

# ON SCANDINAVIAN PF-VERB MOVEMENT<sup>\*</sup>

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## 1. INTRODUCTION

In a work in progress, Puskás and Baunaz argue against splitting PF and LF, showing that both the phonatory-articulatory system and the conceptual-intentional system interact. This, we propose, is accounted for a weakening of the standard disjunction of the two components.

This paper is an attempt to explain the V2 phenomenon under this new light and to localise the position(s) of the finite verb that is fronted in a linear second position. The Verb-second phenomenon (V2) has generally been analysed as involving V°-to-C° movement (see Vikner (1995) and references cited there). Icelandic is a language that exhibits the V2 phenomenon in both main and embedded clauses, while Swedish is known to illustrate V2 in main clauses only. Traditional analyses of V2 describe the phenomenon as involving two parts<sup>1</sup>:

- (i) Initial XP
- (ii) Verb-movement

In other words it means that a good theory of V2 must account for (i) the presence of an XP in first position and (ii) simultaneous V-movement to the highest head position of the clause.

As for (i), I propose that XP-fronting targets different positions. Fronted XPs can have different interpretative properties: they can refer to what is talked about (Predicative Subjects), they can also be Topics or Foci. Traditionally Topics are often said to involve the notions of specificity (or referentiality) and old information, while Foci involve presupposition and new information<sup>2</sup>. I claim, following standard analyses, that these are semantic features (see Enç (1991)). Topics and Contrastive Foci both display different phonological and interpretative properties, which are syntactically encoded. Both are grammatical elements, involving phonology, morphology and syntax, and both have a discourse function. This implies that a simple theory of V2 arguing in favour of V°-to-C° movement is not sufficient and a more articulated CP is in order. I adopt then Rizzi's (1997) Split-CP and propose that fronted XPs can either land in the Subject position, in a Focus position or in a Topic position (1).

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<sup>\*</sup>This is a work in progress and any comments are welcome. I would like to thank L. Rizzi for comments on an early version of this paper and C.J.-W. Zwart for helpful discussions on West Germanic Languages. I would like to reserve a special thanks to E. Haeberli for interesting and motivating comments on the almost last version. thanks also to S. Dürrleman. My warmest thanks go to Genoveva Puskás who always takes time for discussions. Of course all remaining errors are my own.

<sup>1</sup> In this paper I will only focus on the common property of Scandinavian languages, namely the fact that they all display the V2 phenomenon. My main goal is to try to explain the V2 phenomenon; hence I will only discuss the structure where it applies in these languages. I have nothing to say on the embedded non-V2 constructions of Swedish. I refer the reader to Nilsen (2002) for a tentative analysis.

<sup>2</sup> see below for development of this idea

(1) Force Top\* Focus Fin IP

The first case concerns the neutral order (S-V-O) (2), the second case reflects what is called Contrastive Focalization (3) and the third case is concerned with topicalization (4)<sup>3</sup>.

(2) Jón mun vanta peninga um jólín  
Jón will lack money around Christmas

(3) Um JÓLIN        mun Jón vanta peninga, en ekki um páskana  
around CHRISTMAS will Jón lack money, but not at easter

(4) **Kornflex** borða ég á morgana  
corn flakes eat I in morning-the  
I eat corn flakes in the morning'

Concerning (ii) I claim that V-movement in Icelandic is twofold: syntactic and phonological. The syntactic movement of the finite verb in Icelandic is to Fin° (following Haegeman (1996) and much recent works), a position where the finite verb can check a strong D-feature (see Chomsky (1995)). Syntactic movement is constrained by feature checking of [-Interpretable] features before Spell-out, as it is assumed in Chomsky (1995). I claim that this raising should be seen as independent V°-to-I° (or Fin°) raising. The phonological V-movement is to any position right-adjacent to the fronted XP, leading to the V2 constraint: it pied-pipes only phonological features, leaving in Fin° the categorial feature [V]. Phonological movement is toward the highest [P] head position of the structure, namely either Top° or F°. This idea leads to assume that the V2 phenomenon is not a purely syntactic constraint, but the result of a feature-driven movement with supra-segmental phonological information.

Within this framework it is possible then to account for the non-occurrence of V2 effects in embedded indirect question constructions in Icelandic (5).

(5) Ég spurði...  
I asked

a. ... af hverju Helgi hefði oft lesið þessa bók.  
why H. had often read this book

b. \*...af hverju Helgi oft hefði lesið þessa bók.  
why H. often had read this book

c. \*...af hverju hefði Helgi oft lesið þessa bók.  
why had H. often read this book

'I asked why Helgi had often read this book'

(Vikner (1995:139))

I tentatively propose that embedded indirect questions involve smaller C-systems than main and embedded clauses, i.e., that their left-periphery is not completely unfold. That the embedded finite verb moves is unquestioned, since in Icelandic, it appears to the left of an adverbial, taken to indicate the left edge of the VP. In these constructions, the embedded finite verb moves to Fin° and the subject to [Spec, FinP]. On the basis of the data just reviewed, I claim that Fin° is not the unique landing site for the Scandinavian finite verb and that V2 is only a linear order phenomenon, and that the structural explanation is not sufficient: following this line of reasoning, I claim that the embedded indirect questions in (5) clearly do not involve V2 since the finite verb only raises till Fin°, the left periphery of these embedded clauses being unfolded. Hence neither Topicalization (nor Focalization) can apply.

<sup>3</sup> When not indicated, the examples are in Icelandic

In section 2 I will only give a general overview of both the phenomenon and the main analyses that were advocated to account for it.

## 2. THE V2 PHENOMENON: DATA AND PREVIOUS ANALYSES

## 2.1. The data

The V2 constraint is a well-known phenomenon occurring in the West Germanic languages. I will concentrate my study on Scandinavian languages and more particularly on Icelandic and Swedish<sup>4</sup>. I take Icelandic instantiating the Insular Scandinavian languages and Swedish illustrating the Mainland Scandinavian languages. This distinction seems to be legitimate: Icelandic and Swedish differ in that the former, but not the latter has a rich case system, has so-called Quirky-Subjects and displays Transitive-Expletive-Constructs, among other phenomena. Both languages can however exhibit the V2 phenomenon in both main and embedded clauses.

The distributive property of the finite verb in these languages seems to require that it occupies the second position in the clause, no matter which constituent precedes it. This property has traditionally been referred to as the V2 constraint (see Rögnvaldsson and Thráinsson (1990), Vikner (1995), among others). The first constituent of the clause can either be the subject (2), the object (4) or an adjunct (3)<sup>5</sup>; Scandinavian main clauses behave alike with respect to the V2 requirement.

When it comes to embedded clauses Icelandic and Swedish differ in various respects: on the one hand it is traditionally described that Icelandic is a generalised V2 language, i.e., the finite verb overtly moves to the second position in the clause. In preverbal position an XP is fronted. This XP can be either an argument, or an adverb. This pattern is instantiated in both matrix and embedded clauses (EV2). On the other hand the Mainland Scandinavian languages are said to be asymmetric V2: while the finite verb must occupy the second position in a main clause, in embedded clause it normally appears very low in the structure. Icelandic and Swedish are often opposed in the syntactic literature. Compare the Icelandic embedded clauses in (6) to those in Swedish (7):

(6)            Guðmund efast um  
                   Guðmund doubts on...

a. ... að    Jón borði oft    súkkulaði  
               that Jón eats often chocolate

b. ... ?að    súkkulaði borði Jón oft  
               ...that chocolate eats Jón often

<sup>4</sup> This section is only meant to introduce the reader to the phenomenon in question. Most of the data presented here come from Platzack (1998), Vikner (1995) and Baunaz (2002).

