipsis, elements needing to undergo further movement, can move to the phase edge.

• In ellipsis with limited extraction (such as Dutch MCE), this phase edge escape hatch does not seem to be available.

→ The difference between ellipsis and non-ellipsis is not simply decided at PF; there is a difference in the syntax.
Extraction contrasts casting doubt: Back to phases and ellipsis (7)

My proposal (Aelbrecht 2010):
Ellipsis occurs when the licensor is merged.

+ 
A phasal domain is sent to PF when the next phase head is merged (revised PIC).

→ In ellipsis there can be an additional point at which a part of the structure is sent to PF (and frozen for syntax).
Extraction contrasts casting doubt: Back to phases and ellipsis (8)

No ellipsis: Spell-Out triggered by phase heads

Ellipsis: Spell-Out triggered by licensor and by phase heads
Extraction contrasts casting doubt: Back to phases and ellipsis (9)

→ Important implication of the extraction contrast between ellipsis and non-ellipsis:

Ellipsis cannot simply be a side-product of phases, otherwise there would not be any movement differences between spell-out and non-spell-out.

If ellipsis were only non-pronunciation of a phasal complement, the phase edge would be present for any material to move out of the (non-)spell-out domain first.
Extraction contrasts casting doubt: Back to phases and ellipsis (10)

My 2010 proposal destroys the link between phases and ellipsis.

HOWEVER:
The intuition behind the phases and ellipsis approach is worth giving another chance: if both affect spell-out, why not have them target the same part of the structure?

→ Is it possible to ‘rescue’ the phases and ellipsis approach in a way that can also capture the extraction problem?
Extraction contrasts casting doubt: Back to phases and ellipsis (11)

Maybe.

My (new) proposal in the next section:
    Same chunk, not automatically same trigger
    Both operate through Agree relation
What ellipsis can do for phases and what it can’t, but not how

1. Phases and ellipsis
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3. One step beyond: Same chunk, not always same trigger?
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One step beyond: Same chunk, not always same trigger? (1)

Ellipsis as the flipside of phasal Spell-out: no account for limited extraction out of certain ellipsis sites.

What if we adapt this approach to keep the intuitive advantage, but without having to assume that the same chunk of structure is always sent to PF by the same head and that the choice between pronunciation or not is only decided there?

→ No fully worked-out analysis, but at least some food for thought.
One step beyond: Same chunk, not always same trigger? (2)

Proposal:

1. Phasal spell-out and ellipsis target the same chunk: the entire phase.
2. Phasal spell-out and ellipsis do not automatically have the same trigger.
3. Phasal spell-out and ellipsis operate through the same mechanism, Agree, and value the same features, but with a different value.
One step beyond: Same chunk, not always same trigger? (3)

**Ellipsis licensing** in Aelbrecht (2010):
Merger of ellipsis licensing head triggers lower constituent (ellipsis site) to be sent to PF (for non-pronunciation).

**Phase Theory** (with revised PIC):
Merger of a phase head triggers transfer to PF of the lower phasal domain.

(Note: with the original PIC, ellipsis and phases looked alike too, but only if you assume that the licensor and the ellipsis site are always adjacent.)
One step beyond: Same chunk, not always same trigger? (4)

Derivational ellipsis

Derivational spell-out

[Diagram showing derivational ellipsis and spell-out with trees and labels like LP, L, X, YP, etc.]
One step beyond: Same chunk, not always same trigger? (5)

Two points about these abstract structures:

A. The targeted chunks of structure: entire phase
B. The mechanism that triggers these operations: Agree
One step beyond: Same chunk, not always same trigger? (6)

A. The target: entire phase

What if ellipsis and phase theory do target the same chunks of structure?

Now: They both target the complement of a certain head.

→ Does ellipsis target the complement of a phase head?
One step beyond: Same chunk, not always same trigger? (7)

No: If ellipsis targets the phasal complement, the phase edge remains available for all kinds of extraction.

