

Subject positions and their interaction with verb movement*

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1 Introduction

It is well-known that many languages allow subjects to occur in any of several positions, and that the various positions are often associated with different types of subjects (cf. among others Diesing 1992, Holmberg 1993, Kiss 1996; 1998, Cardinaletti 2004, Mohr 2005). In for example the Scandinavian languages, it has been observed that subjects receive different interpretations depending on their position with respect to adverbs (cf. Bobaljik and Jonas 1996, Nilsen 1997, Svenonius 2002). In non-subject-initial V2 clauses, the postverbal subject may either precede or follow sentential adverbs. Nilsen (1997) points out that subjects preceding an adverb like *vanligvis* ‘usually’ is ambiguous between a specific and a non-specific reading, whereas subjects following such an adverb get a non-specific reading. This is illustrated in (1) (from Nilsen 1997:23). In (1a), the subject precedes the adverb ‘usually’ and is ambiguous, that is, it is interpreted as either *one student or other* or as *a specific student*. In (1b), on the other hand, the subject follows this adverb and gets a non-specific reading only, that is, it is interpreted as *one student or other*.

- (1) a. Røykeforbudet brøt **en student** vanligvis uansett. (Nor.)
smoking.ban.the broke a student usually anyway
‘A (*specific*) *student* usually violated the smoking ban anyway.’

*A previous version of this paper appears as chapter 3 in Bentzen 2007b. Thanks to Christine Bjerkan Østbø, Madeleine Halmøy, Mai Tungseth, and Merete Anderssen for their judgments on the Norwegian examples, as well as to several Northern Norwegian informants for judgments on ReNN examples. Also thanks to Sjef Barbiers, Hubert Haider, and especially Peter Svenonius for discussions of previous versions of this paper, and to the two anonymous *Studia Linguistica* reviewers for their useful comments. Finally, thanks to the audiences at the NORMS workshop on Subjects and microcomparative variation in Trondheim, August 2006, at the NORMS workshop on Northern Norwegian dialects in Tromsø, October 2006, at CGSW 22 in Stuttgart, June 2007, and at GLOW 31 in Newcastle, March 2008 for comments and feedback on parts of this material.

- b. Røykeforbudet brøt vanligvis **en student** uansett.
smoking.ban.the broke usually a student anyway
 ‘**One student or other** usually violated the smoking ban anyway.’

A similar pattern of subject positions is found in embedded clauses. Norwegian in general does not have verb movement in embedded non-V2 contexts, with the result that the verb remains inside the vP and follows all clause-medial adverbs. However, the subject precedes the verb and the distribution of preverbal subjects in embedded contexts is similar to the pattern for subjects following the finite verb in non-subject-initial main clauses.¹ As illustrated in (2)-(3), subjects may either precede or follow adverbs, and in parallel with the pattern in main clauses, subjects preceding adverbs such as *vanligvis* ‘usually’ get a specific reading, (2), whereas subjects following such adverbs get a non-specific reading, (3).

- (2) ... ettersom **en student** vanligvis brøt røykeforbudet uansett. (Nor.)
as a student usually broke smoking.ban.the anyway
 ‘... as **a (specific) student** usually violated the smoking ban anyway.’
- (3) ... ettersom vanligvis **en student** brøt røykeforbudet uansett.
as usually a student broke smoking.ban.the anyway
 ‘... as **one student or other** usually violated the smoking ban anyway.’

However, a Northern Norwegian dialect which I will call Regional Northern Norwegian (henceforth ReNN) optionally allows verb movement across adverbs in embedded non-V2 contexts (cf. Bentzen 2005; 2007a;b). This type of short verb movement influences the distribution of subjects both concerning the positions available and the interpretation the subject can get. Whereas subjects may precede or follow most adverbs in Norwegian embedded clauses without verb movement, in ReNN embedded non-V2 clauses with verb movement, the subject has to precede all adverbs. Furthermore, the subject obligatorily receives a specific reading. This is illustrated in (4)-(5).²

- (4) ... ettersom **en student** vanligvis **brøyt** sjelden røykeforbudet. (ReNN)
as a student usually broke rarely smoking.ban.the
 ‘... as **a specific student** usually rarely violated the smoking ban.’
- (5) *... ettersom vanligvis **en student brøyt** sjelden røykeforbudet.
as usually a student broke rarely smoking.ban.the

¹As one of the anonymous reviewers pointed out the order Adv S is much more common in main clauses than in embedded clauses, and some speakers only marginally accept this word order in the latter contexts. Furthermore, this order often yields a reading where the adverb scopes over the subject, the two thus forming a constituent together. I asked my informants to disregard a potential “constituent scope” reading when judging the examples.

²Here and in the following, the ReNN examples are rendered in an approximation of a dialectal form.

ReNN refers to several dialects spoken in Northern Norway, from the Salten region in the South to Alta in the North. These dialects behave similarly in the relevant respects, and are therefore treated as one for the current purposes. As ReNN allows both the patterns found in Norwegian in general, and the specific Northern Norwegian patterns, all Norwegian examples in the following are from this dialect, unless otherwise indicated. In addition to the author’s own (ReNN) intuitions, one ReNN speaker and three non-ReNN speakers have been consulted for the patterns found in Norwegian in general, and several ReNN speakers have been consulted at various points for the patterns specific to ReNN.³

The aim of this paper is threefold. In section 2 I outline a cartography of available subject positions in Norwegian embedded clauses. I focus on the positions of and distributional differences between specific and non-specific indefinite subjects (leaving definite subjects aside).⁴ I then illustrate how verb movement in ReNN non-V2 contexts constrains the distribution of subjects. Section 3 provides a unified account of the flexible subject placement in Norwegian in general and the flexible verb placement in ReNN. I will argue that both phenomena follow from predicate licensing. In section 4 I discuss Nominative Case licensing, and I propose an analysis of this which can account for the ways in which verb movement constrains the distribution of subjects in ReNN embedded clauses. Finally, section 5 contains a summary and concluding remarks.

2 Subject positions in Northern Norwegian embedded clauses

As I use adverbs as a diagnostic for the positions of both subjects and verbs, a preliminary note on the position of these elements is in place here. Cinque (1999) studies the internal order of adverbs in a cross-linguistic perspective. His surveys reveal very similar patterns across languages, and he thus suggests that adverbs are strictly ordered in a universal hierarchy, as in (6) (from Cinque 1999:106).

- (6) [*frankly* Mood_{speech act} [*fortunately* Mood_{evaluative} [*allegedly* Mood_{evidential} [*probably* Mod_{epistemic} [*once* T(Past) [*then* T(Future) [*perhaps* Mood_{irrealis} [*necessarily* Mod_{necessity} [*possibly* Mod_{possibility} [*usually* Asp_{habitual} [*again* Asp_{repetitive(I)} [*often* Asp_{freq(I)} [*intentionally* Mod_{volitional} [*quickly* Asp_{celerative(I)} [*already* T(Anterior) [*no longer* Asp_{terminative} [*still* Asp_{continuative} [*always* Asp_{perfect(?)} [*just* Asp_{retrospective}

³Note that the dialect spoken in the city of Tromsø is not included in ReNN. As is shown in Bentzen 2007a, Tromsø Northern Norwegian (TrNN) behaves slightly differently from ReNN with respect to verb movement in non-V2 contexts. For more details on the general methodology used with the informants, I refer the reader to Bentzen 2007a.

⁴I take a specific indefinite subject to refer to a specific referent in the discourse, whereas a non-specific indefinite is interpreted as an existential (cf. among others Milsark 1977, Enç 1991, Diesing 1992).

[*soon* Asp_{proximative} [*briefly* Asp_{durative} [*characteristically(?)* Asp_{generic/progressive}
 [*almost* Asp_{prospective} [*completely* Asp_{SgCompletive(I)} [*tutto* Asp_{PlCompletive} [*well*
 Voice [*fast/early* Asp_{celerative(II)} [*again* Asp_{repetitive(II)} [*often* Asp_{freq(II)} [*com-*
pletely Asp_{completive(II)}

This hierarchical order of adverbs is attested for several languages in Cinque (1999), both when adverbs are independent elements, as exemplified in Italian and English, and when adverbial modification is expressed through affixes, as exemplified in Korean and Turkish. Nilsen (1997) discusses Cinque’s hierarchy with respect to Norwegian adverbs, and confirms that this hierarchy also is present in Norwegian. Note however, that Østbø (2003) claims that the hierarchy is less strict in Norwegian than what Cinque proposes. She illustrates that although the internal order of the four highest adverbs in (6), as well as their relative order with respect to lower adverbs is fairly strict, the internal order of the other adverbs is in general more flexible than predicted by Cinque’s hierarchy. See also Nilsen (2003) for some discussion of transitivity effects in Norwegian with respect to the adverb hierarchy.

