

Two VP anaphors in Danish*

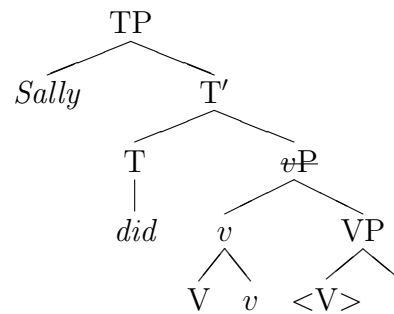
Line Mikkelsen, UC Berkeley

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1 Varieties of “VP” ellipsis

Aux-stranding VP ellipsis English (e.g. Hankamer 1971, Sag 1976, Johnson 2001)¹

- (1) Harvey paid me yesterday
and Sally **did** too.



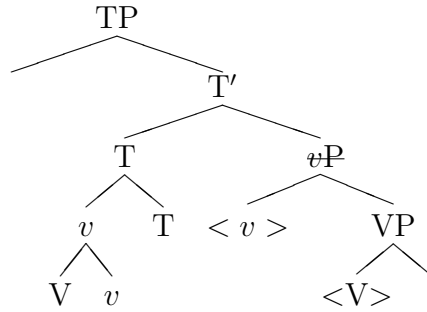
V-stranding VP ellipsis Hebrew and Irish (Goldberg 2005, McCloskey 1991:272–280)

- (2) Hebrew (Goldberg 2005:14, ex. (10))
- a. Tazmini et Dvora la-mesiba?
invite[Fut2Fsg] ACC Dvora to.the-party
'(Will) (you) invite Dvora to the party?'
- b. Kvar hizmanti.
already invite[Past1sg]
'(I) already invited [~~Dvora to the party~~].'

*This talk is based on joint work with Michael Houser, Ange Strom-Weber, and Maziar Toosarvandani (all UC Berkeley). The data for the project come from a variety of sources, including corpora (DK87-90 and Korpus 2000, BySoc), descriptive grammars, newspapers, works of fiction, and consultations with native speakers living in the US.

¹I use the traditional term VP ellipsis, but put VP in quotes because, as will become clear, it is not uniformly a VP that goes missing in the examples examined below.

(3)



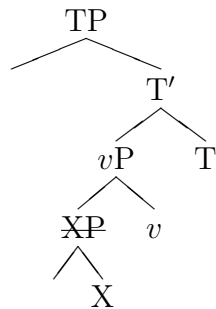
v-stranding VP ellipsis Farsi complex predicates (Toosarvandani 2006)

(4) otu zadan *otu* = non-verbal element (N), *zadan* = light verb (*v*)
 iron HIT
 'to iron'

Ellipsis targets the complement of the light verb (Toosarvandani 2006:640, ex. (4)):

(5) sohrāb piranhā-rā otu na-zad vali rostam [~~piranhā-rā otu~~] **zad**
 Sohrab shirts-acc iron neg-HIT:past:3sg but Rostam shirts-acc iron HIT:past:3sg
 'Sohrab didn't iron the shirts, but Rostam did iron the shirts.'

(6)



(2) and (5) share core properties of English VP ellipsis:

- antecedent and target can be separated by sentence or utterance boundary
- requires a linguistic antecedent
- target can be embedded
- allows strict or sloppy readings of pronouns inside ellipsis site
- requires licensing by inflectional head (T in English, Hebrew, Irish, *v* in Farsi)

Their proposals The difference in surface realization of VP ellipsis is due to independent syntactic properties of the individual languages:

- main verbs raise to T in Irish and Hebrew, but not in English
- in Farsi complex predicates *v* has independent phonological expression; English *v* does not

My goal Investigate VP anaphora in a V2 language, specifically VPE and VPP in Danish:²

(7) **VP Ellipsis (VPE)**

Jeg har prøvet at male det ... men jeg kan ikke ____.

I have tried to paint it but I can not

'I have tried to paint it ... but I can't.'

[DK87-90]

(8) **VP Pronominalization (VPP)**

a. Kan vi slet ikke snakke om det?

can we NPI not talk about it

'Can't we talk about it at all?'

b. Selvfølgelig kan vi **det**.

of.course can we DET

Of course we can.

