On the interaction of head movement, ellipsis, and copy deletion: The case of Mainland Scandinavian

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Claim: The interactions between ellipsis and head movement on the one hand and copy deletion and head movement on the other hand are close to identical: Ellipsis and copy deletion counter-bleed head movement in Portuguese, Hebrew, and Russian but bleed it in Danish, Norwegian, and Swedish. Ellipsis and copy deletion must thus apply in the same module as head movement. While Sailor (2018) proposes that ellipsis and head movement are syntactic(ally triggered) with the height of the movement-trigger determining the kind of interaction between them, I show that his account cannot be transferred to the interaction between copy deletion and head movement. I thus claim that both head movement and copy deletion must apply post-syntactically, and by extension, ellipsis must, too.

1 Introduction

1.1 The locus of head movement (HM)

- Since Chomsky (1995) first suggested that head movement might not be properly syntactic there is an ongoing debate about its locus with arguments put forward

- in favour of its non-syntactic nature (e.g. Boeckx & Stjepanović 2001; Hale & Keyser 2002; Merchant 2002; Schoorlemmer & Temmerman 2012; Platzack 2013; Zwart 2016; Korsah 2017; Hein 2017)

- and in favour of its syntactic nature (e.g. Lechner 2001, 2004, 2007; Baltin 2002; Iatridou & Zeijlstra 2010; Roberts 2010; Keine & Bhatt 2016; Gribanova 2017; Sailor 2018)

1.2 The locus of ellipsis (E)

- A similar debate concerns the locus or timing of ellipsis. The elision of syntactic material has both been argued

- to take place at PF (e.g. Sag 1976; Lasnik 2001; Merchant 2001, 2004; Goldberg 2005; van Craenenbroek 2010)

- or to take place derivationally in the syntax (e.g. van Craenenbroek & Lipták 2008; Aelbrecht 2010; Baltin 2012; Bošković 2014; Johnson submitted)

1.3 Interactions are key

- Due to the modularity of the grammar (i.e. PF following syntax), interactions between both operations might give us a clue about their loci.

- If we find instances of E bleeding HM, this can be most elegantly captured by HM being post-syntactic and E being syntactic. With additional assumptions about their respective order of application, we could also take them to apply in the same module, i.e. either PF or syntax.

- If we find instances of E counter-bleeding HM, this can be most elegantly captured by HM being syntactic and E being post-syntactic. Again, with additional assmptions one might also construe them to both apply in the same module.

- If we find instances of both interactions, this means that both operations must necessarily apply in the same module.

2 VVPE: A test case

- A case of interaction between HM and E is provided by so-called verb-stranding VP-ellipsis.

- In many languages it is grammatical to pronounce the verbal head of an elided VP. Some examples are Portuguese (Cyrino & Matos 2002; Santos 2009), Hebrew[1] (Doron 1999), Irish (McCloskey 1991), and Russian (Gribanova 2013).

(1) a. Eu dei um livro pra Maria e o Pedro tembém deu.
        I gave a book to.the Maria and the Pedro also gave
        'I gave a book to Maria, and Pedro did, too.'   (*Portuguese*, Santos 2009:28)

     b. Šalaxt etmol et ha-yeladim le-beit-ha-sefer?
        send.PST.2SG.FEM yesterday ACC the-children to-house-the-book
        'Did you send the children to school yesterday?'
        Šalaxti.
        send.PST.1SG
        'I did.'   (*Hebrew*, Doron 1999:129)

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[1] Though see Landau (2018) for arguments that what has been treated as VVPE in Hebrew is actually just argument ellipsis.

c. Dúirt mé go   gceannóinn é agus cheannaigh.
said I COMP buy   it and bought
'I said that I would buy it and I did.'   (*Irish*, McCloskey 1991:273)

d. Ty položil   ručku   na stol, ili knigu   na stul?
you put.PST.SG.M pen.ACC on table or book.ACC on chair
'Did you put the pen on the table or the book on the chair?'
Net, ne   položil.
no NEG put.PST.SG.M
'No, I didn't (put the pen on the table or the book on the chair)'   (*Russian*,
Gribanova 2013:152)

- Following Goldberg (2005), the standard analysis of the verb's survival is that it head-moves to a position outside the ellipsis site before ellipsis takes place.