An alternative to Cinque’s hierarchy of adverbs is to assume that adverbs may be adjoined to various verbal projections, for example VP and TP, as suggested by Ernst (2002) and Svenonius (2002). Ernst (2002) proposes a hierarchy of Fact-Event objects (FEO) in which different types of adverbs may modify different types of objects (Events, Propositions, or Facts). According to this proposal adverbs may basically adjoin to any projection as long as they obey the FEO hierarchy. Thus, in such an approach the internal order of adverbs is determined by semantic selection (s-selection), rather than c-selection as in Cinque (1999).

The approach to adverbs that I will assume here is compatible with both the above approaches. As the internal order of adverbs is not the main issue in the current paper, I here primarily use three adverbs that clearly are strictly ordered with respect to each other: the epistemic adverb ‘probably,’ the frequentative adverb ‘often,’ and the completive adverb ‘completely.’ The relative order of these is strictly ‘probably’ < ‘often’ < ‘completely’, as shown in (7):

- (7) a. Han misforstod **sannsynligvis ofte helt** oppgaven.
he misunderstood probably often completely assignment.the
 b. *Han misforstod **sannsynligvis helt ofte** oppgaven.
he misunderstood probably completely often assignment.the
 c. *Han misforstod **ofte sannsynligvis helt** oppgaven.
he misunderstood often probably completely assignment.the
 d. *Han misforstod **ofte helt sannsynligvis** oppgaven.
he misunderstood often completely probably assignment.the
 e. *Han misforstod **helt sannsynligvis ofte** oppgaven.
he misunderstood completely probably often assignment.the

- f. *Han misforstod **helt** **ofte sannsynligvis** oppgaven.
he misunderstood completely often probably assignment.the

I base the structural positions of adverbs on Cinque's hierarchy of functional projections and I assume the following three major verbal categories in the IP domain: MoodP, TP, and AspP.⁵ Adverbs that are taken to be low in the Cinque hierarchy (e.g. 'completely') are merged between vP and AspP, adverbs in the middle of the hierarchy (e.g. 'often') are merged between AspP and TP, and adverbs that are high in the hierarchy (e.g. 'probably') are merged between TP and MoodP, as illustrated in (8). Of course this is a fairly coarse outline but it is sufficient to serve the current purposes, namely to help us identify the various positions available for subjects and verbs in embedded clauses.

(8) Structural positions of adverbs:

[*FinP* [*MoodP* [*AdvP* **Adv_{epist}** [*TP* [*AdvP* **Adv_{freq}** [*AspP* [*AdvP* **Adv_{compl}** [*vP*...
probably *often* *completely*

2.1 The distribution of subjects in clauses without verb movement

As mentioned in the introduction, subjects may either precede or follow adverbs that are positioned in the middle of the Cinque hierarchy, such as *vanligvis* 'usually' in ReNN (and Norwegian) embedded clauses without verb movement. The same pattern is illustrated with the adverb *ofte* 'often' in (9). In addition, subjects in embedded contexts may also either precede or follow adverbs that are high in the Cinque hierarchy, such as *sannsynligvis* 'probably,' as in (10).⁶ However, subjects obligatorily have to precede low adverbs such as *helt* 'completely,' (11).

- (9) ... ettersom {**nån studenta**} ofte {**nån studenta**} misforstod oppgaven.
as {some students} often {some students} misunderstood assignment.the
 '... as some students often misunderstood the assignment.'

⁵Both Åfarli 1995 and Eide 2006 argue that MoodP and AspP are present in Norwegian and that they are realized by modal and aspectual auxiliaries. See Eide 2006 also for a detailed discussion of the relative ordering of these categories in Norwegian.

⁶According to Nilsen 1997, subjects following higher adverbs like *sannsynligvis* 'probably' are ambiguous between a specific and a non-specific reading. Furthermore, he claims that subjects preceding such adverbs only receive a specific reading, at least in the past tense (in the future, both a specific and a non-specific reading are apparently available). However, four out of the five speakers of Norwegian consulted for the current paper in general find it very hard to get a specific reading of the subject when it follows adverbs. They also tend to get an ambiguous interpretation of a subject preceding an adverb, regardless of tense. One of the anonymous reviewers pointed out that intonation might have some influence on the available interpretations. I do not exclude the possibility that certain non-neutral intonation patterns may (for some speakers) make a specific reading available for subjects following high adverbs. However, all examples here are judged based on a neutral intonation pattern, and this issue will not be addressed further in the current context.

- (10) ... ettersom **{en av gjestan}** sannsynligvis **{en av gjestan}** spiste dessert.
as {one of guests.the} probably {one of guests.the} ate dessert
 ‘... as one of the guests were probably eating dessert.’
- (11) ... ettersom **{enkelte bila}** helt **{*enkelte bila}** bryt sammen på vinteren.
as {some cars} completely {some cars} break together on winter.the
 ‘... as some cars completely break down during the winter.’

Holmberg (1993) argues that there are two subject positions in Mainland Scandinavian, whereas both Nilsen (1997) and Svenonius (2002) have shown that there appear to be more than just two positions for subjects in these languages. ReNN (and Norwegian) clauses with multiple adverbs indeed display multiple positions for subjects. This is illustrated below with an embedded clause containing three adverbs. As the examples show, the subject can precede or follow each of these adverbs, except *helt* ‘completely,’ which it obligatorily precedes, and it may also intervene between pairs of adverbs.⁷

- (12) ... ettersom **nån studenta** sannsynligvis ofte helt misforstod oppgaven.
as some students probably often completely misunderstood assignment.the
 i. ‘... as some (specific) students probably often completely misunderstood the assignment.’
 ii. ‘... as some students or other probably often completely misunderstood the assignment.’
- (13) ... ettersom sannsynligvis **nån studenta** ofte helt misforstod oppgaven.
as probably some students often completely misunderstood assignment.the

⁷In fact, subjects may precede or follow *any* of the adverbs in the Cinque hierarchy apart from the lowest ones like ‘completely’. Thus, we predict the number of available subject positions to increase proportionately with the number of adverbs. Clauses containing more than three adverbs are generally hard to judge, but examples like (i)-(ii) suggest that the prediction is met. When combining adverbs that are relatively close to each other in the Cinque hierarchy the subject may still precede both, intervene between the two, or follow both adverbs:

- (i) ... ettersom **{nån studenta}** visstnok **{nån studenta}** sannsynligvis **{nån studenta}**
as {some students} allegedly {some students} probably {some students}
 misforstod oppgaven.
misunderstood assignment.the
 ‘... as allegedly some students probably misunderstood the assignment.’
- (ii) ... ettersom **{nån studenta}** som oftest **{nån studenta}** straks **{nån studenta}**
as {some students} as often.est {some students} immediately {some students}
 gjettet løsningen.
guessed solution.the
 ‘... as some students usually immediately guessed the solution.’

- (14) ... ettersom sannsynligvis ofte **nån studenta** helt misforstod oppgaven.
as probably often some students completely misunderstood assignment.the
 ‘... as some students or other probably often completely misunderstood the assignment.’
- (15) *... ettersom sannsynligvis ofte helt **nån studenta** misforstod oppgaven.
as probably often completely some students misunderstood assignment.the

As we have seen, the position of the subject interacts with its interpretation. Subjects preceding all the adverbs in a clause are ambiguous between a specific and a non-specific reading, see (12). This holds regardless of which type of adverbs are present in the clause. However, when the subject follows one or more of the adverbs, as in (13)-(14), only a non-specific reading is available. This can be further illustrated by placing the examples in context. When an indefinite subject occurs in an embedded clause where it can be interpreted as either specific or non-specific, the subject may either precede or follow the adverb, as in (16). However, when the subject occurs in a context where it is most naturally interpreted with specific reference, only the position preceding the adverb is available, see (17).

- (16) Skolebussen tok ofte lang tid på mandaga ettersom **{en av eleven}** typisk
school.bus.the took often long time on Mondays as {one of pupils.the} typically
{en av eleven} forsov sæ den dagen.
{one of pupils.the} overslept REFL that day.the
 ‘The school bus often took a long time on Mondays, as one pupil or other typically overslept that day.’
- (17) Læreren måtte snakke med et foreldrepar ettersom **{en av eleven}** typisk
teacher.the must talk with a parent.pair as {one of pupils.the} typically
{*en av eleven} forsov sæ på mandaga.
{one of pupils.the} overslept REFL on Mondays
 ‘The teacher had to talk to some parents as one (specific) pupil typically overslept on Mondays.’

Thus, there are several subject positions in ReNN (and Norwegian) embedded clauses. The various positions and associated interpretations can be summarized as follows:⁸

- (18) Subject positions in ReNN embedded clauses without verb movement:

✓**Subj**_{Ambig} sannsynligvis ✓**Subj**_{NonSpecific} ofte ✓**Subj**_{NonSpecific} helt ***Subj**
probably often completely

The combination of the structural positions of adverbs in (8) and the placement of sub-

⁸(18) holds for four of my five informants on Norwegian in general, even those who are not speakers of ReNN.

jects relative to adverbs in (18) now provides a (partial) cartography of the structural positions of subjects in Norwegian, given in (19).