[DK87-90]

Both exhibit core properties of English VPE (data not shown)

- V2 configuration: (section 2)

[_{CP} XP finite-verb [_{TP} ... <XP> ...]]

Expectations:

1. the proform involved in VPP should participate in movement to initial position
2. VPE (and VPP) should, under certain circumstances, strand a finite main verb

- 1. is borne out by the data, 2. is not (section 3)
- What does this tell us about verb movement and about V2?
- How is Danish different from Hebrew and Irish? (section 4)

²I use the following abbreviations in the glosses: COM = common gender, DEF = definite, NEU = neuter gender, NPI = negative polarity item, PART = discourse particle, PASS = passive, PL = plural, POSS = possessive, REFL = reflexive, SUP = superlative. I gloss the VP proform *det* DET. As (8a) shows, the proform is identical to the 3rd sg neuter pronoun. I return to this in section 3.2.

2 V2 and VPA

2.1 Verb Second (V2)

V2 is a core syntactic property of most Germanic languages, including Danish:

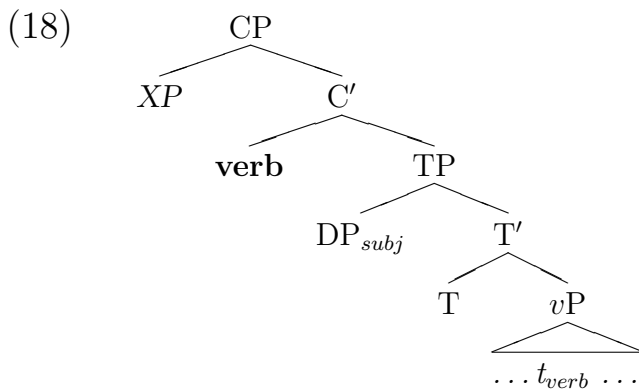
- some phrasal element appears in initial position (in *italics*)
- finite verb (aux or main) appears in second position (in **bold**)

- (9) *Hende* **havde** han genkendt forrige tirsdag. [direct object + aux]
her had he recognized last Tuesday
'He had recognized her last Tuesday.'
- (10) *Fra hjernen* **kom** de i hvert fald ikke. [PP complement + main]
from brain.DEF came they in any case not.
'They didn't come from the brain.'
- (11) *Ham* **var** der aldrig nogen der havde mistanke til. [object of P + copula]
him was there never anyone that had suspicion to
'There was never anyone who was suspicious of him.'
- (12) *Slagteren* **har** du vel givet besked. [indirect object + aux]
butcher.DEF have you PART given word
'I take it that you have told the butcher.'
- (13) *At hun også er den frygteligste,* **ved** han ikke. [CP complement + main]
That she also is the terrifying.SUP knows he not
'He doesn't know that she is also the most terrifying one.'
- (14) *Morsomt* **fandt** de det ikke. [predicate of a small clause + main]
funny found they it not.
'They didn't find it funny.'
- (15) *Så meget* **gentog** verden sig vel ikke. [adverbial + main]
that much repeated world REFL PART not
'One wouldn't think that the world would repeat itself that much.'
- (16) *Fundet nogen løsning* **har** de endnu ikke. [non-finite VP + aux]
found any solution have they yet not.
'They haven't found a solution yet.'

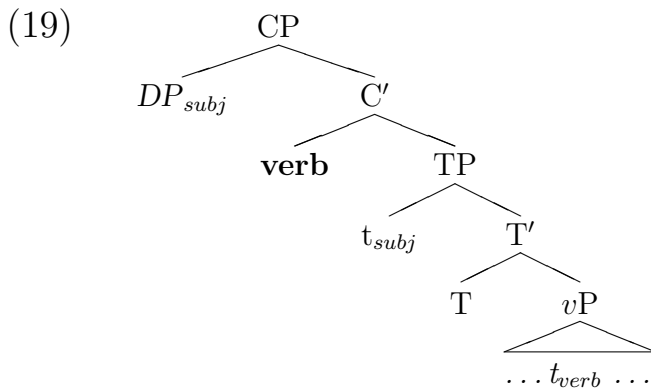
- (17) *Ida åbnete igen sine øjne.* [subject + main]
 Ida opened again REFL.POSS eyes
 ‘*Ida opened her eyes again.*’