<sup>5</sup> Note that an adverbial can sometimes also be fronted in both Icelandic and Swedish:

(i) a. *Faktiskt* hittade han pengarna under sängen. (Sw)  
           actually found he money-the under bed-the (Svenonius)  
   b. *Sennilega* hafa        henni því ekki leiðst þeir    um kvöldið (Ic)  
           probably have 3p.pl her-D thus not bored they-N in evening-the (Platzack (2000))

(7) Gudrun tvekar om Gudrun doubt that (Sw)

- a. ?? ... Jan äter ofta choklad Jan eats often chocolate
- b. \* ... choklad äter Jan ofta
- c. \* ... ofta äter Jan choklad
- d. ... Jan ofta äter choklad

Moreover when embedded within the so-called bridge verbs, the Swedish finite verb can occupy the second position again:

(8) Jag vet...  
I know... (Sw)

a. ...att den här boken hade Johan inte läst  
that this here book has Johan not read  
b. ...att Johan hade inte läst den här boken  
c. ...att Johan inte hade läst den här boken

Note that the three possibilities in (8) are acceptable: the finite verb can occupy either the second position (8a-b) or a position following the negative element *inte*. It has been noticed that in EV2 constructions, the embedded complementizer *att* must obligatorily be realised and cannot be left out, as in Non-V2 constructions<sup>6</sup>. It is important to note that it seems then that word order within one single V2-language is not uniform: main clauses and embedded clauses do not always pattern alike in Swedish.

That the V2 status of Scandinavian languages is not uniform across languages and also within one single language is also reflected under the following construction: consider the Icelandic Embedded Constituent questions in (9):

(9) a. Ég veit ekki [hvar kyrin hefur staðið í gær] (Ic)  
 I know not where the.cow has stood yesterday  
 'I don't know where the cow stood yesterday'  
 b. \* Ég veit ekki [hvar í gær hefur kyrin staðið]  
 I know not where yesterday has the.cow stood  
 'I don't know where the cow stood yesterday' (Vikner (1995))

In (9b) the traditional V2 environment (XP-Vf-S...) is not possible: the subject must obligatorily occupy the preverbal position. It has been noted in the literature that the Icelandic data in (9) are in fact the unique Icelandic construction where the strict V2 constraint cannot apply, i.e., there does not exist any other construction where V2 cannot be instantiated (see Vikner (1995), Bobaljik and Thráinsson (1998)). Hence embedded indirect questions are very weird in Icelandic in this respect. That the finite verb obligatorily moves independently from V2 can be seen in (10):

<sup>6</sup> This last point must be stressed since in Icelandic, *að* 'that' can be non-overt in EV2-constructions, but I will not discuss this point here. See Nilsen (2002) for further discussion on this topic in Norwegian.

In (10) the embedded finite verb must leave the VP: the position of the sentence medial adverb *oft* 'often' in Icelandic can be taken as a diagnostic to test the position of the finite verb<sup>7</sup>: if the finite verb occurs before the adverb, it means that it has moved. If it follows it, it means that it is still within the VP. It seems clear that the data in (10) show that the finite verb in Icelandic must leave the VP. (10a) is fine even if the finite verb precedes the adverb *oft* 'often'. In (10b), it follows the adverb and the sentence is out. (10c) shows that the subject must precede the finite verb, even in Embedded Constituent Questions (see (9)). Note that in Swedish embedded V2 clauses (EV2) contexts the pattern is similar to Icelandic<sup>8</sup>:

When embedded under the so-called bridge verbs, it is perfectly acceptable to find embedded indirect questions with the finite verb following the subject: (11b). The finite verb can also appear relatively low in the structure (11a). (11b) seems to indicate a perfect environment for V2 constructions: it should indeed be possible to prepose an object or an adverb in first position on top of the clause. This is however not the case: (11c-d) with either *vanligtvis* or *glöggen* are out<sup>9</sup>. Both Icelandic and Swedish embedded indirect interrogatives suggest that

<sup>7</sup> Cf. Pollock (1989).

<sup>8</sup> Here my data differ from Vikner's (1995) where in Danish, taken to illustrate the Mainland Scandinavian languages, the finite verb in embedded indirect questions stays VP-internal. That is the reason why I do not give a detailed discussion of (11).

<sup>9</sup> Note that this pattern is reduplicated with different embedded wh-words:

(i) Jag undrade...  
I wonder...

a. ...var Johan vanglitvis drack glögg  
...where Johan usually drank the glög  
(var -Subject-Adv-V-Object)

b. ...var Johan drack vanglitvis glögg  
...where Johan drank usually the glög  
(var -Subject-V-Adv-Object)

c. \* ... var glögg drack Johan vanglitvis  
...where the glög drank Johan usually  
(var -Object-V-Subject-Adv)

there can be finite verb movements. However the linear ordering of the finite verb shows up a verb third position. This suggests that in these constructions V2 cannot be advocated for.

In this section I presented the verb second phenomenon as it is exemplified in the Scandinavian languages. We observe that Icelandic involves V2 in both main and embedded *that*-clauses. When it comes to indirect embedded interrogatives, things get blurred: in these constructions, the finite verb can never be preceded by anything else but the subject. In this construction, it occupies then the third position. In the next subsection, I will give the general picture of the most influential analyses concerning this phenomenon.

## 2.2. Previous analyses

Since den Besten (1977), it has been acknowledged that the XP moving to the front of the clause was in fact topicalized in [Spec CP], the verb moving to  $C^\circ$  for some reasons, plausibly to lexicalize  $C^\circ$ . In the Germanic SOV languages, it has been shown that when  $C^\circ$  is filled by a complementizer, the finite verb cannot move to the  $C$ -domain. This analysis was generalised to all languages involving V2-constructions (see Platzack (1986) for Swedish). Of course, this analysis needs some refinements, since Icelandic has V2 both in main and embedded clauses, meaning that  $C^\circ$  can also be filled by the inflected verb in embedded clauses. A lot of researchers on the V2 phenomenon tried to accommodate the CP-analysis with the Icelandic facts, proposing, for instance, a CP-recursion analysis for Icelandic embedded clauses<sup>10</sup>. Other syntacticians proposed that in Icelandic, as opposed to Swedish and Danish, the finite verb always moves up to  $I^\circ$  in topic-initial constructions, the subject remaining within the VP. There are a lot of problems with both analyses and I refer the reader to Bobaljik (2001a) and Branigan (1998) for some arguments against these views.