(2)   …o Pedro também deu <[VP t_{deu} um livro pra Maria]>②
                                    ①

- This head-movement is independently attested in the four languages above and targets the T-head in Hebrew (Doron 1983), Irish (McCloskey 2011), and Portuguese (Silva 2001), and the Asp-head in Russian (Bailyn 1995; Gribanova 2013).

- This analysis of VVPE constitutes a clear case of E counter-bleeding HM and is expected under the (standard) view that HM is a syntactic operation while E takes place in the post-syntax.

2.1 A problem: Mainland Scandinavian

- There are thus two ingredients for VVPE to occur in a language (Goldberg 2005):

i. The language must have VPE and

ii. the language must have verb movement out of the VP

- As has been noted in (Sailor 2018), Mainland Scandinavian behaves unexpected under this approach.

2.1.1 MSc has VPE

- It is possible to elide a VP in Danish (3a), Norwegian (3b), and Swedish (3c) akin to English VPE (Sailor 2009, in progress; Houser et al. 2011; Thoms 2012; Bentzen et al. 2013).[2]

(3) a. Mona og Jasper havde   vask-et   bilen, eller rettere Mona havde   <VP>.
Mona and Jasper have.PST wash-PTCP car.DEF or   rather Mona have.PST
'Mona and Jasper had washed the car, or rather Mona had.'(*Danish*, Sailor 2018:855)

b. Jan kan løse   problemet, men Kari kan ikke <VP>.
Jan can solve problem.the but Kari can not
'Jan can solve the problem, but Kari can't.'   (*Norwegian*, Bentzen et al. 2013:99)

c. Johan har inte läst *Lolita*, men Kalle har <VP>.
Johan has not read *Lolita* but Carl has
'Johan hasn't read *Lolita*, but Carl has.'   (*Swedish*, Thoms 2012:7)

2.1.2 MSc has verb movement out of VP

- It is widely held that Danish, Norwegian, and Swedish show verb movement to C in matrix clauses while the verb remains in situ in embedded clauses (Vikner 1995).[3]

- This movement is held accountable for the different position of the inflected verb in matrix clauses and embedded clauses. In the former, it appears to the left of negation and certain adverbs (4) while in the latter, it appears to their right (5).

(4) a. Peter **drikker** *ofte* kaffe om morgenen
Peter drinks   often coffee in morning.DEF
'Peter often drinks coffee in the morning.'   (*Danish*, Vikner 1995:47)

b. Hanne **liker** *ikke* kaffe
Hanne likes not koffee
'Hanne doesn't like coffee.'   (*Norwegian*, Siri M. Gejrsøe p.c.)

c. Jag **kysste** henne *inte*
I   kissed her   not
'I didn't kiss her.'   (*Swedish*, Holmberg 1999:1)

(5) a. Vi ved [at Peter *ofte* **drikker** kaffe om morgenen]
we know that Peter often drinks   coffee in   morning
'We know that Peter often drinks coffe in the morning.' (*Danish*, Vikner 1995:47)

b. Jeg tror   [at   Hanne *ikke* **liker** kaffe]
I   believe that Hanne not likes coffee
'I believe that Hanne doesn't like coffee.'   (*Norwegian*, Siri M. Gjersøe p.c.)

c. …[att jeg *inte* **kysste** henne]
that I   not kissed her
'…that I didn't kiss her.'   (*Swedish*, Holmberg 1999:1)

2.1.3 MSc lacks VVPE

- Despite showing VPE and V-to-C movement, MSc curiously does not allow VVPE (see Sailor 2009, Sect. 4.2.2 for Danish, Thoms 2012 for Norwegian, Thoms 2012 ‚Ström Herold 2009:153 for Swedish).

(6) a. *Mona og Jasper vaskede bilen, eller rettere Mona vaskede <[VP bilen]>.
Mona and Jasper wash.PST car.DEF or   rather Mona wash.PST   car.DEF
Int: 'Mona and Jasper washed the car, or rather Mona did.'(*Danish*, Sailor 2018:855)

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[2] At least for Norwegian and Swedish, VPE requires polarity focus (Thoms 2012:8) in contrast to English.