Analytically, there are two components to V2:

- finite verb (aux or main) moves to highest head position (C⁰)
- some XP moves to (or occupies) highest specifier position (Spec-CP)
 - if XP is not subject, (9)–(16), we get XVS0:



- if XP is subject, (17), we get SVO:



Note There is some debate about the analysis of V2 in subject-initial clauses, specifically whether these should be analyzed as CPs (e.g. Vikner 1995, Schwartz and Vikner 1996) or IPs/TPs (e.g. Travis 1991 and Zwart 1997). Here I take the former position. The issue is not crucial to my immediate concerns here, though I do believe it is relevant for a full understanding of exactly when the VPP proform must front and when it may stay in situ (see section 3.1).

2.2 Two VPA constructions in Danish

VPE Amply attested and judged grammatical, but restricted use compared to English, possibly due to the existence and very widespread use of VPP (see Appendix).

___ = ellipsis site

- (20) Jeg har prøvet at male det ... men jeg kan ikke ___.
I have tried to paint it but I can not
'I have tried to paint it ... but I can't.' [DK87–90]
- (21) [CONTEXT: There is nothing wrong with our system ...]
Enten følger spillerne det, eller også gør de ikke ___.
either follows players.DEF it, or also do they not
'Either the players follow it (= the system), or they don't.' [Korpus 2000]
- (22) Snydebilleder hedder de vist. Vel gør de ej ___.
cheat.pictures be.called they PART well do they not
'I believe they are called cheating pictures. No they aren't!' [Korpus 2000]
- (23) Men jeg ser ingen forbindelse til den danske statsborger Niels Lassen. Gør De ___?
but I see no connection to the danish citizen Niels Lassen. Do you
'But I don't see any connection to the Danish citizen Niels Lassen. Do you?'
[Leif Davidsen *De gode søstre*, Lindhardt og Ringhof, 2002, p. 144]
- (24) Vi har ikke fanget noget, har I?
we have not caught anything have you.PL
'We haven't caught anything. Have you?' [Korpus 2000]
- (25) de ligner da også hinanden gør de ikke?
they resemble PART also each.other do they not
'They sure look like each other, don't they?' [BySoc]

VPP Ubiquitous in the language, noted in descriptive grammars (e.g. Hansen 1967:31, Diderichsen 1968:178, Allan et al. 1995:158–9), but no analysis.³

det = VPP proform; variable position (§3.1)

- (26) a. Ved I hvor det ligger?
 know you.PL where it lies
 ‘Do you know where it is?’
 b. Selvfølgelig gør vi **det**.
 of.course do we DET
 ‘Of course we do.’ [DK87-90]
- (27) En del af dem klarer sig, andre gør **det** ikke.
 a part of them deal.with REFL others do DET not
 ‘Some of them survive, others don’t.’ [DK87-90]
- (28) Han siger han kan hækle, men **det** kan han ikke.
 he says he can crochet but DET kan he not
 ‘He says that he can crochet, but he can’t.’ [elicited]
- (29) a. [Sampson] “. . . Selv vores historie er kompliceret. Kender De til den?”
 even our history is complicated. Know you to it?
 ‘Even our history is complicated. Do you know about it?’
 b. [Toftlund] “Ikke synderligt.”
 not particularly
 c. [Sampson] “Næh, hvorfor skulle De også **det**?” sagde han og fortsatte: “. . .
 Well, why should you also DET said he and continued
 ‘Why should you, he said and continued . . .’
 [Leif Davidsen *De gode søstre*, p. 166]
- (30) a. [Sampson] Vi har holdt øje med hende i flere år.
 we have held eye with her in several years
 ‘We have kept an eye on her for several years.’
 b. [Toftlund] **Det** har alle åbenbart.
 DET has everyone apparently
 ‘It seems that everyone has.’
 [Leif Davidsen *De gode søstre*, p. 167]

³Vikner (1988:11) cites some examples in a footnote, but does not develop an analysis. A range of descriptively similar VP anaphoric constructions are found throughout the Germanic languages. For data and discussion see Lødrup (1994) on Norwegian auxiliary+*det*, Källgren and Prince (1989) on Swedish *göra det*, Winkler (1998) and López and Winkler (2000) on the German *es* construction, van Craenenbroeck (2004:125-260) on Dutch Short Do Replies, and Kehler and Ward (1999) and Kehler and Ward (2004) on English *do so* and *do it*. A next goal of the current project is to compare Danish VPP to these constructions.