(19) The structural positions of subjects:

[*FinP* **Subj***Specific* [*MoodP* **Subj***NonSpecific* [*TP* **Subj***NonSpecific* [*AspP* **Subj***NonSpecific* [*vP****Subj**

Subjects preceding *helt* ‘completely’ but following *ofte* ‘often’ are in SpecAspP, and subjects preceding *ofte* but following *sannsynligvis* ‘probably’ are in SpecTP. In both these positions the subject is associated with a non-specific reading. Now recall from (12) that subjects preceding *all* the adverbs in a clause are ambiguous between a specific and a non-specific reading. I will assume that non-specific subjects preceding high adverbs like *sannsynligvis* ‘probably’ (and potentially more adverbs, as in the above examples) occur in the highest projection in the IP domain, SpecMoodP. Concerning specific subjects, these are often taken to be positioned higher in the structure than non-specific ones, and they have been said to be discourse-linked (see e.g. Ihsane and Puskas 2001, Frascarelli 2007). I thus suggest that such subjects have moved out of the IP domain (contra e.g. Adger 1993 and Cardinaletti 2004). Kiss (1996) places specific subjects in the projection RefP, which she suggests is positioned between the IP and the CP domain, and which carries the feature [+specific] (see also Mohr 2005). Frascarelli (2007) shows that specific indefinite subjects pattern with so-called Aboutness-shift Topics with respect to intonation, and thus places these subjects fairly high in the CP domain. Based on the position with respect to adverbs combined with the d-linking property, I take specific subjects to have moved into the CP domain. Although I will remain agnostic about exactly which projection in this domain is involved in specificity licensing, I suggest that it is a relatively low projection, say FinP (Rizzi’s 1997 lowest projection in the split-CP), since specific subjects may cooccur with topicalized elements.⁹

2.2 The distribution of subjects in clauses with verb movement

As mentioned in the introduction, ReNN optionally allows verb movement in non-V2 contexts such as embedded clauses. In clauses like those in (20)-(22), the finite verb may precede or follow any given adverb, and it may also intervene between pairs of adverbs.¹⁰

(20) ... ettersom nån studenta sannsynligvis ofte **misforstod** helt oppgaven.
as some students probably often misunderstood completely assignment.the

⁹Regardless of how high into the CP domain the specific subjects move, they will pass through this lowest projection in the CP domain, and for expository purposes I will leave them in this position (although not excluding the possibility that FinP might not be the final target position for specificity licensing in the CP domain).

¹⁰These examples all have finite main verbs, but the same patterns are found with finite auxiliaries, cf. Bentzen 2007b.

- (21) ... ettersom nån studenta sannsynligvis **misforstod** ofte helt oppgaven.
as some students probably misunderstood often completely assignment.the
- (22) ... ettersom nån studenta **misforstod** sannsynligvis ofte helt oppgaven.
as some students misunderstood probably often completely assignment.the
 ‘... as some specific students probably often completely misunderstood the assignment.’

This gives us the following potential positions for verbs with respect to adverbs in embedded clauses:

- (23) The possible positions for finite verbs in ReNN embedded clauses:

✓**Verb**_{Fin} sannsynligvis ✓**Verb**_{Fin} ofte ✓**Verb**_{Fin} helt ✓**Verb**_{Fin}
probably often completely

This type of verb movement affects the distribution of subjects in embedded clauses in three ways. First of all, the order S V is strict and cannot be reversed in ReNN embedded clauses with verb movement. This perhaps sounds obvious, given that ReNN (like Norwegian) is an SVO language, and that the relevant embedded clauses are non-V2 contexts (i.e. contexts in which topicalization of a non-subject followed by subsequent subject-verb inversion is impossible). However, when taking a closer look at the potential subject positions outlined in (18) in the above section, and the potential verb positions given in (23), the strict S V order turns out to be somewhat surprising. As we saw from (13) and (14), the subject may follow adverbs like ‘probably’ or ‘often,’ whereas in sentences like (21) and (22) the verb may precede these adverbs. Thus, one might expect to be able to find constructions in which these two possibilities cooccur, that is where the subject follows for example *sannsynligvis* ‘probably,’ whereas the verb precedes this adverb, as in (24). (This is of course possible in non-subject-initial V2 clauses.) However, as illustrated in the ReNN examples in (25)-(27), in non-V2 contexts all instances of such combinations are impossible.

- (24) ... **Verb**_{Fin} sannsynligvis **Subject**_{NonSpecific} ofte helt ...
probably often completely
- (25) *... ettersom sannsynligvis **misforstod** ofte **nån studenta** helt oppgaven.
as probably misunderstood often some students completely assignment.the
- (26) *... ettersom **misforstod** sannsynligvis ofte **nån studenta** helt oppgaven.
as misunderstood probably often some students completely assignment.the
- (27) *... ettersom **misforstod** sannsynligvis **nån studenta** ofte helt oppgaven.
as misunderstood probably some students often completely assignment.the

The order of the subject and the verb may not be reversed by this type of verb movement (cf. also Svenonius 2005). This is actually unexpected, given that both the subject and the verb in the examples in (25)-(27) occur in positions where they are allowed in similar embedded contexts. This strict linear ordering of the subject and the verb thus has to be accounted for.

A second observation is that verb movement forces the subject to a very high position in the clause. Not only must the subject always precede the verb, but it turns out that the only available position for subjects in embedded clauses with verb movement is a very high position, preceding all adverbs. It is important to note that this holds regardless of how high the verb has moved; even if the verb only moves past one adverb, the subject still has to precede *all* adverbs in the clause, as in (20)-(22). Subjects occurring in any other positions yield ungrammatical results, as illustrated in (28)-(30).

- (28) *... ettersom sannsynligvis ofte **nån studenta misforstod** helt oppgaven.
as probably often some students misunderstood completely assignment.the
- (29) *... ettersom sannsynligvis **nån studenta** ofte **misforstod** helt oppgaven.
as probably some students often misunderstood completely assignment.the
- (30) *... ettersom sannsynligvis **nån studenta misforstod** ofte helt oppgaven.
as probably some students misunderstood often completely assignment.the

Finally, subjects in ReNN embedded non-V2 contexts with verb movement obligatorily receive a specific interpretation. This can be seen when applying verb movement to the examples in (16)-(17). The context where the subject was most naturally interpreted with a non-specific reading, (16), resist verb movement, see (31). On the other hand, in (17) the subject received a specific reading, and here verb movement is allowed, as illustrated in (32).

- (31) *Skolebussen tok ofte lang tid på mandaga ettersom **en av eleven forsov**
school.bus.the took often long time on Mondays as one of pupils.the overslept
sæ typisk den dagen.
REFL typically that day.the
- (32) Læreren måtte snakke med et foreldrepar ettersom **en av eleven forsov sæ**
teacher.the must talk with a parent.pair as one of pupils.the overslept REFL
 typisk på mandaga.
typically on Mondays
 ‘The teacher had to talk to some parents as one (specific) pupil typically overslept on Mondays.’

This yields the following positions available for subjects in ReNN embedded clauses with verb movement:

(33) Subject positions in ReNN embedded clauses with verb movement:

✓ **Subj**_{Specific} sannsynligvis ***Subj** ofte ***Subj** helt ***Subj**
probably often completely

In the next two sections I propose an analysis of the various subject and verb positions in ReNN embedded clauses (section 3), and of why verb movement restricts the distribution of subjects (section 4).

3 EPP satisfaction and predication

There are strong indications that Norwegian has an EPP feature which requires an overt subject or expletive somewhere in the clause. In non-presentational constructions the subject meets this requirement, as in (34a). However, when the thematic subject has remained in a low (presumably vP-internal) position, an overt expletive is needed, as in (34b)-(34c).

- (34) a. **Noen katter** har vært på kjøkkenet. (Nor.)
some cats have been on kitchen.the
 ‘Some cats have been in the kitchen.’
- b. ***(Det)** har vært noen katter på kjøkkenet.
it have been some cats on kitchen.the
 ‘There have been some cats in the kitchen.’
- c. Idag har ***(det)** vært noen katter på kjøkkenet.
today have it been some cats on kitchen.the
 ‘Today there have been some cats in the kitchen.’

Several people have tried to eliminate the EPP altogether. For example Boeckx (2000), Grohmann et al. (2000), and Bošković (2002) all argue that the effects generally attributed to the EPP can be explained through operations that take place in the syntax independently. In particular, they all suggest that the EPP is reducible to Nominative Case licensing and that it should thus be excluded as a separate principle. In clauses like (34b)-(34c), the expletive would then be required in order to “transfer” Nominative Case to the thematic subject. However, in Norwegian the requirement of an overt subject or expletive appears to be independent of Nominative Case licensing. In for example impersonal passive constructions there is no thematic subject. Still, an expletive is always required in such clauses, as illustrated in (35) (cf. Åfarli 1992).

- (35) a. ***(Det)** danses på festen. (Nor.)
it dance.PASS on party.the
 ‘There is dancing at the party.’

- b. På festen danses ***(det)**.
on party.the dance.PASS it
 ‘At the party there is dancing.’