[3] It has also been argued that the V2 configuration in (some) matrix clauses is due to V-to-T movement rather than V-to-C (Mikkelsen 2010, 2015).

b. *Johan leste ikke *Lolita*, men Marie leste <[$_{VP}$ *Lolita*]>.
Johan read.PST not *Lolita* but Marie read.PST *Lolita*
Int: 'Johan didn't read *Lolita*, but Marie did.' (*Norwegian*, Thoms 2012:9)

c. *Johan läste inte *Lolita*, men Kalle läste <[$_{VP}$ *Lolita*]>.
Johan read.PST not *Lolita* but Kalle read.PST *Lolita*
Int: 'Johan didn't read *Lolita*, but Kalle did.' (*Swedish*, Sailor 2018:856)

- In the absence of an auxiliary in a position higher than VPE, a form of the dummy verb *gøre, gjøre, göra* 'do' has to occur under VPE.

(7) a. Mona og Jasper vaskede bilen, eller rettere Mona **gjorde**.
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. 2011:249)

b. Johan leste ikke *Lolita*, men Marie **gjorde**.
Johan read.PST not *Lolita* but Marie do.PST
'Johan didn't read *Lolita*, but Marie did.' (*Norwegian*, Thoms 2012:7)

c. Maria körde inte bilen, men Johan **gjorde** det.[4]
Maria drive.PST not car.DEF but Johan do.PST *det*
'Maria didn't drive the car, but Johan did.' (*Swedish*, Sailor 2018:856)

- It thus seems that in MSc E bleeds HM which is at odds with the standard view of syntactic HM and post-syntactic E.

3 Sailor (2018): HM and E both take place in the syntax
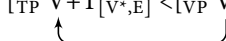
- Sailor (2018) concludes from the above that HM and E must both apply in the same module of grammar which he takes to be syntax. Their different interactions in MSc compared to Portuguese, Hebrew, Irish and others must be due to different timings of the respective triggers.

- He also notes that in MSc verb movement is to C, while it is to T/Asp in the other languages.

- In an approach where ellipsis is derivational freezing the ellipsis site as soon as the licensor of ellipsis is merged (e.g. by turning it into a phase, Aelbrecht 2010; Baltin 2012), this height-difference in HM-triggers leads to different interactions of HM and E.

- With T being the head that licenses VPE, as soon as it is merged the VP becomes inaccessible for operations triggered by heads higher in the structure than T. Operations triggered by T (other than ellipsis) may take place unhindered, i.e. all operations triggered by a head happen simultaneously.
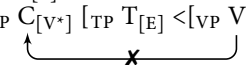
3.1 V-to-T/Asp languages

- In languages where verb movement is triggered by T or Asp, like Portuguese (Silva 2001), Hebrew (Doron 1983), Irish (McCloskey 2011), and Russian (Bailyn 1995; Gribanova 2013), the verb can leave the ellipsis site before it freezes, thus evading ellipsis and resulting in VVPE (8).
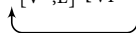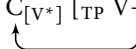
(8) *Simultanous application of HM and E*
[$_{TP}$ V+T$_{[V^*,E]}$ <[$_{VP}$ V Obj]>]

3.2 V-to-C languages

- In MSc, verb movement is triggered by C while VPE is licensed by T. Following the standard view that V-to-T movement is contingent on V-to-C movement (Vikner 1995) this means that the ellipsis site is already frozen when the trigger for verb movement is merged. Thus, verb movement is bled by ellipsis (9).

(9) *T triggers E, C triggers HM*
Merger of T: [$_{TP}$ T$_{[E]}$ <[$_{VP}$ V Obj]>]
Merger of C: [$_{CP}$ C$_{[V^*]}$ [$_{TP}$ T$_{[E]}$ <[$_{VP}$ V Obj]>]]

- This elegantly explains the lack of VVPE in MSc and ties the possible orders of application between HM and E to an independent property of the languages, namely the height of the respective triggers which is due to the sequential nature of the syntactic operation Merge.

- Importantly, for this analysis to work, there cannot be any V-to-T movement independent of V-to-C movement. Otherwise, V were forced to move to T simultaneously with T's [E]-feature forcing elision of the VP which would result in VVPE. A derivation showing this is given in (10).

(10) Step 1: [$_{TP}$ T$_{[V^*,E]}$ [$_{VP}$ V Obj]]

Step 2: [$_{TP}$ V+T$_{[E]}$ <[$_{VP}$ V Obj]>]
Step 3: [$_{CP}$ C$_{[V^*]}$ [$_{TP}$ V+T$_{[E]}$ <[$_{VP}$ V Obj]>]]

- **Prediction:** Languages with VPE licensed by T should exhibit VVPE if they comprise of V-to-T/Asp movement but should lack VVPE if they coomprise of V-to-C movement.

