

Minimality and embedded V2 in Scandinavian

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Abstract

The paper focuses on the syntactic and interpretive properties of subordinate clauses in Mainland Scandinavian and Icelandic. Assuming a cartographic CP structure (Rizzi 1997; Haegeman 2006, a.o.), the V-to-Fin movement surfacing as linear V2 is determined by structural and interpretive properties of the complementizer domain in some embedded clauses. The syntactic properties and distribution of embedded V2 in Scandinavian follow from restrictions imposed by the information structure and are explained in light of relativized minimality.

1. Introduction

In Scandinavian languages, the V2 requirement holds for all main clauses and is basically realized through two different types of sentences with the linear order illustrated in (1).

- (1) a. XP V S ...
b. S V (Adv/Neg)...

The order in (1a) indicates that any non-subject constituent with a proper feature specification can precede the verb and gives rise to verb-subject inversion. By contrast, the preverbal element in (1b) is the subject, undergoing A-movement to a preverbal position.

The syntactic mechanism at the basis of V2 is still under debate, and a unitary account of V2 must take into consideration both orders provided in (1). Because of the verb-subject inversion phenomenon triggered when another constituent is topicalized (cf. 1a), it has been claimed that the verb reaches the complementizer field in Germanic main clauses (cf. Vikner 1995, a.o.). Given that V2 is generalized to all main clauses in Scandinavian languages¹, it has been assumed that also subject-initial clauses (i.e. 1b) have V-to-C. Accordingly, what distinguishes non-subject initial V2 clauses, (1a), from subject-initial V2 ones, (1b), is the first position: A' in the former case, but A in the latter. This difference can be accounted for either by the hypothesis that there is a subject position in the C-domain (cf. Platzack 2009; Poletto 2000 for Romance varieties) or that the specifier of the lower C-head may have both A- and A'- properties (cf. Haeberli 2002). I disregard the details of this debate and assume that subjects can A-move to the C-domain without being A'-extracted.

The distribution of V2 in Scandinavian embedded clauses has been

extensively discussed (Vikner 1995; Holmberg and Platzack 1995 and references therein; Rögnvaldsson and Thráinsson 1990; Brandtler 2008; Hróarsdóttir et al. 2007; Wiklund et al. 2009; Julien 2007 and 2009; a.o.). In this paper (i) I limit the discussion of the pragmatics of embedded V2 clauses to aspects that are essential for their syntactic derivation; (ii) I disregard the details of the debate on the scope of verb movement in Icelandic embedded V2 clauses, namely whether it is due to independent V-to-I (Holmberg and Platzack 1995 and 2005; Rögnvaldsson and Thráinsson 1990; Thráinsson 2010, a.o.) or V-to-C (Hróarsdóttir et al. 2007; Wiklund et al. 2009); (iii) I take Norwegian and Swedish as paradigmatic languages for the Mainland Scandinavian system. By contrast, the Insular Scandinavian system is represented here by Icelandic only. The Faroese system has a much more complex behavior which cannot be properly addressed in this paper²; (iv) I focus on the differences among various linear orders yielding a surface V2 string, and offer a syntactic account for deriving embedded non-subject-initial and subject initial V2. As for non-subject initial V2, I distinguish preverbal arguments from temporal/local adverbial preposing on the basis of the data discussed in Hrafnbjargarson and Wiklund (2009) and Franco (2009).³

The paper is structured as follows: section 2 briefly illustrates the distribution of V2 in different types of embedded clauses; section 3 illustrates the proposal: the ungrammaticality of embedded V2 is explained with the hypothesis that the A'-movement of a (non-subject) argument to a

preverbal position triggers minimality effects with the movement of a subordinating OP. In section 4, the scope and trigger of verb movement in V2 clauses are accordingly defined.

2. Distribution of embedded V2 in Scandinavian

With respect to embedded V2 Scandinavian differs from West Germanic in that verb movement is not in complementary distribution with overt complementizers. Scandinavian embedded V2 may surface in either of the two options given in (2) below (cf. with main clause V2 in (1) above).

- (2) a. C XP V S ...
- b. C S V (Adv/Neg)...

The two orders illustrated in (2) have a different distribution in embedded contexts, which has been discussed by previous literature (see Wiklund et al. 2009, a.o.) and can be accounted by a comparative analysis of clause-typing.

In a recent paper, Hrafnbjargarson and Wiklund (2009) challenge the claim that Icelandic has so-called symmetric V2⁴. In line with the facts presented in this paper, the difference concerning embedded V2 in Mainland Scandinavian and Icelandic can be summed up as follows:

- (3) a. Mainland Scandinavian has a more restricted embedded V2. When V2 is not possible, the clause can neither have the order in (2a) nor the one in (2b);
- b. Icelandic has a less restricted embedded V2. Some clauses can only have the order in (2b), but not the one in (2a); i.e. in some clauses no topicalization is possible but subject-initial V2 is instead attested.

Moreover some other clauses allow the order in (2a) but impose a restriction on the type of fronted XP (cf. Hrafnbjargarson and Wiklund 2009 for data and discussion).

2.1. Declarative complements

According to the data presented by Wiklund et al. (2009), embedded non-subject initial V2 is possible only in a restricted range of contexts both in Mainland Scandinavian and Icelandic. This type of V2-clauses necessarily entails V-to-C, since the presence of a preverbal non-subject constituent (here simply referred to as “topic”) “forces” verb-subject inversion. Apparently, non-subject initial embedded V2 clauses have a similar distribution in all Scandinavian languages, although a non-V2 clause (i.e. where the verb follows sentential adverbs or negation in a subject-initial

clause) is in principle “always an option” in Mainland Scandinavian embedded contexts (Brandtler 2008; Julien, in prep.), whereas the situation is exactly the opposite in Icelandic (i.e. V3 orders are marginal, when accepted, cf. Angantýsson 2007).

