

## Ellipsis is not Spell-out

### What Scandinavian tells us about ellipsis and phases

Nicholas LaCara · University of Massachusetts Amherst

Grasping Ellipsis · 5 May 2015

#### 1 Introduction

Many languages, such as Portuguese (and Irish, and Hebrew, and Russian) typically show verb stranding verb phrase ellipsis (VVPE):

- (1) Quando a Ana pôs os óculos na mesa, a Maria também  
When the Ana put.PST the glasses on.the table, the Maria too  
pôs Δ.  
put.PST  
'When Ana put the glasses on the table, the Maria did too.'  
*Portuguese* (Cyrino and Matos 2002:(14a))

Following Goldberg (2005), the typical analysis is that a verb moves to a position outside of the ellipsis site.

- This is the interaction of verb movement and verb phrase ellipsis (VPE).

- (2) [TP a Maria também pôs [VP por os óculos na mesa] ]  
↑

A surprising fact is that Mainland Scandinavian languages do not have VVPE.

- Verbs move out of vP to C° in matrix clauses, and it has VPE.

- (3) Mona vaskede ikke bilen men Jasper gjorde / \*vaskede Δ.  
Mona wash.PST not car.DEF, but Jasper do.PST / wash.PST  
'Mona didn't wash the car but Jasper did.' *Danish* (Houser et al. 2006:(5))

This talk evaluates two approaches to limited extraction from ellipsis sites.

##### 1. *The Derivational Approach:*

Derivational approaches to ellipsis propose that licensing heads trigger ellipsis during the syntactic derivation. Ellipsis sites are frozen for syntactic operations.

##### 2. *The Phase-based Approach:*

Phase-based approaches propose that ellipsis and cyclic spell-out are directly linked. Freezing effects are derived by the phase impenetrability condition.

I will defend the derivational approach as articulated by Sailor (2014).

- Aelbrecht's (2010) derivational account of ellipsis actually predicts which languages will have VVPE without any modification.
- Regardless of whether ellipsis targets phase-head complements or whole phases, phase-based approaches need additional stipulations to get the facts straight.

#### Roadmap:

##### §2 How to strand a verb

Why the Goldberg view to verb stranding predicts Scandinavian should have verb stranding.

##### §3 Derivational ellipsis

The derivational approach to ellipsis, and how it accounts for the lack of stranding in Scandinavian but permits it in others.

##### §4 Phase-based ellipsis

Two approaches to phase-based ellipsis, and some of the issues they raise.

##### §5 Conclusion

Final thoughts

## 2 How to strand a verb

For verb stranding verb-phrase ellipsis to occur, there are two requirements (Goldberg 2005).<sup>1</sup>

- i. The language must have verb movement out of the verb phrase.
- ii. The language must have VPE.

In this section, I briefly review verb movement and verb phrase ellipsis in a number of relevant languages.

- I start with an overview of how we know verbs move in Scandinavian.
- I then turn to some relevant properties of VPE.
- Languages with vvPE have both vPE and verb-movement, so Scandinavian poses a problem.

### 2.1 Verb Movement

There are a couple relevant ways to tell whether verbs have undergone movement.

- Position of the verb relative to adverbs/negation.
- Position of subjects relative to the verb.

This lets us determine where the verb sits on the surface.

- The assumption is that negation and certain adverbs sit between T° and v°.
- When verbs appear to left of these adverbs or negation, verb movement must have occurred. (Vikner 1995)

(4) Peter (\*drinks) [<sub>VP</sub> often (drinks) coffee].  
Peter (drikker) [<sub>VP</sub> ofte (\*drikker) kaffe]. *Danish*

- Verbs are to the right of vP adverbs in English: No movement.

- Verbs are to the left of vP adverbs in Scandinavian: Verb-movement

The destination of verb movement may vary from language to language.

- v°:  
English, Mainland Scandinavian embedded clauses
- T°:  
Hebrew (Doron 1983), Irish (McCloskey 2011), Portuguese (Silva 2001)
- Asp°:  
Russian (Bailyn 1995, Gribanova 2013)
- C°:  
Germanic (matrix clauses) (Vikner 1995)

Additionally, I adopt the common assumption that the verb does not move to T° in Scandinavian unless it also moves to C° (Vikner 1995, Westergaard 2009).<sup>2</sup>

- This means that only C° triggers movement of the verb out of vP.
- There is no V°-to-T° movement.

Preview: The idea that verbs always move to C° in Scandinavian matrix clauses is an important part of this analysis.

- The languages that have vvPE appear to have movement to a position above v° and below C°.
- For more on movement of the verb in Germanic, see Appendix A.

<sup>1</sup> Other elements can be stranded – for example, auxiliaries. These do not clearly originate inside the ellipsis site. What makes verb-stranding remarkable is that an element originating inside the ellipsis site is stranded, what Sailor (2014) calls X-STRANDING XP-ELLIPSIS.

<sup>2</sup> This is not a universally held view; see Mikkelsen 2010, Thráinsson 1994, Travis 1984. It is also the case that some dialects appear to have movement to T°. However, there appear to be no cases of a dialect with both V°-to-T° movement and VPE (Sailor 2014).

## 2.2 Verb phrase ellipsis

VPE targets a constituent roughly the size of a verb phrase.

- Regularly strands auxiliaries and modals.<sup>3</sup>
- Adjuncts to verb phrases may also escape ellipsis.

- (5) Ashley hasn't gone to Tromsø, but Lindsay has  $\nu$ P-.
- (6) Ele perguntou quem tinha comido o bolo, e ela perguntou quem  
He asked who had eaten the cake and she asked who  
não tinha  $\nu$ P-.  
not had  
'He asked who had eaten the cake, and she asked who had not eaten the  
cake.'  
*Portuguese* (Cyrino and Matos 2002:(22b))
- (7) Johan har inte läst *Lolita*, men Kalle har  $\nu$ P-.  
Johan has not read *Lolita*, but Kalle has  
'Johan has not read *Lolita*, but Kalle has read *Lolita*.'  
*Swedish* (Thoms 2012)

This tells us the upper bound of the operation.