- As Sailor (2018) points out, possible test languages that show independent V-to-T movement, like French or Icelandic lack the necessary VPE (Lobeck 1995; Thoms 2012). Further possible test cases like Afrikaans and Yiddish have not been examined for this prediction.

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[4] See Bentzen et al. (2013) for arguments that *göra det* behave like VPE despite the presence of *det*.

4 A parallel problem in VP-topicalization

4.1 Verb-doubling VP-topicalization (VVPT)

- In many languages, when the VP undergoes topicalization in the absence of an auxiliary or modal verb, a doublet of the verb occurs in the canonical verb position. This is the case, for instance, in Portuguese (Bastos-Gee 2009), Hebrew (Landau 2006), and Russian (Verbuk 2006).

(11) a. [**Temperar** aquele peixe] o   cozinheiro **temperou** (mas…)
          season.INF that   fish   the cook   seasoned (but…)
          'As for seasoning that fish, the cook seasoned it (but…)' (*Portuguese*, Bastos-Gee 2009:162)
      b. [**Liknot** et   ha-praxim] hi **kanta**
          to.buy ACC the-flowers she bought
          'As for buying the flowers, she bought.'   (*Hebrew*, Landau 2006:37)
      c. [**Kupit'** pomidory]   ona **kupila**, no salat ne sdelala
          buy.INF tomatoes.ACC she bought but salad not make.PERF
          'As for buying the tomatoes, she bought (them), but she hasn't made a salad.'
                                                          (*Russian*, Verbuk 2006:397)

- The standard analysis of this verb doubling (Abels 2001; Landau 2006; Aboh & Dyakonova 2009; Hein 2017) relies on the copy theory of movement and is analogous to that of VVPE: The verb undergoes (independent) head movement to a head outside of VP before the low VP copy undergoes copy deletion. V-to-T/Asp movement thus saves the (second occurrence of) verbal head from being deleted as part of the low VP copy (12).

(12)   [Temperar aquele peixe] o cozinheiro temperou [temper- aquele peixe]②
                                                     └____①____┘

- The relevant interaction here is between HM and the copy deletion operation (CD) which are in a counter-bleeding relation. Under standard assumptions – HM in syntax, CD at PF – this interaction is expected and should be the only possible one.

4.2 Lack of VVPT in MSc

- Again, as with VVPE, there are two identifiably ingredients a language must have to exhibit VVPT:

i. The language must have VPT and

ii. the language must have verb movement out of the VP

- And, again, MSc behaves unexpected under this approach.

4.2.1 MSc has VPT

- Danish, Norwegian, and Swedish all allow topicalization of a VP.

(13) a. [Læst   bogen]   har han ___.
          read-PTCP book.DEF has he
          'He has indeed read the book.'   (*Danish*, Ørsnes 2011:416)
      b. [(Å) lese boken]   vil hun i dag ___.
          to read book.DEF wants she in day
          'As for reading the book, she wants to do it today.'
                                                (*Norwegian*, Siri M. Gejrsøe p.c.)
      c. [Sett   mej] har han kanske ___ (men han vet   inte vad jag heter).
          see.PTCP me has he perhaps   but he knows not what I   am.called
          'Seen me he may have done (but he doesn't know my name).'
                                                  (*Swedish*, Holmberg 1999:7)

4.2.2 MSc has verb movement out of VP

- There is V-to-C movement in matrix clauses in MSc (see section 2.1.2 above).

4.2.3 MSc lacks VVPT

- Despite showing VPT and V-to-C movement, MSc curiously does not allow VVPT (I only have negative data for Norwegian, unfortunately).

(14) *[(Å) **lese** boken]   **leste**   han ikke i dag.
       to read book.DEF read.PST he not in day
       Int: 'As for reading the book, he didn't read it today.' (*Norwegian*, Siri M. Gjersøe p.c.)

- Paralleling the VVPE cases again, we find that instead of a verb doublet, there is a dummy verb *gøre, gjøre, göra* 'do' occurring in V2 position.