Furthermore, Svenonius (1996) points out that expletives are necessary in small clauses, where there is no Nominative Case to be licensed, and there is also no implied agent. This is illustrated for Norwegian in (36a). Case-based approaches to the EPP treat such examples by suggesting that the verb *høre* ‘hear’ has Accusative Case that it needs to assign somewhere, and that this is why the expletive is needed in (36a). However, as we see in (36b), the complement of ‘hear’ may be a PP, in which case the verb does not license Accusative Case anywhere. Thus, attributing the presence of the expletive in (36a) to Case licensing (Nominative or Accusative) does not seem correct.

- (36) a. Jeg hørte ***(det)** rase fra taket. (Nor.)
I heard it fall from roof.the
 ‘I heard something coming down from the roof.’
 b. Jeg hørte på han.
I heard on him
 ‘I listened to him.’

From the above examples it is clear that Norwegian has an EPP requirement independently of Nominative Case licensing. However, it is not obvious that this EPP feature is associated with a specific projection such as TP. Recall from subsection 2.1 that subjects may appear in a fairly low position in the clause in Norwegian. In particular, they may follow adverbs that are merged below TP, such as *ofte* ‘often,’ as was illustrated in (14), here repeated as (37).

- (37) ... ettersom sannsynligvis ofte **nån studenta** helt misforstod oppgaven.
as probably often some students completely misunderstood assignment.the
 ‘... as some students or other probably often completely misunderstood the assignment.’

A possible account of this is to assume the presence of a null expletive in SpecTP in such clauses (as has been proposed for languages like German, Yiddish, Dutch, and Frisian by Haeberli 1999). However, in (34c) and (35b) above the expletive has to be overtly pronounced, suggesting that Norwegian does not license null expletives. Thus, SpecTP presumably remains empty in clauses like (37). In the next section I argue that the EPP is linked to predicate licensing, and that the ways in which this may be accomplished in ReNN will provide an account for the flexible positions of subjects and of verbs in embedded clauses.

3.1 The EPP as predicate licensing

Several people have linked the EPP to various types of independently motivated licensing requirements. Heycock (1994) argues that certain projections need a subject or an expletive in their specifier for predicate licensing. In her approach there may be several layers of predication in the clause. At each layer, the predicate must predicate over something in order to be licensed, and this is accomplished by providing the predicate with a subject. In particular, Heycock suggests that all [+V] maximal projections may be predicates. Thus both VP and IP are taken to be predicates, and consequently both these projections need a subject in this approach.¹¹

Along similar lines, both Åfarli and Eide (2000) and Kiss (2002) connect the EPP and predication. Åfarli and Eide (2000) introduce a predication operator that turns syntactic elements into predicates. The specifier of this operator, SpecPredP, must be provided with a subject in order for the predicate to be saturated, or licensed. According to Kiss (2002), statements express predication and such statements must contain a subject or topic of predication. Kiss argues that the traditional EPP in fact corresponds to two requirements. In addition to the ‘topic of predication’ requirement, there is also a (separate) requirement for a grammatical subject. These two requirements are often subsumed under one requirement. In subject-prominent languages like English, the topic of predication is normally represented by the subject, thus the subject will satisfy both requirements. However, Kiss shows that for a topic-prominent language like Hungarian, the two do not necessarily coincide. In Hungarian, the topic of predication can be either the most prominent argument in the clause, which is not necessarily the subject, or a phonologically unexpressed event variable. Thus, the subject may satisfy the requirement for a grammatical subject, while another argument satisfies the ‘topic of predication’ requirement.

I here adopt the view that the EPP involves predicate licensing. Let us assume that a predicate is headed by a head X carrying the feature [Pred]. This predicate needs to predicate over something, and predication is licensed by providing a ‘topic of predication’ in the specifier of $X_{[Pred]}$. Furthermore, I suggest that the position of this [Pred] feature is flexible, and it may be associated with various projections in Norwegian, as illustrated in (38).

(38) Potential positions for [Pred] in Norwegian:

$[MoodP \textbf{Mood}_{\{[Pred]\}} [sannsynligvis [TP \textbf{T}_{\{[Pred]\}} [ofte [AspP \textbf{Asp}_{\{[Pred]\}} [helt [vP...$

The specifier of the head carrying [Pred] will be filled in order to license the predicate. However, there are various ways of accomplishing this. Alexiadou and Anagnostopoulou (1998) proposed that the EPP may either be satisfied by an XP moving to

¹¹Potentially also CP is a predicate, which is relevant for V2 contexts involving V-to-C movement.

SpecTP, or by an X^0 moving to T. Expanding on this proposal, Biberauer and Richards (2006) suggest a four-way typology of EPP satisfaction. Focussing on the Germanic languages, they argue that the constituent that values T's EPP feature may vary from language to language in terms of both its *source* and its *size*. With respect to the source, they follow Alexiadou and Anagnostopoulou (1998) in assuming that T may probe either the [D] feature on the subject in SpecvP, or the [D] feature expressed on the verb in languages with rich agreement morphology. With respect to size, they suggest that the element being probed may in some languages pied-pipe the whole vP to SpecTP. This gives them a four-way typology of EPP-satisfaction. In languages like Greek, German, and Icelandic, the [D] feature on the verb is probed by T. In Greek the verb raises alone to T (*head-raising*), whereas in German and Icelandic, the verb pied-pipes the whole vP to SpecTP (*head-pied-piping*). In languages like English, Mainland Scandinavian (MSc), Afrikaans, and Faroese, on the other hand, T probes the [D] feature on the subject in SpecvP. In English and MSc, the subject raises alone to SpecTP (*spec-raising*), whereas in Afrikaans and Faroese, the subject pied-pipes the whole vP to SpecTP (*spec-pied-piping*). I will adopt parts of this typology in accounting for the differences between Norwegian and ReNN verb placement.

(39) Typology of EPP(T)-satisfaction (from Biberauer and Richards 2006:42):

	Probe [D]-on-Vf	Probe [D] in outer SpecvP
– pied-pipe vP	Head-raising (<i>Greek</i>)	Spec-raising (<i>English, MSc</i>)
+ pied-pipe vP	Head-pied-piping (<i>German, Icelandic</i>)	Spec-pied-piping (<i>Afrikaans, Faroese</i>)

3.2 A unified account of flexible subjects and flexible verbs

Based on Biberauer and Richards (2006) I suggest that predication is licensed by $X_{[Pred]}$ attracting an element carrying the feature [D]. In Norwegian, this feature is present on the subject, and ReNN shows optionality with respect to whether the subject moves alone to the specifier of $X_{[Pred]}$, or whether it pied-pipes the whole vP to this position. Optionality with respect to pied-piping is not uncommon. For example in Norwegian *wh*-questions, the *wh*-element is attracted by a [Q] feature in a projection high in the clause. If the *wh*-constituent is complex, the *wh*-element may either move on its own, as in (40a), or pied-pipe the whole projection it is part of, as in (40b) (cf. also Lie 1982).

- (40) a. **Hva_i** liker du [t_i **slags bøker**]? (Nor.)
what like you kind books
- b. [**Hva slags bøker**]_i liker du t_i?
what kind books like you
 ‘What kind of books do you like?’

As we will see in this section, assuming that the subject optionally pied-pipes the vP when it moves to license predication, we can account both for the flexible positions of subjects in clauses without verb movement and for the flexible positions of verbs in clauses with verb movement. I thus argue that the way both subjects and verbs may intervene between various adverbs follows from the same operation of predicate licensing.

Let us first look at clauses without verb movement. Recall from section 2.1 that subjects may precede or follow any adverb except the very low ones like ‘completely,’ which they obligatorily precede. This was illustrated in (12)-(15), summarized in (41).

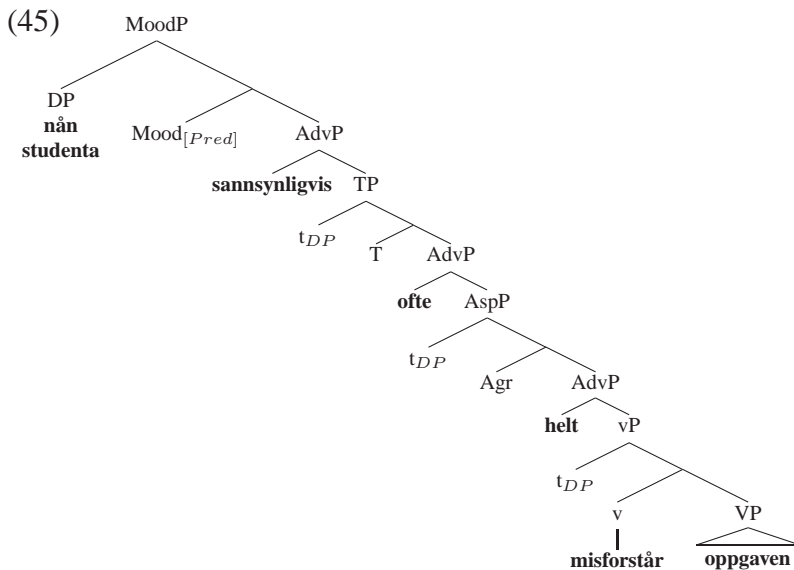
- (41) ... ettersom {**nån studenta**} sannsynligvis {**nån studenta**} ofte {**nån studenta**}
as {some students} probably {some students} often {some students}
 helt *{**nån studenta**} misforstod oppgaven.
completely {some students} misunderstood assignment.the
 ‘... as some students probably often completely misunderstood the assignment.’