The distribution of embedded V2 in declarative complements seems to vary according to the selectional properties of the matrix predicate (cf. Hooper and Thompson's 1973 classification) as discussed in recent works (Hróarsdóttir et al. 2007; Julien 2007 and in prep.; Wiklund et al. 2009; Hrafnbjargarson and Wiklund 2009) and can be summed up as follows. (i) **Assertive and weak assertive complements**, complements to some **perception verbs** and to verbs indicating a **mental state** (see Wiklund et al. 2009 for details) allow embedded V2 both with the linear order given in (2a) (non-subject-initial V2) and the one in (2b) (subject-initial V2) in Icelandic as well as in Mainland Scandinavian. In other words, both verb movement and topicalization may obtain in these complements in the two language groups. (ii) **Factive complements, non-assertive complements or complements to modified/negated assertive and semi-factive verbs** generally have a different behavior in Icelandic and Mainland Scandinavian. With some degree of variation depending on the interpretation of the matrix predicate (or on its selectional properties) both subject-initial and non-subject-initial V2 is ungrammatical in Mainland Scandinavian (see (5) below), whereas Adv/Neg-V orders are grammatical. In Icelandic, subject-initial V2 (as in 4b) is the default option, whereas S Adv-V orders are

marginal, if not ungrammatical (see Angantýsson 2007 and Thráinsson 2010).

Non-assertive/Factive complements

(Icelandic)

(4) **Hann sá eftir*

He regretted

a. *að þetta lag hafði hann ekki sungið*

that this song had he not sung

“He regretted that he didn’t sing this song”

b. *að hann hafði ekki sungið*

that he had not sung

“He regretted that he had not sung”

[Hróarsdóttir et alia (2007), 56: (18); (19)]

(Swedish)

(5) **Han ångrade*

He regretted

a. *att den här sången hade han inte sjungit*

that this here song.the had he not sung

“He regretted that he didn’t sing this song”

b. **att han hade inte sjungit*

that he had not sung

“He regretted that he had not sung”

[Hróarsdóttir et alia (2007), 58, 59: (23);(22)]

(iii) Hrafnbjargarson and Wiklund (2009) argue that in Icelandic a V2 clause formed by a preverbal topic and V-S inversion is an acceptable complement to a factive verb like *harma*, but not to the predicate *sá eftir* (both verbs mean “to regret”). They attribute this difference to the pragmatics of the two predicates (the first can embed a clause containing new information for the addressee, whereas the latter cannot).

Points (i)-(iii) provide only a descriptive generalization which excludes more controversial facts. In some cases, modified or negated semi-factives or assertive predicates allow embedded topicalization not only in Icelandic but also in Mainland Scandinavian⁵. The presence of embedded V2 in Mainland Scandinavian seems to depend on specific interpretative properties attributed to the sentence containing a V2 complement. This possibility is explained in syntactic terms by the proposal in section 4.

On the one hand, the fact that semi-factive predicates like “to know” may select V2 complements (with either S-V-Adv order or preverbal topics) in all Scandinavian languages indicates that factivity *per se* is not a good criterion to discriminate V2 from non-V2 complements; on the other hand, the restrictions on embedded V2 display an interesting correlation with the

presence of a syntactic island (weak factive islands, negative islands, Wh-islands).

If we assume that Scandinavian embedded V2 is a root phenomenon on a par with West Germanic and that it patterns as illustrated above (cf. (i)-(iii); Wiklund et al. 2009 and Hrafnbjargarson and Wiklund 2009), we can infer which types of predicates/matrix clauses select root complements on the basis of (i)-(iii). Two questions arise at this point: **Question 1.** What blocks *topicalization* in declarative complements to (most) non-assertive and factive predicates in Scandinavian? **Question 2.** What triggers *verb movement* in certain clause-types in Icelandic but blocks it in their Mainland Scandinavian correlates?

The importance of providing complete, separate answers to questions 1 and 2 is crucial for understanding the mechanisms yielding surface V2. Some recent accounts propose that Scandinavian embedded V2 is related to the interpretation of the whole matrix clause (Julien 2007); or to the possibility that the subordinate clause is interpreted as expressing the so-called Main Point of Utterance (MPU, conveying the pragmatically relevant content of the sentence, Wiklund et al. 2009, following Hróarsdóttir et al. 2007). Nevertheless, a clear definition of the *syntactic* licensing conditions for embedded V2 has not been given yet.

Moreover, an account of embedded V2 based on its pragmatics cannot be applied to Insular Scandinavian, or at least not to Icelandic, since Icelandic can have embedded V2 even in those clauses where it is not

“pragmatically” expected by the aforementioned accounts. Rather, a syntactic explanation for the target of verb movement in Icelandic embedded clauses is required (cf. Question 2 above). There is reason to believe that the pragmatics of Icelandic embedded clauses is connected to different syntactic properties of this language. In recent work (Franco 2010b), I suggest that the presence of morphological subjunctive in Icelandic (but not in other Scandinavian languages) enables the activation of a syntactic mood-checking mechanism.

Regardless the different interpretations that V2 vs. non-V2 clauses may have, a separate issue is which syntactic device blocks topicalization in the embedded clause types considered so far (cf. Question 1). This question extends to other clause-types as well, where topicalization is not possible.

2.2. Other types of subordinate clauses

In addition to clauses that usually display weak island properties (e.g. factive or modified/negated assertive complements), other clause-types do not allow non-subject V2 in Scandinavian.

Typical non-V2 subordinate clauses in Mainland Scandinavian are those derived by A'-dependencies (relative clauses; indirect Wh- questions), as well as indirect Y/N questions and certain adverbial clauses. Compare the declarative non-subject initial complements in (4) and (5) to the relative clauses in (6) and the indirect questions in (7):

Relative clauses

(Icelandic)

- (6) a. **stelpa* [*sem bókina gaf Haraldur ekki*]
girl.the that book.the gave Harald.NOM not
“The girl to whom Harald didn’t give the book”

(Swedish)

- b. **den flicka* [*som sitt hår har kammat*]
the girl that her hair has combed
“The girl that has combed her hair”

Indirect Wh- questions

(Icelandic)

- (7) a. **þeir spurðu* [*hvern í bæinn hefði rútan flutt klukkan sjö*]
They asked who to town.the had bus.the carried clock seven
“They asked whom the bus had carried to town at seven o’clock”

(Swedish)

b. **Jag undrade [vem (som)*

I wondered who that

till partner skulle hon välja]

as partner would she choose

“I wondered who she would choose as a partner”

The ungrammaticality of topicalization in extraction contexts (e.g. relative or interrogative clauses) can be explained in terms of minimality, i.e. argument topicalization creates an island to A'-extraction in Germanic. For this reason, non-subject initial V2 is often considered a root phenomenon; obtaining in embedded clauses with a root status, but not in clauses that are dependent on a matrix, i.e. real subordinates. The present paper proposes that embedded (non-subject initial) V2 is not straightforwardly interpretable as a root phenomenon, following the suggestion made for the interpretation of contrastive topics in English (Bianchi and Frascarelli 2009).