(15) a. …og [**kørde/køre** bilen]   **gjorde** han.
          and drove/drive car.DEF did   he
          '…and drive the car, he did.'   (*Danish*, Platzack 2008:280)
      b. [(Å) **lese**   bok-en]   **gjør** hun i dag.
          to read.INF book-DEF does she in day
          'As for reading the book, she does it today.'   (*Norwegian*, Siri M. Gjersøe p.c.)
      c. [**Läser** boken]   **gör** han nu.
          reads book.DEF does he now
   'Reading the book he is now.'   (*Swedish*, Källgren & Prince 1989:47)

- Thus, it seems that in MSc CD bleeds HM, just as E bleeds HM. However, this is at odds with the standard view of HM applying in syntax and CD applying at PF.

5 Where is Copy Deletion?

- In MSc, E and CD appear to behave alike with regard to their interaction with HM.

- Interestingly, for the languages that allow VVPE and also show VPT, i.e. Portuguese, Hebrew, and Russian, it is the case that they also exhibit VVPT. Thus, E and CD again behave alike with regard to HM in these languages. (Whether Irish shows VVPT, I was unable to find out yet.)

- The striking parallelism between E and CD concerning its interaction with HM, the fact that the same logic underlies their analyses, and the fact that they are both implementations of non-pronunciation suggests that they should receive a very similar treatment(, if not even be treated as one single operation).

- As Sailor's proposal works well for VPE and nicely ties the presence vs absence of verb-stranding in VPE to the height of the movement trigger, we should try to extend his proposal to VPT.

### 5.1 Is copy deletion syntactic(ally triggered)?

- At least in a naïve way, extending Sailor's account to CD is not possible because CD has never been claimed to have a syntactic (featural) trigger like ellipsis does, i.e. the [E]-feature, that might be located below C. Hence, it cannot be "derivationally prior" to V-to-C movement.

- Even if one could implement a syntactic trigger for copy deletion, this would have to be active only after the copy itself has been created, i.e. after VP has moved to SpecCP. That means that it will have to located on the same head that triggers the movement in the first place, i.e. C. At that point, however, C is necessarily already present.

- An alternative way would be to make use of the fact that vP is commonly assumed to be a phase whose domain (i.e. complement) is sent off to PF at a certain point of the derivation rendering it opaque for probing and extraction. When C is merged and attracts V, it should actually already be inaccessible for probing as it is properly included inside the domain of the vP phase (16). It should therefore regularly undergo copy deletion as part of the low VP copy thereby explaining the lack of verb doubling.

(16)
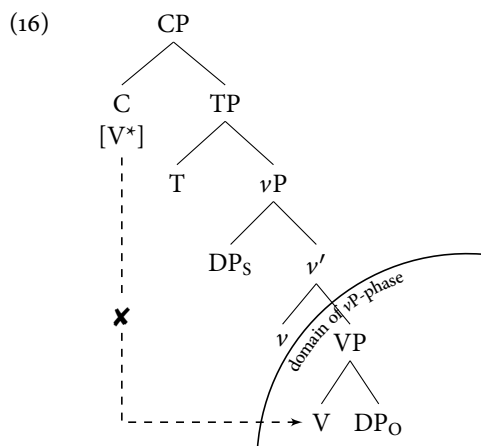
- However, this proposal does not hold up to closer scrutiny as it leads to wrong predictions concerning V-to-T languages and V-to-C languages. Two scenarios are conceivable differing in whether the strong or the weak version of the Phase Impenetrability Condition is taken to hold.

- **Note**: For now, I assume that VP does not have to undergo intermediate movement to Spec$v$P as it is the complement of the phase head v meaning that its internal structure becomes opaque upon spell-out whereas it may well undergo suntactic operations as an atomic unit.

5.1.1 The strong PIC

- Under the strong PIC (Chomsky 2000), the domain of the phase becomes opaque as soon as the phase is completed. In our case, upon merge of the subject in its base position in Spec$v$P the domain of vP, i.e. VP, would become opaque and inaccessible for probing from the outside. As both T (17a) and C (17b) are merged after completion of the vP phase, V-attracting probes on these heads come too late to trigger head movement of V.