Building on the description that Icelandic and Swedish do not pattern alike when it comes to embedded clauses, Vikner (1997), Rohrbacher (1994) among others mainly discussed the constraint in terms of V-movement, trying to find generalisations explaining both the Mainland Scandinavian and the Icelandic facts. Paying attention to the main distinction between these two language-types, namely their inflectional systems, they propose that a V2 language with poor inflection like Swedish is V-movement to  $C^\circ$ , while a rich inflectional system like Icelandic independent  $V^\circ$ -to- $I^\circ$  movement (see Vikner (1997) and reference cited there), suggesting then that Icelandic verb movement is morphology-driven (but see below): Icelandic and Swedish verbal paradigms differ in the number of morphological forms they instantiated:

(12) a. Icelandic: <i>heyra</i> 'hear'			b. Swedish: <i>höra</i> 'hear'	
	Present	Preterit	Present	Preterit
1 psn sg	heyr -i	heyr -ði	hör	hör-de
2 psn sg	heyr -ir	heyr -ði-r	hör	hör-de
3 psn sg	heyr -ir	heyr -ði	hör	hör-de
1 psn sg	heyr -um	heyr -ðu-m	hör	hör-de
2 psn sg	heyr -ið	heyr -ðu-ð	hör	hör-de
3 psn sg	heyr -ðu	heyr -ðu	hör	hör-de

(adapted from Bobaljik (2000) for Danish)

d. \* ... var vanglitvis drack Johan glöggen (var -Adv-V-Subject-Object)  
 ...where usually drank Johan the glög  
 'I wonder where Johan usually drank the glög'

<sup>10</sup> See Vikner (1994), (1995) for tentative analyses in that direction.

Icelandic has distinct forms for Number, Person and Tense, while Swedish has only Tense distinctions. I don't want to enter into one or the other analysis proposed by the authors mentioned above. Suffice it to say that when comparing Icelandic to Swedish, one immediately notices two differences: a syntactic one (6) vs. (7) and a morphological one (12). The syntactic difference reduces to the morphological one: Morphology drives Syntax. The more morphological distinctions a finite verb exhibits the more it will raise. In other words if a language has a rich inflectional system, it is quasi-certain that the finite verb -for instance- will overtly raise to check these inflectional features. Under this assumption it has been possible to answer the following question: what is the difference between Icelandic on the one hand and Swedish on the other hand? Roughly their argument goes as follows: in Swedish main clauses the finite verb moves to  $C^\circ$  to satisfy the V2 constraint whereas in embedded clauses, it stays within the VP,  $C^\circ$  being already occupied by the Complementiser. The Icelandic finite verb is richer than the Swedish one: it must always move up. However, it does not move to  $C^\circ$ , but to  $I^\circ$  (or  $Agrs^\circ$ ). This is what is generally called independent  $V^\circ$ -to- $I^\circ$  movement (independent of V2).

Syntactically the finite verb is located in two different positions in the two languages at hand: in Icelandic it precedes the adverb *oft* 'often' in (6), while in Swedish it follows *ofta* 'often' (7). This seems to indicate that in embedded clauses, the finite verb occupies two distinct positions in these languages. Researchers have tried to relate this distinction to morphology.

In this paper I hope to show that the Icelandic data in (9) are not so weird as they seem to be at first sight, nor are the Swedish ones in (11). Under the traditional analysis of V2, the weirdness of such a construction is left unexplained. However, once we adopt a finer-grained theory of the left periphery, the problematic area in which we were thrown disappears. The reason being that the position to which the finite verb moves in these constructions is an obligatory checking position. One point needs to be added before elaborating a cartography of the left-periphery in the Scandinavian languages: as it has been presented, most of the previous studies on V2 only discussed this phenomenon in the light of verb-movement analyses, but little attention was devoted to the study of this preposed XP. I would like to claim that the issue concerning V2 is not to be found in the traditional V-raising analysis, but rather in discovering the true nature of this fronted XP. That is the reason why I think that a left-periphery analysis *à la Rizzi* is much more adequate when turning to the V2 phenomenon.

In this paper I will try to show that Swedish and Icelandic should indeed be distinguished when it comes to independent verb movement. That Icelandic needs to overtly check inflectional features under  $T^\circ$  and  $Agrs^\circ$  seems to be obvious, while Swedish finite verb needs not. I would like to claim that V2 and verb movement must be treated independently. A major distinction between the two processes at stake is that verb-movement is toward inflectional projections, namely  $Agrs^\circ$ ,  $T^\circ$  and  $Fin^\circ$ , while V2 is to a head position within the left-periphery. This will lead me to propose that when it comes to V2, both languages pattern alike. I will first focus on the notion of XP-fronting in V2 constructions, both in main and embedded clauses. I will treat Icelandic and Swedish in parallel, since I claim that both languages display the same phenomenon with respect to focalization and topicalization. As it is presented, the V2 phenomenon is only descriptive and does not attempt to any analysis: crucially, and this is the essence of the V2 phenomenon, the fronted XP/the subject cannot be separate from the finite verb. There seems to be an adjacency requirement that can never be disturbed<sup>11</sup>. I will try to account for this adjacency in section 3.3.3. Before I will sketch some finding in the realm of the Scandinavian left-periphery.

<sup>11</sup> There are exceptions however, see Nilsen (2001) for a tentative analysis of the following data:

### 2.3. A left-periphery account of XP-fronting in Scandinavian

Little has been said about the exact nature of the so-called 'topicalized' XP in first position (but see Platzack (1998), Nilsen (2001), Roberts and Roussou (1998), Mohr (2001)). Evidence from native speaker intuitions seems to suggest that a closer look is in order when discussing the V2 phenomenon in these languages. In this section I hope to show that the distinction between the two groups of languages is in fact due to the nature of the fronted XP: it is first not true that all fronted XPs are Topics and second, I will show that they can also be Foci.

#### 2.3.1 *Contexts bound XP-frontings*

Even if Swedish and Icelandic are Subject-prominent languages, meaning that nearly 70% of the production of declarative sentences are S-V-O, 30% of the cases are clearly XP-V-S.... This variation must be explained. The process involved is descriptively quite simple: as already mentioned a finite verb is moved to the linear second position following a fronted XP, be it a Subject or a non-subject (particle, object or an adjunct of any type). I would like to claim that this process is contextually bound: in this section I will provide examples of both Swedish and Icelandic to show that XPs front only when they have to, and this movement is triggered for discourse/contextual reasons. This predicts that (13a) and (13b), (13c) are not equivalent and do not convey the same type of information:

(13) a. Älvan åt blåbäret under svampen (Sw)  
           elf. the ate blueberry.the under mushroom.the  
   b. Blåbäret åt älvan under svampen  
   c. Under svampen åt älvan blåbäret

I won't here discuss all the different interpretations that these sentences convey. But note that (13a) can only be uttered under certain contextual conditions, as (14) suggests. The diacritic # does not mean that the sentence is ungrammatical, rather it indicates that is contextually unfelicitous:

(14) Context: [A party in the forest gathers 6 friends eating together: one elf, a fairy, a troll, a dwarf and 2 speakers]

**Speaker A:** What can you tell me about this elf?

**Speaker B:**

a. **Denna älva** åt blåbäret under svampen (Sw)  
           this elf ate blueberry-the under mushroom-the  
   b. # Blåbäret åt denna älva under svampen  
   c. # Under svampen åt denna älva blåbäret

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(i) a. Jens bare gikk  
           Jens just left  
   b. Jens nesten gråt  
           Jens almost cried

see also section 3.3.4.