- In general,  $\nu$ P appears to be the target (Aelbrecht 2010, Merchant 2013).<sup>4</sup> This is a point I will defend.
- The crucial thing here is that VPE targets the phrase in which the verb originates. We will only be concerned here with cases where verbs might escape the ellipsis site.<sup>5</sup>

I assume that ellipsis sites contain unpronounced syntactic structure (Goldberg 2005, Merchant 2001, Schuyler 2001).

- This accounts for the fact that it is possible to extract material out of ellipsis sites by movement:

- (8) I don't know which puppy you will buy, but I know which one<sub>i</sub> you should buy  $t_i$ .
- As in English, extraction out of ellipsis sites in Scandinavian languages appears to be possible.
- (9) Hvilke kaker vil du bake, og [hvilke kaker]<sub>i</sub> vil du ikke bake  $t_i$ ?  
which cakes will you bake, and which cakes will you not bake  
'Which cakes do you want to bake, and which cakes don't you?' *Norwegian* (Bentzen et al. 2013)
- (10) ?Jeg ved ikke hvad for en hund SUSAN har valgt, men jeg ved [hvad I know not what for a dog Susan has chosen but I know what for en]<sub>k</sub> MARIE har valgt  $t_k$ .  
for a/one Marie has chosen.  
'I don't know what kind of dog Susan has picked, but I know what kind Marie has.'<sup>6</sup> *Danish* (L. Mikkelsen, p.c.)

- Scandinavian has an ellipsis process that targets verb phrases.
- It is generally possible to extract out of ellipsis sites, indicating that there is internal structure to the site (cf. Houser et al. 2011).

<sup>3</sup> It is possible to elide some auxiliaries (Lasnik 1995, Potsdam 1997, Warner 1985); in English, both auxiliary and passive *be* may be elided, whereas auxiliary *have* must usually be stranded.

<sup>4</sup> There is purported variation. Some operations, like pseudogapping, might target larger chunks of material (Merchant 2013).

<sup>5</sup> Verbs can be stranded under auxiliaries, though not always. Determining in which positions this is possible introduces a number of difficult complications, including which heads license ellipsis and where the phase boundary is in the middle field, so I constrain the discussion to cases without auxiliaries.

<sup>6</sup> Mikkelsen reports that her informant's judgment came with the following comment: "I would give it a single question mark. I actually think I can do this, but I have to stop myself from adding a main verb. I think it passes, but a little marked."

### 2.3 Summary: Putting it together

We have seen that Goldberg's conditions on VVPE are met in Scandinavian.

- i. Scandinavian languages have verb movement out of the verb phrase.
- ii. Scandinavian languages have VPE out of which material may be extracted.

Despite this, VVPE does not occur in Scandinavian. *Do*-support occurs instead.<sup>7</sup>

- (11) a. Mona og Jasper vaskede bilen, eller rettere Mona gjorde vP.  
Mona and Jasper wash.PST car.DEF, or rather Mona do.PST  
'Mona and Jasper washed the car, or rather Mona did.'  
*Danish* (Houser et al. 2011:(10))
- b. Johan leste ikke *Lolita*, men Marie gjorde.  
Johan read not *Lolita*, but Marie did.  
'Johan didn't read *Lolita*, but Marie did.'  
*Norwegian* (Sailor 2014:(8b))

The question now is: Why?

- In the next two sections I look at theories of ellipsis that are designed in part to capture the limited ability to extract out of some ellipsis sites.

## 3 Derivational ellipsis

In light of the fact that not all extractions out of ellipsis sites are possible, derivational accounts of ellipsis posit that ellipsis freezes ellipsis sites (Aelbrecht 2010, Baltin 2011).

<sup>7</sup> Platzack (2012) reports that ellipsis with *göra* in Swedish is ungrammatical, unlike in Danish and Norwegian. Instead, speakers must use the verbal pro-form *det*:

- (i) Maria körde inte bilen, men Johan gjorde \*(det).  
Maria drove not car.DEF but Johan did it  
'Maria didn't drive the car, but Johan did.'

Why this is the case is mysterious, but it remains the case that VVPE is still predicted to occur in Swedish when it does not. For more on *det*, see Houser et al. 2007, 2011 and Bentzen et al. 2013.

<sup>8</sup> This is under the assumption that all operations triggered by a head happen simultaneously, allowing ellipsis and head movement to happen at the same time (Aelbrecht 2010:109, n.23).

Two main assumptions:

1. Ellipsis happens over the course of a derivation.
2. As soon as ellipsis occurs, the ellipsis site becomes frozen for further syntactic operations, blocking further movement out of the ellipsis sites.

Sailor (2014) argues that Aelbrecht's (2010) approach accounts for the lack of VVPE in Scandinavian straightforwardly.

- Verbs become frozen in ellipsis sites before they can move to C°.
- Languages that have V°-to-T° movement will still display VVPE.

In this section, I will demonstrate that the Aelbrecht/Sailor approach predicts the correct distribution of VVPE across languages based on independent facts about head movement in those languages.

### 3.1 Extraction from ellipsis sites

Let us assume a slightly simplified version of Aelbrecht's (2010) approach to ellipsis licensing.

1. When a licensing head L° merges, the constituent XP targeted for deletion is frozen immediately. No further syntactic operations are possible.
2. Any material that moves to a position outside XP before or when L° merges will escape ellipsis and be free for further operations;<sup>8</sup> any material inside XP will be elided and will not be available for further syntactic operations.

The typical assumption here is that T° licenses VPE.