VPP: deep or surface anaphora? Surface by Hankamer and Sag (1976) criteria (see Lødrup (1994) and Houser et al. (2007) for more detailed discussion):

- exhibits the Missing Antecedent Phenomenon:

(31) Jeg har aldrig redet på en kamel, men **det** har Ivan og han siger at *den* stank
 I have never ridden on a camel but DET has Ivan and he says that it.COM stank
 forfærdeligt.
 terribly.
 ‘I have never ridden a camel, but Ivan has and he says it stank terribly.’

- requires/prefers syntactic parallelism:⁴

(32) PASSIVE ~ ACTIVE
 ??Skraldespanden skulle tømmes og jeg gjorde **det**.
 garbage.bucket.DEF should empty.PASS and I did DET
 Intended: ‘The garbage can needed to be emptied and I emptied it.’

(33) TRANSITIVE ~ INTRANSITIVE
 *Jeg ville hænge hesteskoen over døren og **det** gør den nu.
 I wanted hang horse.shoe.DEF over door.DEF and DET does it.COM now
 Intended: ‘I wanted to hang the horseshoe over the door and it hangs there now.’

⁴We have found one instance of VPP with a voice mismatch (passive antecedent and active target):

- i. (a) “Die Linkspartei, som altså er arvtager til det gamle kommunistparti, har ikke noget egentligt
 Die Linkspartei, which in.fact is heir to the old communist.party, has not any real
 program, det arbejder bare med folks utilfredshed og burde have [været forbudt] ligesom NSPD,
 program it works just with people’s dissatisfaction and should have been forbidden like NSPD
 nazistpartiet, blev det efter Anden Verdenskrig.”
 nazi.party.DEF became DET after second world.war
 ‘Die Linkspartei, which is the de facto heir of the old communist party, doesn’t have a real political program; it
 just works off people’s dissatisfaction and should have been forbidden, as NSPD, the Nazi party, was after the
 Second World War.’
- (b) – Og hvem skulle have gjort **det**? Staten?
 and who should have done DET State.DEF
 ‘– And who should have done that? The State?’

It is not clear to us whether this example is captured by Kehler’s (2000) theory of the interaction between VPE and coherence relations in discourse, since it is not clear to us which coherence relation holds between (ia) and (ib). However, the contrast between (32) and (i) is in line with Johnson’s (2001:471) observation that passive VPs tend to antecede active targets of VPE more readily than active VPs antecede passive targets, and (i) could be accommodated under the syntactic proposal he makes for the corresponding English examples.

- Moreover VPP is found with passives (synthetic and analytic):

- (34) a. Så **tiltrække-s** de to af hinanden — ganske som alle andre positive og
 then attract-PASS the two by the.other just as all other positive and
 negative ladninger gør **det**. [Korpus 2000]
 negative charges do DET.
‘The two are then attracted by each other just like all other positive and negative charges are.’
- b. Det var første gang jeg ønskede at **blive afsat**, og **det** blev jeg. [DK87-90]
 it was first time I wanted to become dismissed and DET blev jeg.
‘It was the first time I had wanted to be dismissed and I was.’

- unaccusatives:

- (35) Bare bilen ville bryde sammen lige nu! Men **det** gjorde den selvfølgelig ikke!
 just car.DEF would break together right now but DET did it of.course not
‘If only the car would break down right now! But of course it didn’t!’
- [DK 87-90; modified]

- and raising predicates:

- (36) Han **lader til** at have glemte alt om aftalen, men **det** gør hun ikke.
 he seems to to have forgotten all about deal.DEF but DET does she not
‘He seems to have forgotten all about the deal, but she doesn’t [seem to have forgotten all about the deal].’

These facts suggest that the *vP* that surfaces as *det* has internal syntactic structure at some point in the derivation.