(17)
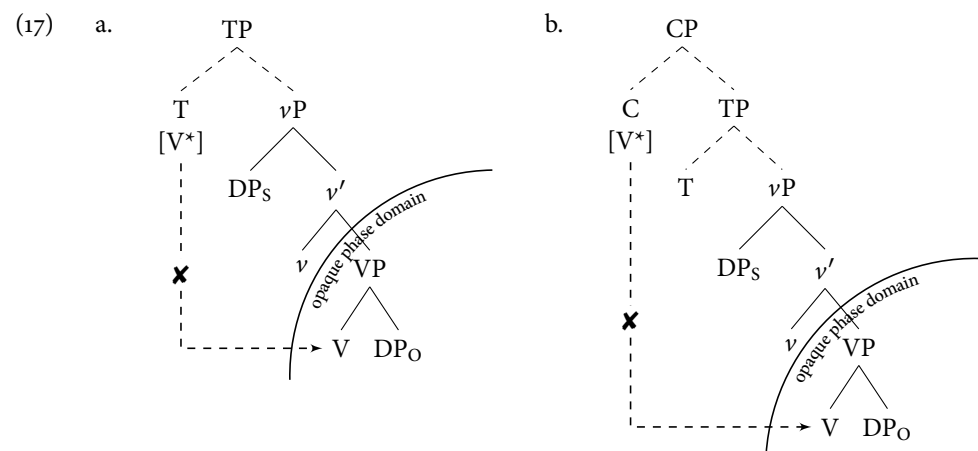
- Therefore, both MSc (with C being the V-movement trigger) and other languages (with T or Asp being the V-movement trigger) should behave alike in VP-fronting contexts: Both should not exhibit verb doubling. As this is not the case, the account based on the strong version of the PIC cannot be correct.

5.1.2 The weak PIC

- Under the weak PIC (Chomsky 2001), the phase domain only becomes opaque upon merger of the next-higher phase head. Thus, the domain of the vP phase (VP) will be inaccessible for probing once the C head enters the structure.

- In this case, a head-movement trigger in T/Asp may probe for V inside the VP as T/Asp is merged before C and V head-moves to T/Asp (18).
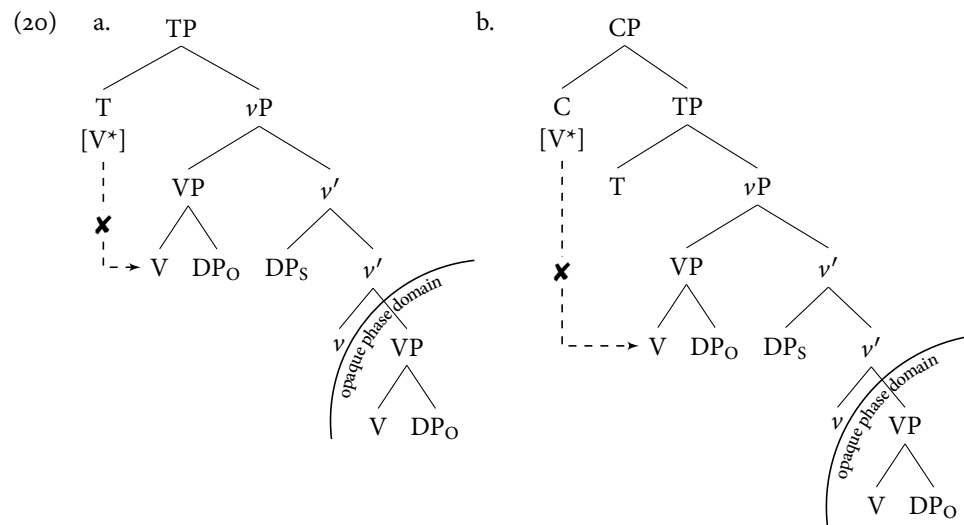
(18)

TP
T [V*] / vP
① ②
DP_S v'
v VP
V DP_O
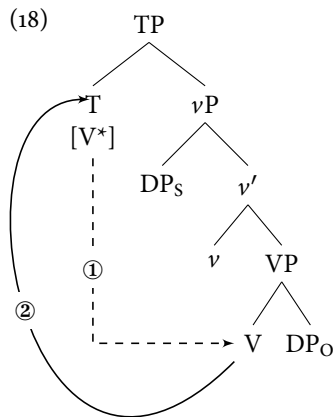
- However, as soon as C is merged, VP becomes opaque and the head-movement trigger on C cannot probe for V inside the VP (19).