- Thus, when T° merges, the material in vP will delete immediately.
- Since the verb remains in vP in English, there is no VVPE.

- (12) John didn't put the books on the table, but Mary did.
- Step 1 – Build vP:  
[<sub>vP</sub> Mary put+v° [the books [put on the table]]]
  - Step 2 – Merge T°; Attract subject; Elide vP:  
[<sub>TP</sub> Mary [T° [<sub>vP</sub> Mary put+v° [the books [put on the table]]]]]

There's nothing in T° here, so *do*-insertion must occur to fill T°.

### 3.2 Verb stranding vPE

Verb stranding may occur in languages with independent movement to T° or Asp° on the assumption that T° licenses vPE.

- Assume that head movement happens in Syntax (Hartman 2011, Matushansky 2006, Roberts 2010).
- T° or Asp° triggers verb movement: Heads will move to those positions when those heads merge.
- T° licenses ellipsis of vP, so it will attract the verb just in time.

- (13) Quando a Ana pôs os óculos na mesa, a Maria também  
When the Ana put.PST the glasses on.the table, the Maria too  
pôs.  
put.PST  
'When Ana put the glasses on the table, the Maria did too.'
- Step 1 – Build vP:  
[<sub>vP</sub> pôr+v° [os óculos [pôr na mesa]]]
  - Step 2 – Merge T°; Attract subject,verb; delete vP:  
[<sub>TP</sub> a Maria também pôr+v°+T° [~~<sub>vP</sub> a Maria pôr+v° [os óculos [pôr na mesa]]~~]]]

### 3.3 Scandinavian

Verb stranding in vPE contexts in mainland Scandinavian fails because the verb is attracted to C° after vPE is triggered.

- One extra step: C° merges, triggering verb movement in Scandinavian.

- T° licenses ellipsis of vP before C° merges, so the main verb will be frozen in the ellipsis site.
- Do*-support rescues the material moved to C° (Platzack 2012).

- (14) Mona vaskede ikke bilen men Jasper gjorde vP.  
Mona wash.PST not car.DEF, but Jasper do.PST  
'Mona didn't wash the car but Jasper did.' *Danish*
- Step 1 – Build vP:  
[<sub>vP</sub> Jasper vaske+v° [vaske bilen]]
  - Step 2 – Merge T°; Attract subject; Delete vP:  
[<sub>TP</sub> Jasper T°<sub>[PST]</sub> [~~<sub>vP</sub> Jasper vaske+v° [vaske bilen]]~~]]
  - Step 3 – Merge C°; Attract subject, T°:  
[<sub>CP</sub> Jasper T°+C° [<sub>TP</sub> Jasper T° [~~<sub>vP</sub> Jasper vaske+v° [vaske bilen]]]]]~~

Of interest here: At Step 2, Scandinavian and English look exactly the same.

- The difference between them reduces to Scandinavian being a V2 language that requires a filled C°, but this is irrelevant to ellipsis.

### 3.4 Summary

This approach relies on two ideas:

- A derivational freezing account of ellipsis:*  
Material in an ellipsis site is frozen for further syntactic operations during the course of the syntactic derivation.
- Syntactic head movement:*  
Head movement is triggered in the syntax, and the different triggers result in timing differences.

Important fact: The derivations proceed identically.

- The derivation is intrinsically ordered by the merger of syntactic heads.
- The differences between languages are the result of independently motivated facts about verb movement in those languages.
- We do not need to stipulate any further differences between languages.

## 4 Phases

Another approach to blocking movement out of ellipsis sites is linking ellipsis to phases and Spell out.

- The idea, following Holmberg (2001), is that an ellipsis site is coterminous with a Phase or a Spell-Out domain.
- A lot of recent work on this approach (including Bošković 2014, Gengel 2007, Harwood 2013, Rouveret 2012).

Indeed, the idea of freezing material for further syntactic operations bears considerable resemblance to Phasal spell out (Aelbrecht 2010, 2014).

- Following Chomsky's (2000, 2001) PHASE IMPENETRABILITY CONDITION, material that has been spelled out is no longer accessible for syntactic computation.
- If ellipsis sites are phases, then the apparent frozenness of ellipsis sites under Aelbrecht's approach is derived.

Aelbrecht (2010) argues against this on the basis that not all predicted extraction possibilities are attested.

- If ellipsis sites are identified with phases, then extraction possibilities out of ellipsis sites and phases should be the same, all else being equal.

Scandinavian provides further evidence against this view.

- There are two different approaches:
  1. *Phase-head complement ellipsis* (PCE):  
Only the complement of a phase head can be targeted for ellipsis.
  2. *Whole phase ellipsis* (WPE):  
The whole phase may be targeted for deletion.
- Scandinavian is problematic for both of these approaches. The ability for V<sub>2</sub> to occur in non-elliptical cases complicates the picture for each of these and requires additional stipulations to get the facts straight.

### 4.1 Phase head complements (PCE)

Some theories (Gengel 2007, Rouveret 2012) propose that the complement of a phase head is a potential target for ellipsis and that ellipsis happens as soon as that phase head merges.

- This follows Chomsky's (2000) definition of the PIC:

- (15) *Phase Impenetrability Condition* (PIC): (Chomsky 2000:108)  
The Domain of phase head H° is not accessible to operations outside HP; only H° and its edge are accessible to such operations.

Making the common assumption that v° is the phase head, when v° merges its complement is Spelled-Out immediately.

- Any material inside VP when v° merges will be inaccessible for further operations, including movement.
- This predicts that movement out of ellipsis sites should behave exactly the same as movement out of lower phases

As we will see, V<sub>2</sub> introduces complications for this.

- Additional stipulations blocking verb movement in ellipsis contexts are necessary to make it work.

#### 4.1.1 Verb movement and phases

Under the view of the PIC in (15), verbs must move through v° to escape spell-out.

