

# Issues in the syntax of Scandinavian embedded clauses\*

*1<sup>st</sup> draft*

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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.), V-to-Fin movement results in linear V2 is determined by structural and interpretive properties of the complementizer domain in some embedded clauses. It is illustrated how the syntactic properties and distribution of embedded V2 in Scandinavian follow from restrictions imposed by minimality. A separate section addresses the issue of embedded subject-initial clauses in Icelandic where the inflected verb precedes phrasal adverbs or negation, by contrast to the linear order commonly encountered in Mainland Scandinavian embedded clauses.

## 1. Introduction

The V2 requirement holds for all main clauses in Scandinavian languages 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 (1)a. indicates that any non-subject constituent with a proper feature specification can precede the verb and give rise to verb-subject inversion. By contrast, the preverbal element in (1)b. is the subject, which naturally undergoes A-movement (not A'-movement) to a peripheral, preverbal position.

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The syntactic nature of V2 is still problematic and currently under debate, and a unitary account of V2 must take into consideration both orders provided in (1). On the basis of the verb-subject inversion phenomenon connected to V2-topicalization (cf. (1)a.), 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 languages<sup>1</sup>, it has been assumed that also subject-initial clauses (i.e. (1)b.) have V-to-C. Accordingly, what distinguishes non-subject initial V2 clauses, (1)a., from subject-initial V2 ones, (1)b., is the first position: A' in the former case, but A in the latter. This difference can be accounted by either the hypothesis that there is a subject position in CP (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 CP in Scandinavian without being A'-extracted (unconstrained A'-extraction of subjects generally have problematic consequences, cf. Rizzi's 2004 account of ECP effects).

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 limit the discussion of the pragmatics of embedded V2 clauses to aspects that are essential for their syntactic derivation;
- 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);
- 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. Faroese is also an Insular Scandinavian language, but its system has a much more complex behavior which cannot be properly addressed in this paper. Accordingly, Faroese data are not discussed for expository and space reasons<sup>2</sup>;
- I focus on the differences among various linear orders that yield a surface V2 string. I 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

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<sup>1</sup>With few exceptions related to the possibility of S-Adv V or Adv-S V with certain adverbs (cf. Vikner 1995; Thráinsson 2007, a.o.).

<sup>2</sup>The reader interested in Faroese is referred to Heycock et al. (2009); Thráinsson et al. (2004) and Bentzen et al. (2009), a. o.

of the data provided in Hrafnbjargarson and Wiklund (2009) and Franco (2009). The issue of embedded subject-initial V2 in Icelandic (by contrast to Mainland Scandinavian) is addressed in a separate section.

The paper proposes a detailed account for the syntactic derivation of Scandinavian embedded V2 clauses and is structured as follows: section 2 briefly illustrates the distribution of V2 in different types of embedded clauses; section 3 explains the background assumptions and the approach adopted; section 4 illustrates the proposal: the ungrammaticality of embedded V2 is explained with the hypothesis that the A'-movement of a (non-subject) argumental constituent to a preverbal position triggers minimality effects with the movement of a subordinating operator. Section 5 provides an account for the grammaticality of embedded subject-initial V2 in Icelandic by contrast to its ungrammaticality in Mainland Scandinavian. The scope and trigger of verb movement in V2 clauses are accordingly defined. I summarize my arguments and make further speculations in Section 6.

## **2. Facts: distribution of embedded V2 in Scandinavian**

Scandinavian embedded V2 differs from that found in West Germanic in one significant respect, i.e. verb movement is not in complementary distribution with overt complementizers. Basically, 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) above 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 looking at the structure of embedded clauses in Mainland Scandinavian vs. Icelandic.

In a recent paper, Hrafnbjargarson and Wiklund (2009) challenge the claim that Icelandic has so-called symmetric V2<sup>3</sup>. In line with the facts thereby presented, 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 (2)a. nor the one in (2)b.

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<sup>3</sup>The claim that Insular Scandinavian, by contrast to Mainland Scandinavian, has symmetric V2 is made by Vikner (1995) a.o. The alleged “symmetry” results from linear constraints on word order. In Icelandic the verb is in second position both in main and subordinate clauses, whereas Mainland Scandinavian languages display a more salient root/embedded asymmetry due to the fact that the verb generally follows phrasal adverbs and negation in subordinate clauses.

b. Icelandic has a less restricted embedded V2. Some clauses can only have the order in (2)b., but not the one in (2)a.; i.e. in some clauses no topicalization is possible but subject-initial V2 is instead attested.

Moreover some other clauses allow the order in (2)a but impose a restriction on the type of fronted XP (cf. Hrafnbjargarson and Wiklund (2009) for data and discussion). Let us consider in more detail the clauses where V2 may or may not occur.

### 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 (cf. 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 type of 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 (2)a (non-subject-initial V2) and the one in (2)b (subject-initial V2) in Icelandic as well as in Mainland Scandinavian. 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 the 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 uncommon in Mainland Scandinavian (see (5) below), whereas Adv/Neg-V orders are grammatical. In Icelandic subject-initial V2 (as in (4)b.) is the default

option, whereas S Adv-V orders are marginal, if not ungrammatical (see Angantýsson 2007 and Thráinsson 2010).

#### Non-assertive/Factive complements

- (4) a. \*Hann sá eftir [að þetta lag **hafði** hann ekki sungið] (Icelandic)

He regretted that this song had he not sung

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

- b. Hann sá eftir [að hann **hafði** ekki sungið]

He regretted that he had not sung

“He regretted that he had not sung”

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

- (5) a. \*Han ångrade [att den här sången **hade** han inte sjungit] (Swedish)

He regretted that this here song.the had he not sung

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

- b. \*Han ångrade [att han **hade** inte sjungit]

He regretted 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 sentence containing new information for the addressee, whereas the latter cannot).

Points (i)-(iii) provide only a rough, 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 Scandinavian<sup>4</sup>. The presence of embedded V2 in Mainland Scandinavian seems to depend on the interpretation and the context of utterance of the sentence, according to Marit Julien (p.c.). This possibility can be explained in syntactic terms by the account proposed 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<sup>5</sup>; on the other hand, the restrictions

<sup>4</sup> For an example of embedded topicalization under negated semifactives and assertive verbs see section 4.

<sup>5</sup> An interesting parallel can be drawn with subjunctive mood, which is morphologically preserved only in Icelandic, among the Scandinavian languages. In accounting for the

on embedded V2 display an interesting correlation with the presence of a syntactic island (weak factive islands, negative islands, Wh- islands).

Let us 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)) for ease of classification<sup>6</sup>. Accordingly, 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 Question 1 and 2 is crucial for understanding the mechanisms yielding surface V2.

Many different perspectives have been offered to account for the distribution of embedded V2 so far. 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, in line with 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 to Icelandic, since Icelandic can have embedded V2 even in those clauses where it is not “pragmatically” expected according to 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. The hypothesis explored in this paper is that the presence of morphological subjunctive in Icelandic (but not in other Scandinavian languages) enables the

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syntactic properties of Icelandic finite complements, Thráinsson (2007) observes that there are interpretive differences between subjunctive and indicative complements to predicates that allow both (such as *að veita*, to know, see section 5). However, the use of subjunctive cannot be connected to factivity *tout court*, and it interacts in a complex way with the speaker’s presupposition (see Thráinsson (2007), chapter 8). Sigurðsson (2009) discusses the relation between factivity and indicative/subjunctive alternation in Icelandic in greater detail. See section 5 below.

<sup>6</sup>I am not assuming that the classification summed up in (i)-(iii) above is empirically correct, but I need a simple and schematic set of data in order to illustrate the syntactic mechanisms that allow or block embedded topicalization. The proposal is such that any actual divergence from the generalization given in (i)-(iii) above can be easily accounted for.

activation of a syntactic mood-checking mechanism. In line with the analysis offered by Sigurðsson (2009), I address the issue of Icelandic subject-initial embedded V2 clauses in relation to mood selection and factivity (see section 5 below).

Regardless of the different interpretations that V2 vs. non-V2 clauses may have, a separate issue is which 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. An overview of these other subordinate clause-types is given in the next subsection.

## 2.2. Other types of subordinate clauses

In addition to clauses generally displaying weak island properties (e.g. factive or modified/negated assertive complements), other clause-types do not generally allow non-subject V2 in Scandinavian (cf. Table 1 below).