Under the context stated in (14), (14a) is the more natural and appropriate answer to the Speaker A's question. I claim that this is due to the context: under the same context, the object or the adjunct cannot be fronted. In Icelandic, the same pattern applies<sup>12</sup>:

(15) **Speaker A:** What can you tell me about this elf?

**Speaker B:**

- a. **Pessi álfur** borðaði bláberið undir sveppinum (Ic)  
this elf ate blueberry-the under mushroom-the
- b. # Bláberið borðaði þessi álfur undir sveppinum
- c. # Undir sveppinum borðaði þessi álfur bláberið

This dialogue assumes that the elf is salient in the context (i.e., either she has already been introduced by the discourse or it is salient in the speakers' environment). I claim that the subjects in both (14a) and (15) have not a neutral status, i.e. they are interpretatively marked. Subjects in such contexts convey old information, as topics do. Hence they must be distinguished from unmarked subjects of the (13a) type. I claim that in (14a) and (15), *Denna Álvan* and *þessi álfur* are topics.

In both Swedish and Icelandic, when a subject is topicalized, it is required that a different intonation applies, as opposed to the unmarked case. Note that the same pattern can be seen with object-fronting in both Swedish and Icelandic. The reader may be cautioned of the fact that these phonological differences are subtle: indeed speakers' judgements seem to vary according to the region they belong to. Topics in Swedish and Icelandic may either receive a slight fall-rise intonation or be unstressed. Now consider (16):

(16) Context: Two fairies met in the supermarket. There is an elf in the area, but this elf is known by only one of the two fairies, namely Speaker B. The discussion is about this elf.

**Speaker A:** Og álfurinn?  
and elf-the? (Ic)

**Speaker B:** **Pessi álfur** borðar bláber  
this elf eats (a) bluberry

According to some speakers, in this context, it seems that *Pessi álfur* can receive a bit of intonation, but certainly not a pitch accent. This is expected since here it is interpreted as a topic and not as a predicative subject.

Finally observe that when Contrastive Foci and Topics co-occur in one and the same clause, it seems that the topic must precede the contrastive Focus. This is shown in both (17) and (18).

(17) Context: [A fairy and a troll recalling some past events happening to the elf]

**Speaker A:** I remember that day when she [the elf] was so hungry...

<sup>12</sup> Note that as an answer to that question (i) could also be possible in that context:

(i) **Álfurinn!** Hann er að borða bláber  
Elf-the! he-Nom is to eat bluberry

I refer the reader to Zaenen (1997) for analysis of these constructions in both Dutch and Icelandic.

**SPEAKER B:**

- a. Denna älvan åt BLÅBÄRET under svampen (Sw)  
This elf ate BLUEBERRY-THE under mushroom-the
- b. Denna Älvan åt blåbäret UNDER SVAMPEN  
This elf ate blueberry-the UNDER MUSHROOM-THE
- c. # Blåbäret åt denna älvan under svampen  
blueberry-the ate this elf under mushroom-the
- d. # Under svampen åt denna älvan blåbäret  
Under mushroom-the ate this elf blueberry-the

The (a) sentence is fine iff *denna älvan* is a topic. BLÅBÄRET must be stressed: it is a new information. *Under svampen* is here a topic: the sentence is appropriate in a context where the elf usually eats under the mushroom (if we imagine that this is her restaurant...). In the (b) sentence, UNDER SVAMPEN receives focal stress. This sentence is appropriate in a context where normally the elf eats at the local pub. But for some reason, that day, she ate under the mushroom, i.e., an unusual place for her to eat. (c) and (d) are inappropriate in this context.

(18) Context: [A fairy and a troll recalling some past event happening to the elf. The fairy was not present at that time]

**The fairy**: ...And I think that the elf ate a strawberry (Ic)

**The troll**:

- a. Álfurinn borðaði BLÁBERIÐ, ekki jarðarberið  
elf-the ate BLUEBERRY-THE, not strawberry-the
- b. \* BLÁBERIÐ borðaði álfurinn, ekki jarðarberið  
BLUEBERRY-THE ate elf-the, not strawberry-the

Still, when a topic and a Focus must co-occur, the structural relation is always what we find in (17) and (18): the Topic must precede the Contrastive Focus.

The idea is to say that the fronting of an XP to the left of the verb is for discourse reasons. My claim is to say that XP-fronting must be analysed as either topicalization or focalization: the notion of Topic and Focus in the syntactic literature has become much more prominent since the last decade (see Cinque (1990), Rizzi (1997), Puskás (2000), (2001) among others). Traditionally Topics are referred to as involving old information, while Foci involve new information and presupposition. Precisely Topics are often said to imply the notion of specificity, while this is not a necessary condition of Foci<sup>13</sup>. Both are grammatical elements, involving phonology, morphology and syntax, and both have a discourse function. Languages simply vary in the way they syntactically express these informations (see Puskás (2000) for Hungarian and Rizzi (1997), (2001) for Italian). Hence I assume that all the Icelandic sentences in (19) are marked:

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<sup>13</sup> But see below for a more adequate characterisation of these notions (section 3.3.3)

(19) a. **Um jólin**      mun Jón vanta peninga  
Around Christmas will Jón lack money  
b. **Jón**      mun UM JÓLIN      koma heim, en ekki um páskana  
John will AROUND CHRISTMAS come home, but not at Easter  
c. **Um JÓLIN**      mun Jón vanta peninga, en ekki um páskana  
around CHRISTMAS will Jón come home, but not at easter  
d. **Um Jólin**      mun JÓN vanta peninga, en ekki Sigga  
Around Christmas will JÓN lack money, but not Sigga

In (19), the bold faced constituents indicate that they are topicalized: meaning that both interpretatively and intonationally they must be distinguished from the neutral order, being either (20a) or (20b):

(20) a. Jón mun koma heim um jólin  
           Jón will come home around Christmas  
       b. Jón mun vanta peninga um jólin  
           Jón will lack money around Christmas

The elements in Capital Letters are meant to indicate contrastive Foci. Hence in (19b) and (19c), *UM JÓLIN* 'around Christmas' is a contrastive focus, contrasting with the second conjunct *en ekki um páskana* 'but not at Easter'. In (19d), it is the subject *JÓN* that is focalized, contrasting with *Sigga*.