- Since it is the complement of v° that is spelled-out, any verb that does not move through this position will be frozen for further syntactic operations.

It is necessary for the verb to move to v° for V<sub>2</sub> order to be possible.

- If verbs remained in the complement of v°, then they could never move to any higher positions.
- It is a fairly common assumption that verbs must move to v° anyway (Chomsky 2000, Kratzer 1996, Marantz 1997).

## 4.1.2 VVPE and overgeneration

Deletion of phase head complements predicts correctly that VVPE should be available in languages with V°-to-T° movement:

- (16) Quando a Ana pôs os óculos na mesa, a Maria também  
 When the Ana put.PST the glasses on.the table, the Maria too  
 pôs.  
 put.PST  
 ‘When Ana put the glasses on the table, the Maria did too.’  
*Portuguese* (Cyrino and Matos 2002:(14a))

- a. Step One – Build VP:  
 $[_{VP} \text{ os } \acute{o}culos [_{V'} \sqrt{p\acute{o}r} \text{ na mesa} ] ]$
- b. Step Two – Build vP, move verb, spell out:  
 $[_{vP} \text{ a Maria } [_{v'} \sqrt{p\acute{o}r+v^{\circ}} [_{VP} \text{ os } \acute{o}culos [_{V'} \sqrt{p\acute{o}r} \text{ na mesa} ] ] ] ] ]$
- c. Step Three – Merge T°; move verb, subject:  
 $[_{TP} \text{ a Maria } [_{T'} \text{ tamb\`e}m \sqrt{p\acute{o}r+v^{\circ}+T^{\circ}} [_{vP} \text{ a Maria } [_{v'} \sqrt{p\acute{o}r+v^{\circ}} \text{ VP} ] ] ] ] ]$

The problem is that it predicts incorrectly that both Scandinavian and English should also have VVPE.

- (17) Mona vaskede ikke bilen men Jasper gjorde / \*vaskede.  
 Mona wash.PST not car.DEF, but Jasper do.PST / wash.PST  
 ‘Mona didn’t wash the car but Jasper did.’ *Danish* (Houser et al. 2006:(5’/5’’))
- a. Step One – Build VP:  
 $[_{VP} [_{V'} \sqrt{vaske} \text{ bilen} ] ]$
  - b. Step Two – Build vP, move verb, spell out:  
 $[_{vP} \text{ Jasper } [_{v'} \sqrt{vaske+v^{\circ}} [_{VP} [_{V'} \sqrt{vaske} \text{ bilen} ] ] ] ] ]$
  - c. Step Three – Merge T°; move subject:  
 $[_{TP} \text{ Jasper } [_{T'} T^{\circ} [_{vP} \text{ Jasper } [_{v'} \sqrt{vaske+v^{\circ}} \text{ VP} ] ] ] ] ]$
  - d. \* Step Four – Merge C°; move verb, subject:  
 $[_{CP} \text{ Jasper } [_{C'} \sqrt{vaske+v^{\circ}+T^{\circ}} +C^{\circ} [_{TP} \text{ Jasper } [_{T'} T^{\circ} [_{vP} \text{ Jasper } [_{v'} \sqrt{vaske+v^{\circ}} \text{ VP} ] ] ] ] ] ] ]$

- (18) Ashleigh didn’t wash the car, but Lindsay did / \*washed.

- a. Step One – Build VP:  
 $[_{VP} [_{V'} \sqrt{\text{wash}} \text{ the car} ] ]$
- b. Step Two – Build vP, move verb, spell out:  
 $[_{vP} \text{ Lindsay } [_{v'} \sqrt{\text{wash}+v^{\circ}} [_{VP} [_{V'} \sqrt{\text{wash}} \text{ the car} ] ] ] ] ]$
- c. \* Step Three – Merge T°; move subject:  
 $[_{TP} \text{ Lindsay } [_{T'} T^{\circ} [_{vP} \text{ Lindsay } [_{v'} \sqrt{\text{wash}+v^{\circ}} [_{VP} [_{V'} \sqrt{\text{wash}} \text{ the car} ] ] ] ] ] ] ]$

In both cases, the problem can be located at Step Two.

- V°-to-v° movement predicts that the verb should remain available to further syntactic operations because it escapes the spell out domain.
- Remember: This has to happen for V2 to be possible.

Nearly every account of PCE encounters this difficulty (see, for instance, Bošković 2014:69–70, Gengel 2007:237–238, and Rouveret 2012:946–948).

- It is worth noting here that the issue of blocking head movement out of the ellipsis site does not arise under the derivational account.

## 4.1.3 Blocking short movement

The question: Can anything else block verb movement in ellipsis contexts?

- In most cases, we need V°-to-v° outside of, ellipsis contexts, so we must tie the inability for verbs to move out of ellipsis sites to ellipsis specifically.
- There are two proposals I know of:
  - A) Do-support blocks verb movement.
  - B) The [E] feature blocks movement.
- Neither of these is particularly satisfying.

**Hypothesis A** – *Do*-support blocks verb movement (Rouveret 2012).

- Claim: In English, there is a focus feature on  $T^\circ$  associated with ellipsis that must be lexicalized.
  - Since there is no  $V^\circ$ -to- $T^\circ$  movement in English, *do* must be merged in  $v^\circ$  as an element which can move to  $T^\circ$ .<sup>9</sup>
  - Since *do* is in  $v^\circ$ , verbs cannot move through this position (Travis 1984). Under this view, *do*-support cannot be a last-resort operation.
- *Do*-support is not available in neutral contexts, so it cannot be freely merged otherwise:

(19) \*Johan gjorde öppnade dörren.  
 Johan did opened door.DEF  
 Intended: ‘Johan opened the door.’ Swedish (Platzack 2012:(39))

- This might work for English, but verbs probably move through  $T^\circ$  in Scandinavian on their way to  $C^\circ$ , so there is no explanation why they could not lexicalize  $T^\circ$ , as they do under normal circumstances.

