V-to-I as remnant vP-to-SpecTP

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1 Introduction

• Norwegian generally does not have verb movement in non-V2 contexts, such as embedded clauses:

(1) ... ettersom hun **vanligvis**$_2$ måtte$_1$ kjøpe$_3$ de dyreste skoene. Norwegian
as she usually must buy the expensive.est shoes.the
'... as she usually had to buy the most expensive shoes.'

• However, in Tromsø Northern Norwegian (TrNN) and Regional Northern Norwegian (ReNN) verbs may precede adverbs that they are merged above:[1]

(2) ... ettersom ho måtte$_1$ **vanligvis**$_2$ kjøpe$_3$ de dyreste skoan. TrNN, ReNN
as she must usually buy the expensive.est shoes.the
'... as she usually had to buy the most expensive shoes.'

• In addition, ReNN allows verb movement past outscoping adverbs:

(3) ... ettersom ho kjøpte$_2$ **vanligvis**$_1$ de dyreste skoan. ReNN
as she bought usually the expensive.est shoes.the
'... as she usually bought the most expensive shoes.'

• There is no verb *movement* in (2); what we see here is the order of merge. Cases like (3), on the other hand, do involve verb movement across an outscoping adverb (see Bentzen 2005; to appear).

• Claims here:

- ReNN has optional independent verb movement to the IP domain.
- This verb movement is movement of a remnant vP to SpecTP/SpecAgrP.

• Outline:

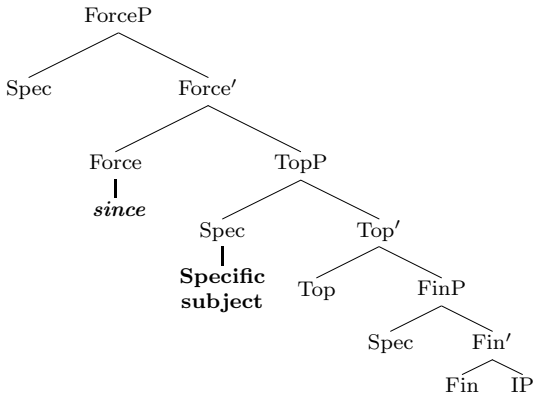
- Section 2: Brief outline of (the relevant parts of) the assumed clause structure.
- Section 3: Present two potential remnant movement accounts for the verb movement exhibited in (3).
- Section 4: Face the two proposals with some further empirical facts from ReNN.
- Section 5: Summary and concluding remarks.

[1] Here and in the following, TrNN and ReNN examples are written in an approximate dialectal form.