It seems then that Topics and Foci in the Scandinavian languages behave like any other topics in various languages, namely that *they are grammatical elements, involving phonology, morphology and syntax, and both have a discourse function*. There is obvious evidence which suggests that the pre-verbal fronted XP in V2 clauses in both Swedish and Icelandic can have (i) different interpretations, (ii) different intonation/stress relatively to different contexts<sup>14</sup>:

(20) a. Ragnar hade läst boken (Sw)  
Ragnar has read book-the  
b. **Ragnar** hade läst boken  
c. RAGNAR hade läst boken, men inte Stig-Helmer

(20a) is the unmarked sentence. Neither special intonation (nor special stress) is required when uttering any of the phonologically realised syntactic units of this clause. The first DP of the clause, namely *Ragnar*, is the subject: it inverts in case of questions, it bears nominative case and is the most prominent constituent of the clause<sup>15</sup>. The most important point here is that it can be topicalized: in (20b), the linear first constituent ***Ragnar*** is also the subject of the clause with the whole bundle of properties displayed by *Ragnar* in (20a), plus the interpretive and phonological information of a Topic. My claim here is that in (20a), the subject is not topicalized: topicalization is then not a Subject property. Thanks to the type of stress involved on the DP-constituent in (20c), it is possible to assume that *RAGNAR* in this sentence is not a topic, nor is it a DP in subject position: the special stress coupled with the particular contrastive interpretation that it displays, allow me to propose that *RAGNAR* is a Contrastive Focus. Hence three sentences with the same words in the same linear order are not equivalent

<sup>14</sup> I assume a broad notion of Context including both the environment (shared by the speaker/ the hearer) and/or the discursive environment in which the sentence is uttered

<sup>15</sup> See McCloskey (1997) for more detailed analyses on the Subject notion.

in terms of both phonology and interpretation, i.e., they differ at the interface levels<sup>16</sup>. The idea is that they also differ in terms of narrow syntax.

It is generally assumed that Topics and Contrastive Focus display different syntactic properties: Topics and Foci involve A-bar movements to one (or more) position(s) in the C-domain. This is not problematic under any analysis of V2, since the traditional main idea was to propose a movement analysis of any XP (topicalization or fronting) to the left of the clause ([Spec, IP] or [Spec, CP]). Before discussing which positions these XPs target, I will first present what are the arguments that help to syntactically distinguish between these two discourse-related processes as it has been proposed in the literature. One point that confirms the hypothesis concerning the status of the first constituent in a Scandinavian V2 clause, namely either Focus, Subject or Topic, is the attested fact that these discourse-related elements syntactically behave differently when it comes to A-bar movement: Wh-fronting, Focalisation and Topicalisation are sensitive to different syntactic processes. However there is at least one phenomenon to which all these elements are sensitive: Strong Crossover.

(21) a. \* Vem<sub>i</sub> bjöd han<sub>i</sub> t<sub>i</sub>? (Sw)  
 Whom invited he  
 b. \* Vem<sub>i</sub> sa han<sub>i</sub> att Agneta skulle bjuda t<sub>i</sub>?  
 whom said he that Agneta would invite  
 c. \* Vem<sub>i</sub> sa Agneta att han<sub>i</sub> skulle bjuda t<sub>i</sub>?  
 whom said Agneta that he would invite

The reason for the ungrammaticality of (21) is that *wh*-movement is illicit in these configurations, since it crosses a coindexed pronoun in its way to its landing site, i.e., to the left of the clause. This has been explained in terms of Binding Theory: 'the trace in [(21)] would be bound by the coindexed pronoun *he* in the subject position. Since traces of *wh*-movement are subject to Principle C this leads to ungrammaticality.' (Puskás (1997:150)). If SCO is a constraint on A-bar movement, any type of A-bar movement should result in ungrammaticality when crossing a coindexed pronoun, c-commanding its A-bar trace. This prediction is confirmed for Swedish. In (22) I present Swedish data that show that Focalization patterns with *wh*-fronting when it comes to the SCO phenomenon:

(22) a. \* JAN<sub>i</sub> älskar han<sub>i</sub> t<sub>i</sub> (Sw)  
 JAN loved he  
 b. \* JAN<sub>i</sub> sa han<sub>i</sub> att Agneta älskar t<sub>i</sub>  
 JAN said he that Agneta loved  
 'It is JAN that he said that Agneta loved'

Topic constructions are all also sensitive to SCO. Examples concerning cases of SCO with Topicalization in Swedish are illustrated in (23):

(23) a. \* Jan<sub>i</sub> bjöd han<sub>i</sub> inte t<sub>i</sub> (Sw)  
 Jan<sub>i</sub> invited he<sub>i</sub> not  
 b. \* Jan<sub>i</sub> sa han<sub>i</sub> att Agneta skulle inte bjuda t<sub>i</sub>  
 Jan<sub>i</sub> said he<sub>i</sub> that Agneta would not invite

<sup>16</sup> See below for a refinement of this idea. In Puskás and Baunaz (2002) we make a distinction between two types of specificities in French, namely specificity that is associated with both existential presupposition and familiarity (see Enç (1991), Starke (2001)) and a notion of specificity which only encodes existential presupposition. We assume that Topics are associated with the first type of specificity, while Foci with the second type. Moreover Topics come with a slight fall-rise intonation and Foci with a pitch accent (focal stress). I assume that the same applies in the Scandinavian languages. See also Baunaz (in prep.)

c. \* Jan<sub>i</sub> sa Agneta att han<sub>i</sub> inte skulle bjuda t<sub>i</sub>  
 Jan<sub>i</sub> said Agneta that he<sub>i</sub> not would invite

In (23a), topic movement from the complement position of a main clause to the left of the clause, past a coindexed pronoun leads to ungrammaticality. The effect keeps its strength, no matter if the topic starts its life from an embedded lower complement position (23 b-c), and no matter where the coindexed pronoun sits, i.e., either in the subject position of the matrix clause (23b) or in the subject position of the embedded clause (23c). Note that this analysis perfectly applies to the examples with a contrastive focus in (22) and to the wh-fronting examples in (21).

In order to understand exactly what is the nature of the two operations in question, namely Topicalisation and Focalisation, it has been proposed in the literature that they are not sensitive to the same type of phenomenon: Topicalization and Focalisation must be distinguished when it comes to Weak Crossover effects (WCO).

There is a second type of crossover to which wh-fronting is sensitive. This is illustrated in (24) for Swedish:

(24) ?? Vilket fordoni hade dess<sub>i</sub> ägare inte tvättat t<sub>i</sub> på ett helt år (Sw)  
 which vehicle had its owner not washed for a whole year  
 (Platzack (1998:66), his (19b))

A wh-phrase cannot be bound by a pronoun: this is known as Weak-crossover (WCO). WCO however is not a Binding Theory problem and hence a Principle C violation cannot be advocated here, since the A-bar in (24) is not c-commanded by a pronoun. Foci are also sensitive to WCO, as (25) shows:

(25) a. ?? ÄLVAN<sub>i</sub> hade ätit sitt<sub>i</sub> blåbär, men inte trollen (Sw)  
 ELF-THE<sub>i</sub> had eaten his<sub>i</sub> blueberry, but not troll-the  
 b. ?? BLÅBÄRET<sub>i</sub> hade ätit dess<sub>i</sub> ägare t<sub>i</sub>, men inte hallonet  
 BLUEBERRY-THE<sub>i</sub> had eaten its<sub>i</sub> owner, but not strawberry-the  
 c. ??BILEN<sub>i</sub> hade dess<sub>i</sub> äger inte tvättat t<sub>i</sub> på ett helt år, (men däremot motorcykeln)  
 car-the had its owner not washed for a whole year, but there-against motorbike-the  
 'Its owner had not washed the CAR for a whole year, (as opposed to the motor bike)  
 (Platzack (1998:66), his (19c))

A focalised constituent cannot be bound by a coindexed pronoun, nor can its A-bar trace<sup>17</sup>. That is the same pattern as with *wh*-fronting.