**Hypothesis B** –  $[E]$  feature blocks head movement (Gengel 2007).

- Gengel proposes that  $[E]$  sits on  $v^\circ$ . The presence of  $[E]$  blocks movement of  $V^\circ$ -to- $v^\circ$ .
- This is an *ad hoc* explanation for English.
  - While it would explain Scandinavian, too, there is no explanation for why verbs can move through  $v^\circ$  in languages that  $vVP_E$ .

#### 4.2 Whole phases (WPE)

Some approaches to phase-based ellipsis propose that ellipsis targets not just the phase-head complement, but the entire phase (Bošković 2014, Harwood 2013, Holmberg 2001).

- Note that this is a loosening of the notion that ellipsis is coterminous with a spell-out domain – we are no longer looking at just phase-head complements.
- This means that the ellipsis domain can be bigger than the typical spell-out domain.

These approaches employ the definition of the PIC introduced in Chomsky 2001. For a phase heads  $H^\circ$ ,  $Z^\circ$ ,

(20) (Revised) Phase Impenetrability Condition: (PIC) (Chomsky 2001:13)  
 The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.

- This means that it is possible to extract material out of HP until  $Z^\circ$  is merged.
- Once  $Z^\circ$  is merged, HP is frozen.

The predictions this makes are slightly different from PCE.

- If  $vP$  is the target, rather than VP, then material in  $vP$  is not frozen until  $C^\circ$  merges.
- The predictions this makes for Scandinavian will hinge in part on what *until* means here.

##### 4.2.1 Potential overgeneration

WPE correctly predicts the availability of  $vVP_E$  in  $V^\circ$ -to- $T^\circ$  languages.

- $V^\circ$ -to- $T^\circ$  predicts means that the verb escapes  $vP$ .

(21) Quando a Ana pôs os óculos na mesa, a Maria também  
 When the Ana put.PST the glasses on.the table, the Maria too  
 pôs.  
 put.PST  
 ‘When Ana put the glasses on the table, the Maria did too.’  
 Portuguese (Cyrino and Matos 2002:(14a))

<sup>9</sup> Rouveret’s theory of ellipsis relies on the idea that inflectional morphology is available at the  $vP$  level, so *do* must be inserted in  $v^\circ$  for it to receive inflectional morphology.



- a. Step One – Build VP:  
 $[\text{VP } os \acute{o}culos [_{V'} \sqrt{p\acute{o}r} na mesa ] ]$
- b. Step Two – Build vP, move verb:  
 $[\text{VP } a Maria [_{V'} \sqrt{p\acute{o}r+v^{\circ}} [_{\text{VP}} os \acute{o}culos [_{V'} \sqrt{p\acute{o}r} na mesa ] ] ] ]$
- c. Step Three – Merge T°; move verb, subject:  
 $[\text{TP } a Maria [_{T'} tamb\acute{e}m \sqrt{p\acute{o}r+v^{\circ}+T^{\circ}} [_{\text{VP}} a Maria [_{V'} \sqrt{p\acute{o}r+v^{\circ}} [_{\text{VP}} os \acute{o}culos [_{V'} \sqrt{p\acute{o}r} na mesa ] ] ] ] ] ]$
- d. Step Four – Merge C°; Spell out vP:  
 $[\text{CP } C^{\circ} [_{\text{TP}} a Maria [_{T'} tamb\acute{e}m \sqrt{p\acute{o}r+v^{\circ}+T^{\circ}} [_{\text{VP}} a Maria [_{V'} \sqrt{p\acute{o}r+v^{\circ}} [_{\text{VP}} os \acute{o}culos [_{V'} \sqrt{p\acute{o}r} na mesa ] ] ] ] ] ] ] ]$

Unlike the PCE approach, WPE does not predict that English should have VVPE, since the verb never leaves vP.

(22) Ashleigh didn't wash the car, but Lindsay did.

- a. Step One – Build VP:  
 $[\text{VP } [_{V'} \sqrt{wash} the car ] ]$
- b. Step Two – Build vP, move verb:  
 $[\text{VP } Lindsay [_{V'} \sqrt{wash+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{wash} the car ] ] ] ]$
- c. Step Three – Merge T°; move subject:  
 $[\text{TP } Lindsay [_{T'} T^{\circ} [_{\text{VP}} Lindsay [_{V'} \sqrt{wash+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{wash} the car ] ] ] ] ] ]$
- d. Step Four – Merge C°; Spell-out:  
 $[\text{CP } C^{\circ} [_{\text{TP}} Lindsay [_{T'} T^{\circ} [_{\text{VP}} Lindsay [_{V'} \sqrt{wash+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{wash} the car ] ] ] ] ] ] ] ]$

If we assume that the operations triggered by C° occur simultaneously (Chomsky 2001), as soon as it merges, WPE predicts that Scandinavian should have VVPE in V2 contexts.

(23) Mona vaskede ikke bilen men Jasper gjorde / \*vaskede vP.  
 Mona wash.PST not car.DEF, but Jasper do.PST / wash.PST  
 'Mona didn't wash the car but Jasper did.' Danish (Houser et al. 2006:(5'/5''))

- a. Step One – Build VP:  
 $[\text{VP } [_{V'} \sqrt{vaske} bilen ] ]$
- b. Step Two – Build vP, move verb:  
 $[\text{VP } Jasper [_{V'} \sqrt{vaske+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{vaske} bilen ] ] ] ]$
- c. Step Three – Merge T°; move subject:  
 $[\text{TP } Jasper [_{T'} T^{\circ} [_{\text{VP}} Jasper [_{V'} \sqrt{vaske+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{vaske} bilen ] ] ] ] ] ]$
- d. \* Step Four – Merge C°; move verb, subject; Spell out vP:  
 $[\text{CP } Jasper [_{C'} \sqrt{vaske+v^{\circ}+T^{\circ}+C^{\circ}} [_{\text{TP}} Jasper [_{T'} T^{\circ} [_{\text{VP}} Jasper [_{V'} \sqrt{vaske+v^{\circ}} [_{\text{VP}} [_{V'} \sqrt{vaske} bilen ] ] ] ] ] ] ] ] ] ]$

The reason for this is that Spell-Out occurs too late in the derivation to block verb movement out vP.