2.3 V2 and VPA: expected interactions

Given the analysis of V2 (XP fronts to Spec-CP and finite verb raises to C⁰) we expect VPA to interact with V2 in two ways:

1. the proform involved in VPP could front to Spec-CP:
 - it has the right syntactic properties: it’s an XP, not an X⁰
 - it has the right discourse pragmatic properties: given the antecedence requirement on anaphora, the anaphor has the right properties to be a topic and topics can sit in Spec-CP (Diderichsen 1968:191–2)
2. a finite main verb could be stranded by VPE and by VPP if the above arguments for its surface anaphoric status are accepted:

- if there are no auxiliaries the main verb leaves the vP (for C^0), as in (10), (13), (14), (15)
- if head movement takes place in the narrow syntax, and ellipsis takes place later (in the PF), the result would be “remnant ellipsis”, as argued for VPE in Hebrew and Irish by Goldberg (2005) and McCloskey (1991).

3 What we find

3.1 Fronting of VP anaphor to Spec-CP

The first expectation is borne out. VPP *det* may front to Spec-CP, yielding *det-verb[fin]-subject* order:

- (37) Findes der ikke en billigere løsning? **Det** gør der sikkert.
 exist there not a cheaper solution? DET does there probably
 ‘*Isn’t there a cheaper solution? There probably is.*’ [DK87-90]

- (38) a. [Sampson] Vi har holdt øje med hende i flere år.
 we have held eye with her in several years
 ‘*We have kept an eye on her for several years.*’
 b. [Toftlund] **Det** har alle åbenbart.
 DET has everyone apparently
 ‘*It seems that everyone has.*’

[Leif Davidsen *De gode søstre*, p. 167]

It may also occur in situ (contra Vikner (1988:11)):

- (39) a. [Sampson] “... Selv vores historie er kompliceret. Kender De til den?”
 even our history is complicated. Know you to it?
 ‘*Even our history is complicated. Do you know about it?*’
 b. [Toftlund] “Ikke synderligt.”
 not particularly
 c. [Sampson] “Næh, **hvorfor** skulle De også **det**?” sagde han og fortsatte: “...
 Well, why should you also DET said he and continued
 ‘*Why should you, he said and continued ...*’

[Leif Davidsen *De gode søstre*, p. 166]

- (40) a. Ved I hvor det ligger?
 know you.PL where it lies
 ‘Do you know where it is?’
- b. **Selvfølgelig** gør vi **det**.
 of.course do we DET
 ‘Of course we do.’ [DK87-90]
- (41) [CP Hvis det viser sig at være nødvendigt at flytte hovedkontoret til USA],
 if it shows REFL to be necessary to move head.office.DEF to USA
 gør vi måske **det** ...
 do we perhaps DET
 ‘If it turns out to be necessary to move the head quarters to the US, we might (do so) ...’ [Korpus 2000]
- (42) a. [Lise Carlsen] ... jeg er træt af, at min mand bare forsvinder og ikke
 I am tired of that my husband just disappears and nok
 gider ringe hjem og spørge, hvordan hans gravide kone har det. Om
 be.bothered call home and ask how his pregnant wife has it. Whether
 fødslen måske er gået i gang for tidligt”
 birth.DEF maybe is gone in step too early
 ‘I am tired of the fact that my husband just disappears and can’t be bothered
 to call home and ask how his pregnant wife is doing. If labor has perhaps
 started early.’
- b. Hans hjerte begyndte at hamre. Som om han havde løbet langt og hurtigt.
 his heart started to pound. As if he had run far and fast.
- c. [Per Toftlund] Er den **det**? Hvad siger du? ...
 is it.COM DET what say you
 ‘Has it? What are you saying?’

[From Leif Davidsen *De gode søstre*, p. 147]

Descriptive generalization The VPP proform fronts to Spec-CP unless:

- i. VPP occurs in an embedded clause that does not allow topicalization, e.g. (34a), OR
- ii. some element with higher priority occupies that position.