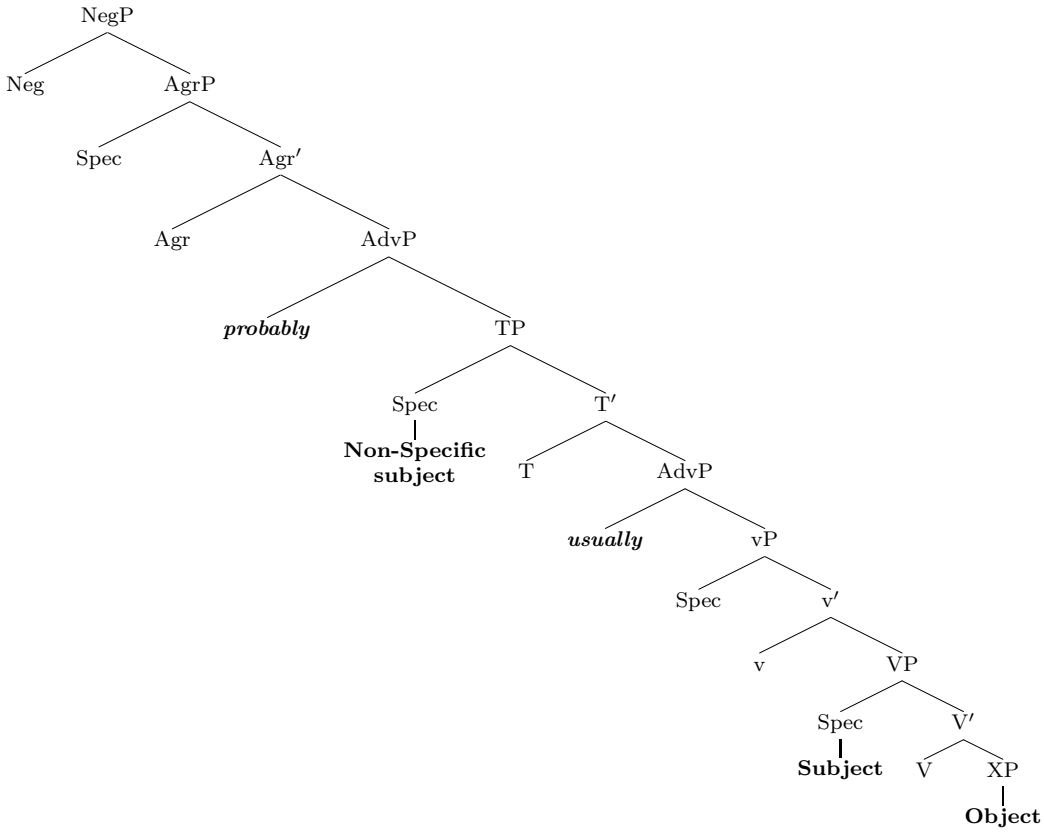
2 Brief outline of clause structure

• The assumed structure for Scandinavian clauses (cf. also Wiklund et al. 2006):

(4) **The Scandinavian CP domain:**



(5) **The Scandinavian IP:**



• Subjects get a strong/specific reading in TopP and a weak/non-specific reading in TP (strong and weak in the sense of Milsark 1977).

3 Verb movement in embedded clauses

• Regional Northern Norwegian (ReNN) allows verb movement across outscoping adverbs in embedded (non-V2) contexts (cf. also (3)):

(6) ... ettersom han hadde$_2$ **heldigvis**$_1$ reparert$_3$ radioen.
as he had fortunately repaired radio.the
'... as he had fortunately repaired the radio.'

• I suggest that this is movement of a remnant vP to SpecTP. Sections 3.1 and 3.2 present two possible instantiations of such movement.

3.1 Embedded verb movement as movement of $[_{vP}$ Subj v $t_{Obj}]$ to SpecTP

• Nilsen (2003), Müller (2004): V2 involves movement of a remnant verbal projection to the clause-initial position.

• Müller (2004): V2 is remnant vP movement to SpecCP:

- Movement from one phase to another ⇒ subject to the *Phase Impenetrability Condition* (PIC) (cf. Chomsky 2000, Chomsky 2001): Only the *Edge Domain* of a phase is accessible to the next phase.
- The PIC identifies the *edge* as exactly one specifier and one head.
- Everything else has been evacuated out of vP prior to vP movement. Such evacuation is forced by the *Edge Domain Pied Piping Condition*.

(7) *Edge Domain Pied Piping Condition* (EPC) (Müller 2004:186):
A moved vP contains only the edge domain of its head.

• Nilsen (2003): V2 is remnant ΣP movement to initial position:

- A ΣP containing the finite verb and the topic moves to initial position.
- The VP must be evacuated out of the scope of Σ, and moves to a position immediately above ΣP prior to movement of ΣP to initial position.

• Biberauer (2004): vP movement to SpecTP in Afrikaans embedded clauses:

- Subjects moving to SpecTP to satisfy the EPP-features in T may optionally pied-pipe the whole vP along with them in some languages.