Here predication is licensed through the *spec-raising* mode introduced in Biberauer and Richards (2006). The head carrying the [Pred] feature probes the categorial [D] feature on the subject in SpecvP. The subject then raises alone to the specifier of the relevant head. The various possibilities are illustrated in (42)-(44). In (42), predication is associated with a low projection, AspP. The subject then moves to SpecAspP to license the predicate. In this position it will precede adverbs like *helt* ‘completely,’ but follow *sannsynligvis* ‘probably’ and *ofte* ‘often.’ In (43), predication is associated with TP, and the subject then moves to SpecTP to license the predicate. Here it will precede both *ofte* and *helt*, but follow *sannsynligvis*. Finally, in (44) predication is associated with MoodP, and when the subject moves to SpecMoodP, it ends up in a position preceding all adverbs in the clause.¹²

- (42) **[Pred] in AspP:**
 $[_{MoodP} \text{Mood} [\text{sannsynligvis} [_{TP} \text{T} [\text{ofte} [_{AspP} \text{Subj}_i \text{Asp}_{[Pred]} [\text{helt} [_{vP} \text{t}_i \dots$
- (43) **[Pred] in TP:**
 $[_{MoodP} \text{Mood} [\text{sannsynligvis} [_{TP} \text{Subj}_i \text{T}_{[Pred]} [\text{ofte} [_{AspP} \text{t}_i \text{Asp} [\text{helt} [_{vP} \text{t}_i \dots$
- (44) **[Pred] in MoodP:**
 $[_{MoodP} \text{Subj}_i \text{Mood}_{[Pred]} [\text{sannsynligvis} [_{TP} \text{t}_i \text{T} [\text{ofte} [_{AspP} \text{t}_i \text{Asp} [\text{helt} [_{vP} \text{t}_i \dots$

¹²Here and in the following I have included intermediate traces of the moved subject in SpecAspP and SpecTP without going into the debate of whether or not movement targets (and checks features in) all intermediate landing sites along its path. According to Chomsky 2000; 2001 successive-cyclic movement proceeds through certain designated projections (CP and vP). Abels 2003 also argue that movement does not pass through every intermediate projection on its path (cf. also Abels and Bentzen in prep). In contrast, Bošković 2002; 2007, Boeckx 2003, and Chomsky 2008 suggest that a moving element targets every maximal projection between its base position and its final landing site.

The tree in (45) illustrates the full derivation of predicate licensing through spec-raising when the [Pred] feature is associated with Mood, yielding the word order in (12).



Recall that (12) was ambiguous between a specific and a non-specific reading. In section 3.1 I suggested that the non-specific reading occurs when the subject in this clause sits in SpecMoodP whereas the specific reading is licensed in a low projection in the CP domain, possibly FinP. Thus, I propose that specific subjects obligatorily move to SpecFinP to get their specific reading licensed. In clauses with specific subjects and without verb movement it is therefore not entirely clear where the [Pred] feature in the IP domain is located; in any case predication will be licensed by the subject moving through the various intermediate specifier positions on its way to SpecFinP. (46) illustrates the derivation of (12) on the specific subject reading.

(46) **Specific subjects always move to the CP domain:**

$[_{FinP} \text{Subj}_i \text{Fin}] [_{MoodP} t_i \text{Mood}] [_{sannsynligvis} [_{TP} t_i T] [_{ofte} [_{AspP} t_i \text{Asp}] [_{helt} [_{vP} t_i \dots$

Now let us turn to clauses with verb movement. In section 2.2 we saw that the finite verb may precede or follow any adverb in ReNN embedded non-V2 contexts. This was illustrated in (20)-(22), summarized in (47).

(47) ... ettersom nån studenta {misforstod} sannsynligvis {misforstod} ofte {misforstod}
 as some students {misunderstood} probably {misunderstood} often {misunderstood}
 helt oppgaven.
 completely assignment.the
 ‘... as some specific students probably often completely misunderstood the assignment.’

I suggest here that these verb placement patterns are the result of the same operation as the subject placement patterns just discussed, namely predicate licensing. However, in these cases, predicate licensing is accomplished through the *spec-pied-piping* mode introduced in Biberauer and Richards (2006). The subject in SpecvP pied-pipes the whole vP when it moves to license [Pred], as illustrated in (48)-(50).

(48) **[Pred] in AspP:**

$[_{MoodP} Mood [sannsynligvis [_{TP} T [ofte [_{AspP} [vP]_i Asp]_{Pred}] helt t_i ...$

(49) **[Pred] in TP:**

$[_{MoodP} Mood [sannsynligvis [_{TP} [vP]_i T]_{Pred}] ofte [_{AspP} t_i Asp] helt t_i ...$

(50) **[Pred] in MoodP:**

$[_{MoodP} [vP]_i Mood]_{Pred} [sannsynligvis [_{TP} t_i T [ofte [_{AspP} t_i Asp] helt t_i ...$

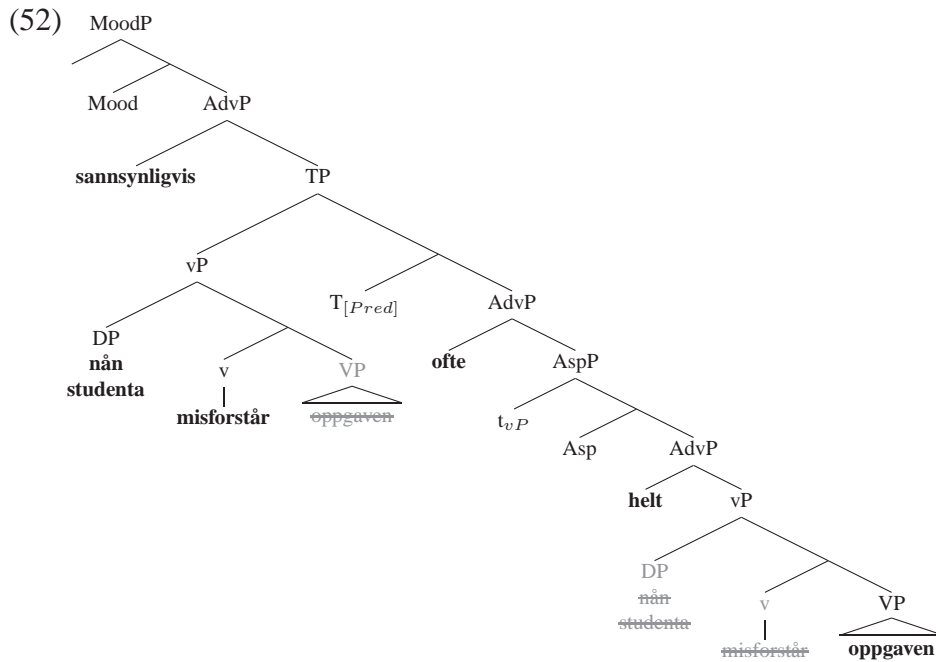
When the whole vP is pied-piped along to SpecAspP to license [Pred] in AspP, as in (48), the verb ends up in a position preceding low adverbs like *helt* ‘completely,’ but following higher adverbs like *sannsynligvis* ‘probably’ and *ofte* ‘often.’ This yields the word order in (20). In (49) the whole vP has been pied-piped to SpecTP to license predication there. Now the verb precedes both *ofte* and *helt* but follows *sannsynligvis*, as in (21). Finally, when the [Pred] feature is associated with MoodP and the whole vP is pied-piped along to SpecMoodP, the verb precedes all adverbs in the clause, as in (50), yielding the word order in (22).

Note that although the whole vP is pied-piped to a higher specifier, only the subject and the verb are visible in this higher position, whereas objects and other complements are spelled out in the lower copy. For this type of phrasal movement I propose an operation of copying and partial deletion, inspired by Hinterhölzl (2000; 2002) (cf. Fanselow and Ćavar 2002 for a slightly different proposal of a copying and partial deletion operation). Following Hinterhölzl (2002), I assume that only the specifier or the head of a phrase may pied-pipe the whole phrase when they are triggered to move. In the ReNN examples discussed here, the subject (i.e., the specifier) is assumed to be probed by the head carrying the [Pred] feature, and when moving, it may pied-pipe the complete vP. Furthermore, Hinterhölzl argues that only right peripheral material of a phrase can be deleted in the higher copy. I here suggest that the spell-out of pied-piped material is restrained by the nature of phases. Following Chomsky (2000; 2001) I take vP to constitute a phase, but following Legate (2003) I assume that all main verbs project a phase. In phase-based approaches only the *edge* of a phase is available to operations outside of this phase. This is stated in the *Phase Impenetrability Condition* (PIC) where the highest specifier and head constitute the edge of the phase (from Chomsky 2000:122):

(51) **Phase Impenetrability Condition (PIC)**

‘In a phase α with head H, the domain of H is not accessible to operations outside α , but only H and its edge.’