Element with higher priority include:

- a *wh*-phrase; *hvorfor* (why) in (39)
- certain adverbials; *selvfølgelig* (of course) in (40)

- the antecedent of a conditional; embedded CP in (41)
- the null operator involved in polar questions; (42)
- subjects that are interpreted as (contrastive?) topic:

– *andre* (others) in (43) vs. *han* (he) in (44):

(43) En del af dem klarer sig, **andre** gør **det** ikke.
 a part of them deal.with REFL others do DET not
‘Some of them manage, others don’t.’ [DK87-90]

(44) *Han siger han kan hække, men **han** kan **det** ikke. (cf. Vikner 1988:11, ex. (iib))
 he says he can crochet but he can DET not

– in-situ *det* impossible with expletive subject: (45) vs. (46)

(45) Findes der ikke en billigere løsning? ***Der** gør **det** sikkert.
 exist there not a cheaper solution? there does DET probably

(46) Findes der ikke en billigere løsning? **Det** gør der sikkert.
 exist there not a cheaper solution? DET does there probably
‘Isn’t there a cheaper solution? There probably is.’ [DK87-90]

Challenge How to understand “higher priority”—nature of features involved, locality, discourse functions of Spec-CP (Branigan and MacKenzie 2002, Sturgeon 2006)

What about VPE?

- Can the target of VPE participate in V2? (à la Johnson 2001:446–7)
- No, the resulting verb-initial string can only be understood as a question and is therefore felicitous in (47), but infelicitous as an answer to (48):

(47) Du blev ikke længe ude.
 you stayed not long out
‘You didn’t stay out long.’ [adapted from Hansen 1967:31]

a. Gjorde jeg ikke? – Aahnej
 did I not oh.no
‘Didn’t I? Oh well.’

b. Gjorde jeg ikke det?
 did I not DET
‘Didn’t I?’

- (48) Blev du længe ude?
 stayed you long out
 ‘*Did you stay out long?*’
- a. Nej, jeg gjorde ikke ____.
 no I did not
 ‘*No, I didn’t.*’
- b# (Nej,) ____ gjorde jeg ikke
 no did I not
 ‘*Didn’t I?*’ [**not** ‘*I didn’t.*’]
- c. Nej, **det** gjorde jeg ikke.
 no DET did I now
 ‘*No, I didn’t.*’

- Does this show that V2 is a phonologically defined configuration?
- That depends on the analysis of polar questions, which are phonologically V1, but have been argued to be V2 due to a null operator in Spec-CP (Vikner 1995:49)

3.2 Verb movement and remnant ellipsis

The second expectation – that VPE and VPP could strand a finite main verb – is not borne out:

- (49) *Vore øjne opfatter det ikke, men biers øjne **opfatter**.
 our eyes perceive it not but bees.POSS eyes percieve
 Intended: ‘*Our eyes don’t perceive it, but bees’ eyes do percieve it.*’

In such contexts a finite form of the verb *gøre* (do) is obligatory (Houser et al. 2006):

- (50) Vore øjne opfatter det ikke, men biers **gør** ____.
 our eyes perceive it not but bees.POSS do
 ‘*Our eyes don’t perceive it, but bees’ (eyes) do.*’ [Korpus 2000]

Showing this for VPP requires controlling for various other construals of the test sentences since the VPP proform *det* has other uses, including:

- 3rd person singular neuter pronoun:

- (51) a. Hvad med komfuret?
 what about stove.DEF.NEU
 ‘What about the stove?’
- b. Jeg slukkede for **det**
 I turn.off.PAST for it
 ‘I turned it off.’

• CP/propositional anaphor:

- (52) De har fundet fejlen og **det** er godt.
 they have found error.DET and it is good
 ‘They have found the error and that’s good.’

- (53) a. De kommer først i morgen.
 they arrive first in morning.
 ‘They are not arriving until tomorrow.’
- b. Jeg ved **det** godt, men ...
 I know it well but
 ‘I know (that), but ...’

Using a verb like *bo* (live), which takes a locative PP complement, we see that stranding of the main verb is impossible in VPP as well, whether the proform is fronted or not :

- (54) a. *Jeg bor ikke i Svaneparken, men **det bor** mine børn.
 I live not in Svaneparken but DET live my children
 Intended: ‘I don’t live in Svaneparken, but my children do live in Svaneparken.’
- b. *Jeg bor ikke i Svaneparken, men mine børn **bor** det.
 I live not in Svaneparken but my children live DET
 Intended: ‘I don’t live in Svaneparken, but my children do live in Svaneparken.’