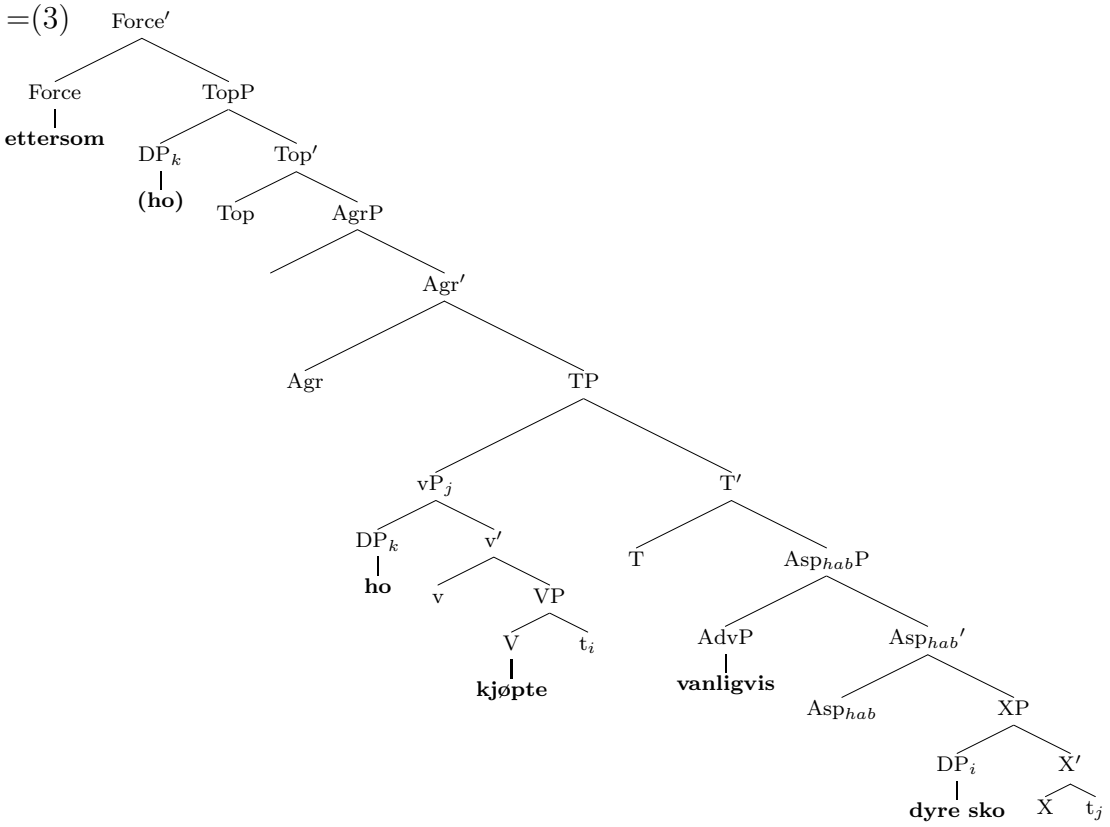
• **Proposal here**: Verb movement in ReNN embedded clauses is movement of a remnant vP to SpecTP:

→ Following Biberauer (2004): Subjects moving to SpecTP may pied-pipe the vP. However, crucially only the *edge* of vP, i.e. the finite verb may be pied-piped.

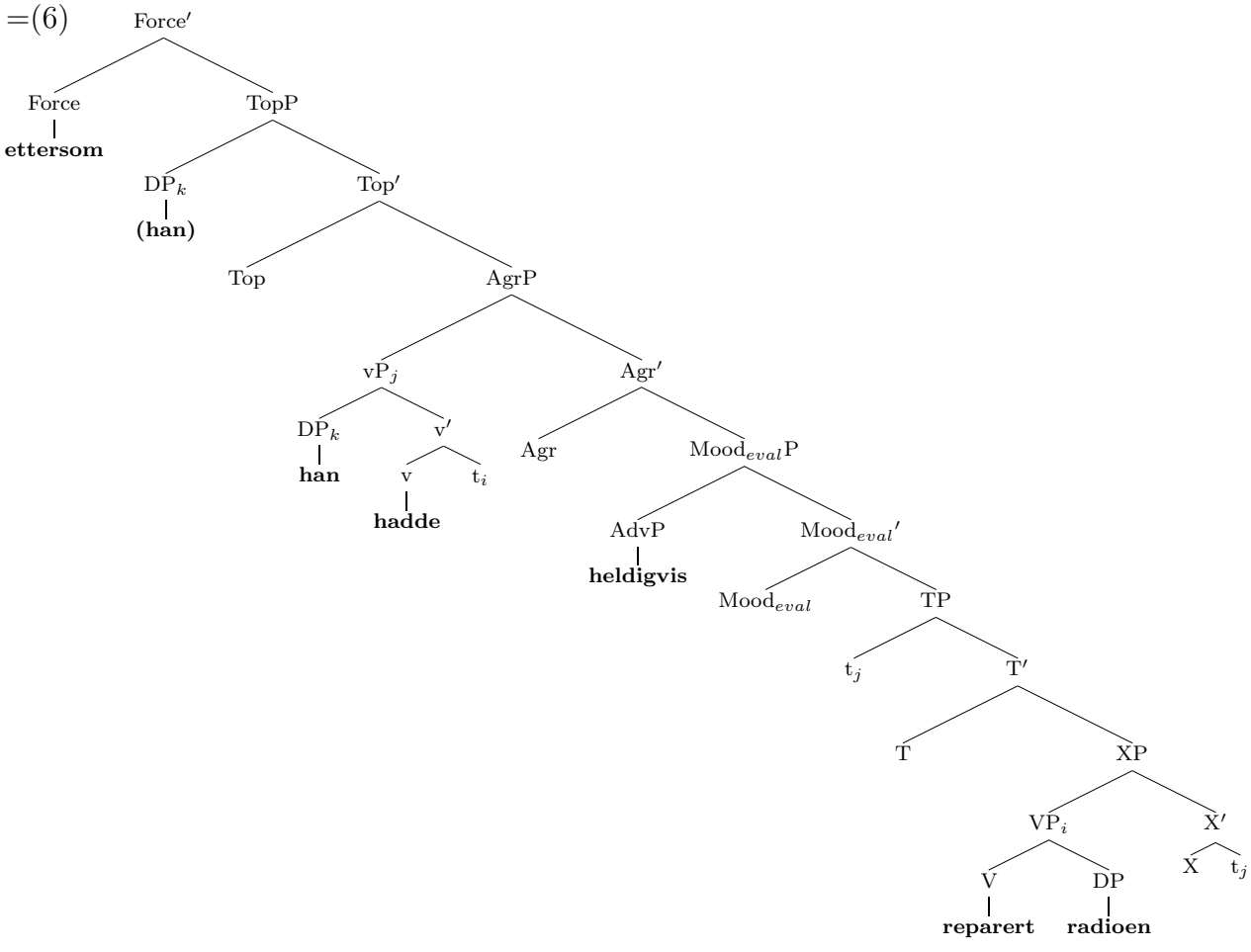
→ Following Nilsen (2003), Müller (2004): All other material apart from the *edge* of the moving projection must be evacuated prior to movement.