Subordinate clauses analyzed as non-V2 in the literature on (Mainland) Scandinavian are those derived by A'-dependencies (relative clauses; indirect Wh- questions), as well as indirect yes/no questions and some 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

- (6)a. \*stelpa[n] [sem bókina **gaf** Haraldur ekki] (Icelandic)  
 girl.the that book.the gave Harald(NOM) not  
 “The girl to whom Harald didn’t give the book”
- b. \*den flicka [som sitt hår **har** kammat] (Swedish)  
 the girl that her hair has combed  
 “The girl that has combed her hair”

### Indirect Wh- questions

- (7) a. \*þeir spurðu [hvern í bæinn **hefði** rútan flutt klukkan sjö] (Icelandic)  
 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”
- b. \*Jag undrade [vem (som) till partner **skulle** hon välja] (Swedish)  
 I wondered who that 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) has been 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 contrastive topicalization in English (Bianchi and Frascarelli 2009).

With regard to adverbial clauses, Hrafnbjargarson and Wiklund (2009) argue that embedded topicalization, when possible, is limited to some 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- clauses<sup>7</sup> 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** skulle hans mor tro att  
 He hid self so that whole day.the would his mother believe that  
 han var på skolan  
 he was at school.the  
 “He hid himself the whole day so that his mother 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 (9)b and (10)b show. By contrast, the common<sup>8</sup> linear order of these types of

<sup>7</sup>In *hvort*- (whether-) clauses topicalization is more acceptable. Cf. also Thráinsson 2007 and the discussion in section 4.

<sup>8</sup> According to Angantýsson (2007), and data collected in a small survey on 7 Icelandic speakers of different ages, (C) S Adv V orders are also possible in some subordinate clauses, although only marginally accepted in many cases:

- (i)a. Það er ein íslensk mynd sem Haraldur **hefur** ekki séð. (Icelandic)  
 there is one Icelandic movie that Harold has not seen  
 “There is one Icelandic movie that Harold has not seen”  
 b. Það er ein íslensk mynd sem Haraldur ekki **hefur** séð  
 there is one Icelandic movie that Harold not has seen  
 “There is one Icelandic movie that Harold has not seen” [Angantýsson (2007), 239, 3]

Interestingly, V3 orders are more acceptable in relative clauses and indirect questions, whereas usually rejected in contexts where embedded topicalization is an option (e.g. in declarative complements of assertive predicates, see Angantýsson 2007 for details). This restriction on V3 could be explained by assuming that V-raising depends on a specific feature-



clauses in Icelandic is (C) S V Adv/Neg, as illustrated by examples (9)a and (10)a.

### Relative clauses

- (9)a. maðurinn sem hann **talar** stundum við (Icelandic)  
 man-the that he talks sometimes to  
 “The man that he sometimes talks to”  
 b. den flicka [som inte **har** / \***har** inte kammat sitt hår än] (Swedish)  
 the girl that not has / has not combed her hair yet  
 “The girl that hasn’t combed her hair yet”

### Indirect Wh- questions

- (10) a. Maria spurði [hvern hann **talaði** stundum við] (Icelandic)  
 Maria asked whom he talked(subj) sometimes to  
 “Maria asked whom he talked to sometimes”  
 b. Jag undrar [vem som inte **har** / \***har** inte blivit sjuk än] (Swedish)  
 I wonder who that not has been ill yet  
 “I wonder who hasn’t been ill yet”

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

The facts sketched in sections 2.1 and 2.2 are summed up in Table 1.

The pattern given in Table 1 for topicalization (XP V S) refers to cases where the preverbal element is an internal argument, whereas fronting of a locative or temporal PP seems less restricted not only in Icelandic<sup>9</sup> but also in Swedish (cf. (8) above). Accordingly, the parts of Table 1 marked in bold indicate the contexts where (at least) argument topicalization is blocked.

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checking requirement active in some clause-types but not in others. The intuition is that such requirement is imposed by the information structure. See discussion in section 4 below.

<sup>9</sup>Cf. Holmberg (2000) on stylistic fronting and Franco (2009), for an account of the differences between topicalization, stylistic fronting and locative inversion

Table 1. Subject and Non-subject initial V2 in Scandinavian embedded clauses<sup>10</sup>

Clause Type	Structure	Swedish	Norwegian	Icelandic
Assertive <i>Say/believe</i>	S V adv XP V S	Ok Ok	Ok Ok	Ok Ok
Semi-factive <i>Discover</i>	S V adv XP V S	Ok Ok	Ok Ok	Ok Ok
Modified assertive <i>Would say</i>	S V adv XP V S	* *	* *	<b>Ok</b> */?
Non-assertive /factive <i>Doubt/regret</i>	S V adv XP V S	* *	* *	<b>Ok</b> */?
Relative clauses	S V adv XP V S	* *	* *	<b>Ok</b> *
Yes/No questions	S V adv XP V S	* *	* *	<b>Ok</b> */?
Wh- questions	S V adv XP V S	* *	* *	<b>Ok</b> *
Adverbial clauses	S V adv XP V S	* *	* *	<b>Ok</b> *

The facts summed up in Table 1 yield the following descriptive generalizations:

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

Table 1 shows that embedded subject-initial V2 is 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 the contexts in bold.

b. Non-subject-initial 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 contexts in bold there is a syntactic mechanism blocking topicalization of an internal argument.**

Given the facts in (8) (cf. Hrafnbjargarson and Wiklund (2009) and Franco 2009), we can further distinguish two different types of topicalization. Their distribution with respect to contexts generally not allowing non-subject initial V2 (contexts in bold in Table 1) is the following:

(12) a. Fronting of locative/temporal adverbials

Possible in declarative clauses, some adverbial clauses and marginally in indirect Y/N questions across Scandinavian languages.

<sup>10</sup> Table 2. is inspired by the work of Hróarsdóttir et al. (2007), Wiklund et al. (2009) and Hrafnbjargarson & Wiklund (2009) although it differs from their data in relevant respects. Moreover, they limit their analysis to declarative complement clauses.

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 all the contexts in bold in Table 1.

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. Background assumptions**

#### **3.1. The cartography of CP**

I follow a cartographic approach (Rizzi 1997; 2004; Benincà and Poletto 2004; Haegeman 2006, a.o.) for the syntactic analysis of Scandinavian embedded V2. The syntactic structure of the left periphery of the clause is assumed to be as in (13):

(13) [<sub>CP</sub> Sub Force Topic Focus Mod Finiteness [<sub>IP</sub> ...

The structure in (13) is based on the following assumptions:

a. SubP is the subordinator phrase hosting some particles and subordinating adverbs. It is ranked above ForceP and it is related to the specific type of clause. Sentential force, often realized as a specific clause-type, is to be distinguished from the illocutionary force, encoding the pragmatics of the speech act, even though a sharp separation of these two features is often difficult, at least morphosyntactically (cf. Zanuttini and Portner 2003 and *infra*).

b. ForceP encodes the illocutionary force (e.g. assertion; order; request), which is not necessarily conflated with the clause-type or sentential force (e.g. yes-no question; Wh- question; declarative). As mentioned above, the distinction between clause-type and illocutionary force is still unclear, although there is crosslinguistic evidence that they do not stand in a one-to-one relation, so different illocutions can be encoded under the same sentential form. In embedded clauses, ForceP hosts declarative and other types of complementizers responding to the selectional requirements of SubP and inheriting the features of the matrix.

c. The middle-projections of the CP are as in Benincà and Poletto (2004), with the proper modifications regarding language specific properties. As argued by Haegeman (2006) and Bianchi and Frascarelli (2009) for English, Scandinavian topicalization has different properties from Romance CLLD. Among the different types of possible dislocations, those which seem to characterize better the phenomenon generically labeled as “V2 topicalization”

are focus fronting or contrastive topic<sup>11</sup>. The properties of foci are well described in Benincà and Poletto (2004): the focus occurring in V2 contexts often – although not necessarily- bears a contrastive feature. This is also a characteristic of the type of many topics involved in V2 constructions, with the difference that topics are presupposed, or, at least, not newly introduced in the sentence, albeit contrasting with some other information. I do not dwell longer on this distinction, and just assume that the occurrence of V2 contrastive topics, as well as of foci, is highly restricted because their features trigger minimality effects with the movement of a vast range of other items. I also assume that subjects can be dislocated to the focus or topic field, provided that they bear the necessary features to be focalized or topicalized, but preverbal subjects<sup>12</sup> in V2 clauses may as well be weak (cf. also point e. below).

d. the lower field of the complementizer phrase is occupied by ModP (Modifier phrase) where adverbs and adverbials can be preposed in order to acquire discourse prominence (cf. Rizzi (2001); Haegeman (2006) for a detailed characterization of ModP). Contrary to Focus and Contrastive Topic, this position is *not targeted by operators*, and does not trigger minimality effects with operator movement.

e. Assuming that V2 is V-to-C at least in main clauses, in subject-initial V2 orders there is at least one subject position in CP, where subjects are A-moved, as proposed by Poletto (2000) for Northern Italian Dialects (NID) and by Platzack (2009) for Scandinavian. It is an open issue whether preverbal subjects have a dedicated projection in CP or coincide with Spec,FinP.

f. The border between CP and IP is marked by the projection FinP, encoding the finiteness feature of a clause. In addition, FinP encodes the formal counterparts of features that are relevant for the interpretation of the subject of predication. It is no new idea that subject features are checked and valued on Fin

<sup>11</sup>See also Bianchi and Frascarelli (2009).