What is now very interesting is that contrary to focalised constituents and *wh*-fronting, Topicalized XPs are not sensitive to WCO. This is shown in (26):

(26) a. Älvan<sub>i</sub> ska inte äta sitt<sub>i</sub> blåbär (Sw)  
 elf-the shall not eat his blueberry  
 b. Blåbäret<sub>i</sub> hade dess<sub>i</sub> ägare ätit t<sub>i</sub>  
 blueberry-the had its owner eaten  
 c. Bilen<sub>i</sub> hade dess<sub>i</sub> ägare inte tvättat t<sub>i</sub> på ett held år  
 car-the had its owner not washed for a whole year  
 (Platzack (1998:66), his (19a))

<sup>17</sup>Note that in (25) the trace is not bound by the pronoun, since this pronoun does not c-command it.

To sum up these patterns suggest, following current and recent works on the left-periphery, that in Swedish too, Topics and Focus do not pattern alike. This idea is reinforced when looking at some syntactic phenomena typical of Focus and wh-fronting and impossible with topicalization: Platzack (1998) discusses the following contrasts in Swedish, arguing that focus and wh-fronting give rise to Weak-Cross-Over effects, while topicalization does not: This suggests that Topicalization only involves DP-fronting, while Focalization involves something else: by analogy with wh-fronting, it has been said that Focalisation involves the same type of A-bar movement, namely quantificational movement. The WCO effect is then a test to identify quantificational chains. This sensitivity has been interpreted in the following way: Focus/*WH*-fronting involves quantificational A-bar chains, while Topics involve referential A-bar chains. In other words, Foci and Wh-phrases involve an operator, while Topics do not.

This suggests, once more, that the first element in XP position preceding the finite verb in any V2 clause can have at least 3 different status: (i) a 'subject' in the highest spec of the clause, namely [Spec, AgrsP], (ii) a topic or (iii) a Focus. All these three distinct elements display three distinct syntactic behaviours, hence should each occupy a distinct position<sup>18</sup>.

I propose that the Scandinavian minimal left-periphery has the following shape<sup>19</sup>, following Rizzi's (1997), (2001) cartography<sup>20</sup>:

(27) Force Top\* Focus Fin IP

[Spec, TopP] is the landing site for Topicalized constituent and the [Spec, FocP] is the position where contrastive Foci go. Hence a sentence like (19d), containing both a Topic and a Foci will have the following representation (28)<sup>21</sup>:

(28) [ForceP [TopP **Um Jólin** mun<sub>i</sub> [ FocP JÓN<sub>j</sub> [ FinP [Fin t<sub>j</sub> t<sub>i</sub> [ IP t<sub>j</sub> [ r° t<sub>i</sub> [ VP t<sub>j</sub> vanta peninga ]]]]]]]]

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<sup>18</sup> Note that another argument going against a uniform analysis of XP-fronting in the V2-construction (vs. Subject-V order) is given by the following structures: when forming a Yes/No question with a topicalized constituent, leaving the subject lower in the structure not accepted:

(i)	* Hafa í Ósló búið margir listamenn? have in Oslo lived many artists	(Ic) (Holmberg (1997:108), his (52))
(ii)	* Har verkligen han gjort det här? has really he done this	(Sw) (Platzack (1986:45), his (44a))
(iii)	a. Hade Erik köpte boken i Lund? Has Erik bought book.the in Lund	(Sw)
	b. * Hade i Lund köpte Erik boken? Has in Lund bought Erik book.the	
	c. ? Hade i Lund Erik köpt boken? Has in Lund Erik bought book.the	

Note that in (i) and (iii)b, the ungrammaticality can also be due to the subject being post-verbal. The degradation in acceptability in (iii)c is however sufficient to state the marginality of Yes/no questions with topicalized constituents. This deserves some works however and I leave it for future research.

<sup>19</sup> It is plausible that there is another TopP position between FinP and FocP, maybe reserved for post-verbal [+specific] subjects. But I will leave this aside for the time being, since I need more data on this topic.

<sup>20</sup> See Baunaz (2002) for discussion.

<sup>21</sup> Whether or not Foc° is filled by an operator freezing this position for head movement is left open, see section 3.3 for a tentative analysis.

The main goal of this section is simply to show that Topics and Contrastive Focus display different phonological and interpretative properties, which are syntactically encoded. This implies that a simple theory of V2 arguing in favour of V°-to-C° movement is not sufficient and a more articulated CP is in order. I adopt Rizzi's (1997) split-CP and propose that the fronted XP can land either in the Subject position, in a Focus position or in a Topic position. The first case concerns the neutral order (or what I called the 'unmarked' case), the second case reflects what is currently Contrastive Focalization: any XP can be fronted in that position, including the Subject. Recall that the Focus projection involves an Operator. Finally the topicalized constituent lands in the specifier position of a Topic projection.

I would like to propose that V2 constructions are only displayed by this type of clauses, i.e., V2 is a phenomenon applying only in Topic- and contrastive Focus-constructions, that is in marked sentences. This implies that neutral S-V-O sentences do not exhibit V2: the main verb being in second position must be kept separate from the V2 constraint (see below). Recall that another type of construction that can never display V2 in the Scandinavian languages is Embedded Indirect Questions. I claim that this construction explicitly displays the minimal movement the finite verb undergoes in Icelandic. In Embedded indirect Questions, the finite verb can never raise to left-peripheral positions, hence the contrast in (29):

(29)      Ég spurði...

            I asked...

a. ...af hverju Helgi hefði oft lesið þessa bók

            why        Helgi had often read this book

b. ??...af hverju þessa bók Helgi hefði oft lesið

            why        this book    Helgi had often read

(Vikner (1995:139), his (15b-d)

(29b) seems to suggest that the left periphery of embedded indirect questions cannot host topicalized constituents. As for this construction, I see two possible explanations: either the embedded CP is not split, meaning that in this type of construction the embedded CP is not unfolded, the *wh*-embedded constituent landing in the embedded [Spec, CP], C° being [+wh]. This solution is however not very convincing: How can we explain the splitting of CP in V2 constructions vs. its non-splitting in Embedded Indirect Questions? I must admit that I have no answer to that question<sup>22</sup>.

Another possibility would be to propose that the indirect embedded [Spec,FocP] is filled by the embedded indirect *wh*-element. Under the assumption that the Scandinavian left-periphery has the shape given in (1), namely

(1) Force Top\* Focus Fin IP

there is no position for any element to move to in between the Specifier of FocP and FinP, hence both topicalization and focalization are banned in this construction<sup>23</sup>. As for neutral

<sup>22</sup> Note that we face here the same configuration as English indirect questions. For a possible analysis of this fact, I refer the reader to Rizzi (1996).

<sup>23</sup>Note that there is a problem here: under the assumption that [+specificity] marks a constituent, what about the Norwegian examples in (i) (the same applies to Swedish):

(i) a. **Etter dette** vant heldigvis ikke alltid *en utlending* (No)  
after this won fortunately not any.longer always a foreigner  
b. **Etter dette** vant heldigvis ikke lenger *en utlending* alltid  
c. **Etter dette** vant heldigvis ikke *en utlending* lenger alltid

sentences, the finite verb moves to  $\text{Fin}^\circ$  to check the strong [V]-feature and the subject raises till the Specifier of  $\text{FinP}$  for EPP reason in Embedded Indirect Questions: this is what I will call independant  $\text{V}^\circ$ -to- $\text{Fin}^\circ$  movement, i.e., independent from  $\text{V}2$ .