• This yields the following derivation of examples such as (3) and (6):

(8) =(3)



(9) =(6)



3.2 Embedded verb movement as movement of $[_{vP}$ $\mathbf{t}_{Subj}$ **v** $\mathbf{t}_{Obj}]$ to SpecTP

• Mahajan (2003): The EPP-features in T can be checked by a VP moving to SpecTP (his SpecIP), seemingly without the subject, although it may contain the object (Hindi example from Mahajan 2003:226):[2]

(10) [raam-ne $[_{IP}$ $[_{VP}$ saare phal khaaye $t_{obj}]$ the $[_{PredP}$ $t_{VP}]]]$
Ram-ERG all fruits(masc) eat-PERF-masc-pl be-masc-pl-PAST
'Ram had eaten all the fruits.'

• **Proposal here (cf. also Wiklund et al. 2006):** Verb movement in ReNN embedded clauses is movement of a remnant vP containing only the verb to SpecTP:

→ Following Mahajan (2003): The EPP-features in T can either be satisfied by moving the subject to SpecTP, or by moving a remnant vP, containing only the verb, to SpecTP.

→ The subject moves to SpecTP in the ReNN cases without verb movement, whereas the remnant vP will move there in the cases with verb movement.

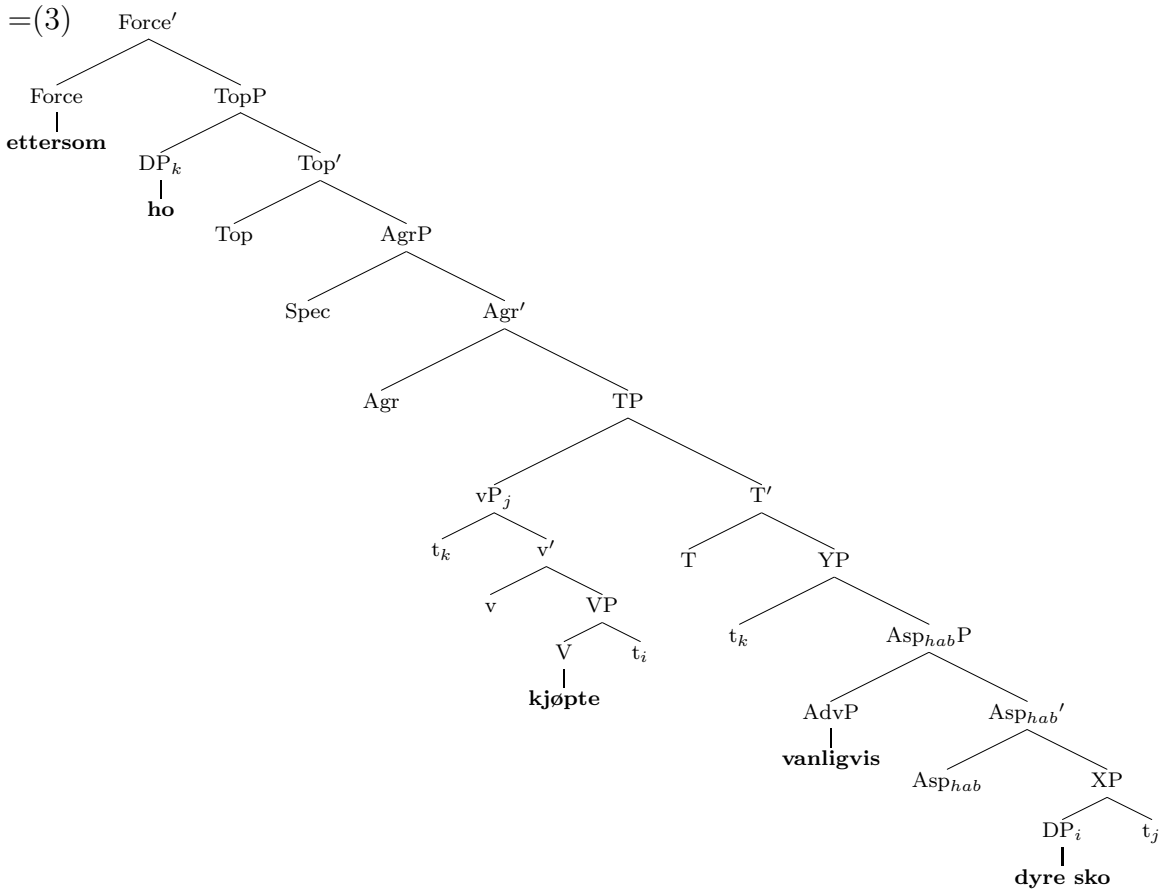
→ Following Nilsen (2003), Müller (2004): All other material apart from the verb must be evacuated out of the vP prior to vP-fronting.