The effects of the PIC are derived if as soon as the vP phase is completed, its non-edge material is sent off to spell-out. This material will therefore be pronounced in the base position, and at the point when vP is copied to the higher specifier position, only its edge is visible. In the above examples, this means that the object *oppgaven* ‘the assignment’ will be pronounced in the lower copy, whereas the subject and the verb are available for pronunciation in the higher copy (as we will see in the next section, the subject is actually forced to move to an even higher projection for Case licensing reasons; we will return to this shortly). This is illustrated in (52), where the [Pred] feature is associated with TP and the subject pied-pipes the whole vP to SpecTP.



In this derivation the verb is thus pied-piped to SpecTP along with the subject, and will consequently precede adverbs like ‘often,’ as in example (47) above. Thus verb movement effects in ReNN are explained as the result of the subject pied-piping the whole vP when moving to license the predicate. (See Bentzen 2007b for a more detailed discussion of this approach to phrasal movement.)¹³

¹³Note that the spelled-out material is not always left in situ. In (40) the whole *wh*-phrase is optionally spelled out in the higher copy. Likewise, it is possible to topicalize a DP containing a CP, bringing the CP along, as in (i).

- (i) [_{DP} Det [_{CP} at datamaskinen kræsjet]] hadde han ikke hørt. (Nor.)
that that computer.the crashed had he not heard
‘He hadn’t heard about the fact that the computer crashed.’

In these cases one could potentially argue that the *whole phrase* carries the probed feature (*wh* in (40b), *topic* in (i)), and thus the whole phrase is spelled out where this feature is licensed.

As we have seen in this section, the flexibility with respect to subject placement in Norwegian embedded clauses in general as well as the flexibility of verb placement in ReNN embedded clauses can be accounted for by the same operation of predicate licensing. I have proposed that predication may be associated with various projections, and that predicate licensing can be accomplished in two ways in ReNN. The spec-raising option, where the subject moves alone to the specifier of the projection carrying [Pred], is responsible for the various positions of subjects found in Norwegian embedded clauses without verb movement. In the spec-pied-piping option the whole vP is pied-piped to the relevant specifier position, and this yields the various positions of the verb in ReNN clauses with verb movement.

Furthermore, this approach to predicate licensing provides an account for one of the three observations made in section 2.2, namely the fact that the subject always has to precede the verb when there is verb movement, even though independently it may occur in a position lower than the target position of this verb movement. This is now expected, as vP movement and DP movement will never take place as two separate operations. Rather vP movement is a variant of DP movement in which the DP pied-pipes the whole vP. Thus, when there is verb movement, the subject and the verb move together and consequently, their internal order will not be altered. However, the two other observations made in section 2.2, namely that the subject obligatorily precedes all adverbs and that it is obligatorily specific when there is verb movement still need to be accounted for. This is the topic of the next section.

4 Nominative Case licensing

In Pesetsky and Torrego (2001), Nominative Case is taken to be an uninterpretable tense feature (uT) on the subject (from Pesetsky and Torrego 2001:361):

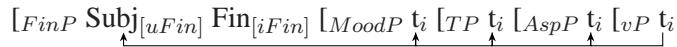
- (53) *The nature of nominative case*
Nominative case is uT on D.

They furthermore suggest that in English the nominative DP is attracted to SpecTP by T's uninterpretable ϕ -features. In SpecTP the DP's uT may be deleted. However, C also has a uT feature, which needs to be deleted. This is accomplished either by moving T to C (head movement) or by moving the nominative DP to SpecCP. Pesetsky and Torrego (2001) argue that deleted features do not disappear until the end of a *cycle* (cf. a phase), and therefore a nominative DP that has already had its uT feature deleted in SpecTP is able to delete uT on C in SpecCP as well. Here, I will also relate nominative Case to an uninterpretable "verbal" feature on the DP subject, but I will follow Holmberg and Platzack (1995) in assuming that the relevant feature is finiteness. Holmberg and Platzack (1995) argue that finiteness (their [+F] operator) is associated with C rather than with I in V2 languages. Adapting this view to the split CP approach assumed here,

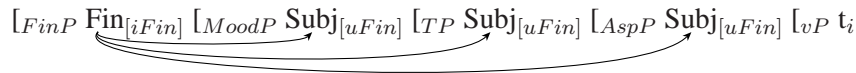
I propose that the relevant projection for finiteness is FinP. I thus take subjects to have an uninterpretable finiteness feature, which is licensed by the matching *i*Fin in FinP, thereby providing the subject with Nominative Case.

As we saw in section 2.1, the subject may remain in a very low position in Norwegian. How is Nominative Case then licensed from FinP to the subject? I assume Chomsky’s *Agree* Model (Chomsky 2000) and propose an approach to Case licensing based on Wurmbrand (2006). In this approach, Nominative Case licensing can be accomplished in two ways. One option is that the subject moves to SpecFinP, and thus Nominative Case is licensed directly through a spec-head relation in FinP, as illustrated in (54). Alternatively, the subject may enter into an *Agree* relation with $\text{Fin}_{[iFin]}$, and thus receives Nominative Case without moving to SpecFinP, as in (55).

(54) **Move** of $\text{Subj}_{[uFin]}$ to $\text{SpecFin}_{[iFin]}P$:



(55) **Agree** between $\text{Fin}_{[iFin]}$ and $\text{Subj}_{[uFin]}$:



Agree is subject to certain locality conditions (Chomsky 2000, Chomsky 2001). First of all, the subject needs to be in an appropriate locality domain in order to receive Nominative Case from FinP. In Holmberg and Platzack (1995), the subject has to be in a position in which it is governed by C. In the more recent approaches, the locality domain is often defined in terms of phases (cf. Chomsky 2001). According to the PIC, a probe cannot see across a phase boundary when searching for an appropriate goal; it can only probe a goal that is located within its own phase, or at the edge of the next phase down.¹⁴ On the assumption that (at least) vP and CP are phases, the subject consequently has to be (at least) at the edge of the vP-phase to be able to enter into an *Agree* relation with $\text{Fin}_{[iFin]}$.

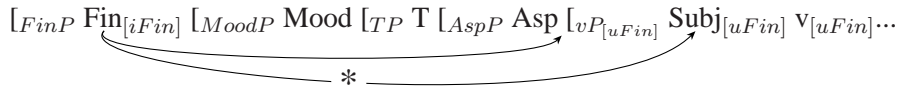
Another locality condition for *Agree* concerns the effect of intervening elements (cf. Rizzi 1990). For an *Agree* relation to be established between $\text{Fin}_{[iFin]}$ and the subject, nothing else that potentially could enter into an *Agree* relation with $\text{Fin}_{[iFin]}$ may intervene between this projection and the subject. In cases of such intervention, *Agree* is blocked and then Nominative Case licensing through *Move* is the only option (cf. also Bobaljik and Wurmbrand 2005 and Lidz and Williams 2002; 2005).

According to Holmberg and Platzack (1995) [+F] is both an abstract marker for Nominative Case and for finiteness. As suggested above, I take *u*Fin on subjects expresses Nominative Case. However, the feature Fin is also expressed in verbal morphology on the finite verb, through *u*Fin on v. In Norwegian non-V2 contexts, where the verb

¹⁴See however Bošković 2007 for an argument that *Agree* is not constrained by the PIC.

does not move all the way to FinP, the $u\text{Fin}$ feature on v thus has to be licensed through Agree. Adger (2003) proposes an analysis of English tense marking along these lines. In his approach T has an interpretable tense feature $i\text{T}$, whereas v has an uninterpretable tense feature $u\text{T}$. In English, main verbs do not move, and Adger (2003) argues that $u\text{T}$ on v is valued through agreement and feature-sharing with $i\text{T}$ in TP. In Norwegian, verbs are not marked for agreement, but they are marked for finiteness, with either a present or a past tense morpheme.¹⁵ In clauses without verb movement, the verb remains in a low position but enters into an agreement relation with $i\text{Fin}$ in FinP and thus has its features valued *in situ* in the same way that Adger (2003) outlines for English. The feature $u\text{Fin}$ on v is shared by v 's projection, that is the $v\text{P}$ (cf. among others Pesetsky and Torrego 2001). We then have $u\text{Fin}$ on both $v\text{P}$ and on the subject in Spec $v\text{P}$. Thus, if the subject were to remain inside the $v\text{P}$, Agree between $\text{Fin}_{[i\text{Fin}]}$ and the subject would arguably be blocked. This is so because when $\text{Fin}_{[i\text{Fin}]}$ probes down the structure for a potential goal, it would see $[u\text{Fin}]$ on $v\text{P}$ first, and then $\text{Fin}_{[i\text{Fin}]}$ and $v\text{P}_{[u\text{Fin}]}$ would enter into Agree, leaving the subject without Case, as illustrated in (56).