→ We cannot capture the extraction contrast between ellipsis and non-ellipsis.

Proposal: it is the **entire phase** that is sent to PF, not only the complement of the phase head.

(following Fox & Pesetsky 2005; Richards 2011; Fowlie 2010)
One step beyond: Same chunk, not always same trigger? (8)

B. Trigger happy?

Both operations are triggered by merger of a certain head
→ Is the mechanism triggering them the same?

! Ellipsis: (Agree) relationship between licensor and ellipsis site (or head selecting ellipsis site), with E-feature

Phases: No such relationship between the two phase heads (or the higher phase head and the lower domain)

→ Agree relation with Spell-out feature? NO! But...
One step beyond: Same chunk, not always same trigger? (9)

Svenonius (2003/2004):

“a phase is spelled out when all uninterpretable features on its head are checked. For example, if a phase head H has uninterpretable features then HP will not have a coherent interpretation at one or the other interface. Assume that some higher head Z merges and values those features, allowing HP to be spelled out; call Z the trigger. If the trigger also has features that attract XP out of HP, then by assumption this occurs simultaneously with the checking of features on HP, and extraction is possible.” (Svenonius 2003/2004: section 4 – my emphasis)
One step beyond: Same chunk, not always same trigger? (10)

= Revised PIC + Agree relation between phase heads:

Merger of the higher phase head checks the uninterpretable features on the lower one. Once the lower phase head is satisfied, the lower phase is sent to spell-out.

The higher phase head can also come with extra features which at the same time check and attract an XP in the lower phase, thereby allowing for extraction.
One step beyond: Same chunk, not always same trigger? (11)

Feature checking on phase head = parallel to checking in ellipsis?
→ Both phases and ellipsis: sending a chunk to PF, triggered by Agree relation

! Extraction problem:
  Trigger cannot automatically be the same: timing of PF transfer should be able to differ to capture extraction contrast in some elliptical phenomena.

Same chunk (entire phase), not always same trigger
Same mechanism (Agree)
One step beyond: Same chunk, not always same trigger? (12)

Let’s push it even further: the same feature is checked.

Implication: we could do away with the E-feature for ellipsis

E-feature: useful way of providing unified analyses for different elliptical phenomena.

! It would be nice to move past an E-feature specific for ellipsis and find a deeper connection between the element that seems to have to be present for ellipsis (licensor) and the chunk that remains unpronounced (or less ideally, the head selecting that chunk).
One step beyond: Same chunk, not always same trigger? (13)

Proposal:

1. Each phase head bears a phase-specific feature F. Once this feature F is valued, the phase is sent to PF.
2. F can be valued by the higher phase head, and the value can be either ‘spell-out’ or ‘ellipsis’ (as phase heads are also licensors). Only phase heads can assign value ‘spell-out’.
3. Some ellipses are licensed by a non-phase head: this head can value F as well, but only for ‘ellipsis’.
One step beyond: Same chunk, not always same trigger? (14)

- Ellipsis and phase theory target the same chunk of structure.
- Ellipsis and phase theory value the same feature.
- The (potential) difference: head doing the valuing, and therefore the timing of when the chunk is sent to PF.

! Only in cases with extraction contrast!
One step beyond: Same chunk, not always same trigger? (15)

Non-ellipsis/ellipsis:
- ZP
- Z
  - phase head
  - [F: SO/∅]

  ... phasal spell-out
  - XP
    - X
      - YP
      - [F:_]

Ellipsis with extraction contrast:
- ZP
- Z
  - phase head
  - [F: SO]

  ... LP
    - L
      - licensor
      - [F:∅]

  ... ellipse
    - XP
      - X
      - [F:_]
One step beyond: Same chunk, not always same trigger? (16)

Ellipses without extraction contrast (VPE, sluicing...):

Feature is valued by the licensor, which happens to be the next phase head: this head can assign either value ‘spell-out’ or ‘ellipsis’.

This head has extra features to allow for extraction.