→ vP-fronting has to be followed by movement of the subject to a Spec position above SpecTP, viz. SpecTopP.

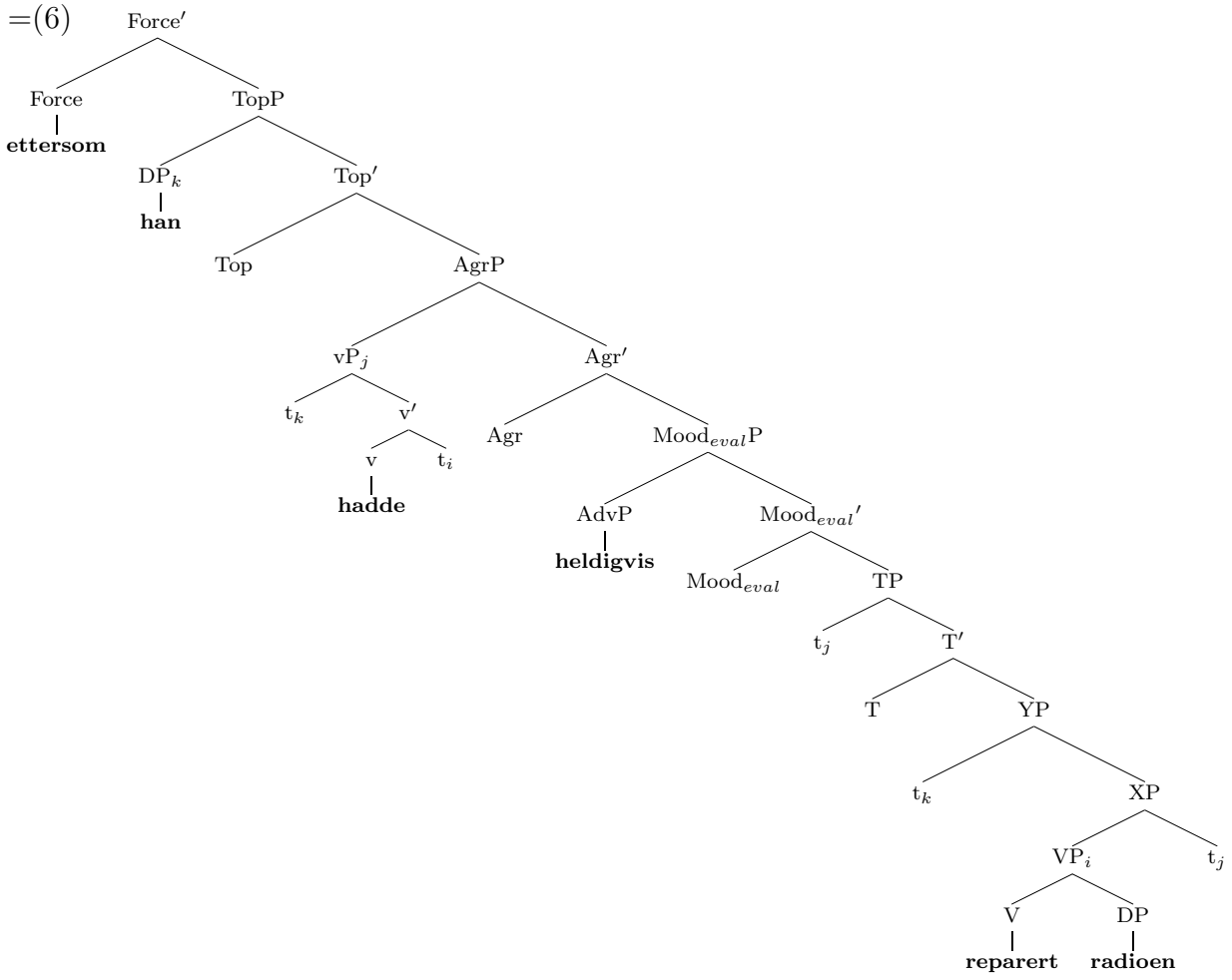
• Within this approach the derivations of (3) and (6) will look like the following:

[2] Biberauer and Roberts (2004) also hint at this possibility.

(11) =(3)


Force′
Force
ettersom
TopP
DP$_k$
ho
Top′
Top
AgrP
Spec
Agr′
Agr
TP
vP$_j$
T′
t$_k$
v′
T
YP
v
VP
t$_k$
Asp$_{hab}$P
V
t$_i$
kjøpte
AdvP
Asp$_{hab}$′
vanligvis
Asp$_{hab}$
XP
DP$_i$
t$_j$
dyre sko

(12) =(6)


Force′
Force
ettersom
TopP
DP$_k$
han
Top′
Top
AgrP
vP$_j$
Agr′
t$_k$
v′
Agr
Mood$_{eval}$P
v
t$_i$
hadde
AdvP
Mood$_{eval}$′
heldigvis
Mood$_{eval}$
TP
t$_j$
T′
T
YP
t$_k$
XP
VP$_i$
t$_j$
V
DP
reparert
radioen

• At first sight [$_{vP}$ Subj v ...] to SpecTP seems more elegant than [$_{vP}$ t$_{Subj}$ v ...] to SpecTP:

(i) Number of evacuated elements:

[$_{vP}$ **Subj v ...]:** Only the object needs to evacuate prior to vP movement.

[$_{vP}$ **t$_{Subj}$ v ...]:** Both the object *and* the subject need to evacuate prior to vP movement.

(ii) Strict S-V order:

[$_{vP}$ **Subj v ...]:** The subject will always precede the verb, since the two move together as one constituent.

[$_{vP}$ **t$_{Subj}$ v ...]:** Something like shape conservation might be needed in order to make sure that vP-fronting is followed by movement of the subject to a higher position.

(iii) Restrictions on subject positions:

[$_{vP}$ **Subj v ...]:** When there is verb movement, the subject can either be in SpecTP (within the vP) or move on to some higher projection.

[$_{vP}$ **t$_{Subj}$ v ...]:** When there is verb movement, the subject has to move to SpecTopP, since the vP occupies SpecTP.

4 The two approaches meet some more data

4.1 Verb movement without adjacent subject and verb

• ReNN cases in which both the subject and the verb have moved, but the two elements are still not adjacent:

(13) ... ettersom ho **etter sigende** kjøpe **alltid** de dyreste skoan. ReNN
as she after sayings buys always the expensive.est shoes.the
'... as she allegedly always buys the most expensive shoes.'

▷ **The [$_{vP}$ Subj v ...] account:**

– Such constructions are potentially problematic. Assuming that the adverb *etter sigende* 'allegedly' is merged above TP, the subject has to move out of the vP-in-SpecTP to precede this adverb. This involves movement out of an already moved constituent, (14):

(14) ...[$_{TopP}$ **ho$_k$** [$_{MoodEvidP}$ **etter sigende** [$_{TP}$ [$_{vP}$ ~~**ho$_k$**~~ **kjøpe**] [$_{AspPerfP}$ **alltid** ...

▷ **The [$_{vP}$ t$_{Subj}$ v ...] account:**

– Such constructions are not surprising. When the vP has moved to SpecTP, the subject has to move to a higher position, which in this case is a position above *etter sigende* 'allegedly,' (15):

(15) ...[$_{TopP}$ **ho**$_k$ [$_{MoodEvidP}$ **etter sigende** [$_{TP}$ [$_{vP}$ t$_k$ **kjøpe**] [$_{YP}$ ~~**ho**$_k$~~ [$_{AspPerfP}$ **alltid**...