(19)

CP
C [V*] TP
T vP
DP_S v'
✗
v VP *opaque phase domain*
V DP_O
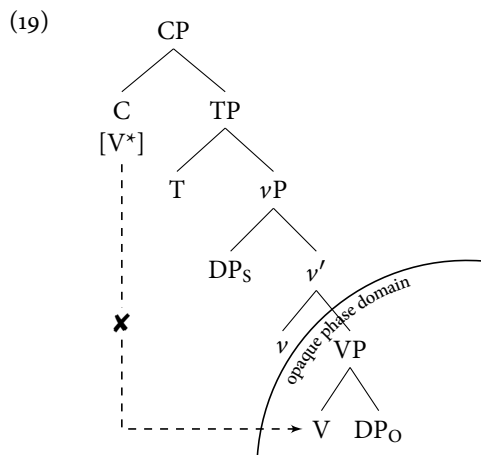
- This straightforwardly derives the occurrence of verb doubling in V-to-T/Asp languages like Portuguese, Hebrew, and Russian but the lack thereof in V-to-C languages like MSc.
- Unfortunately, V-to-C movement should be blocked in all instances where vP (and CP) is a phase including regular declarative matrix clauses lacking any VP-topicalization at all. We would thus falsely expect these to not exhibit V-to-C movement, i.e. V2 word order.
- In order to save the account one would have to encode the presence/absence of VP-topicalization somewhere low in the clause either by stating that vP is arbitrarily only a phase in sentences that show VP-topicalization or by claiming that v or T act as exceptional V-movement triggers in clauses without VP-topicalization.

5.1.3 Intermediate movement to SpecvP

- What if we force VP to intermediately land in SpecvP (pace the claim that this antilocal movement is impossible, see e.g. Abels 2003; Grohmann 2003)?
- Under both versions of the PIC, the intermediate VP copy should be accessible to both T/Asp and C as it is located in the phase-edge.

(20) a.

TP
T [V*] vP
✗
VP v'
V DP_O DP_S v'
v VP *opaque phase domain*
V DP_O

b.

CP
C [V*] TP
T vP
✗
VP v'
V DP_O DP_S v'
v VP *opaque phase domain*
V DP_O

6 Imposed order in the post-syntax

- Both E and CD interact with HM in bleeding and counter-bleeding relations.
- Hence, it cannot be the case that HM and CD/E apply in distinct modules of grammar.
- Although Sailor's proposal, where HM and E are syntactic(ally triggered), elegantly ties the different interactions to the height of the HM-trigger, it is not possible to transfer it to the interaction between HM and CD.
- Nonetheless, as E and CD interact in a suspiciously parallel way with HM in (V)VPE and (V)VPT and because ellipsis and copy deletion are both implementations of non-pronunciation I suggest that both interactions should receive a unified analysis.
- I therefore propose to follow the (less elegant) opposite route assuming that HM as well as E and CD all take place in the postsyntactic module where they apply in a language specific extrinsically imposed order.
- The fact that ellipsis and copy deletion apply at the same time (i.e. there is no other operation that can be ordered between them) is due to them both being non-pronunciation operations.
- The discussed languages would then exhibit the two orders of operations (HM > CD, E and CD, E > HM) as shown in (21).

(21)

Order	Languages	VVPE & VVPT
HM > CD, E	Hebrew, Portuguese, Russian	yes
CD, E > HM	Danish, Norwegian, Swedish	no

- If HM applies early, V-raising always saves the verb from deletion and results in V-stranding/-doubling. If HM applies late, it is always bled by either CD or E and a Last Resort repair is observed, i.e. dummy verb insertion.

6.1 Consequences and implications

- The fact that it is always V-to-C movement that is bled and V-to-T movement that counterbleeds is lost in my proposal. It is a mere coincidence that the languages with the order CD, E > HM are also the ones that have V-to-C instead of V-to-T movement.

- Consequently, the account predicts that there should be languages with V-to-T movement that do not show VVPE or VVPT (despite having VPE or VPT) and also languages with V-to-C movement that do exhibit VVPE and VVPT.

- Another prediction of the account is that languages should behave uniformly in both VPE and VPT with regard to whether they allow verb-stranding/-doubling because if HM precedes/follows one deletion operation it also precedes/follows the other. This seems to be the case in for MSc, Portuguese, Hebrew, and Russian.

6.2 Afrikaans

- Afrikaans is usually assumed to comprise of V-to-C movement, while V-to-T movement is taken to be absent (Biberauer 2002).[5]

- If there is a true link between height of verb movement and availability of verb-stranding/-doubling in VPE/VPT as in Sailor (2018), Afrikaans should pattern with MSc in not allowing VVPE and VVPT.