Hence,  $\text{V}2$  is only an apparent phenomenon: the highest head position of the clause is plausibly occupied by the finite verb; the main verb in linear second position is not necessarily in a Spec-Head relationship with any 'topicalized' constituent. Most important is then the question of the trigger for  $\text{V}$ -movement in  $\text{V}2$  clauses.

### 3. $\text{V}2$ : A TENTATIVE ACCOUNT

#### 3.1. Theoretical Background: the SIP (Bobaljik (2000))

Under Bobaljik and Práinsson (1998) (henceforth B&T) and Bobaljik's (2000) analyses of clause structures, it is viewed that UG does not principle the presence or absence of functional projections above  $\text{VP}$ . This assumption is mainly suggested on empirical grounds: it is a fact that what distinguishes Icelandic from Swedish is (i) overt finite verb movement in Icelandic (i.e., independent  $\text{V}^\circ$ -to- $\text{I}^\circ$  ( $\text{Agrs}^\circ$ ) raising) vs. no verb movement in English, (ii) a very rich inflectional paradigm in Icelandic vs. a quite poor inflectional paradigm in English (see section 2.2 for the Icelandic and Swedish paradigms).

How can we find an explanation that accounts for both syntactic and morphological phenomena? Bobaljik (2000), following B&T (1996) proposes the Split IP parameter (SIP)<sup>24</sup>:

(30) *The Split IP Parameter (SIP)*

Languages may vary syntactically as to whether they have a pre-Pollockian, unsplit IP or an IP containing Agreement Phrases distinct from Tense.

(Bobaljik (2000:12))

Under this proposal, languages vary whether they have an unsplit IP (31a) (English) or a Split IP (31b) (Icelandic):

(31) a.  $\text{IP} > \text{VP}$   
 b.  $\text{AgrsP} > \text{TP} > \text{AgroP} > \text{VP}$

Implicitly, by this Hypothesis they mean that there must surely be a correlation between Syntax and Morphology:

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d. ? **Etter dette** vant heldigvis ***en utlending*** ikke lenger alltid  
 e. **Etter dette** vant ***en utlending*** heldigvis ikke lenger alltid

(from Nilsen 1998: 19-21, his (43), (47))

It seems that in the Scandinavian languages, subjects can occupy various post-verbal positions, the  $\text{V-S}$  order being interrupted by various adverbs. There is constancy however: the closest it is from the finite verb, the more specific it is. Under the assumption that Topics are [+specific], it would be tempting to assume that the closest to the finite verb in (i) the subject is, the more [+specific] it is and then ends in the Specifier of a lower  $\text{TopP}$  position in the structure I proposed in (1), namely between  $\text{FocP}$  and  $\text{FinP}$ . If this assumption is correct it would be worth ensuring that other elements than subjects cannot topicalize in that position, since otherwise the whole argument about embedded indirect questions would turn to be incorrect. I have unfortunately not investigated this part of the left-periphery in the Scandinavian languages.

<sup>24</sup> Contra Chomsky (1995) that states that functional features project independent phrases, i.e., that even languages without any overt morphological  $\Phi$ -features have there lexical items ( $\text{V}^\circ$ ,  $\text{N}^\circ$ ,  $\text{A}^\circ$ ) generated with their inflectional 'affixes' and must then move to functional positions in order to check these features.

Following a suggestion from David Pesetsky, Bobaljik and Jonas 1993 explored the possibility that the distinguishing characteristic of the morphology should not be formulated in terms of counting fine distinctions in the paradigms involved, but rather might have to do (...) with the inventory of functional elements or projections that a language might take use of. Bobaljik (2000:12)

but this correlation is not causal: descriptively it can help to look at paradigms in a given language, to compare these paradigms with paradigms in other (related) languages, but this is surely not sufficient to account for verb Movement to  $I^0$ <sup>25</sup>.

Stating that the presence or absence of ArgPs is a matter of parametric variations is not straightforward. It implies some important modifications from the standard analysis (of Chomsky (1995), for instance): for instance, in terms of locality (the most local configuration is 'sisterhood', and local relationships are checking configurations). This implies that in terms of Checking Theory, checking can still be achieved by Spec-Head relationships, but not only: 'sisterhood' is also a checking configuration, since checking is seen as a local process: 'This assumes that the head and its maximal projection share features (or are not distinct), an assumption implicit in work appealing to Specifier-Head checking.' (p.13)). According to Bobaljik (2000:12) this has a lot of 'theoretical' consequences:

(32) Consequences of a Split Infl:

- a. More specifier positions in a Split-Infl than in an unsplit Infl
- b. Non-local relations among "Infl-type" heads in a Split-Infl, and
- c. More terminal nodes in a Split Infl than in an unsplit-Infl.

This theory has also a lot of empirical coverage: it accounts for Multiple subject positions in Icelandic, Transitive Expletive Constructions and Object shift of full DP arguments (Ic)<sup>26</sup>. All these phenomena seem to be related to one parametric variation, namely, whether a language has or does not have a Split IP. So Swedish does not have phenomena as those noted for Icelandic: Swedish clause structure is then unsplit<sup>27</sup>.

Bobaljik (2000) refutes the idea that Syntax is driven by Morphology for the empirical reasons just sketched above (and see fn.25). However he cannot object that the RAH must be abandoned: on the contrary, he proposes to revise the hypothesis in the following way:

(33) If a language has sufficiently rich morphology then it has verb raising

(Bobaljik (2000:15))

<sup>25</sup> Against a theory that states: 'If syntax is driven by morphology, then the absence of the relevant morphology must correlate with the absence of the relevant syntax' (Bobaljik (2000: 25)). Bobaljik (2000) shows that it is not because a language has a poor morphological system, i.e., has very few morphological distinctions, that the finite verb cannot move. To this, he provides empirical examples from dialects and diachronic variations that couldn't be explained in previous theories of verb-movement, but that can now be accounted for. I refer the reader to Bobaljik (2000) for details.

<sup>26</sup> '5 properties of the Germanic languages which generally cluster together are diagnostic of a split IP (...) none of these properties "causes" the IP to split any more than puddles on the street 'cause' rain.'

(i) a. the availability of two subject positions between CP and VP  
 b. the possibility of transitive expletive constructions  
 c. the availability of a VP-external derived object position  
 d. obligatory raising of the verb to Infl in non-V2 environments  
 e. the possibility of multiple inflectional morphemes on the verb stem' (Bobaljik (2000:14))

<sup>27</sup> Under the assumption that in the Norwegian examples in (i), fn 23. The multiple subject positions are in between FocP and IP. Still this deserves more work.

According to B&T and Bobaljik (2000) rich Morphology does not trigger obligatory movement<sup>28</sup>. It can, but it is not the necessary condition for movement to take place. While B&T propose that maybe [+specificity] triggers overt NP-movement, Bobaljik (2000) is not very explicit concerning what are the triggers for movements, apart from the undelying syntactic structure: '...the parametrization involved is syntactic, and the morphology is but a reflection of the underlying syntax' (id.p.25). On one hand, if a language has an unsplit IP, it won't display V°-to-I° movement, because VP will already be in a checking relation (sisterhood) with I°, and so does V°<sup>29</sup>; on the other hand, languages that have a Split IP will have obligatory V°-to-Agr° raising. But this movement is not related to rich morphology, since languages with relatively poor morphological agreement such as Hallingdalen (a dialect of Swedish) do in fact induce verb raising.