• In fact, when the verb intervenes between two adverbs, the subject *cannot* be adjacent to it:

(16) *... ettersom **etter sigende** ho kjøpe **alltid** de dyreste skoan. ReNN
as after sayings she buys always the expensive.est shoes.the
'... as she allegedly always buys the most expensive shoes.'

⇒ If one wants to exclude the possibility of moving something out of an already moved constituent, the [$_{vP}$ t$_{Subj}$ v ...] approach appears to better account for examples such as (13). Moreover, the [$_{vP}$ t$_{Subj}$ v ...] approach predicts the ungrammaticality of (16).

4.2 Subject readings

• In embedded ReNN clauses without verb movement subjects can get either a strong or a weak reading (strong and weak in the sense of Milsark 1977).

• In embedded ReNN clauses with verb movement subjects can only get a strong reading.

• **Strong vs. weak indefinite subjects:**

– Without verb movement: Specific or non-specific subject readings, (17a).

– With verb movement: Specific subject reading only, (17b).

(17) Læreren starta aldri med en gang... ReNN
teacher.the started never with one time

a. ... ettersom nån eleva **vanligvis** kom for seint til timan.
as some pupils usually came to late to classes.the
'The teacher never started at once, as some pupils usually were late for class.' (ambiguous)

b. ... ettersom nån eleva kom **vanligvis** for seint til timan.
as some pupils came usually to late to classes.the
'The teacher never started at once, as some (specific) pupils usually were late for class.' (unambiguous)

• **Strong vs. weak partitive subjects:**

– Without verb movement: Specific or non-specific subject readings, (18a).

– With verb movement: Specific subject reading only, (18b).

(18) Læreren tok alltid med nån ekstra brødskive... ReNN
teacher.the took always with some extra sandwiches

a. ... ettersom en av guttan **som oftest** glemte matpakken hjemme.
as one of boys.the as often.est forgot food-pack.the home
'The teacher always brought some extra sandwiches, as one of the boys almost always forgot his lunch at home.' (ambiguous)

b. ... ettersom en av guttan glemte **som oftest** matpakken hjemme.
as one of boys.the forgot as often.est food-pack.the home
'The teacher always brought some extra sandwiches, as one specific boy almost always forgot his lunch at home.' (unambiguous)

• **Generic vs. existential subjects:**

  – Without verb movement: Generic or existential subjects possible, (19a) and (19b).

  – With verb movement: Only generic subjects possible, (19a); existential subjects are impossible, (19b).

(19) Vi følte oss i trygge hender ... ReNN
we felt us in safe hands

a. ... ettersom brannmanna {e} **vanligvis** {e} modig.
as firemen {*are*} *usually* {*are*} *brave*
'We felt safe as firemen usually are brave.' (generic)

b. ... ettersom brannmanna {*e} **vanligvis** {e} tilgjengelig.
as firemen {*are*} *usually* {*are*} *available*
'We felt safe as firemen usually are available.' (existential)

• In both approaches, cases without verb movement are unproblematic.

  – The subject moves to SpecTP, and if it stops there, it gets the weak/existential reading.

  – The subject is free to move on to some higher Spec position, and presumably moves to SpecTopP when it gets a strong/generic reading.

• For cases with verb movement...

▷ **The [$_{vP}$ Subj v ...] account:**

  – The subject moves out of the vP-in-SpecTP to SpecTopP to receive the strong/generic reading. Again, this involves movement out of an already moved constituent.

  – Why is it impossible for the subject to remain within the vP-in-SpecTP and get the weak/existential reading?

▷ **The [$_{vP}$ t$_{Subj}$ v ...] account:**

  – These restricted subject readings are actually predicted!

  – The vP (containing only the verb) occupies SpecTP, so the subject cannot move there, but has to move to some higher position.

  – Assuming that a weak subject reading is licensed in SpecTP, this is expected to be incompatible with verb movement.

⇒ The restrictions on subject readings are problematic in the [$_{vP}$ Subj v ...] account, but predicted in the [$_{vP}$ t$_{Subj}$ v ...] account.