- If there is no link between them, which is the prediction of the current account, it should be free to exhibit or not exhibit VVPE and VVPT. However it should behave uniformly in both phenomena.

- As for VPT, it seems that it indeed patterns with MSc: It does not allow verb-doubling (22a), rather, a dummy verb *doen* 'do' takes the place of the finite verb (22b) (judgements are by Erin Pretorius).

(22) a. *Die boek skryf skryf hy (maar hy skryf nie die artikel nie/maar hy wil dit nie
          the book write write he (but he write not the article not/but he will it not
          publiseer nie).
          publish not)
      b. Die boek skryf doen hy (maar hy skryf nie die artikel nie/maar hy wil dit nie
          the book write do he (but he write not the artikel not/but he will it not
          publiseer nie).
          publish not)
          'As for writing the book, he does write it, but he doesn't write the article/but he
          doesn't want to publish it.'

- With regard to VPE, I only have tentative data, suggesting again that Afrikaans patterns with MSc: VPE seems to be allowed (23a) (further tests necessary to verify that it is really ellipsis), VVPE seems to be ungrammatical (23b), instead a dummy verb has to occur (23c).

(23) a. Jan wil 'n boek skryf en Marie wil ook.
          Jan want a book write and Marie want too
          'Jan wants to write a book and Marie wants to, as well.'
      b. *Jan skryf 'n boek en Marie skryf ook.
          Jan write a book and Marie write too
          Int: 'Jan is writing a book and Marie is (writing a book), too.'
      c. Jan skryf 'n boek en Marie doen ook.
          Jan write a book and Marie do too
          'Jan is writing a book and Marie is, too.'

6.3 Yiddish

- Yiddish has been argued to show both V-to-T and V-to-C movement (Diesing 1990). It also comprises of VPT (Källgren & Prince 1989). Accordingly, it is expected to show VVPT, which it does (Cable 2004).

(24) [**Essen** fish] **est** Maks
       eat.INF fish eats Max
       'As for eating fish, Max eats them.'   (Cable 2004:2)

- Under the provision that it allows VPE, it is also expected to show VVPE. Unfortunately, I did not yet receive any data from my informants.

7 Further issue: Harizanov & Gribanova (2017)

- H&G argue that HM has been used to model two empirically distinct classes of phenomena: the displacement of heads (as fully formed morphological words) into higher syntactic positions (e.g. V2 and V1), and the construction of complex words (e.g. V-to-Asp, V-to-T movement).

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[5] In a comprehensive study of Afrikaans, Biberauer (2002) finds that there are embedded V2 sentences in Modern Spoken Afrikaans (59% V-final vs 41% V2) which can be taken to indicate V-to-T movement. However, the vast majority of embedded verbs in second position are modals, kopulas, or auxiliaries which are base-generated in T.

- Based on their distinct clusters of properties, H&G suggest that they should be modelled by distinct grammatical operations: genuine syntactic movement (like regular phrasal movement) for the former and postsyntactic amalgamation (*Lowering*, Embick & Noyer 2001, and *Raising*, an upward counterpart of *Lowering*) for the latter.

- In effect, this means that word-order affecting movements like V2 are syntactic and word-creating movements like V-to-Asp/T are post-syntactic.

- Crucially, this is incompatible with the interaction facts between each of the two types of HM (V-to-C vs. V-to-T) with ellipsis and copy deletion: V-to-C is bled by the PF operations ellipsis and copy deletion in MSc and can therefore not be a syntactic operation. If any type of HM is syntactic it should be V-to-Asp/T movement as it consistently counter-bleeds ellipsis and copy deletion.

8 Conclusion

- VVPE and VVPT share a common logic in their analyses: The verb escapes deletion by moving out of the deletion site before deletion takes place.

- Curiously, MSc does not show VVPE or VVPT despite comprising of the necessary ingredients for them.

- The neat account of the lack of VVPE in MSc by Sailor does not easily extend to the lack of VVPT.

- If we want to capture the common behaviour of ellipsis and copy deletion in their interaction with head movement, we must assume that they all take place in the post-syntax.

- However, regarding the different predictions that Sailor's account and the present proposal make, (the sparse) Afrikaans and Yiddish data seem to support the former.

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