With regard to adverbial clauses, Hrafnbjargarson and Wiklund (2009) argue that embedded topicalization, when possible, is limited to certain types of clauses even for speakers of the less restrictive variety of Icelandic (Icelandic A, cf. Hrafnbjargarson and Wiklund (2009), pp. 27-28). Specifically, temporal and conditional clauses pattern together with embedded Wh- clauses⁶ in not allowing any kind of preverbal topic in any Scandinavian language. By contrast, concessive, purpose and reason clauses may allow a topic, not only in Icelandic but also in Swedish, “if the fronted

element is a spatial or temporal adjunct” (Hrafnbjargarson and Wiklund (2009), p. 29):

(Swedish)

(8) *Han gömde sig så att **hela dagen***

He hid self so that whole day.the

skulle hans mor tro att han var på skolan

would his mother believe that he was at school.the

“He hid himself so that his mother the whole day would think
that he was at school”

[Hrafnbjargarson and Wiklund (2009), 29, 13b]

With regard to subject-initial clauses, Mainland Scandinavian patterns differently from Icelandic once again. On a par with those declarative complements where non-subject initial V2 is not possible (cf. Section 2.1), neither subject-initial relative clauses nor indirect questions can have verb movement across a sentential adverb or negation in Mainland Scandinavian, as (9b) and (10b) show. By contrast, the common⁷ linear order of these types of clauses in Icelandic is (C) S V Adv/Neg, as illustrated by examples (9a) and (10a).

Relative clauses

(Icelandic)

- (9) a. *maðurinn sem hann **talar** stundum við*
man-the that he talks sometimes to
“The man to whom he sometimes talks”

(Swedish)

- b. *den flicka som inte **har**/***har** inte kammat sitt hår än*
the girl that not has/has not combed her hair yet
“The girl that hasn’t combed her hair yet”

Indirect Wh- questions

(Icelandic)

- (10) a. *Maria spurði hvern hann **talaði** stundum við*
Maria asked whom he talked sometimes with
“Maria asked to whom he sometimes talked”

(Swedish)

- b. *Jag undrar vem som inte **har**/***har** inte blivit sjuk än*
I wonder who that not has has not become ill yet
“I wonder who has not been ill yet”

[Thránisson 2007, 401, 8.22, Julien, 2007, 121, 20]

The facts sketched in sections 2.1 and 2.2 are summed up in (11).

(11) a. *Subject-initial V2 (S V adv)*

Embedded subject-initial V2 always possible in Icelandic regardless the type of predicate in the matrix. The verb can neither cross sentential adverbs nor negation in Norwegian and Swedish in Wh-islands, adverbial clauses, indirect Y/N questions, and complement to modified or non-assertive and factive verbs.

b. *Non-subject-init. V2 (XP V S)*

Non-subject initial V2 (where XP is an argument) is ungrammatical/very degraded for all Scandinavian languages in exactly the same contexts.

Since what distinguishes subject from non-subject initial V2 clauses is the presence of a preverbal, non-subject topic, we may conclude that in the clauses where *S V Adv* is ruled out in Mainland Scandinavian, there is a syntactic mechanism blocking topicalization of an internal argument (both in Mainland and Insular Scandinavian).

Given the facts in (8) (cf. Hrafnbjargarson and Wiklund 2009, and Franco 2009), we can further distinguish two different types of

topicalization, as in (12a) and (12b):

(12) a. **Fronting locative/temporal adverbials**

Possible in declarative clauses, some adverbial clauses and marginally in indirect Y/N questions across Scandinavian languages. Not possible in subordinate clauses derived as A'-dependencies (relative clauses, embedded Wh- clauses).

b. **Fronting of internal arguments**

Generally ungrammatical or very degraded in Wh-islands, adverbial clauses, indirect Y/N questions, and complement to modified or non-assertive and factive verbs.

The facts described in (11) and (12) are explained in the remainder of the paper with a relativized-minimality account for deriving different types of Scandinavian embedded clauses.

3. The proposal

The impossibility to front an internal argument in Wh- islands, adverbial

clauses, Y/N questions, and complement to modified or non-assertive and factive verbs is explained under the hypothesis that argument topicalization triggers minimality effects with the variable-binding relation created by a subordinating operator (cf. Haegeman 2006). This hypothesis raises the following problem:

Why is Mainland Scandinavian subject-initial V2 not attested in the clause types mentioned above, given that preverbal subjects, contrary to topics, do not trigger minimality effects with OP-variable binding?

The answer is connected to the scope of verb movement. Specifically, it is argued that there is an independent reason for which V-to-Fin⁸ cannot take place, and Mainland Scandinavian subject-initial V2 is also ruled out.⁹

Let us consider in detail how intervention effects are triggered where embedded topicalization takes place, and why such effects arise in some clauses but not in others. All clauses where topicalization is impossible are dependent on the matrix, and cannot receive a root interpretation (cf. also Heycock 2006; De Haan 2001, Haegeman 2006 and 2010). As mentioned above, argument topicalization is ruled out in weak islands (cf. 4a and 5a); Wh- islands (relative clauses, cf. (6), and embedded Wh- clauses (cf. 7). Topicalization is equally impossible in many adverbial clauses:

(Icelandic)

(13) *Ég fór [þegar í baðkerinu voru 20 mýs]

I left when in bathtub.the were 20 mice

“I left when there were 20 mice in the bathtub”

[Thráinsson 2007, 328, 6.42]

The impossibility to find topicalization in a clause subordinated to a matrix is explained by minimality. In subordinate clauses, an operator “blocks” the periphery. Consider the schematic representation of the periphery of a subordinate clause given in (14):

(14) [SubP **OP_{sub}** ForceP <OP_{sub}> Force[default] (TopP ***OP-XP**) FinP <**OP_{sub}**> Fin...

In this perspective, the acceptability of non-argument fronting in some types of adverbial clauses, as that in (8) above, must depend on more factors: (i) Temporal/local adverbials are not operators and front to ModP (cf. Rizzi 2001, Haegeman 2006); (ii) ModP must be an available position in the clause (i.e. its selection depends on the clause-type); (iii) the adverbial clause is not derived by movement of an OP minimally intervening with the preposed adverbial.