As with VPE, *gøre* support obligatory in this context:

- (55) Jeg bor ikke i Svaneparken, men **det gør** mine børn ... [Korpus 2000]
 I live not in Svaneparken but DET do my children
 ‘I don’t live in Svaneparken, but my children do ...’

A tentative proposal (developed in Houser et al. 2006)

- VPE and VPP bleed verb movement:
 - the relevant part of verb movement is in the PF (Chomsky 2001:37–38, Zwart 2001; contra Matushansky (2006))
 - ellipsis “happens” earlier (Merchant 2001:72ff), perhaps at Convergence (Baltin 2005)
- *gøre* is inserted to express the features of T (à la *do*-support in English)

4 Back to Hebrew and Irish

Question Why would VP ellipsis bleed verb movement in Danish, but not in Hebrew and Irish?

Two possibilities

- Verb movement is also in the PF in these languages, ellipsis happens later in the derivation.
- The timing of ellipsis is the same, but verb movement is in the narrow syntax in Hebrew and Irish.

Observation that might favor ii. There is a difference in the function of verb movement in Danish on the one hand, and Hebrew and Irish on the other:

- Hebrew and Irish appear to have $v \rightarrow T$ for morphological reasons:
 - the morphology associated with tense features needs a host
- Danish has $v \rightarrow C$ for non-morphological reasons.
 - there is no $v \rightarrow T$ independent of $T \rightarrow C$ (Vikner 1995)
 - in embedded contexts without V2, the finite verb (main or aux) is realized below negation (in *v*):

(56) Jeg tog cyklen fordi jeg ikke **vidste** hvor bilnøglerne var.
I took bicycle.DEF because I not knew where car.keys.DEF were
‘I took my bike because I didn’t know where the car keys were.’

(57) Jeg tog cyklen fordi jeg ikke **kunne** finde bilnøglerne.
 I took bicycle.DEF because I not could find car.keys.DEF
‘I took my bike because I couldn’t find the car keys.’

– thus $v \rightarrow T$ cannot be triggered by morphological needs

– $v \rightarrow T$ (if it exists in Danish at all!) is a subpart of V2 (movement to C) and hence triggered, indirectly, by whatever causes V2, which is something non-morphological, possibly in the realm of discourse (Brandner 2004)

- Perhaps verb movement is in the narrow syntax in Hebrew and Irish because it serves a morphological need — natural if insertion of lexical/phonological material follows narrow syntax (Late Insertion in Distributed Morphology) — whereas verb movement for V2, as in Danish, is in the PF.

5 Conclusions

- V-stranding VPE in Hebrew and Irish raises two expectations about interaction of verb movement and VP ellipsis in a V2 language like Danish
- First is borne out: VPP can participate in V2 by proform moving to initial position.
- Second is not: a finite main verb cannot be stranded by VPE or VPP
- Resolution of this puzzle might hinge on the timing of verb movement wrt. ellipsis, in particular that the function of verb movement in a given language (morphological or non-morphological) could determine whether verb movement happens in the narrow syntax or at PF.

Appendix

Four observations on the distribution of VPE and VPP in Danish:

Observation 1 VPP is less restricted semantically than *do it* and *do so* anaphora in English. None of the VPP examples in (26), (29), (34a-b), (36), (37), and (55) have felicitous *do so* or *do it* counterparts in English. Presumably this is due the semantics of the antecedent VP in these examples and the restrictions on *do so* or *do it* identified by Kehler and Ward (1999).

Observation 2 Impressionistically, VPE is less frequent in Danish, as compared to

- a) VPP in Danish
- b) VPE in English

Observation 3 Impressionistically, Danish VPE occurs more frequently in embedded clauses than in non-embedded clauses. This is not reflected in the examples if VPE included in §2.2, but in fact the examples in (58)–(62) are more typical. ((60) and (61) show that VPE and VPP can cooccur with a common antecedent, in either order, and (62) indicates that Sag’s (1976:346ff) observation that the antecedent requirement on English VPE is not akin to the coreference restrictions on pronouns also holds for Danish VPE.)