(56) Agree between $\text{Fin}_{[i\text{Fin}]}$ and $\text{Subj}_{[u\text{Fin}]}$ blocked by $u\text{Fin}$ on $v\text{P}$:



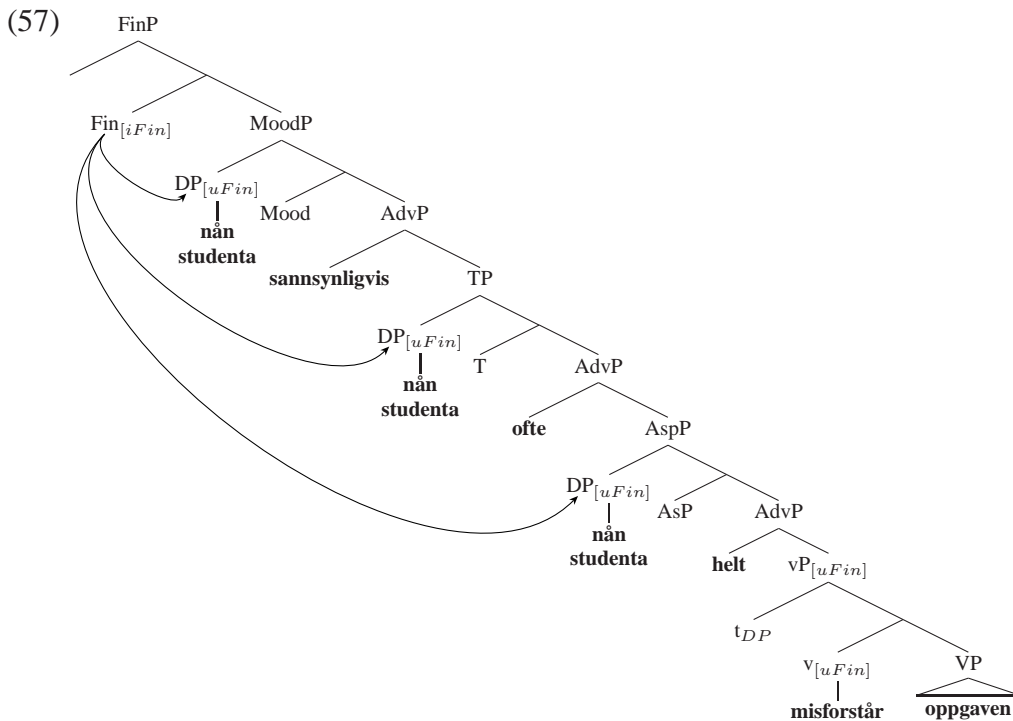
The subject in Spec $v\text{P}$ and v are of course in a spec-head relation, so one might think that once $v\text{P}_{[u\text{Fin}]}$, and thus $v_{[u\text{Fin}]}$, has entered into an Agree relation with $\text{Fin}_{[i\text{Fin}]}$ to have finiteness licensed, the subject would have its $u\text{Fin}$ feature licensed through a spec-head relation with v . However, I here take spec-head relations to be relevant when the specifier is merged in the structure. At the point in the derivation when the subject and v form a spec-head relation, $\text{Fin}_{[i\text{Fin}]}$ has not been merged yet, and when $\text{Fin}_{[i\text{Fin}]}$ is merged and establishes Agree with $v\text{P}_{[u\text{Fin}]}$, the subject and v presumably cannot create a new spec-head relation to have $u\text{Fin}$ on the subject licensed from $\text{Fin}_{[i\text{Fin}]}$ via $v_{[u\text{Fin}]}$. Thus, I propose that all nominative subjects have to move out of the $v\text{P}$ in order to get their case licensed. With these background assumptions on Nominative Case licensing laid out, let us return to the Norwegian examples, starting with clauses without verb movement.

4.1 Spec-raising and Case licensing

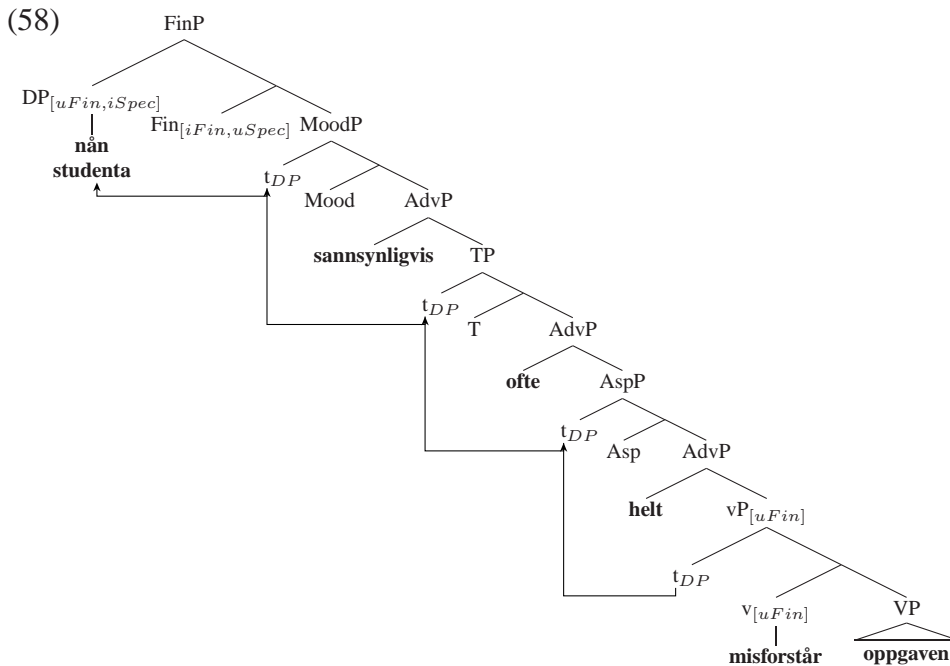
As we saw in the previous section, the subject in clauses without verb movement goes through spec-raising to either SpecAspP, SpecTP, or SpecMoodP in order to license predication. In either of these specifier positions, the subject is able to enter into an

¹⁵Present tense is *-er* in Standard Norwegian and *-e* or *-Ø* in ReNN; past tense for the major verb classes is *-et* and *-te/-de* in Standard Norwegian and *-a* and *-te/-de* in ReNN.

Agree relation with $\text{Fin}_{[iFin]}$, and may thus receive Nominative Case without moving to SpecFinP , as illustrated in (57).



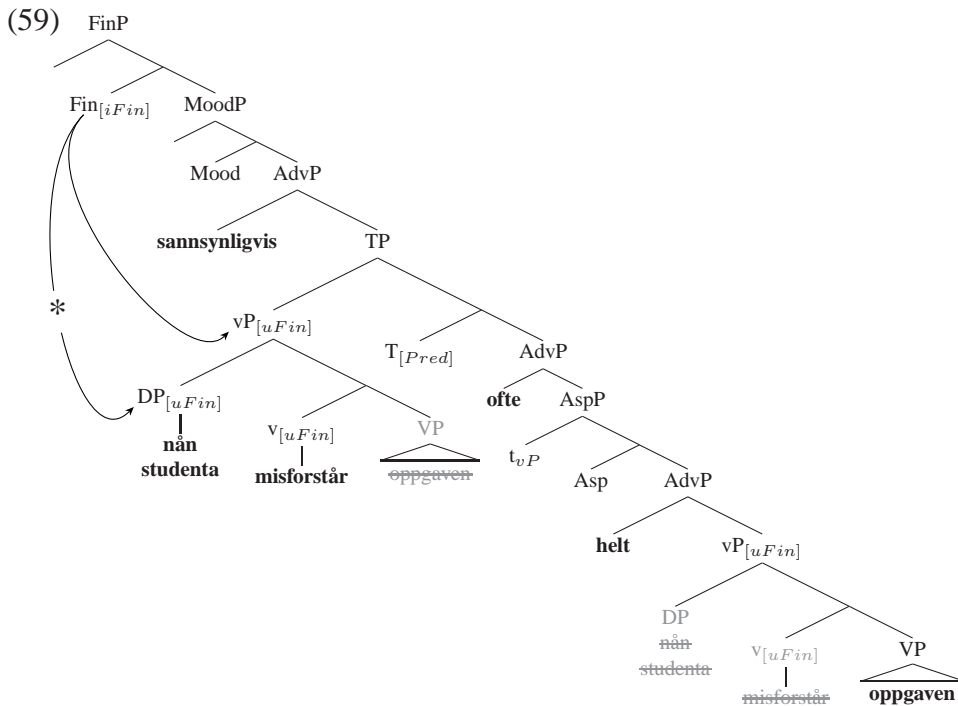
As discussed above, Nominative Case licensing through Move takes place if Agree between Fin and a subject in the IP domain fails, but only if the subject has independent reasons to move to (or through) SpecFinP . In clauses without verb movement, Case licensing through Agree is always available for non-specific subjects given that the subject has moved out of the vP for predicate licensing. Specific subjects, on the other hand, always move to the CP domain to get specificity licensed. Let us assume that the specific reading is expressed by the feature $i\text{Spec}(ific)$ on the subject being licensed by the matching $u\text{Spec}$ on Fin . In clauses with specific subjects, Case licensing will therefore be accomplished through Move as a consequence of the subject moving to SpecFinP anyway, as shown in (58).