<sup>12</sup>As Christer Platzack (p.c.) observes, weak objects can also be topicalized in Swedish, as *den* in the example below:

(i) I går köpte Kalle en ny cykel. *Den* ställde han i garaget (Swedish)  
yesterday bought Kalle a new bike. It put he in garage.the

However (i) contrasts with the Norwegian facts in (ii) discussed by Julien (2007): weak preverbal subjects but not weak preverbal objects are possible.

(ii) a. å *a/n* sad et sjølv også (Norwegian)  
and she/he said it self also  
“and she/he said so herself/himself too”

b. \* å *a/n* prata eg med også  
and she/he talked I with also

c. å *ho/han* prata eg med også  
and she/he talked I with also

“and with her/him I talked as well”

Deeper investigations on this issue are needed.

by a local relation with the subject in its criterial position (SubjP in IP, cf. Cardinaletti 2004), or with the verb, in case these features have a morphosyntactic realization in the verbal inflection. Moreover, FinP may encode the formal counterparts of other features that are interpreted on the respective CP criterial position (cf. Rizzi and Shlonsky 2006).<sup>13</sup> For the present purposes it is sufficient to remark that these properties of Fin are crucial in the derivation of V2, as long as V2 is understood as V-to-Fin. Under the assumption that movement is always triggered, V-to-Fin must result from some specific requirement for the realization of Fin. In sections 4 and 5, I consider when such a requirement is imposed on the clausal syntax.

### 3.2. Haegeman's intervention account of Main Clause Phenomena

In the present perspective, the impossibility of Scandinavian embedded non-subject initial V2 in some clauses is related to the fact that an operator has moved. This analysis is in line with Haegeman's (2010) intervention account of main clause phenomena, where the derivation of different types of English adverbial clauses is explained in terms of minimality effects triggered by OP-fronting.

The impossibility of embedded topicalization is explained by following Haegeman's (2010) intuition about the behavior of conditionals in English. In her paper, Haegeman (2010) distinguishes between two types of conditionals in English:

- central (i.e. "real") conditionals. Haegeman argues that only central conditionals are incompatible with argument fronting because they are syntactically derived by OP-movement.

- peripheral conditionals are "echoic", in the sense that they can "echo Q-propositions about a nonfactual world.." (Declerck and Reed 2001:83). Despite having the sentential form of a conditional, peripheral conditionals are not real subordinates because they do not express the condition for the realization of

<sup>13</sup>Consider, for instance, a Wh- object question as in (i).

(i) Who did you meet \_\_\_?

In (i), FinP bears the formal counterpart of the phi-features expressed by the subject (or verbal inflection, in, say, a null subject language) with which it enters a local relation. Since the interrogative clause-type requires an "activation" of the Force-Fin system in order to express the illocution of an information request, the formal counterpart of the Wh- features on Fin also needs to be checked and valued. This operation is done by the Wh- operator, which ends up in its criterial position, located in the Focus field, as proposed by Rizzi (1997) and subsequent cartographic work. The (simplified) structure of (i) is shown in (ii) below:

(ii) [<sub>Force[request]</sub> WhP **Who** <sub>Wh</sub> **did** <sub>FinP</sub> <Who> <sub>Fin[UWh;UPhi;Fin]</sub> <did> <sub>IP</sub> **you** ...<sub>VP</sub> **meet** <Who>]?

The phi-features on Fin may be checked and valued in some other optional way, allowing the extraction of the subject from a lower position, with the possibility for it to "skip" the criterial position SubjP where it would otherwise be frozen (cf. Rizzi and Shlonsky 2006 and 2007 who propose that locative inversion is also a strategy of subject extraction).

certain consequences. Instead they provide the background information to a statement, a question, a command, etc.

This contrast is visible in the pair given in (14) below, where sentence a. is a central conditional, whereas sentence b. is a peripheral one:

- (14)a. \*If water you heat up to 100° C, it will boil.  
 b. If some precautions they have indeed taken, many other possible measures they have continued to neglect [b. is from Haegeman (2010), 642: (44)]

In Scandinavian as well as in English, counterfactual conditionals may be expressed with a verb-initial clause (i.e. with verb-subject inversion “V S...” instead of “if S V...”). Franco (2010) observes that “V1 counterfactuals, in Scandinavian as well as in English, belong to the central conditional class, and they do not allow argument fronting”:

- (15) \*Had some precautions they taken, such consequences would have been avoided

Haegeman (2010) suggests that counterfactuals and other central conditionals in English are derived by movement of a subordinating operator to the left periphery. Topicalization of some other constituent interferes with the binding relation created by the subordinating operator and minimality effects arise. Crucially, Germanic argument topicalization has been analyzed as involving A'-movement of an operator (cf. Haegeman 2006; to app. and Eythórsson 1996), contrary to what happens in Romance with CLLD. This hypothesis seems corroborated by all the cases where topicalization creates an island to extraction, i.e. when the fronted element is an argument, but allegedly not when it is a local/temporal adjunct (cf. section 2.1 above). In her discussion of the properties of the left periphery, Haegeman (2004) shows that preposed adverbials target a low CP position already identified by Rizzi (2001) as ModP. Fronting to ModP does not trigger minimality effects because it does not involve OP-movement, contrary to internal argument topicalization (in Germanic).

Not only counterfactuals, but also other types of conditionals can be expressed with a V1 order in Scandinavian. This is shown by the following Icelandic example:

- (16)a. Jón verður góður [ef hann æfir sig] (Icelandic)  
 Jon becomes good if he practises self  
 b. Jón verður góður [æfi hann sig]  
 Jon becomes good practice(subj) he self  
 “John will be good if he practices”

- c. [**Æfi** Jón sig] verður hann góður  
 practice(subj) Jon self becomes he good  
 “If John practices, he will be good” [Thráinsson 2007, 30, 2.24]

According to Haegeman’s (2010) analysis of adverbial clauses central conditionals, i.e. “real” conditionals expressing a condition for the realization of the content of the matrix, are dependent clauses. In (16) the relation of subordination to a matrix is expressed by a syntactic operator encoding the sentential force of the clause, whereas the illocutionary force is inherited from the matrix (a real subordinate does not have its own illocutionary force). Accordingly, the target position of a subordinating operator in the clausal structure is Spec,SubP, where clause-type features are encoded. This subordination operator requires a lexical realization, either as an overt complementizer (*ef*) or V-raising. The complementary distribution of the latter with a conditional complementizer is thus explained under the assumption that the two carry out the same function in the complementation structure (cf. Franco 2008, 2010 for a discussion).

Scandinavian languages seem to be slightly different from English, with respect to the topicalization possibilities. In Swedish, argument fronting is impossible not only in central, but also in peripheral conditionals (Christer Platzack, p.c.). A tentative explanation for the restrictions on topicalization in Swedish peripheral conditionals is that peripheral conditionals are also derived by operator movement in Swedish (and presumably in other Scandinavian languages), on a par with other adverbial clauses where no independent illocutionary Force is selected. Under this assumption, the prediction is that peripheral conditionals in Scandinavian do not mark independent illocutionary force with the V2 argument-topicalization strategy. If this prediction is correct, then no strict correlation between independent illocution and embedded V2 can be establish, i.e. embedded V2 can no longer be considered a root phenomenon.