The fact that ModP is a potential probe for adverbial preposing only in some types of adverbial clauses, i.e. in concessive, purpose and reason clauses (cf. Hrafnbjargarson and Wiklund 2009), but not in temporal and

(central) conditional clauses must depend on the specific mechanism for the derivation of each clause-type. In clauses formed by A'-extraction (e.g. in relative and embedded Wh- clauses), adverbial preposing to ModP is generally not licensed, at least in Mainland Scandinavian. In this case Spec,FinP is occupied by the unspelled copy of the Wh-OP (the Wh-OP eventually moves to SubP), thus Spec,FinP is an unavailable intermediate step for adverbial preposing to Spec,ModP¹⁰.

3.1. Wh- islands

As is known from a vast literature, Wh-clauses are derived by movement of a Wh-OP to a position in the complementizer domain. According to Rizzi (1997), the verb/subject inversion of Wh- questions found in many languages is a residual V2 phenomenon. In Rizzi's view, a Wh- criterion requires the creation of a local configuration between the Wh-moved item and the verb. The Wh- item targets a criterial position in the C-domain (located in the Focus field, cf. Rizzi 1997, and Benincà and Poletto 2004) where its features can be interpreted. The notion of "criterion" is closely related to that of illocution, because, in dependent clauses, the Wh- position in the Focus field is a non-criterial intermediate step for the Wh-OP, which targets the higher Sub(ordinator)P. In his seminal cartographic work, Rizzi (1997) shows that movement of a Wh-OP (such as in questions) gives rise to minimality effects with other OP-fronting operations.

The consequent prediction is that topicalization is impossible when another OP has fronted, i.e. in island contexts. This is borne out by facts concerning both indirect and direct Wh- questions. The basic interpretive difference between main and subordinate Wh-clauses (e.g. direct and indirect questions) consists of the lack of independent illocutionary force in the latter. The Wh-OP is a subordinator, and does not undergo criterial movement (and criterial freezing) to a WhP in the Focus field. This different featural endowment gives indirect Wh-clauses the sentential force (cf. Zanuttini and Portner 2003) but not the illocutionary force of direct questions. In other words, indirect questions have the interrogative clause type but cannot be independent questions because they lack illocution.

Assuming that preverbal topics in Scandinavian have an OP-status (cf. Eythórsson 1996), the derivation of subordinate Wh-clauses by movement of a Wh-OP triggers minimality effects with topicalization, as expected. This is shown in the structure given in (15) below:

$$(15) \quad [\text{SubP}^{+[\text{int}]} \text{Wh-OP}]_{\text{Force}[\text{def}]} \emptyset (\text{TopP } * \text{XP})_{\text{WhP} < \text{Wh-OP} >} \text{FinP} < \text{Wh-OP} > \\ \text{Fin } \emptyset [\text{IP} \dots]$$

Such effects are visible in (7b) repeated below for convenience:

(Swedish)

(16) **Jag undrade* [_{ForceP}*vem (som)*

I wondered who (that)

till partner skulle hon välja]

as partner would she choose

“I wondered who she would choose as a partner”

If Y/N questions are derived by movement of a Y/N-OP, analogously to Wh-clauses, topicalization is in principle ruled out. It seems conceptually plausible that indirect Y/N questions are formed by movement of a truth-conditional OP, related to the interpretation of the matrix predicate and whose semantics consists of the exclusive disjunction of the answer pair. In Icelandic, however, minimality effects of a fronted topic in an indirect Y/N question are not as serious as those of indirect Wh-questions, as shown by the pair in (17). The fact that any topicalization is ruled out in *direct* Y/N questions may be explained by the fact that in root clauses the OP-movement is criterial, i.e. related to the interrogative illocution.

(Icelandic)

(17) **þeir spurðu*

They asked

a. *[hvern í bæinn hefði rútan flutt klukkan sjö]*

who to town.the had bus.the carried clock seven

“They asked whom the bus had carried to town at
seven o’clock”

b. *[hvort í bæinn hefði rútan*

whether to town.the had bus.the

komið klukkan sjö]

come clock seven

“They asked whether the bus had come to town at
seven o’clock”

[Thráinsson 2007, 352, 7.27]

The different degree of degradation of the two sentences in (17) may be directly dependent on the different number of matching features in the two A'-moved elements (i.e. the interrogative OP and the topic, cf. Starke 2001). In (17a) the topic is a PP with at least a [+N] feature that interferes with the features of the extracted Wh-argument *hvern*. By contrast, the Y/N-OP *hvort* in (17b) does not seem to have much in common with the topicalized constituent, beside its OP-status.

A similar analysis explains the ungrammaticality of topicalization in relative clauses derived with OP-movement to a position in the high left periphery. In the cartographic literature, this position is labeled RelP and located quite high in the C-domain structure. Given the clause-typing nature of the relative OP, I assume that RelP is SubP [+rel]. This analysis is supported by the fact that topicalization in relative clauses is ungrammatical in all Scandinavian languages, as illustrated in the examples repeated below:

(Icelandic)

- (18) a. **stelpa* [*sem bókina gaf Haraldur ekki*]
 girl.the that book.the gave Harald.NOM not
 “The girl to whom Harald didn’t give the book”

(Swedish)

- b. **den flicka* [*som sitt hår har kammat*]
 the girl that her hair has combed
 “The girl that has combed her hair”

In (18) the occurrence of a topic creates an intervention effect with the A'-movement of the relative OP and yields an ungrammatical result.¹¹

3.2. *Weak islands (factive and non-assertive clauses)*

A problematic point is raised by the split between two groups of declarative complements: those allowing topicalization and V2 (so-called “bridge-verb complements”, cf. section 2) and those that do not. Why is topicalization blocked in the latter group, i.e. in factive and non-assertive complements and often in modified/negated assertive complements? It can also happen that negated or modified factive/non-assertive complements allow topicalization, whereas their non-negated/modified counterparts do not (cf. Julien 2007). How can the present proposal solve this puzzle?