- Following the discussion in §2, V2 is triggered by C° (Vikner 1995).
- We know that the verb escapes spell-out to make it to C° in non-elliptical contexts.
- So it follows that if ellipsis is a reflex of spell-out, verbs should be able to move to C° out of ellipsis sites.

In other words, we know that verbs can escape spell-out in non-elliptical contexts, so again, it must be something about ellipsis that blocks movement of the verb to C°.

#### 4.2.2 Ordering and extraction

One way of dealing with this is to try to order the operations triggered by a head – i.e., posit that operations do not happen simultaneously.

- Bošković (2014:46) claims that freezing of material in the Phase happens before C° can attract any material.
- If the whole phase is frozen before head movement can occur, then VVPE will be blocked.

However, if ellipsis targets the whole phase, this means that the phase edge will be frozen.

- This means that even A- and A'-extraction will be blocked out of ellipsis sites when WPE is used.

But extraction is possible out of ellipsis sites, as we saw in Section 2.2.

- In fact, Bošković claims that ellipsis of the phase head complement – basically, PCE– must be available for *wh*-extraction.

Since *wh*-extraction is available in Scandinavian, this means that PCE must be available.

- We already know that PCE makes the wrong predictions for Scandinavian, though.
- If PCE is available for *wh*-extraction, it should also be available for verb movement.

Ultimately, ordering operations triggered by C° requires PCE to be available, but PCE predicts Scandinavian should have VVPE.

### 4.3 Summary

PCE accounts can only block movement of the verb from ellipsis sites with additional stipulations.

- V°-to-*v*° movement must be blocked by some mechanism, but this is generally hard to motivate.

WPE approaches do better.

- However, we must widen the possible targets of VPE to be slightly bigger than typical Spell-out domains, a step away from the original insight.
- We also need to stipulate the ordering of operations triggered by a phase head.
- This also requires PCE when extraction is possible. It remains unclear if VPE has different targets in different cases.

The derivational account does not need to do any of this.

- By positing that T° licenses ellipsis rather than C°, the distribution of VVPE is readily accounted for.
- *v*P is always the target.

Overall, Scandinavian poses problems for phase-based accounts.

- In PCE accounts, we must introduce stipulations to block movement out of ellipsis sites – the freezing effects from the PIC are not enough to do this.
- The WPE approach can be made to work if we adopt some of Bošković's positions, but the status of these remains unclear.

## 5 Conclusion

The derivational approach to ellipsis requires us to make fewer assumptions than does the phase-based approach.

- Out of the box, it correctly predicts the distribution of VVPE.
- Languages where verb movement is triggered after T° merges should not have VVPE.

To the extent that this account is successful, it carries other implications for the grammar as well.

- *Head movement*  
Chomsky (2001) suggests that head movement may be relegated to PF. However, the interaction of derivational ellipsis with head movement in the narrow syntax properly predicts the distribution of VVPE. PF accounts of head movement must stipulate the order of head movement relative to ellipsis (Boeckx and Stjepanović 2001).
- *Do-support in Scandinavian*  
Lots of recent work has gone into *do*-support in Scandinavian. Houser et al. (2011) argue that Danish *gøre*, 'do', is a special element necessary to license empty *v*Ps. This analysis brings ellipsis in Scandinavian in line with other languages and is more compatible with Platzack's (2012) last-resort analysis of *do*-support in Scandinavian.
- *Destination of verb movement in Germanic*  
There has always been debate about whether verbs move to T° independently of movement to C° in Germanic matrix clauses (Mikkelsen 2010, Thráinsson 1994, Travis 1984). The arguments in this paper rest on the idea that verbs move to C° in mainland Scandinavian matrix clauses and not to T°. This can be seen as support for this view that verbs always move to C°.

## A Verb second and verb movement

In Mainland Scandinavian, placement of the verb is different depending on whether the clause is embedded.

- In matrix clauses (24), verbs show up to the left of negation and VP-adverbs.
- In embedded clauses (25), verbs (by default) show up to the right of negation and VP-adverbs.

(24) Peter drikker ofte kaffe om morgenen.  
 Peter drinks often coffee in morning.DEF  
 ‘Peter often drinks coffee in the morning.’ Danish (Vikner 1995:47, (33c))

(25) Vi ved [<sub>CP</sub> at Peter ofte drikker kaffe om morgenen]  
 we know [ that Peter often drinks coffee in morning.DEF]  
 ‘We know that Peter often drinks coffee in the morning’  
 Danish (Vikner 1995:47, (33f))

In matrix clauses, the finite verb is always preceded by some phrasal element, typically the subject as in (24) above

- The first element can be some other fronted element, like the PP *om morgenen* in (26).
- In these cases the subject remains in SpecTP, providing evidence that the verb has moved out of TP.