#### 4. The proposal

The impossibility to front an internal argument in the contexts in bold in Table 1 above is explained under the hypothesis that A'-OP-moved constituents (i.e. argument topicalization) trigger minimality effects with the variable-binding relation created by a subordinating operator (\* in Table 1). This hypothesis raises the following problem:

- a) *Why is Mainland Scandinavian subject-initial V2 not attested in the contexts in bold in Table 1, 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-Fin cannot take place, and Mainland Scandinavian subject-initial V2 is also ruled out. This issue is addressed in section 5, together with the counterpart regarding Icelandic, namely:

*b) Why is embedded subject-initial V2 possible (and indeed preferred) in every context in Icelandic?*

Let us now 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 (see Heycock 2006 for an overview of root interpretation of embedded V2; De Haan 2001 on West Frisian for the relation between V2 topicalization and root interpretation, and Haegeman 2006 and to app.). Recall that argument topicalization is ruled out in weak islands (cf. (4)a and (5)a); and Wh- islands (relative clauses (cf. (6)) and embedded Wh- clauses (cf. (7)). Topicalization is equally impossible in many adverbial clauses, as illustrated by the Icelandic temporal clause below (cf. also Table 1):

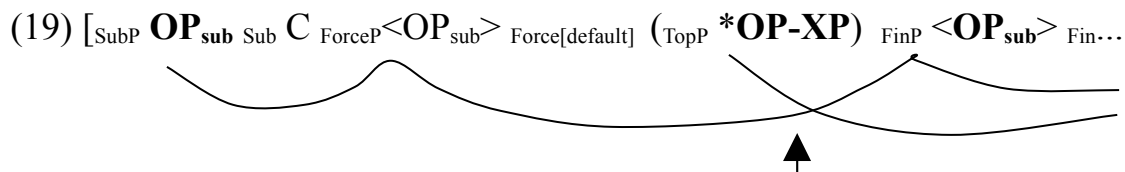
(18) \*Ég fór [þegar í baðkerinu voru 20 mýs] (Icelandic)

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 (19):



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:

1. Temporal/local adverbials are not operators and front to ModP
2. ModP must be an available position in the clause (i.e. its selection depends on the clause-type)
3. 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,ModP<sup>14</sup>.

#### 4.1. Wh- islands

As is known from a vast literature, Wh-clauses are derived by movement of a Wh- operator to a position in the complementizer domain. According to Rizzi (1997)a, the verb/subject inversion of Wh- questions found in many languages, among which English, 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 CP (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 SubP.

In his seminal cartographic work, Rizzi (1997) shows that movement of Wh- operators (such as in questions) gives rise to minimality effects with other OP-fronting operations. The expectation following from this analysis is that topicalization is impossible when an OP has fronted, that is to say 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 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.

Given the operator-status of preverbal topics in Scandinavian, the derivation of subordinate Wh-clauses by movement of a Wh-OP triggers

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<sup>14</sup>Icelandic seems to allow adverbial preposing more often, in connection with the availability of the stylistic fronting mechanism in the grammar. I cannot discuss this issue here, but see Franco (2009) for details and Hrafnbjargarson and Wiklund (2009) for additional facts.

minimality effects with topicalization, as expected. This is shown in the structure given in (20) below:

- (20) [SubP[+int] Wh-OP<sub>Force[def]</sub> Ø (TopP \*XP)<sub>WhP</sub> < Wh-OP><sub>FinP</sub> < Wh-OP><sub>Fin</sub> Ø [IP...

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

- (21) \*Jag undrade [<sub>ForceP</sub>Vem (som) [<sub>IP</sub> till partner **skulle** hon välja] (Swedish)  
 I wondered who (that) as partner would she choose  
 “I wondered who she would choose as a partner”

As long as yes/no 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<sup>15</sup> in an indirect Y/N question are not as serious as those of indirect Wh-questions, at least in Icelandic, as shown by the pair in (22). 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.

- (22)a. \*þeir spurðu [hvern í bæinn **hefði** rútan flutt \_\_\_\_ klukkan sjö] (Icelandic)  
 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”  
 b. ??þeir spurðu [hvort í bæinn **hefði** rútan komið klukkan sjö]  
 They asked whether to town.the had bus.the 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 (22) 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 (22)a. the topic is a PP with at least a [+N] feature that interferes with the features of the extracted Wh-argument. By contrast, the Y/N-OP in (22)b does not seem to have much in common with the topicalized constituent, beside its OP status<sup>16</sup>. Nevertheless, further research is needed on the properties of these clauses.

<sup>15</sup>At least for a fronted locative/temporal adverbial, if not for an argumental topic.

<sup>16</sup> The function of the Y/N-OP is simply determined by selectional requirements of the matrix predicate.

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 CP 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<sup>17</sup> in all Scandinavian languages, as illustrated in the examples repeated below:

- (23) a. \*stelpán [sem bókina **gaf** Haraldur ekki] (Icelandic)  
 girl.the that book.the gave Harald(NOM) not  
 “The girl to whom Harald didn’t give the book”  
 b. \*den flicka [som sitt hår **har** kammat] (Swedish)  
 the girl that her hair has combed  
 “The girl that has combed her hair”

In (23) the occurrence of a topic creates an intervention effect with the A'-movement of the relative OP and yields an ungrammatical result. However, A'-extraction out of a relative clause is in some cases possible, in Swedish, as is shown in (24)a. (Christer Platzack, p.c.) and (24)b. However, it seems that the possibility to extract depends on the type of relative clause: topicalization is grammatical out of a subject relative, but not out of an (in)direct object relative, as in (24)c<sup>18</sup>:

- (24) a. **Blommor** känner jag en man [som säljer \_\_\_\_] (Swedish)  
 Flowers know I a man who sells  
 b. **Blommor** känner jag en man [som kan säljer dig \_\_\_\_]  
 Flowers know I a man who can sell you  
 c. \***Blommor** känner jag en man [som du kan säljer \_\_\_\_]  
 Flowers know I a man who you can sell

The facts in (24) reveal a subject/object asymmetry in the creation of A'-dependencies, which is found elsewhere in Mainland Scandinavian, such as in the complementation structure of relative clauses and indirect questions (cf. Thráinsson 2007, section 8.3 and references therein, and Boef and Franco, in prep.).

<sup>17</sup> By contrast, relative clauses are a favorable environment to stylistic fronting. For an analysis of stylistic fronting and a proposal on the syntax of Scandinavian relative clauses see Franco (2009) and references therein.

<sup>18</sup> I thank Björn Lundquist for judging sentences 24b and c.

### 4.3. Weak islands: Factive and non-assertive declarative complements

A problematic point seems to be raised by the split between two groups of declarative complements: those that allow 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. always in factive and non-assertive complements and often in modified/negated assertive complements? Why do assertive complements allow internal-argument topicalization (and V2), whereas topicalization is usually ungrammatical if the assertive complement is modified? It can also happen that a negated or modified factive/non-assertive complement allows topicalization, whereas its non-negated/modified counterpart does not (cf. Julien 2007 for relevant data). How can the present proposal solve this puzzle?

The intuition is that all declarative clauses where topicalization is banned are subordinated by an operator-variable binding mechanism. In this sense 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 operator (ASS). However, 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 (25), but contrary to facts, cf. (26):

(25) ... [SubP[decl] ForceP[ass] **ASS-OP** Force C (TopP \*XP) FinP <ASS-OP> Fin V [IP...

(26) a. Han sa [att den här sången kunde han sjunga på bröllopet] (Swedish)  
 He said that this here song.the could 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 semantic OP whose function is to include the propositional content of the embedded V2 clause in the evaluation process that potentially updates the discourse Common Ground between speaker and hearer. 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 are derived by a subordinator operator, similarly to what happens for Wh- and relative clauses, with the difference that the nature of the operator 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 CP by means of an OP selected by the matrix predicate. In this paper 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 that of indirect Y/N questions, with the difference that in the first case the OP is assigned a truth value ( $OP_T$ ), whereas in the latter cases it 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. The expectation is then 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 CP structure of the complement to a factive predicate such as the Scandinavian equivalent of *regret* in (28), where topicalization is ungrammatical, is given in (27):

(27) [<sub>Matrix</sub>: *regret* [<sub>SubP</sub> OP <sub>ForceP</sub> <OP<sub>T</sub>> <sub>ForceC</sub> TopP (\*XP)/( <OP<sub>T</sub>> ) <sub>FinP</sub> <OP<sub>T</sub>> <sub>Fin</sub> Ø ...

(28) \*Han ångrade [att den här sången **hade** han inte sjungit] (Swedish)  
 He regretted that this here song.the 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 assigned to the variable will not be T (true) but F (false)). A common point in all more recent analyses of the semantic/pragmatic import of embedded V2 clauses seems to be the central role of the speaker in determining the actual interpretation of the clause.