The intuition is that all declarative clauses where topicalization is banned are subordinated by an OP-variable binding mechanism. This solution is in contrast with what has been proposed by Meinunger (2004). According to him, embedded V2 clauses are derived by movement of a semantic assertive OP (ASS). In fact, the presence of an assertive operator would block the A'-OP-movement of a topic and yield an ungrammatical result, as shown in the structure in (19), but contrary to facts, cf. (20):

$$(19) \quad \dots [\text{SubP}[\text{decl}] \text{ ForceP}[\text{ass}] \textbf{ASS-OP} (\text{TopP} \textbf{*XP})_{\text{FinP}} <\textbf{ASS-OP}>_{\text{Fin}} \textbf{V} [\text{IP} \dots$$

(Swedish)

(20) *Han sa [att den här sången kunde*

He said that this here song.the could

han sjunga på bröllopet]

he sing on wedding.the

“He said that he couldn’t sing this song at the wedding”

This problem is obviated if we assume that the topicalization is itself movement of a D-linking OP that pragmatically anchors the fronted constituent to the discourse. This characterization of embedded V2 clauses accounts for the interpretive relevance of the phenomenon without attributing independent illocution to embedded V2 clauses, similarly to what has been proposed for embedded C-topics in English by Bianchi and Frascarelli (2009).

Instead, non-V2 complements, Wh- and relative clauses are derived by a subordinator OP, and the nature of the OP itself varies. There is vast literature suggesting that factive complements are derived by merger of a silent noun (e.g. “the fact”, optionally overt in some cases) to the edge of the subordinate (cf. Watanabe 1993; Zanuttini and Portner 2003; Aboh 2005; Krapova 2008, a. o.). This mechanism consists of A’-binding a silent NP in the C-domain by means of an OP selected by the matrix predicate. I disregard the proposal that there is a silent noun, and propose that what is bound by the OP is a variable merged in the functional field, with the

function of making the propositional content of the clause interpreted as presupposed. The nature of the OP deriving presupposed clauses is in some respects similar to the OP of indirect Y/N questions, with the difference that in presupposed clauses the OP is assigned a truth value (OP_T), whereas in Y/N questions the OP encodes the disjunction of opposite truth-values.

The prediction is that movement of an OP creates a (weak) island. It is well known that factive complements have weak island properties (cf. Rooryck 1992). The expectation is borne out by the fact that topicalization of an XP in a “factive” clause is impossible because it triggers intervention effects with the A’-chain created by the movement of the OP to SubP, in this type of complements. The C-domain structure of the complement to a factive predicate such as the Scandinavian equivalent of *regret* in (22), where topicalization is ungrammatical, is given in (21):

$$(21) \quad [_{\text{Matrix:} \textit{regret}} [_{\text{SubP}} \text{OP}_{\text{ForceP}} \langle \text{OP}_T \rangle \text{ TopP} (*\text{XP}) / (\langle \text{OP}_T \rangle) \\ \text{FinP} \langle \text{OP}_T \rangle_{\text{Fin}} \emptyset \dots]$$

(Swedish)

$$(22) \quad *Han \textit{ångrade} [att \textit{den här sången}]$$

He regretted that this here song.the

***hade** han inte sjungit]*

had he not sung

“He regretted that he didn’t sing this song”

The same analysis applies to the complements of non-assertive predicates, such as *deny*, whose factual content of belief is either denied or rejected by the speaker (in this case the value computed on the variable will not be T (true) but F (false)).

3.3. Negative islands and declarative complements of modified predicates

The same proposal extends to negated or modified assertive complements. These complements are derived by movement of an *irrealis* (-R) OP meeting the selectional requirements imposed by the modified or negated matrix predicate onto its complement. Facts seem much more controversial in this case. The first expectation is that, whenever an assertive or semifactive matrix predicate is negated or modified (e.g. by a modal), topicalization is not possible, but this is in contrast with both Mainland Scandinavian and Icelandic facts:

(Icelandic)

(23) *Þau sögðu ekki [að svona mat*

they said not that such food

borðaði hann bara á þorranum]

ate he only on þorri.month

“They didn’t say that he only ate such food during January
and February.”

[Wiklund et al. 2009, 59]

As a consequence, we cannot assume that whenever an assertive/semi-factive matrix predicate is negated or modified topicalization is impossible or dispreferred. Here I limit my observations to cases where it indeed is.

I propose that embedded topicalization in negated/modified assertive or semi-factive complements is blocked in relation to the scope of negation/modifier, which are standardly assumed to have operator properties.

3.4. Predictions

Let us consider two cases: (i) the matrix assertive or semi-factive predicate is negated; (ii) the matrix predicate is modified, e.g. by a modal verb.

(i) According to De Haan (2001), V2 is not possible if negation is interpreted as having scope over the embedded clause¹². This means that a matrix negation scoping over the entire sentence binds a variable in the embedded clause. This is derived syntactically with a subordinating OP (OP_{-R}) linked to the matrix negation. The OP moves to the left periphery of the embedded clause and prevents any topicalization, as in (24):

$$(24) \quad [_{\text{Matrix}}: \textit{not say/discover} [_{\text{SubP}} \text{OP}_{-R} \text{ForceP} \langle \text{OP}_{-R} \rangle (_{\text{TopP}} * \mathbf{XP}) \\ \text{FinP} \langle \text{OP}_{-R} \rangle [_{\text{IP}} \langle \text{OP}_{-R} \rangle$$

The structure in (24) cannot apply to all complements of negated

assertive/semi-factive verbs because such a generalization would be disconfirmed by facts (see the perfect grammaticality of topicalization in (25) below). The grammaticality of preverbal non-subjects in the embedded clauses in (25) can be attributed to the restricted scope of negation. Indeed, the matrix predicates in (25) are not NEG-raising verbs (cf. Rooryck 1992):

(Norwegian)

- (25) a. *Jeg visste **ikke** [at slike hus*
I knew not that such houses
selger de faktisk hver dag på det meklerfirmaet.]
sell they actually every day at that real.estate.agency
“I didn’t know that they sell such houses every day
at that real-estate agency.”
- b. *Men meklerin sa **ikke***
But broker.the said not
[at slike hus selger han regelmessig.]
that such houses sells he regularly
“But the broker didn’t say that he sells such houses on
a regular basis.”

By contrast, a NEG-raising predicate such as *believe* disallows embedded topicalization because its negation scopes over its complement, compare

(26) below with (25a):

(Norwegian)

(26) **Jeg tror **ikke** [at slike hus selger*

I believe not that such houses sell

de faktisk hver dag på det meklerfirmaet]

they actually every day at that real.estate

“I did not believe that they actually sell such houses every
day at the real estate agency”

This analysis is further supported by the fact that when the matrix negation
licenses an NPI in the embedded clause, *ens* in (27), thus scoping over it,
topicalization is not possible:

(Swedish)

(27) *Jag visste inte*

I knew not

a. *[att de **ens** sålde sådana hus]*

that they even sold such houses

“I did not know that they even sell such houses”

b. **[att sådana hus sålde de ens]*

that such houses sold they even

“I did not know that they even sell such houses”

[Christer Platzack, p.c.]