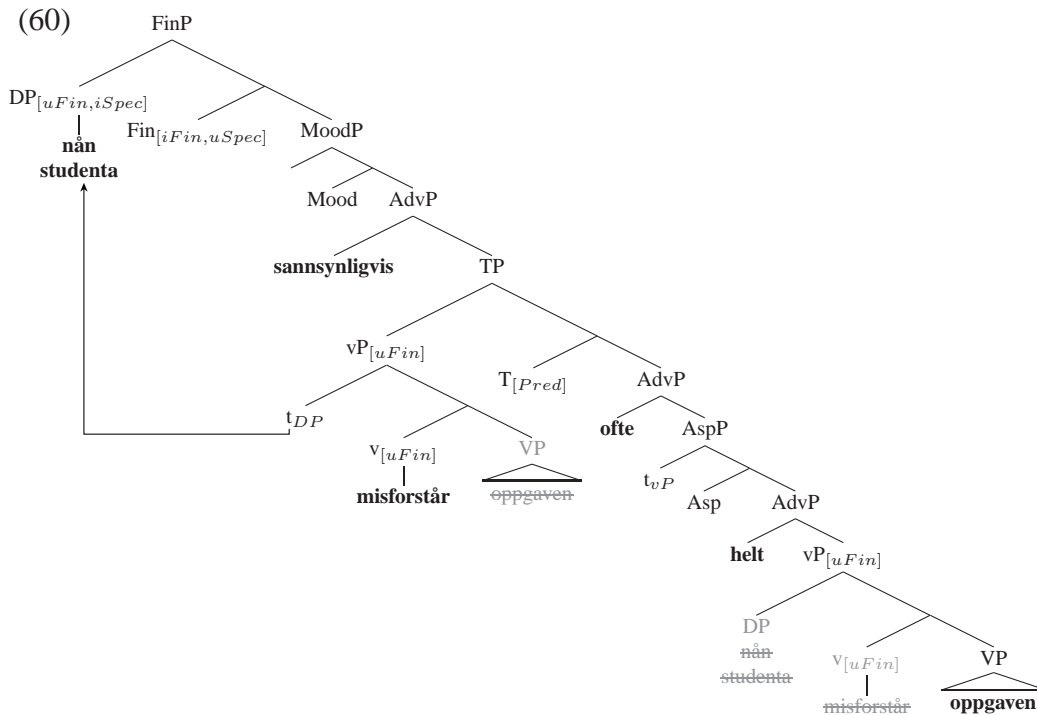
So, in clauses without verb movement, Nominative Case licensing through Agree is the default, and Move is only employed if the subject has independent reasons to move to the CP domain, for example for licensing of an interpretable feature like *iSpec*.

4.2 Spec-pied-piping blocks Case licensing through Agree

In clauses with verb movement, on the other hand, Nominative Case licensing through Agree is arguably not available. As mentioned, I assume that the *uFin* feature on the *v* head projects onto the phrasal level, *vP*. As was illustrated in (56), a subject that has remained inside *vP* cannot enter into Agree with $\text{Fin}_{[iFin]}$ because of this; the *uFin* feature on *vP* will act as an intervener between $\text{Fin}_{[iFin]}$ and the subject in *SpecvP*. In subsection 3.2 I outlined an analysis of verb movement in terms of phrasal movement where the whole *vP* is copied into a higher specifier projection. In such cases, the subject is in the specifier of the moved *vP*, and again Agree between $\text{Fin}_{[iFin]}$ and the subject will be blocked by *uFin* on *vP*, as indicated with a starred arrow in (59) below. Thus, Nominative Case licensing through Agree is not an option in embedded clauses with verb movement; a subject inside a moved *vP* will not be able to get Case.



Case licensing through Move, on the other hand, is available in these clauses. Above I argued that Case licensing through Move occurs only when the subject has independent reasons to move to SpecFinP. Furthermore, I suggested that specific subjects obligatorily move to the CP domain to get the feature *iSpec* licensed. Thus, these subjects will be able to get Nominative Case in embedded clauses with verb movement, as they move to SpecFinP anyway. As illustrated in (60), the subject pied-pipes the whole vP to SpecTP for predicate licensing, as before. However, from this position, a specific subject will move on to SpecFinP, and Nominative Case licensing is accomplished for free, so to speak.



Assuming this analysis of Nominative Case licensing, we now have a way of accounting for the second and third observations concerning how verb movement constrains the distribution of subjects. The second observation was the fact that subjects have to precede *all* adverbs in the clause when there is verb movement, even if the verb only has moved across some of the adverbs in the clause. This now follows as Case licensing through Agree is blocked when the subject remains inside the moved vP. Instead, the subject has to move all the way to SpecFinP to get Nominative Case. In this position it will naturally precede all adverbs in the clause. The third observation concerned the interpretation of the subject. When there is verb movement in the clause, only a specific reading of the subject is available. This also follows from the Case licensing analysis outlined here. As we have seen, in embedded clauses with verb movement, only Nominative Case licensing through Move is available, but this can only be accomplished when the subject has independent reasons to move to the CP domain. Thus, only subjects carrying some additional feature that needs to be licensed in the CP domain, such as *iSpec*, will be able to get Nominative Case in such clauses, and consequently specific subjects are available in these clauses, whereas non-specific ones are not.

5 Concluding remarks

In this paper I have discussed the positions of subjects in non-V2 contexts in Norwegian. Using adverbs as a diagnostic, I illustrated that subjects may occur in several different

positions in such clauses, and that the various positions are linked to the interpretation of the subject. Non-specific subjects may precede or follow any adverb, whereas specific subjects have to precede all the adverbs in the clause. Regional Northern Norwegian (ReNN) allows verb movement in these non-V2 contexts, and this kind of verb movement was shown to affect the distribution of subjects in three different ways: (i) the subject has to precede the verb, although lower positions are available in the absence of verb movement, (ii) the subject is forced to precede any adverb in the clause, and (iii) the subject obligatorily receives a specific interpretation.

The flexible positioning of both subjects and verbs in ReNN was given a unified account in terms of predicate licensing. I have proposed that Norwegian has an EPP feature, [Pred], which may be associated with various heads in the structure. A predicate with the feature [Pred] is licensed by having its specifier filled by an element carrying the feature [D]. The subject carries this feature, and may thus be attracted through *Spec-raising* to the specifier position of $X_{[Pred]}P$. This is what happens in clauses without verb movement. Based on Biberauer and Richards (2006), my proposal furthermore suggested that predicate licensing in ReNN optionally could be accomplished through *Spec-pied-piping*, where the subject would pied-pipe the whole vP to the specifier of $X_{[Pred]}P$. This yields the effect of verb movement. The fact that verb movement cannot cross the subject now follows because verb movement is analysed as pied-piping, where the subject pied-pipes the vP, containing the verb, when it moves for predicate licensing.

The other two ways in which verb movement influences subjects, forcing them to a high position, and forcing them to be specific, are also consequences of verb movement being analysed as vP pied-piping. I suggested that subjects in general cannot get Nominative Case from $Fin_{[iFin]}$ through Agree if they have remained inside the vP. The reason for this is that both the subject and the verb carry the feature μFin . As the features of the v head are shared by its projection, μFin on vP will block Agree between $Fin_{[iFin]}$ and a subject inside vP. When the subject has moved to some higher specifier position through Spec-raising, it may enter into Agree with $Fin_{[iFin]}$, and thus receive Nominative Case without moving all the way to SpecFinP. However, when the subject has pied-piped the whole vP to some higher specifier position, Agree between $Fin_{[iFin]}$ and the subject is again blocked by μFin on vP. Thus, the subject is forced to move out of the vP in order to get its Case licensed. This explains why the subject occurs in a very high position, preceding all adverbs, when there is verb movement: it has to move to get Case. However, only subjects that have some independent feature that needs to get licensed can perform this movement. Here it was shown that subjects with the feature $iSpec$ needed to move to SpecFinP to get a specific reading licensed. Consequently, these are the only types of subjects that are able to get Case in clauses with verb movement. Non-specific subjects will be trapped in the vP that has moved to some specifier position in the IP domain, and inside the vP they cannot get Nominative Case. Hence, the derivation will crash.

Thus, we have seen that predicate licensing provides a unified account for the flexibility of the position of subjects in Norwegian in general, and of the position of verbs in ReNN. Furthermore, the restrictions verb movement imposes on the distribution of subjects follow from the combination of verb movement analysed as vP Spec-pied-piping and the approach to Nominative Case licensing outlined here.

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