#### 4.4. Negative islands and declarative complements of modified predicates

The same proposal can be extended to negated or modified assertive complements. This type of complements are derived by movement of an *irrealis* (-R) operator meeting the selectional requirements imposed by the modified or negated matrix predicate onto its complement. Facts seem much more controversial in this case. Following the proposed analysis, the first expectation would be that whenever an assertive or semifactive matrix predicate is either negated or modified (e.g. by a modal) topicalization is not possible, but this is in contrast with both Mainland Scandinavian and Icelandic facts, cf. for instance (29) below:

- (29) Þau sögðu ekki [að svona mat **borðaði** hann bara á þorri.month] (Icelandic)  
 they said not that such food 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. For the present purposes I limit my observations to cases where topicalization in the complement clauses of modified/negated assertive and semi-factive predicates is impossible or dispreferred.

I propose that embedded topicalization in negated/modified assertive or semi-factive complements is blocked in relation to the scope of negation/modifier. These elements are standardly assumed to have operator properties. Scope-related interpretive properties of negation and modals are in fact visible in the restrictions on the position of negation and on the linear order of negation and modals (cf. Moscati 2007). A detailed discussion of such properties is out of the scope of the paper; for the present purposes, let us consider two cases:

- (i) the matrix assertive or semi-factive predicate is negated.
- (ii) the matrix predicate is modified, for instance by a modal verb.

(i) The matrix assertive or semi-factive predicate is negated. According to De Haan (2001), V2 is not possible if negation is interpreted as having scope over the embedded clause<sup>19</sup>. 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 operator (OP<sub>-R</sub>) linked to the matrix negation. The operator moves to the left periphery of the embedded clause and prevents any topicalization, as schematically represented in (30):

- (30) [<sub>Matrix</sub>: *not say/discover* [<sub>SubP</sub> OP<sub>-R</sub> ForceP < OP<sub>-R</sub> > ForceC (TopP \*XP) FinP < OP<sub>-R</sub> > Fin Ø  
 [<sub>IP</sub> < OP<sub>-R</sub> >

The structure in (30) cannot represent the derivation for all complements to negated assertive/semi-factive verbs because such a generalization would be

<sup>19</sup> This has been noted for the interpretation of embedded V2 in West Frisian by De Haan (2001):

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

disconfirmed by facts. See, for instance, the perfect grammaticality of topicalization in the examples below:

- (31)a. Jeg visste *ikke* [at slike hus selger de faktisk (Norwegian)  
 I knew not that such houses sell they actually  
 hver dag på det meklerfirmaet.]  
 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 mekleren sa *ikke* [at slike hus selger han regelmessig.]  
 But broker.the said not that such houses sells he regularly  
 “But the broker didn’t say that he sells such houses on a regular basis.”

The grammaticality of preverbal non-subjects in the embedded clauses in (31) can be attributed to the restricted scope of negation. Indeed, the matrix predicates in (31) are not NEG-raising verbs (cf. Rooryck 1992). A NEG-raising predicate such as *believe* disallows embedded topicalization because its negation scopes over its complement, compare (32) below with (31)a.:

- (Norwegian)
- (32)\*Jeg tror *ikke* [at slike hus **selger** de faktisk hver dag på det meklerfirmaet]  
 I believe not that such houses sell 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, thus scoping over it, topicalization is not possible:

- (33) a. Jag visste inte [att de *ens* sålde sådana hus] (Swedish)  
 I knew not that they even sold such houses  
 “I did not know that they even sell such houses”
- b. \*Jag visste inte [att sådana hus **sålde** de *ens*]  
 I knew not 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 in (34) below:

(34) [<sub>Matrix</sub>: *could say/discover* [<sub>SubP</sub> **OP**<sub>-R</sub> ForceP<OP<sub>-R</sub>> ForceC (TopP \*XP) FinP<OP<sub>-R</sub>> Fin  
 Ø [<sub>IP</sub> <OP<sub>-R</sub>>...]

According to (34), 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 topicalization<sup>20</sup>. This is shown in example (35):

(35) Han kunne komme til å oppdage [# at **der** var han helt alene]  
 He could come to to discover 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<sub>-R</sub> 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 (36a), but even from non-subject initial embedded clauses (36b)<sup>21</sup> and contrary to what is commonly expected (i.e., no extraction out of a V2 clause, cf. Andersson 1975 and De Haan 2001):

(Norwegian)

(36)a. %*Denne artikkelen* sa ho [at ho **hadde** ikkje tid til å lese \_\_\_\_]  
 this paper.DEF said she that she had not time to to read  
 “This paper she said that she didn’t have time to read.”  
 b.%*Den artikkelen* sa ho at I GÅR **fekk** ho ikkje tid til å lese  
 that article.DEF said she 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]

<sup>20</sup>Richard Larson (p.c.) remarks that it is not necessary to postulate OP movement in these case, 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 CP domain. This is another possible solution worth exploring, although identification of the intervening features seems quite problematic.

<sup>21</sup> According to Julien (in prep), Swedish patterns in the same way. Christer Platzack (p.c.) judges the Swedish translation of (36)a OK, but that of (36)b ungrammatical, which seems to indicate that focalized non-subjects (a temporal adverbial in the case above) and preverbal subjects in a V2 clause must have a different feature specification. Differences in extraction possibilities between Swedish and Norwegian are also discussed elsewhere (Hrafnbjargarson et al. 2010, Boef & Franco in prep., a.o.).



The extraction facts in (36) above can be explained syntactically with relativized minimality, without needing to assume that embedded V2 is related to an assertion (Julien, in prep.). Let us consider the syntax of the complement clauses in (36). In (36)a. 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 in non-V2 as well as in V2 clauses. On the other hand, acceptance of a complement clauses with the order ADV-V-Subj is subject to variation among speakers (cf. fn. 21). In the present analysis this variation is explained with the possibility to front locative and temporal adverbials to a non-quantificational position in the CP (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 following from this analysis is that arguments or adjuncts undergoing A'-OP movement to a (higher) quantificational position in the CP must instead 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:

- (37) \*Hver sagði han [að þessar bækur hefði \_\_ gefið Kára]? (Icelandic)  
 Who said he that these books had given Kari.DAT  
 “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):

- (38)a. Hvernig sagði hún [að börnin höfðu alltaf lært sögu \_\_]? (Icelandic)  
 How said she that children-the have(COND) always learned history  
 b.\*Hvordan sagde hun [at børnene havde altid lært historie \_\_]? (Danish)  
 How said she that children-the have always learned history  
 “How did she say that the children have always learned history?”

The unacceptability of (38)b vs. the partial acceptability of (36)a and the full acceptability of (38)a 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.

## 5. The problem of embedded subject-initial clauses

This section focuses on the following issues, already addressed at p. 15 above, and repeated below:

a) *Why is Mainland Scandinavian subject-initial V2 not attested in the contexts in bold of Table 1 given that preverbal subjects, contrary to topics, do not trigger minimality effects with OP-movement?*

b) *Why is embedded subject-initial V2 possible in every context in Icelandic?*

Relevant examples are repeated below for convenience:

### Non-assertive/Factive complements

(39)a. Hann sá eftir [að hann **hafði** ekki sungið] (Icelandic)

He regretted that he had not sung

“He regretted that he had not sung”

b. Han ångrade [att han inte **hade**/\***hade** inte sjungit] (Swedish)

He regretted that he had not sung

“He regretted that he had not sung”

[Hróarsdóttir et al. 2007, 58-59, 19, 22]

### Negated/Modified assertive complements

(40) a. Ég vissi ekki [að þú **varst**/**værir** ekki bestur] (Icelandic)

I knew not that you were(ind)/(subj) not best

“I didn’t know that you were not the best”

b. Vi anser inte [att problemet inte **är** / \***är** inte av teknisk natur] (Swedish)

We consider not that problem.the not is/is not of technical nature

“We don’t think that the problem is not of technical nature”

### Relative clauses

(41) a. maðurinn sem hann **talar** stundum við (Icelandic)

man-the that he talks sometimes to

“The man that he sometimes talks to”

b. den flicka [som inte **har** / \***har** inte kammat sitt hår än] (Swedish)

the girl that not has / has not combed her hair yet

“The girl that hasn’t combed her hair yet”

### Indirect Wh- questions

(42) a. Maria spurði [hvern hann **talaði** stundum við] (Icelandic)

Maria asked whom he talked(subj) sometimes to

“Maria asked whom he talked to sometimes”

b. Jag undrar [vem som inte **har** / \***har** inte blivit sjuk än] (Swedish)

I wonder who that not has been ill yet

“I wonder who hasn’t been ill yet”

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

The issue is two-folded:

- on the one hand, it is not clear what prevents the verb from raising to the CP in the above-mentioned clause types in Mainland Scandinavian.
- on the other hand, this asymmetry is not observed in Icelandic, because subject-initial embedded clauses are always V2. Nonetheless, whether the Icelandic subordinate clauses in (39)-(42) are V-to-C is a very controversial point. Why would the verb move to a higher position in Icelandic than in Mainland Scandinavian? This is an old question that has been repeatedly addressed in the literature (an interesting analysis of Icelandic verb movement is given in Thráinsson 2010).