(ii) The matrix predicate is modified, for instance by a modal verb. The modifier contributes to the selectional properties of the matrix predicate which in turn selects a subordinate clause inheriting the matrix illocution. Wide scope of the modal on the whole clause results in the structure below:

(28) [Matrix: *could say/discover*

[SubP **OP**_{-R} ForceP<OP_{-R}> (TopP ***XP**) FinP<OP_{-R}> [IP <OP_{-R}>...]

According to (28), the *irrealis* OP selected by the modified matrix predicate binds a variable in the functional field of the embedded structure. The modal scope width is ensured by the presence of the *irrealis* OP, whose movement in the embedded left periphery “blocks” embedded topicalization¹³:

(Norwegian)

(29) *Han kunne komme til å oppdage*

He could come to to discover

*[# at **der** var han helt alene]*

that there was he completely alone

"It might so happen that he would discover that there he was
completely alone" [Julien, p.c.]

In a relativized minimality framework, the modal nature of OP_R cannot explain why intervention effects should after all be expected when fronting a (non-modal) operator-XP such as a preverbal topic in a V2 clause. Indeed, Julien (in prep.) reports that some Swedish and Norwegian speakers accept topic-extraction not only from subject-initial (30a), but even from non-subject initial embedded clauses (30b)¹⁴ and contrary to what is commonly expected (cf. Andersson 1975, De Haan 2001):

(Norwegian)

(30) *Den artikkelen sa ho*

this paper.DEF said she

a. *%[at ho **hadde** ikkje tid til å lese]*

that she had not time to to read

"This paper she said that she didn't have time to
read."

b. %[*at I GÁR fekk ho ikkje tid til å lese*]

that yesterday got she not time to to read

“That article, she said that, yesterday, she could not
find the time to read it.”

[Julien (in prep.), 27, 45-46]

The extraction facts in (30) can be explained syntactically with relativized minimality, without assuming that embedded V2 is related to an assertion (Julien, in prep.). In (30a) there is no plausible candidate acting as an intervener to A'-topic extraction, under the assumption that the subject *ho* is in an A-position both in non-V2 and in V2 clauses. Acceptance of a complement clause with the order Adv-V-Subj, (30b), is subject to variation among speakers. This variation is explained with the possibility to front locative and temporal adverbials to a non-quantificational position in the C-domain (ModP). Moreover, the two A'-moved constituents, i.e. *I GÁR* and the extracted topic *Den artikkelen*, have such a different feature specification that they may not trigger relevant minimality effects. The prediction is that arguments or adjuncts undergoing A'-OP movement to a (higher) quantificational position in the C-domain create an island to extraction, inasmuch as they act as interveners to further A'-movement. Such prediction is borne out by facts attested not only in Mainland Scandinavian, but also in Icelandic:

(Icelandic)

(31) **Hver sagði han*

Who said he

[að þessar bækur hefði gefið Kára]?

“Who did he say had given these books to Kari?”

[Hrafnbjargarson et al. 2010, 11a]

It is known from Vikner (1995) (cf. also Hrafnbjargarson et al. 2010) that argument or adjunct extraction out of subject-initial V2-clauses is ungrammatical in all Germanic V2 languages but Yiddish and Icelandic (given proper restrictions on the mood of embedded predicate, in the latter):

(Icelandic)

(32) a. *Hvernig sagði hún [að börnin höfðu*

How said she that children-the have(COND)

alltaflært sögu]?

always learned history

(Danish)

- b. **Hvordan sagde hun [at børnene **havde***

How said she that children-the have

altid lært historie __]/?

always learned history

“How did she say that the children have always
learned history?”

The unacceptability of (32b) vs. the partial acceptability of (30a) and the full acceptability of (32a) does not depend on the subject status because all subjects of the examples above are allegedly in A-position. Instead, V-raising across a sentential adverb or negation seems to be licensed by other factors, independently of the nature of the preverbal constituent. An analysis of the feature-checking mechanism triggering embedded verb second is required, and a tentative proposal is sketched in next section.

4. The trigger of V-to-Fin

Let us consider contexts where the verb is expected to raise to Fin and topicalization is also possible. What triggers V-to-Fin in subject-initial embedded V2 clauses of this kind? Given that these clauses do not have verb-subject inversion, we cannot assume that V-to-Fin depends on the OP

status of the preverbal topic. Two possibilities then emerge: 1. The preverbal subject is A'-moved on a par with preverbal topics and triggers V-to-Fin. This hypothesis is disconfirmed for cases where weak pronominal subjects precede the verb in V2 clauses; 2. V-to-Fin is triggered by some specific feature encoded in Fin, assuming that this position is the target of verb movement. This hypothesis has the advantage of solving the economy problem that emerges under the assumption that V-to-Fin is required by fronting an OP to the C-domain, namely that V-to-Fin is dependent on topic fronting. According to Rizzi (1997) a criterion on the C-domain is satisfied if either the specifier or the head of a criterial projection is overtly realized, but a realization of both (Roberts and Roussou 2002) would be anti-economic.

The question is how to explain the V2 constraint (one and only one preverbal element can move), once we discard the idea of a locality relation between preverbal XP and V postulated in terms of Spec-Head relation. As long as the preverbal element is A'-OP moved any other A'-movement to the left periphery is banned by minimality¹⁵. But why multiple frontings are not possible in subject-initial V2 clauses, given that the subject is A'-moved?

A tentative answer concerns the trigger of V-to-Fin. I have argued that embedded V2 cannot be the result of fronting of an assertive OP (ASS) as postulated by Meinunger (2004), because such OP would give rise to minimality effects with the preverbal topic. However, I argue with Eythórsson (1996) that argument V2-topics are OP, i.e. they need anchoring

to the discourse via a D-linking operation targeting the CP (cf. also Sigurðsson 2011).

I suggest that FinP encodes both verbal and nominal features, i.e. Finiteness and Definiteness. In a V2 clause, FinP is the active probe triggering V-to-Fin checks [finiteness], and requiring a specification by a D-linking OP (potentially associated to an overt topic). Topics become D-linked by moving through Spec,FinP, on their way to the criterial Spec,TopP position. In clauses without V-to-Fin, the feature specification of the subordinate FinP is simply “inherited” from the matrix.