_extraction possibilities are the same irrespective of whether the chunk is pronounced or not pronounced.
One step beyond: Same chunk, not always same trigger? (17)

Ellipses with extraction contrast (Dutch MCE, British English *do*):

Feature is valued by a head different from the next phase head. This head (licensor) has only value ‘ellipsis’ to assign to F and lacks the extra features that a phase head has to allow for extraction (Svenonius 2003/2004).

→ Only extraction triggered by features between the ellipsis site and the licensor is possible.
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Testing the waters: implementation (1)

Let’s try to make this a little bit more concrete…

- Clause is divided into several layers:
  
  predicate/thematic part
  
  referential layer (places predicate in space and time)
  
  information-structural/clause-typing layer
  
  = vP – FinP layer – CP layer
  
  (see Grohmann’s 2003 *prolific domains*)

- These three layers are phases (see also Fowlie 2010)
Testing the waters: implementation (2)

- Highest head of each chunk has to establish a relationship with the highest head of the chunk below it, to connect them to each other, by valuing a feature F on the lower head.

  ➔ Highest C values a feature F on Fin
  Fin values a (different) feature F on v

**Note:** One has to assume that FinP is a phase (Branigan 2005; López 2009; Van Craenenbroeck & Van Koppen 2012)

- Once this relationship is established – through valuation of F – the lower phase head is satisfied and the phase is sent to PF.
Testing the waters: implementation (3)

Applied to English VPE:

VPE is licensed by Fin head and leaves the predicate chunk unpronounced (see Aelbrecht & Harwood 2012).

→ The same chunk is sent to PF by the same trigger in ellipsis and non-ellipsis.

→ Verb phrase can either be pronounced or not pronounced (in the presence of salient antecedent) and there are no extraction differences.
Testing the waters: implementation (4)

!! How about languages without VPE?
→ Their Fin is a phase head too, but not a licensor, and can only assign value ‘spell-out’ to the F on v.
Testing the waters: implementation (5)

**Applied to sluicing** (FinP ellipsis)

FinP ellipsis is licensed by C head and leaves the referential chunk unpronounced.

→ The same chunk is sent to PF by the same trigger in ellipsis and non-ellipsis and there are no extraction differences.

! Of course we still need to formalise this relationship.
Testing the waters: implementation (6)

→ I assume that this F on Fin is a different feature from the one on v, but as for now I choose to remain vague on what these features are.
Testing the waters: implementation (7)

Applied to Dutch MCE (and other cases with extraction contrast)

Licensor is not the next phase head, but a head which can also value feature F on the lower phase head, with value ‘ellipsis’.

MCE: Modal is an ellipsis licensor and can value the feature F on the thematic layer with value ‘ellipsis’.

In non-ellipsis, the higher phase head (Matrix Fin) establishes the relationship and allows for extraction.
Testing the waters: implementation (8)
Testing the waters: implementation (9)

! This idea needs to be worked out properly:

Look at phase heads and phases
Look at licensors and ellipsis sites
Look at what the relationship could be between the highest heads of the different structural chunks

⇒ Further research?
Testing the waters: implementation (10)

= **first tentative step** towards ellipsis without E-feature? Not really:

- If certain heads can also value F, but only for ‘ellipsis’, is this not the same as the E-feature, but as the E-value?
- Which heads are licensors? How do we regulate which heads can value F for ‘ellipsis’? It cannot only be phase heads...
- What happens in non-ellipsis with Dutch modals? The modal cannot value the F feature?

= back to E feature
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Conclusion

• Ellipsis and phases: intuitively attractive view, but problem with extraction contrast!

Proposal:

• Ellipsis and phases target the same chunk (entire phase).
• Ellipsis and phases are both triggered by an Agree relationship.
• Ellipsis is triggered by licensing heads, spell-out by phase heads, but most licensors are phase heads. If the licensor is not a phase head, extraction contrasts can arise.
Thank you for your attention!
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