In the cases in (39)-(42) the difference between Icelandic and Mainland Scandinavian cannot lie on the preverbal element (a subject, i.e. an A-element, in both cases). Verb raising in Icelandic would need to be triggered by some feature-checking mechanism which is not active in Mainland Scandinavian. It is no new idea that Icelandic V-fronting can be related to the full specification of tense and agreement features on the verbal head (Holmberg and Platzack 1995), given all the necessary precautions against a hasty generalization on the relation between richness of inflection and verb movement. Nevertheless, independent V-to-I does not suffice to explain why V3 orders are usually unattested or marginal, in embedded clauses. Specifically, why are Adv-V orders (even with high sentential adverbs) so infrequent in Icelandic embedded clauses, contrary to Mainland Scandinavian ones? If the verb were fronted to a high position in the IP, why is a higher phrasal adverb not allowed to follow or precede the preverbal subject *and* the verb<sup>22</sup>?

As pointed out in Thráinsson (2010) with reference to a study conducted on embedded V3 orders resulting from Adv – V ordering (Angatýsson 2007), some subordinate clauses allow V3 provided that the subject is not indefinite. Indefinite subjects cannot occupy an IP-peripheral position (such as Spec,AgrSP) in Icelandic (see Bobaljik and Thráinsson 1998). As a consequence, a V3 order is possible only with a definite subject when the negation *ekki* is exceptionally adjoined to Spec,TP, as in (43)b below.

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<sup>22</sup> There is vast literature supporting the idea of a subject position in CP, see Platzack 2009 for Scandinavian, or Poletto 2000 for Romance. This is a broad topic that deserves an independent treatment.

- (43)a. Það var Hrafnkelssaga [sem hann/Haraldur/einhver **hafði ekki** lesið].  
 it was Hrafnkel's saga that he/Harold/somebody had not read  
 b. Það var Hrafnkelssaga [sem hann/Haraldur/?\*einhver **ekki hafði** lesið].  
 it was Hrafnkel's saga that he/Harold/somebody not had read  
 "It was Hrafnkel's saga that he/Harold/somebody hadn't read"  
 [Thráinsson 2003, 183]

In Thráinsson's (2010) analysis, a sentence like (43)a shows that the verb moves to T, rather than to C. According to Bobaljik and Thráinsson (1998), V3 orders are made possible by "exceptional adverb placement", thus one should expect that "the kind of modification produced by a high adverb might not be equally compatible with all types of embedded clauses" (Thráinsson 2010). He further observes that: "This type of V3 order is indeed mostly found in certain types of embedded clauses, namely relative clauses, interrogative clauses and certain types of adverbial clauses, such as temporal clauses and concessive clauses. [...] These are the clauses that are *least main-clause like and where it is most difficult to get embedded topicalization* (see especially Magnússon, 1990). Hence we would not expect to get V-to-C in Icelandic in these clauses. Thus the fact that the V<sub>fin</sub>-Adv order is nevertheless the default order in these "non-V2" (i.e., non-V-to-C) clauses in Icelandic is a strong argument against a general V-to-C-type analysis of Icelandic V<sub>fin</sub>-Adv order, such as the one proposed by Bentzen (2007) and her colleagues." (pp. 22-23, italics mine).

According to Thráinsson, embedded V2 in Icelandic is the result of verb movement to some inflectional position in the IP field related to the richness of agreement. Further support to this hypothesis actually comes from the following facts, contrasting with Hróarsdóttir et al.'s (2007) observation that the Icelandic verb must precede the entire adverb cluster if more than one phrasal adverb is present in a clause, and cannot be in an intermediate position<sup>23</sup>:

- (44)a. Hún fór ekki heim, sem hún *sennilega* **hefði** átt að gera.  
 she went not home which she probably had should to do  
 "She didn't go home, which she probably should have done."

<sup>23</sup> Hróarsdóttir et al. (2007) base their observation on the following evidence, which Thráinsson (2010) claims to be misleading because the complement introduced by *að* is not one where V3 is possible. Cf. (42) above.

- (i) a. \*Hann segir að María **ekki oft hafi** sungið falskt. (Ic)  
 he says that Mary not often has sung out-of-tune  
 b. \*Hann segir að María **ekki hafi oft** sungið falskt  
 not has often  
 c. Hann segir að María **hafi ekki oft** sungið falskt.  
 has not often  
 "He says that Mary has not often sung out of tune."

- b. Hún fór heim, sem hún *sennilega* **hefði** ekki átt að gera.  
 she went home which she probably had not should to do  
 “She went home, which she probably shouldn't have done.”

Example (44)b. shows that the verb *can* appear between two adverbs if the clause allows V3 (a relative clause in this case). Following Thráinsson, I assume that V-Adv order is just the result of verb movement to an IP-peripheral position, rather than V-to-C, in the Icelandic clauses corresponding to non-V2 contexts in Mainland Scandinavian.

Notice that Icelandic is the only Scandinavian language that preserves subjunctive morphology on the verb. Consider for instance the following examples:

- (45)a. Hún spurði [hvort tunglið **væri** úr osti] (Icelandic)  
 she asked if moon.the was(subj) from cheese  
 “She asked if the moon was made of cheese”  
 b. Hún verður ekki ánægð [nema tunglið **sé** úr osti]  
 She will.be not happy unless moon.the be(subj) from cheese  
 “She will not be happy unless the moon is made of cheese”

The subordinate clauses in (45), an indirect question and an adverbial clause, are considered non-V2 contexts. The fact that the verb is in the subjunctive form guarantees V-fronting to a quite high position in the IP where subjunctive mood is checked. Following Cinque (1999), the indicative/subjunctive mood distinction is operated by the unmarked vs. marked status of an *irrealis* feature on a Mood head just below T:

- (46) [IP Mood<sub>speech-act</sub> Mood<sub>evaluative</sub> Mood<sub>evidential</sub> Mod<sub>epistemic</sub> T(past) T(future)  
**Mood**<sub>irrealis</sub> . . .

Whether or not we agree with the specific proposal of Cinque (1999) for subjunctive, we can still assume that Icelandic subjunctive verbs move to a dedicated higher structural position than their Mainland Scandinavian (default indicative) counterparts where subjunctive morphology is absent. In other words, we can analyze the different behavior of Icelandic with respect to embedded V2 possibilities as the consequence of different morphosyntactic properties allowing mood feature-checking. Although a detailed comparison of mood marking in Scandinavian is out of the scope of this paper, I briefly consider some relevant aspects in which Icelandic mood marking differs from the Mainland Scandinavian one. To this purpose, I base my hypothesis on recent work by Sigurðsson (2009) for Icelandic and Eide (2008)a and b for Norwegian,

as an instance of Mainland Scandinavian. Both authors agree that subjunctive morphology in a complement clause, when available, expresses the speaker's lack of commitment with respect to the truth of the proposition expressed by the embedded clause. As the most conservative of Old Norse morphology among the Scandinavian languages, Icelandic has productive subjunctive.

Sigurðsson (2009) observes its distribution in clauses embedded under specific predicates with respect to their factive/non-factive status, according to the following scheme (main clause predicates are reported in English for ease of exposition):

(47) Mood selected by main clause predicates in relation to their factivity (Icelandic)

a. (Semi-)Factives:

*discover, know, see; be obvious; the fact, the truth* → usually **indicative**

b. Non-factives:

*believe, hope, say, think; be thinkable; the idea, the lie* → usually **subjunctive**

c. True factives:

*deplore, embrace, regret, rejoice; be fun, be deplorable* → usually **subjunctive modal *skulu* + infinitive**

Sigurðsson (2009) defines the interpretive property of presence vs. lack of speaker's commitment with respect to the truth of the reported clause encoded by the indicative/subjunctive alternation as a “speaker truthfulness responsibility” feature. Support for this analysis comes from facts concerning the category of semi-factives in (47)a., where subjunctive complements are also possible, but receive a different interpretation:

(48)a. Jón vissi að María **kom** heim. (Icelandic)

John knew that Mary came.IND home

“John knew that Mary came home.”