In V2 clauses, the feature specification of FinP bans Wh-extraction in Mainland Scandinavian. Extraction out of a subject-initial V2 clause is instead possible in Icelandic under the assumption that in this case V2 is the linearization of V-to-I (cf. also Thráinsson 2010):

(Swedish)

- (51) a. **Vem* sa han [att han *hade* inte
 whom said he that he had not
 gett den här boken]?
 given this here book
 “Who did he say that he had not given this
 book to?”

(Icelandic)

- b. *Hverjum heldur þú*
whom think you
[að María gefi ekki t svona bækur]?
that Mary gives not such books
“Who do you think that Mary does not
give such books to?”

[Thráinsson (2010) 19, 28-29]

The intervention account for the syntax of embedded V2 hereby presented is based on facts that suggest the presence of a semantic/pragmatic (null) OP, triggering minimality effects with the Wh- fronting. Such OP has specific clause-typing properties and depends on the selectional requirements of the matrix predicate.

In this perspective, V2 as V-to-Fin is non-redundant for economy principles, as it lexically realizes the head of a projection that would otherwise remain silent, given that the D-linking OP associated to a constituent, targets a higher criterial position.

References

- Aboh, E. (2005) “Deriving relative and factive constructions in Kwa”. In:
Brugè L, Giusti G., Munaro N., Schweikert W., Turano G. (Eds.),

- Contributions to the Thirtieth Incontro di Grammatica Generativa*.
 Libreria Editrice Cafoscarina, Venezia, pp. 265–285.
- Andersson, L-G. (1975) *Form and function of subordinate clauses*. Doctoral dissertation, Göteborg University.
- Angantýsson Á. (2007), “Verb third in embedded clauses in Icelandic”. In *Studia Linguistica*, 61(3): 237-260 Blackwell.
- Benincà P; Poletto C. (2004) "Topic, Focus and V2: defining the the C-domain sublayers", in Rizzi, L. (ed.) (2004) *The Structure of CP and IP. The Cartography of Syntactic Structures*, vol.2, New York, Oxford University Press.
- Bentzen K., Garbacz P., Heycock C., Hrafnbjargarson G. H. (2009) On variation in Faroese verb placement. In *Nordlyd 36.2 NORMS Papers on Faroese*, 78-102.
- Bianchi V., Frascarelli M. (2009) “Is topic a root phenomenon?”, ms. Univerità di Siena.
- Bobaljik, J. D., Thráinsson, H., (1998). “Two Heads Aren’t Always Better than One”. *Syntax* 1:37-71.
- Brandtler J. (2008) “On the structure of Swedish subordinate clauses”, *WPSS*, 81, 79-97.
- Cardinaletti A., (2004) Toward a Cartography of Subject Positions. In *The Structure of CP and IP. The cartography of syntactic structures*, vol. 2, ed. by Luigi Rizzi, 115- 165. Oxford: Oxford University Press.
- Cinque G. (1999) *Adverbs and Functional Heads. A Crosslinguistic*

Perspective. Oxford University Press, Oxford.

De Haan G. (2001) "More is going upstairs than downstairs: embedded root phenomena in West Frisian". *Journal of Comparative Germanic Linguistics* 4 (1), 3-38.

Eythórsson, T. (1996) "Functional Categories, Cliticization and Word Order in the Early Germanic Languages". In *Studies in Germanic Syntax II*, ed. Höskuldur Thráinsson, Samuel D. Epstein and Steve Peter., pp. 109-139. Dordrecht: Kluwer.

Faarlund, J. T., Lie, S. & Vannebo, K. I. 1997. *Norsk referansegrammatikk*. Oslo: Universitetsforlaget.

Franco I. (2008) "V1, V2 and criterial movement in Icelandic", in STiL, vol. II, CISCL working papers, Università di Siena.

Franco I. (2009) *Verbs, Subjects and Stylistic Fronting*. Doctoral dissertation, University of Siena.

Franco I. (2010)a. "Typology of Verb Movement in Scandinavian", in Torrens, V., Escobar, L. Gavarró, A., J.G. Mangado, *Movement and Clitics*. Cambridge: Cambridge Scholars Publishing.

Franco I. (2010)b. "Issues in the syntax of Scandinavian embedded clauses", in *Working Papers in Scandinavian Syntax*, 86, 137-177.

Haeberli E. (2002) *Features, Categories and the syntax of A-positions. Cross-Linguistic Variation in the Germanic Languages*. Kluwer, Dordrecht.

Haegeman, L. (2006), "Argument fronting in English, Romance CLLD and

- the left Periphery”. In: Zanuttini, R., Campos, H. Herburger, E., Portner , P. (Eds.), *Negation, Tense and Clausal Architecture: Cross-linguistic Investigations*. Georgetown University Press, pp. 27-52.
- Haegeman L. (2010) “The internal syntax of adverbial clauses”, *Lingua*, 120, 628-648.
- Heycock, C. (2006) Embedded Root Phenomena. In: Everaert, Martin and Henk van Riemsdijk (eds.), *The Blackwell companion to syntax*. Vol II: 174-209.
- Holmberg A. and Platzack C. (1995) *The role of Inflection in Scandinavian Syntax*, Oxford University Press.
- Hooper J.; Thompson S. (1973) “On the applicability of root transformations”. *Linguistic Inquiry* 4, 465-497.
- Hróarsdóttir Þ.; Bentzen K.; Wiklund A. L.; Hrafnbjargarson G. H. (2007) “The afterglow of verb movement” in *Working Papers in Scandinavian Syntax* 80, pp. 45-75, Lund University.
- Hrafnbjargarson G.H. & Wiklund A.L. (2009) “General embedded V2: Icelandic A, B, C, etc.”, *Working Papers in Scandinavian Syntax* 84 (2009), 21–51.
- Julien M. (2007) “Embedded V2 in Norwegian and Swedish” in *Working Papers in Scandinavian Syntax* 80, pp. 103-161, Lund University.
- Julien, M. (in prep.) “The Force of Embedded V2”, ms. University of Lund.
- Klein, W. (2006). “On finiteness”. In *Semantics in Acquisition*, Veerle Van Geenhoven (ed.), 245–272. Dordrecht: Springer.