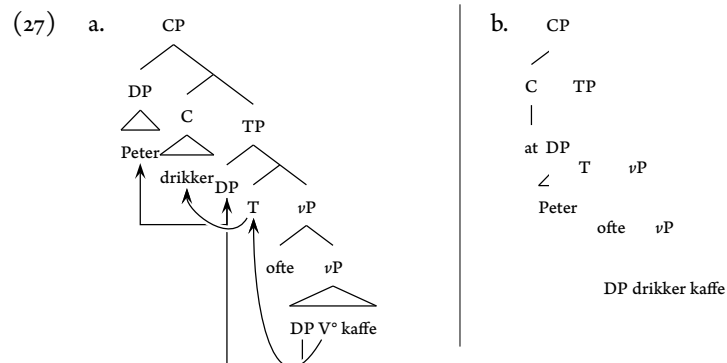
(26) 1  
┌───────────┐  
Om morgenen 2  
┌───┐  
drikker Peter ofte kaffe.  
 in morning.DEF drinks Peter often coffee.  
 ‘In the morning Peter often drinks coffee.’ Danish (Vikner 1995:47, (33e))

- The position of the verb is traditionally called **SECOND POSITION**.
- The the element before the verb is said to be in **FIRST POSITION**.

The standard account: In matrix clauses there is V°-to-C° movement, whereas verbs in embedded clauses remain *in situ* (den Besten 1983, Vikner 1995).<sup>10</sup>

<sup>10</sup> Some authors have argued that the verb does not always make it to C° in matrix clauses (see, for instance, Mikkelsen 2010).

- SpecCP is first position.
- C° is second position.
- When not in first position, subjects are in SpecTP since they are to the left of vP adverbs.



We know verbs do not move to T° independent of movement to C° through comparison to Icelandic.

- In Icelandic, verbs always come to the left of adverbs, even in embedded clauses (28).
- In Danish embedded clauses, verbs come to the right of adverbs (29)

(28) Icelandic – V°-to-T°: (Vikner 1995:145)

- a. Ég spurði af hverju Pétur hafði oft lesið hana.  
 I asked why Peter had often read it.
- b. \*Ég spurði af hverju Pétur oft hafði lesið hana.  
 I asked why Peter often had read it.

(29) Danish – V° in situ: (Vikner 1995:145)

- a. \*Jeg spurgte hvorfor Peter havde ofte læst den.  
 I asked why Peter had often read it.
- b. Jeg spurgte hvorfor Peter ofte havde læst den.  
 I asked why Peter often had read it.

This is taken as evidence that there is V°-to-T° movement in Icelandic, but not in Mainland Scandinavian.<sup>11</sup>

In Mainland Scandinavian:

- Verbs move to the left periphery in matrix clauses.
- They remain *in situ* in embedded clauses.
- There is no independent movement to T°.

## Acknowledgments

I am indebted to Lobke Aelbrecht, Matt Barros, Kyle Johnson, Stefan Keine, Fernanda Mendes, Jon Ander Mendia, Line Mikkelsen, Ethan Poole, Alain Rouveret, Craig Sailor, Ellen Woolford, Luis Vicente, participants in the Syntax Seminar at UMass (Fall 2012), and the audience at the 29th Comparative Germanic Syntax Workshop at the University of York, 2014. Many thanks are also due to the anonymous CGSW reviewer who made me aware of Craig Sailor's convergent work on ellipsis in Scandinavian, and to the three NELS reviewers who provided relevant criticism for an abstract of this paper. Parts of this research were supported by summer graduate student research grants from the UMass Department of Linguistics.

## References

- Aelbrecht, Lobke. 2010. *The Syntactic Licensing of Ellipsis*. *Linguistik Aktuell/Linguistics Today*. John Benjamins.
- Aelbrecht, Lobke. 2014. What ellipsis can do for phases, and what it can't, but not why. Ms. University of Ghent. Under review for Special issue of *The Linguistic Review*.
- Bailyn, John. 1995. A Configurational Account of Russian "Free" Word Order. Doctoral Dissertation, Cornell University.
- Baltin, Mark. 2011. Deletion Versus Pro-Forms: An Overly Simple Dichotomy? *Natural Language and Linguistic Theory* URL <http://www.springerlink.com/>

- content/7171160x0305h415, published online, November 2011.
- Bentzen, Kristine, Jason Merchant, and Peter Svenonius. 2013. Deep properties of surface pronouns: Pronominal predicate anaphors in Norwegian and German. *The Journal of Comparative Germanic Linguistics* 16:97–125.
- den Besten, Hans. 1983. On the the Interaction of Root Transformations and Lexical Deletive Rules. In *On the Formal Syntax of the Westgermania*, ed. W. Abraham, 47–131. Amsterdam: John Benjamins.
- Boeckx, Cedric, and Sandra Stjepanović. 2001. Head-ing toward PF. *Linguistic Inquiry* 32:345–355.
- Bošković, Željko. 2014. Now I'm a Phase, Now I'm Not a Phase: On the Variability of Phases with Extraction and Ellipsis. *Linguistic Inquiry* 45:27–89.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by Step*, ed. R. Martin et al., 89–155. Cambridge, Mass: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In *Ken Hale: A Life in Language*, ed. Michael Kenstowicz, 1–52. Cambridge, Mass: MIT Press.
- Cyrino, Sonia M. L., and Gabriela Matos. 2002. VP ellipsis in European and Brazilian Portuguese – a comparative analysis. *Journal of Portuguese Linguistics* 1:177–195.
- Doron, Edit. 1983. Verbless Predicates in Hebrew. Doctoral Dissertation, University of Texas at Austin.
- Doron, Edit. 1990. V Movement and VP-Ellipsis. Ms., The Hebrew University of Jerusalem. Published as Doron 1999.
- Doron, Edit. 1999. V Movement and VP-Ellipsis. In *Fragments: Studies in Ellipsis and Gapping*, ed. S. Lappin and E. Benmamoun, 124–140. Oxford: Oxford University Press.
- Gengel, Kirsten. 2007. Phases and Ellipsis. In *Proceedings of the thirty-seventh annual meeting of the North East Linguistic Society*, ed. Emily Elfner and Martin Walkow. Amherst, Mass.: GLSA Publications.
- Goldberg, Lotus. 2005. Verb-Stranding VP Ellipsis: A Cross-Linguistic Study. Doctoral Dissertation, McGill, Montreal, QC. URL <http://www.lotusgoldberg.net/dissertation.html>.
- Gribanova, Vera. 2013. Verb-stranding verb phrase ellipsis and the structure of the Russian verbal complex. *Natural Language and Linguistic Theory* 31:91–136.
- Hartman, Jeremy. 2011. The Semantic Uniformity of Traces: Evidence from Ellipsis Parallelism. *Linguistic Inquiry* 42:367–388.