(i.e., ‘John knew about the fact that Mary came home’)

b. Jón vissi að María **kæmi** heim.

John knew that Mary came.SBJ home

“John knew that Mary would come home.”

(i.e., ‘John was confident that Mary would come home’)

[Sigurðsson 2009, 16, 38]

The indicative in the complement clause in (48)a indicates that the speaker makes himself responsible for its truth. By contrast, the speaker does not take responsibility for the truth of the complement in (48)b, where the subjunctive is used to report the matrix subject's point of view. As a consequence, the absence

of more than one preverbal constituent in subjunctive clauses (yielding a surface V2 order) is related to the interpretive properties of the clause itself. Namely, additional preverbal elements (such as high adverbs, typically related to some modality or to the speaker's point of view, cf. (46) above) would create a conflict with the interpretive properties of subjunctive mood. In syntactic terms, we may think of the scope-related properties of mood as a binding relation between FinP, where features related to the clause finiteness are interpreted and the IP position targeted by V-movement (i.e. Mood<sub>irrealis</sub>).

Verb movement alone (without specific subjunctive morphology) in Mainland Scandinavian cannot be associated in a parallel fashion to the Speaker Truthfulness Responsibility feature expressed by the indicative vs. subjunctive use in Icelandic (Sigurðsson 2009). The question is how Mainland Scandinavian check mood features and how these strategies are connected to V2 order. A useful indication in this direction comes from Eide's (2008)b analysis of mood in Norwegian. Eide observes that mood is not morphologically encoded in Norwegian: there are only non-productive relics of a subjunctive (used in lexicalized expressions), whereas mood is usually expressed by means of modals, particles and lexical verbs.

Eide points out that Norwegian has modal particles, despite lacking morphological mood marking on inflected verbs:

- *Mun* → contraction of Old Norse verb *munu* (may)
- *Tro/tru* → *å tro* (believe)
- *Kanskje* → *Kann* (can)+ *Skje* (happen) (=maybe)

She observes that: "A peculiar trait of these particles is that they may give rise to exceptional non-V2 word order in main clauses; the data in (49a) and (49b) are from Faarlund et al. (1997: 946).

- (49)a. Kven tru som har gjort dette? (Nynorsk)  
 who tru that have done this  
 "Who did this, I wonder?"
- b. Hvem mon har vært her før oss? (Bokmål)  
 who mon have been here before us?  
 "Who have been here before us, I wonder?"
- c. Kanskje Ola kommer også? (Bokmål)  
 maybe Ollie comes too?  
 "Maybe Ollie comes too?"

Another solution adopted to obviate the lack of morphological subjunctive in Modern Norwegian is the use of preterite (to express that a clause is a mere report, without speaker's commitment to its truth, cf. Eide 2008b) and of modal verbs such as *ville* (≈would); *kunne* (≈could); *skulle* (≈should); *måtte* (≈might), which are all different expressions of *irrealis* mood. Specifically, *skulle* and

*måtte* are used in conditional adverbial clauses and in relative clauses respectively:

- (50)a. De situasjoner som måtte/ \*skulle oppstå... (Norwegian)  
 The situations that must.PRET/ should occur  
 “Those situations that might occur...”  
 b. Skulle/\*måtte en slik situasjon oppstå  
 Should/must.PRET a such situation occur  
 “Should such a situation occur...” [Eide 2008b., 12, 20]

Only in restrictive relative clauses like (50)a has *måtte* a possibility, rather than an obligation reading, which indicates that it is used to mark the *irrealis* character of the clause. The use of *skulle/måtte* in the contexts exemplified in (50) is a development related to the loss of subjunctive morphology: in Old Norse the same clauses are instead expressed by preterite subjunctive forms.

This overview of Norwegian and Icelandic facts concerning mood expressions is aimed at illustrating the differences between these two languages. The fact that a specific subjunctive morphology is available in Icelandic favors the possibility that the inflected (subjunctive) verb morphologically realizes a dedicated position in the IP (see Cinque 1999). In this case, verb movement is triggered by a mood-checking mechanism, rather than being associated to V-to-C. According to Sigurðsson (2009), subjunctive is negatively marked for the “Speaker Truthfulness Responsibility” feature, contrary to other indicative V2 complements. Following what has been proposed above for the interpretation of factive complements, Sigurðsson's “Speaker Truthfulness Responsibility” feature can be restated in terms of a pragmatic requirement for “T-condition evaluation”. V-Adv order in subject initial embedded clauses in Icelandic would depend on the requirement to “evaluate the T-conditions” of the propositional content of the clause. In this case the V2 results from genuine V-to-C as the syntactic realization for the independent “evaluation of the T-conditions” of the clause. The satisfaction of the “T-condition evaluation” requirement can be alternatively ensured by the binding operation between Fin and Mood (e.g. resulting in V-to-Mood in Icelandic). In the latter case, the feature responsible for the interpretation of the T-conditions of the propositional content of the embedded clause receives a different value. Crucially, in this case the T-conditions of the embedded clause are not pragmatically evaluated in the discourse, which is syntactically realized by the lack of V-to-C, in Mainland Scandinavian, as well as in Icelandic. In Icelandic however, the verb can still reach a quite high position in the IP domain (cf. *supra*). The Icelandic rich



verbal morphology enables both mood and tense/agreement expression on the verbal head that targets the dedicated projection<sup>24</sup> (cf. Cinque 1999).

Notice that in many subordinate cases the V2 effect may as well be only apparent: the verb targets a high position in the IP domain, which is why sentential adverbs follow it. This hypothesis is supported by the fact that V3 orders are also possible in sentences of this type, i.e. in clauses where no active “T-condition evaluation” feature attracts the verb to the complementizer domain. This is the case for restrictive relative clauses, but also for Wh- and adverbial complements. Crucially, clauses where mood is expressed by morphological subjunctive (Old Norse; Icelandic) or by obviative forms (e.g. Norwegian modal particles, cf. (46) above) generally allow V3 orders as well (cf. Angantýsson 2007 for facts on Icelandic). This suggests that subject-initial embedded V2 is the result of a more complex interplay of different factors, and the surface linear order of Icelandic hides the real target positions of verb movement that are related to the morphosyntactic and interpretive properties of the verb (cf. Vikner 1995).

This analysis is also compatible with Eide's (2008)a and b explanation of V2. Eide shows that the Scandinavian verbal paradigm expresses morphologically a finiteness feature, in contrast to English where this distinction has been lost. Eide (2008)a illustrates the transition from the Old English paradigm of weak verbs, very similar to that of modern Mainland Scandinavian, to the present-day English impoverished verbal morphology. She explains the absence of productive V2 in present-day English with the fact that finiteness is no longer encoded in the verbal morphology, under the assumption that Mainland Scandinavian V2 clauses are derived by V-to-C movement. A natural question, at this point, is: how can we explain the absence of V2 from many types of embedded clauses in Mainland Scandinavian, given that the verbal morphology still expresses finiteness?

Eide (2008)a addresses this issue in a footnote, where, with regard to verb movement in subordinate clauses, she argues: “I assume that V2 is connected to assertion (like Bentzen et al. 2007; Klein 1998; and others), but this is a one-way relation, not a biconditional. When the Force-related “V2” head contains the trigger for V2, only a finite verb can fulfil the requirements of this head, and the

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<sup>24</sup>Christer Platzack (p.c.) points out that there is V-Adv order but no subjunctive in Icelandic control infinitives. There are many proposals trying to account for this problem, but I do not have a satisfactory explanation. The identification of the specific feature-checking mechanisms involved in the derivation of control complements would require a more detailed discussion than what is offered in this paper. In this respect, I follow Thráinsson's (2007) suggestion: “One possibility is that the infinitival subject PRO in Icelandic control infinitives needs special licensing by the verb, perhaps because of its case properties [discussed above].” (p. 452 and cf. section 8.2.2.). Along these lines, V-to-I in control infinitives would depend on a different requirement, related to subject-licensing.

V2 probe thus scans its checking domain for [+finiteness]. This does not imply that a [+Finite] verb obligatorily moves to V2, overtly or covertly, when the V2-trigger is not present, as in subordinate clauses.” (fn. 14). Eide's explanation is based on the more or less implicit assumption that V-to-C in V2 clauses is not only dependent on finiteness, but also on some pragmatic properties. In the analysis proposed here, embedded V-to-Fin does not necessarily yield a root interpretation, therefore assuming that the verb movement is triggered to check an “assertion” feature seems inappropriate. The alternative hypothesis sketched above is that the verb moves to FinP in order to make the T-conditions of the complement clause available in the evaluation process, taking place at the level of discourse pragmatics (cf. Speas and Tenny 2003). Following this hypothesis, the V2 complement is not analysed as an independent speech act, but as a falsifiable proposition (cf. Bianchi & Frascarelli 2009).