- Krapova I. (2008) “Bulgarian Relative Clauses with the Invariant Complementizer *deto* 'that'”. The Third Annual Meeting of the Slavic Linguistics Society. The Ohio State University, Columbus, Ohio, USA, June 10-12, 2008.
- Meinunger A. (2004) “Verb position, verbal mood and the anchoring (potential) of sentences”, in Lohnstein H. and Trissler S. (eds.), *The syntax and semantics of the left periphery*, Berlin, Mouton de Gruyter, 313-41.
- Melvold J. (1991) “Factivity and Definiteness” in *MIT Working Papers in Linguistics*, vol. 15, 97-117.
- Moscato V. (2007) “Covert Movement of Negation: Raising over Modality”. *STiL - Studies in Linguistics*, Vol.1., 127-144.
- Pesetsky, D., and Torrego E. (2001), “T-to-C movement: causes and consequences”. In Kenstowicz (2001), 355–426.
- Poletto C. (2000) *The higher functional field: evidence from Northern Italian Dialects*, Oxford University Press.
- Platzack, C. (1996) “Null subjects, weak Agr and syntactic differences in Scandinavian.” In *Studies in Comparative Germanic Syntax*, Volume II, eds Höskuldur Thráinsson, Samuel David Epstein & Steve Peter: 180–196. Dordrecht: Kluwer.
- Platzack C. (2009) “Backward Binding and the C-T Phase: A Case of Syntactic Haplology”, ms. University of Lund.
- Rizzi L. (1990) *Relativized Minimality*, MIT Press, Cambridge, Mass.

- Rizzi L. (1991) "Residual Verb Second and the Wh- criterion", Geneva Generative Papers, vol. 2, reprinted in Belletti A.; Rizzi L. (eds) *Parameters and Functional heads*, pp. 63-90, Oxford University Press. Oxford, 1996.
- Rizzi L. (1997) "The fine structure of the left periphery" in L. Haegeman, ed, *Elements of Grammar*. Kluwer, Dordrecht, pp. 281-337.
- Rizzi, L. (2001) "On the position 'Int(errogative)' in the left periphery of the clause", in G. Cinque and G. Salvi (eds.) *Current Studies in Italian Linguistics*, Elsevier: 287-296.
- Rizzi, L. (2004) "Locality and Left Periphery". In A. Belletti (ed.) *Structures and Beyond. The Cartography of Syntactic Structures*. Vol. 3. 223-251. Oxford Studies in Comparative Syntax.
- Rizzi L. (2006). "On the Form of Chains: Criterial Positions and ECP Effects", in Cheng, L. and Corver, N. (eds,) *On Wh Movement*. Cambridge, MA., MIT Press.
- Rizzi, L. and U. Shlonsky (2007), "Strategies of Subject Extraction", in Hans-Martin Gärtner and Uli Sauerland (eds). *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics*. Mouton de Gruyter, Berlin, Germany, pp. 115-160.
- Roberts I., and Anna Roussou (2002) "The Extended Projection Principle as a condition on the Tense dependency". In: Svenonius, P. (Ed.), *Subjects, Expletives and the EPP*. Oxford University Press, New York and Oxford, pp. 125-155.

- Rooryck J. (1992) “Negative and factive islands revisited” in *Journal of Linguistics*, 28.1.
- Rögnvaldsson E.; Thráinsson H. (1990) “On Icelandic word order once more” in *Modern Icelandic Syntax, Syntax and Semantics* 24, pp. 3-39, Academic Press Inc.
- Sigurðsson H. (2004) “The syntax of Person, Tense, and speech features”. *Italian Journal of Linguistics Rivista di Linguistica* 16:219–251 [special issue, ed. by V. Bianchi and K. Safir].
- Sigurðsson H. (2011). Conditions on argument drop. *Linguistic Inquiry* 42(2), 267-304
- Stalnaker R. (2002) “Common Ground”, *Linguistics and Philosophy* 25: 701-721. Kluwer Academic Publishers.
- Thráinsson H. (2007) *The syntax of Icelandic*. Cambridge University Press.
- Thráinsson H. (2010) “Predictable and unpredictable sources of variable verb and adverb placement in Scandinavian”, *Lingua* 120, 1062-1088.
- Thráinsson H.; Petersen H. P.; Jacobsen J.; Hansen Z. S. (2004) *Faroese: an overview and reference grammar*, Tórshavn: Føroya Fróðskaparfelag.
- Vikner S., (1995) *Verb movement and expletive subjects in the Germanic languages*. New York: Oxford University Press.
- Watanabe A. (1993) “Larsonian CP recursion, factive complements, and selection”. *Proceedings of NELS XXIII*, ed. by Amy J. Schafer, 523–537. GLSA, Univ. of Massachusetts.
- Wiklund A.-L.; Hrafnbjargarson G. H; Bentzen K.; Hróarsdóttir Þ.; (2009)

“On the distribution and illocution of V2 in Scandinavian *that*-clauses”,
in *Lingua*, 119, 1914-1938.

Zanuttini, R., Portner, P., (2003). “Exclamative clauses: at the syntax-
semantics interface”. *Language* 79, 39-81.

Sources: IGLOO Swedish grammar, P. Svenonius,
[http://www.hum.uit.no/a/svenonius/lingua/flow/co/gram/rfgrsv/rfgrsv.ht
ml](http://www.hum.uit.no/a/svenonius/lingua/flow/co/gram/rfgrsv/rfgrsv.html)

- (i) *Hy komt net*
 he comes not
 a. [*omdat it min waar **wie***].
 because it bad weather was
 “He doesn’t come because it was bad weather (but for some other reason)”
 b. [*omdat it **wie** min waar*].

[because it was bad weather]
“He doesn’t come because it was bad weather” (i.e. the reason why he
doesn’t come is bad weather).

13 Richard Larson (p.c.) remarks that it is not necessary to postulate OP movement in these cases, and the derivation could be an instance of long-distance Agree, as long as the minimality effects can be accounted in terms of intervention in the checking mechanism of the features encoded in the C-domain. This suggestion is worth exploring.

14 According to Julien (in prep), Swedish patterns in the same way. Christer Platzack (p.c.) judges the Swedish translation of (30a) OK, but that of (30b) ungrammatical, which suggests that focalized non-subjects (a temporal adverbial in the case above) and preverbal subjects in a V2 clause have a different feature specification.

15 Relativized minimality (cf. Rizzi 1990) accounts for different degrees of degradation of clauses where different types of frontings are tested.