- (58) Farver er Gøgl, når man behandler dem på den Manér hun gør ____.
colors are entertainment when one treats them on the way she does
Colors are entertainment when one treats them the way she does. [Hansen 1967:31]
- (59) Spillerne kunne være et afgangshold fra teaterskolen, der følger et løst skitseret
players.DEF could be a graduating.team from theater.school.DEF that follow a loosely sketched
forløb og bytter roller of skifter karaktere, når de kan ____.⁵
course and exchange roles and change character when they can
*The players could be a graduating team from the theater school who follow a loosely
sketched course of events and exchange roles and change characterer when they
can.*

⁵Bo Green Jensen “Firmaets mand”, *Weekendavisen* December 8–14, 2006, Kultur p. 5.

- (60) ... en dag kom en af lærerne også og sagde at jeg bare skulle slå dem, fordi
 one day came one of teachers.DEF also and said that I just should hit them because
 nogle af mine elever ikke ville høre efter, men da jeg ikke ville ____, gjorde hun
 some of my students not would listen after but when I not would did she
 det selv!⁶
 DET self
*... one day one of the teachers came and said that I should just hit them, because
 one of my students wouldn't pay attention, but when I didn't want to, she did (it)
 herself!*
- (61) Visionen som sådan er jo ikke afhængig af, om vi kommer i gang på en
 vision.DEF as such is PART not dependent of whether we come in step on a
 bestemt dato. Det er klart, at vi i øjeblikket ikke lever op til den vision. Men
 certain date it is clear that we in moment.DEF not live up to that vision but
 det forventer jeg da at vi kan, så snart tingene fungerer som de skal ____.⁷
 DET expect I PART that we can as soon things.DEF function as they shall
*You see the vision as such is not dependent on whether we get started on a certain
 date. But it is clear that we at the moment are not living up to that vision. But
 I certainly expect that we will as soon as things start working as they should.*
- (62) a. Ved De – i Tyskland skelner man mellem tre slags kaffe.
 know you in Germany distinguish one between three kinds coffee.
Do you know that in Germany they distinguish between three kinds of coffee?
- b. Der er Kaffee, som aldrig har set bønner.
 There is that never has seen beans.
There is Kaffee, which has never seen a coffee bean.
- c. Og der er Bohnen-Kaffee, som vel lige netop har ____.
 And there is that PART just enough has
And there is Bohnen-Kaffee, which barely has.
- d. Og så er der endelig Echt-Bohnen-Kaffee, som til gengæld aldrig har set
 And then is there finally that to repay never has seen
 andet end ægte kaffebønner!
 anything than genuine coffee.beans
*And finally there is Echt-Bohnen-Kaffee, which in turn has seen nothing but
 real coffee beans!* [DK87-90]

⁶Personal email, December 13, 2006.

⁷Interview with prison warden Jørgen Bang in Markus Bernsen's article "Fængselsvision i Østjylland", *Weekendavisen* December 22–28, 2006, p. 7.

Observation 4 (due to Dan Hardt, p.c.) In certain embedded environments, VPP is impossible or degraded, but VPE is fully grammatical:

- Antecedent Contain Deletion:

(63) Per Toftlund boede på samme hotel, som Teddy havde gjort (*det) nogle dage
Per Toftlund lived at same hotel, as Teddy had done some days
tidligere.

earlier.

Per Toftlund stayed at the same hotel as Teddy had some days earlier.

[Leif Davidsen *De gode søstre*, p. 149]

- Comparative clauses:

(64) Vi kan producere mange flere grøntsager end vi gør (??det) nu og alligevel
we can produce many more vegetables that we do now and still
opretholde en gigantisk svineproduktion.

maintain a gigantic pork-production

We can produce many more vegetables that we do now and still maintain a gigantic pork production.

[Korpus 2000]

Questions

- (How) are these observations related?
- Is the lack of topicalization in (most) embedded clauses relevant for understanding the distribution of VPE and VPP in main vs. embedded clauses?
- Does the impossibility of VPP in (63) and (64) cast doubt on the claim that it is a surface anaphor?
- Do (63) and (64) indeed involve VPE or do they involve some independent ellipsis process?

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Line Mikkelsen
Department of Linguistics
University of California, Berkeley
1203 Dwinelle Hall, CA 94720-2650
mikkelsen@berkeley.edu
<http://socrates.berkeley.edu/~mikkelse/>