Mainland Scandinavian and Icelandic have main clause V2 because the verb morphology marks finiteness; Icelandic also has verb movement to a quite high position in the IP in subordinate clauses, because the verb morphology marks agreement and mood. Mainland Scandinavian verbs cannot raise so high in the IP in the subordinate clauses because they do not have agreement and mood morphology. The fact that Mainland Scandinavian verbal morphology expresses finiteness regardless of the clausal context (main or subordinate clauses) does not entail that the verb must move to the CP anyway (i.e. to FinP). In this sense, V-to-C must be triggered by an active [+finiteness] probe (as is that requiring T-condition evaluation), so we may hypothesize that subordinate clauses do not require V-to-C movement because finiteness alone is already expressed by merger of a complementizer or subordinating particle. Instead, subordinate V-to-C would be probed by an extra feature related to the T-condition evaluation, since complementizers and subordinating particles are in general not properly specified to enter the feature-checking mechanism of such a feature.

Further investigations on the features encoded in finite verbs in V2 languages is needed in order to explain the relation between verb movement, finiteness checking and complementation structures. Future research may also explore the semantic properties of subjunctive in Icelandic, which have been briefly discussed above<sup>25</sup>. For the present purposes, facts illustrated so far have

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<sup>25</sup> Interestingly, Thráinsson (2007) and Sigurðsson (1990) observe some relation between factivity and subjunctive mood, based on the fact that subjunctive complements entail some kind of presupposition (cf. Thráinsson 2007, p.400). Consider for instance (i), where the truth of the propositional content expressed by the embedded clause cannot be negated.

(i) Jón harmar [að María skuli vera hér] #en hún er ekki hér.

John regrets that Mary shall(subj) be here #but she is not here

“John regrets (the fact) that Mary is here #but she is not here” [Thráinsson 2007, 400, 8.18]

been discussed with the aim of explaining the differences between Icelandic and Mainland Scandinavian languages with respect to embedded subject-initial V2.

## 6. Final remarks and some speculations

I conclude with a few words on “real” embedded V2 contexts, i.e. contexts where the verb is expected to raise to C and topicalization is also possible. What triggers V-to-C in subject initial embedded V2 of this kind? Given that these clauses do not have verb-subject inversion, we cannot assume that V-to-C depends on the operator 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-C. This hypothesis is of course disconfirmed for cases where weak pronominal subjects precede the verb in V2 clauses.

2. V-to-C 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 would emerge under the assumption that V-to-C is required by fronting an OP to CP, namely that V-to-C is dependent on topic fronting. According to Rizzi (1997)a. a criterion on CP is satisfied if either the specifier or the head of a criterial projection is overtly realized, but a realization of both (as suggested by Roberts and Roussou 2002 for V2) would be anti-economic.

If V-to-C no longer depends on the movement of a constituent to a C-specifier (e.g. Spec,TopP in our cartography), the economy problem is circumvented, because the preverbal constituent could be in the specifier of a higher criterial projection and the verb in the lower C-head, i.e. Fin. At this point the question is how to explain the V2 constraint that one and only one preverbal element can move, once we discard the idea of locality relation between preverbal XP and V postulated in terms of Spec-Head relation. This is not problematic as long as the preverbal element is A'-OP moved: any other A'-movement to the left periphery is banned by minimality<sup>26</sup>. But why multiple frontings are not possible in subject-initial V2 clauses, given that the subject is A-moved?

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In light of what has been discussed so far, clauses where subjunctive mood forces a factive reading cannot in principle allow V2-topicalization, since the factive clause is derived by movement of an OP that would trigger minimality effects with a topic. Following this intuition, movement of a factive operator (perhaps binding the mood position related to subjunctive in IP) to the CP field would be one strategy to make mood interpretable at the interface. On the presence of a mood feature in CP and related feature-checking strategies in Southern Italian Dialects (non-V2, Romance varieties) see Damonte (2008).

<sup>26</sup> Relativized minimality (cf. Rizzi 1990) accounts better for different degrees of degradation of clauses where different types of frontings are tested.

A tentative answer to the latter question concerns the trigger of V-to-C. I have argued that embedded V2 cannot be the result of fronting of an assertive operator (ASS) of the kind postulated by Meinunger (2004), because such operator would give rise to minimality effects with the preverbal topic. However, I have argued with Eythórsson (1996) that argument V2-topics are operators. We can assume the ASS-operator identified by Meinunger (2004) is instead a T-conditional-OP associated to the topic and assigns it an operator-status in V2 clauses. This association could be done on a low functional projection immediately above the vP level (by analogy to what is proposed by Duffield (2007) for the syntactic encoding of an “assertive” feature).

In subject-initial clauses the subject cannot move to the functional projection encoding the T-condition evaluation requirement on the low vP periphery (an A'-position), but needs to be A-moved to a higher position<sup>27</sup>. Klein (1998; 2006) claims that finiteness encodes both tense and assertion features in Indoeuropean languages, and Duffield (2007) provides support to this claim by showing that an assertive particle is merged in the left vP periphery in Vietnamese, where verb movement cannot mark assertion by moving to the finiteness projection.

If we transpose this analysis in a cartographic perspective, and we reconsider the assertion feature as a more general requirement on the interpretation of the propositional content (T-conditions), T-conditions would need to be checked on Fin in Indoeuropean, and V-to-Fin in Germanic is a plausible strategy for that, given the absence of special “assertive” particles of the Vietnamese type (cf. *supra*) in V2 languages (as well as in other Indoeuropean languages). Accordingly, I assume that a T-condition-OP binds the V-head as a variable and triggers V-to-Fin. The T-condition-operator can have an overt realization in a preverbal topic or be null, as in subject-initial V2 clauses. In both cases, the null operator bans extraction in Mainland Scandinavian (for minimality of T-conditions-OP and Wh-extraction). By contrast, extraction out of a subject-initial V2 clause is possible in Icelandic under the assumption that in this case no OP triggers V-to-Fin because the embedded clause is not evaluated as an separate proposition, but V2 is the result of V-to-I (cf. also Thráinsson 2010):

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

<sup>27</sup> One optional way to give the subject an OP-status by moving it first to the functional A'-position in the low vP periphery is to adopt a strategy enabling subject dislocation (or extraction); i.e. a strategy that independently satisfies the subject criterion as is formulated by Rizzi (2004); Rizzi and Shlonsky (2007).

- b. *Hverjum heldur þú [að María gefi ekki t svona bækur ]?* (Icelandic)  
 whom think you that Mary gives not such books  
 “Who do you think that Mary does not give such books to?”  
 [Thráinsson (2010) 19, 28-29]

In this perspective, V2 as V-to-Fin is:

- (i) triggered by a feature-checking mechanism, namely [T-condition evaluation] on FinP;
- (ii) associated to movement of a T-condition-OP, which explains restrictions on V2 clauses by minimality;
- (iii) non-redundant for economy principles, as it lexically realizes the head of a projection that would otherwise remain silent, given that the T-cond-OP, whether null or associated to an A'-constituent, targets a higher position.

With regard to the latter point, it seems plausible that the T-condition-OP be selected by the matrix clause in order to enter the discourse pragmatics. This hypothesis would explain the synergy between Force and Fin in V2-clauses. A structural representation of a non-subject initial V2 clause is given below:

(52) [<sub>SubP</sub> ForceP **OP**<sub>T-cond</sub> Force *at/att/að* <sub>TopP</sub> [<sub><OP</sub><sub>T-cond</sub> **XP**]<sub>Top</sub> <sub>FinP</sub> [<sub><OP</sub><sub>T-cond</sub> **XP**]<sub>Fin</sub>  
**V**<sub>[+t-cond]</sub>

The hypothesis sketched above is compatible with the idea that there is a connection between the properties of functional projections located in the periphery of each phase, similarly to what Poletto (2005) argues for Old Italian. In the specific case of V-to-C, the interpretive properties of V2 clauses, related to their illocutionary force, would require the activation of a projection allegedly encoding discourse-related features at the edge of the vP phase, which provides the propositional content. However, further research and deeper investigations are needed in this direction in order to understand the exact derivation of V2.

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