<sup>11</sup> A quick aside: There is no VPT or VPE in Icelandic (Platzack 2012), so we cannot compare the way it behaves to Mainland Scandinavian. Many languages lack one operation or the other; for example, German lacks VPE (Lobeck 1995). It is unclear why this should be. Many authors have attempted to answer this question (e.g. Doron 1990, Merchant 2001, Rouveret 2012), but it has been very hard to pin down a property that accounts for which languages will have VPE and which will not. This is a very large question that I sadly have little to say about.

- Harwood, William. 2013. Being Progressive is Just a Phase: Dividing the Functional Hierarchy. Doctoral Dissertation, University of Ghent.
- Holmberg, Anders. 2001. The syntax of yes and no in Finnish. *Studia Linguistica* 55:141–175.
- Houser, Michael, Line Mikkelsen, Ange Strom-Weber, and Maziar Toosarvandani. 2006. *Gøre*-Support in Danish. Talk given at the 21st Comparative Germanic Syntax Workshop, 1 April 2006.
- Houser, Michael J., Line Mikkelsen, and Maziar Toosarvandani. 2007. Verb Phrase Pronominalization in Danish: Deep or Surface Anaphora? In *Proceedings of the Thirty-Fourth Western Conference on Linguistics*, ed. Erin Brainbridge and Brian Agbayani, 183–195.
- Houser, Michael J., Line Mikkelsen, and Maziar Toosarvandani. 2011. A Defective Auxiliary in Danish. *Journal of Germanic Linguistics* 23:245–298.
- Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In *Phrase Structure and the Lexicon*, ed. Johan Rooryck and Laurie Zaring, Studies in Natural Language & Linguistic Theory, 109–137. Dordrecht: Kluwer Academic Publishers.
- Lasnik, Howard. 1995. Verbal Morphology: Syntactic Structures meets the Minimalist Program. In *Evolution and Revolution in Linguistic Theory: Essays in Honor of Carlos Otero*, ed. Paula Kempchinsky and Héctor Campos. Georgetown University Press.
- Lipták, Anikó, and Andrés Saab. 2014. No N-raising out of NPs in Spanish: ellipsis as a diagnostic of head movement. *Natural Language and Linguistic Theory*.
- Lobeck, Anne. 1995. *Ellipsis*. New York: Oxford University Press.
- Marantz, Alec. 1997. No Escape From Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon. In *Proceedings of the 21st Annual Penn Linguistics Colloquium*, ed. Alexis Dimitriadis, volume 4 of *Penn Working Papers in Linguistics*, 201–225.
- Matushansky, Ora. 2006. Head Movement in Linguistic Theory. *Linguistic Inquiry* 37:69–109.
- McCloskey, James. 2011. The Shape of Irish Clauses. In *Formal Approaches to Celtic Linguistics*, ed. Andrew Carnie, 143–178. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis*. Oxford Studies in Theoretical Linguistics. Oxford University Press.
- Merchant, Jason. 2013. Voice and ellipsis. *Linguistic Inquiry* 44:77–108.
- Mikkelsen, Line. 2010. On what comes first in a verb-second language. Ms. Under review.
- Platzack, Christer. 2012. Cross Germanic variation in the realm of support verbs. In *Comparative Germanic syntax: the state of the art*, ed. Peter Ackema, Rhona Alcorn, Caroline Heycock, Dany Jaspers, Jeroen Van Craenenbroeck, and Guido van den Wyngaerd, 279–309. Amsterdam: John Benjamins.
- Potsdam, Eric. 1997. English Verbal Morphology and VP ellipsis. In *The Proceedings of the 27th Meeting of the North East Linguistic Society*, 353–368.
- Roberts, Ian. 2010. *Agreement and Head Movement: Clitics, Incorporation, and Defective Goals*. Linguistic Inquiry Monographs. Cambridge, Mass.: MIT Press.
- Rouveret, Alain. 2012. VP ellipsis, phases and the syntax of morphology. *Natural Language and Linguistic Theory* 30:897–963.
- Sailor, Craig. 2014. The Typology of Head Movement and Ellipsis: A reply to Lipták & Saab. Ms. University of Groningen. lingbuzz/002148. Accepted for publication in *Natural Language & Linguistic Theory*.
- Schuyler, Tami. 2001. Wh-Movement out of the Site of VP Ellipsis. Master's thesis, University of California, Santa Cruz.
- Silva, Gláucia V. 2001. *Word order in Brazilian Portuguese*, volume 57 of *Studies in Generative Grammar*. New York: Mouton de Gruyter.
- Thoms, Gary. 2012. Ellipsis licensing and the variety of verb movement in Germanic. Talk given at the 27th Comparative Germanic Syntax Workshop, Yale University, 31 May 2012.
- Thráinsson, Höskuldur. 1994. Comments on the paper by Vikner. In *Verb Movement*, ed. David Lightfoot and Norbert Hornstein. Cambridge: Cambridge University Press.
- Travis, Lisa DeMena. 1984. Parameters and Effects of Word Order Variation. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford Studies in Comparative Syntax. New York: Oxford University Press.
- Warner, Anthony R. 1985. *The Structure of English Auxiliaries: A Phrase Structure Grammar*. Bloomington, Indiana: Indiana University Linguistics Club.
- Westergaard, Marit. 2009. *The Acquisition of Word Order*. Amsterdam: John Benjamins.