4.3 Coreference with possessive pronouns

• In ReNN, subjects can show coreference with either an anaphor/reflexive (*sin/si/sitt/sine*) or with a (possessive) pronoun (*hannes/hennes/demmes* 'his, her, their'), in main clauses such as (20):

(20) Gitaristen$_i$ glemte **ofte** utstyret sitt$_{i/*j}$ / hannes$_{i/j}$ etter konserta. ReNN
guitarist.the forgot often gear.the REFL his after concerts
'The guitarist often forgot his gear after concerts.'

• Coreference between the subject and a possessive pronoun is also possible in embedded clauses but only without verb movement, (21a). When the verb has moved past the adverb, coreference is not available (21b):

(21) Trommisen blei irritert... ReNN
drummer.the became annoyed

a. ... ettersom gitaristen$_i$ **ofte** glemte utstyret sitt$_{i/*j}$ / hannes$_{i/j}$ etter
as guitarist.the often forgot gear.the REFL his after
konserta.
concerts

b. ... ettersom gitaristen$_i$ glemte **ofte** utstyret sitt$_{i/*j}$ / hannes$_{*i/j}$ etter
as guitarist.the forgot often gear.the REFL his after
konserta.
concerts
'The drummer got annoyed as the guitarist often forgot his gear after concerts.'

• In both approaches, cases without verb movement at first sight appear potentially problematic. The subject moves alone to (at least) SpecTP under either account, and from here it can presumably bind the pronoun. Hence it is surprising that the subject and the pronoun can be coindexed.

• For cases with verb movement...

▷ **The [$_{vP}$ Subj v ...] account:**

– The lack of coreference when there is vP movement is arguably unexpected.

– The subject is in SpecvP inside SpecTP, possibly a position from which it cannot bind the pronoun. Still, exactly when the subject is in this position, coreference is ruled out.

▷ **The [$_{vP}$ t$_{Subj}$ v ...] account:**

– The lack of coreference when there is vP movement is arguably expected.

– As vP is in SpecTP, the subject must have moved to a position above TP, viz. SpecTopP. There are some indications that subjects cannot establish coreference with pronouns from this position.

• **Suggestion:**

– In ReNN both anaphors and (possessive) pronouns may be bound within their own clause.

– Coreference between the subject and anaphor/pronoun is established when the subject receives an interpretation, i.e. when the subject is in SpecTP and/or in SpecTopP.

– Subjects (in ReNN) can establish coreference relations with anaphors within their own clause, but with (possessive) pronouns only within their own phase.

– With verb movement, the subject cannot move to SpecTP as the vP is there. Assuming that a coreference relation will not be established until the subject receives an interpretation, such a relation will only be established when the subject is in SpecTopP. The subject is now in a different phase than the (possessive) pronoun, and thus only coreference with an anaphor is available.

• **Predictions:**

(i) Subjects with contrastive stress cannot be coindexed with a (possessive) pronoun, cf. (22) vs. (23).

(22) Gutten$_i$ pusse **aldri** tennern sine$_{*i/j}$ / hannes$_{i/j}$. ReNN
boy.the brushes never teeth REFL his
'The boy never brushes his teeth.' (ambiguous)

(23) Den HER gutten$_i$ pusse **aldri** tennern sine$_{i/*j}$ / hannes$_{*i/j}$. ReNN
this here boy brushes never teeth REFL his
'THIS boy never brushes his teeth.' (unambiguous)

(ii) Embedded subjects moved to a matrix topic position cannot be coindexed with a possessive pronoun, (24).

(24) Han Jens$_i$ trur æ [t$_i$ **ofte** pusse tennern sine$_{i/*j}$ / hannes$_{*i/j}$]. ReNN
he Jens think I often brushes teeth REFL his
'I think Jens often brushes his teeth.'

(iii) Topical/strong subjects in embedded clauses *without* verb movement cannot be coindexed with a possessive pronoun, (25).

(25) ... ettersom den HER gutten$_i$ **aldri** pusse tennern sine$_{i/*j}$ / hannes$_{?i/j}$. ReNN
as this here boy never brushes teeth REFL his
'... as THIS boy never brushes his teeth.'

– All three predictions are borne out.

⇒ Based on the empirical findings presented in this section, I suggest that the approach inspired by Mahajan (2003), viz. [$_{vP}$ t$_{Subj}$ v ...] account, provides the more plausible analysis of verb movement in ReNN embedded (non-V2) contexts.

5 Summary and concluding remarks

• Verb movement in ReNN embedded (non-V2) contexts is argued to be instances of vP movement to SpecTP.

• It is further suggested that the ReNN data favour an approach in which the vP moving to SpecTP only contains the verb, and the subject moves separately, over an approach in which the subject and the verb move together in the vP to SpecTP.

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