This means that Swedish has an unsplit IP, while Icelandic has a Split IP. In the next section I will refine this analysis and propose that V2 has nothing to do with V-movement in both Swedish and Icelandic.

### 3.2. On the Scandinavian syntactic v-raising: EPP-checking is obligatory V°-to-Fin°

With B&T's framework in mind, I would like to investigate the nature of verb-raising in the two Scandinavian languages at stake.

As a starting point I follow Haegeman (1996) and adopt the idea that Fin° attracts the finite verb in V2 clauses, at least as a first post inflectional-checking obligatory movement<sup>30</sup>. She claims that

a finite root Fin° attracts the finite verb. (...) The attraction can be stated in Minimalist terms of strong vs. weak features (Finite Fin° has a strong V-feature). (...) Moreover, as the highest V-related head in the structure, I propose that Fin° also has a strong specifier feature, i.e., the Extended Projection Principle applies to Fin° and Fin° requires a specifier. (Haegeman (1996:143-144))

Roughly, V2 languages should have a strong V-feature in Fin°, which overtly attracts the finite verb to this position. This idea has also theory-internal motivation, since Fin° is the finiteness head. Its specifier hosts the preposed constituent. Under Haegeman (1996) approach, DP-raising is to [Spec, AgrsP] and [Spec, FinP] is the position of the fronted XP:

Unlike AgrS, which requires a DP type specifier, I tentatively propose that the specifier of Fin° may be any category. In root clauses the finite verb moves to Fin°. One maximal projection will move to (and sometimes through), the specifier of FinP to satisfy the EPP associated with finite Fin°. The relevant maximal projection may, for instance, be a subject, a topicalized constituent, or a *wh* constituent. (id)

Recall that I distinguished between at least three constructions involving V2 (or apparent V2), arguing in favour of three specific positions for each distinct V2 position.

<sup>28</sup> (33) coupled with the SIP leads Bobaljik to the following assumptions:

the maximal number of overt inflectional affixes which may surface on the finite verb in a given languages are constrained by the structure. (...) in order to have more than identifiable inflectional affix on a verb stem a language must have a split IP. (...) no implication is made from morphological paucity- if the inflected verbs of a language never show more than one affix, it does not follow that this language necessarily has an unsplit IP. Bobaljik (2000:13-14)

<sup>29</sup> B&T (1998:39): 'The features of a projection are those of its head'.

<sup>30</sup> We will see later that the finite verb must be higher in certain constructions, involving a topic and a Focus projection.

Subjects are under the Specifier of the EPP-head, namely [Spec, FinP], Topics are located under the Specifier of a Top-head, Foci are in [Spec, FocP]. In this section I would like to argue that V-raising to Fin<sup>o</sup> is syntactically obligatory in each of these constructions in the Scandinavian languages.

The unmarked order is the Subject-Verb-Object order, i.e., without any special intonation on the linear first constituent of the clause. I assume, following Haegeman (1996) among others, that the Scandinavian main verb raises to Fin<sup>o</sup> in order to check some strong V-features and that the position the subject lands in is the specifier of FinP. This DP-raising is motivated for EPP-reasons. In Icelandic Nominative-Accusative constructions, the DP in subject position agrees in Person and Number with the finite verb and bears Nominative case<sup>31</sup>. This is shown in (34b). I take the common analysis that the same applies in Swedish even if it is not morphologically realised (see the paradigm in (12)). (35a-b) illustrate the relevant representations for (34).

(34) a. Älvan äter blåbäret (Sw)  
       elf-the eat blueberry  
       b. Álfurinn borðar bláber (Ic)  
       elf-the eat-3p.sg blueberry  
       'The elf eats the blueberry'

(35) a. [FinP Älvan<sub>i</sub> [Fin<sup>o</sup> äter<sub>v</sub>[IP t<sub>i</sub> [P<sup>o</sup> t<sub>v</sub> [VP t<sub>i</sub> [V<sup>o</sup> t<sub>v</sub> ] blåbäret ]]]]]]

Verb-raising to the EPP-head Fin<sup>o</sup> is feature-triggered and obligatory in V2 constructions. On its way to Fin<sup>o</sup> the finite verb passes through I<sup>o</sup>. I assume that it stops there and that checking of some morphological null φ-feature(s) (Ø) certainly takes place<sup>32</sup>. Fin<sup>o</sup> attracts the verb to its head and checking of strong [V] is overtly achieved. The same applies to Icelandic, modulo that the finite verb has to check Agr- and T-features against appropriate heads before landing under Fin<sup>o</sup>:

b. [FinP Álfurinn<sub>i</sub> [Fin<sup>o</sup> borðar<sub>v</sub>[AgrsP t<sub>i</sub> [Agrs<sup>o</sup> t<sub>v</sub> [TP t<sub>i</sub> [T<sup>o</sup> t<sub>v</sub> [VP t<sub>i</sub> [V<sup>o</sup> t<sub>v</sub> ] bláber ]]]]]]

It is worth noting that the Subject in Scandinavian main clauses does not move higher up in the C-system than its right edge. This is expected under Economy: there is no trigger for it to move, hence it lands in [Spec, FinP]<sup>33</sup>. I won't discuss here the reason for DP-raising to [Spec, FinP], but let's say that this movement is due to some EPP/OCC-feature triggering the obligatory presence of a Specifier in that position. This suggests that this is an A-movement and that [Spec, FinP] is an A-position in both Icelandic and Swedish. I have unfortunately no better solution for the time being<sup>34</sup> and I am obliged to take it as a working hypothesis. As it is not the main point of this paper to focus on the IP-domain (be it split or not) I will now turn to the marked case in Scandinavian languages.

<sup>31</sup> There are well-known exceptions however, which cast doubts on traditional Agreement and Case Theories. See Baunaz (2001) which is a case study on the Quirky Construction in Icelandic.

<sup>32</sup> Of Tense and Agreement in I<sup>o</sup>, according to B&T.

<sup>33</sup> See Zwart (1997a,b) for an idea along these lines.

<sup>34</sup> Note that within this framework, DP-raising through [Spec, TP] and [Spec, AgrsP] is not motivated anymore: the occurrence of Quirky Subjects in Icelandic seems to suggest that DP-raising is not Case-driven, structural case positions being occupied by either a Quirky argument or a structural case not in its position: [Spec, AgrsP] may be occupied by an Accusative Subject and [Spec, AgroP] by a nominative object. Note furthermore that these quirky arguments can never agree with the quirky subject (agreement is possible only in particular contexts, but only in Number with a Nominative object, and this only in Dat-Nom constructions). See Baunaz (2001) for a tentative analysis (and references cited there).

Note that this analysis goes against Haegeman (1996) since it is proposed there that the XP -that is fronted lands in [Spec, FinP]. I would like to claim that it is indeed the case in neutral Subject-Verb order, but things are much more complicated when it comes to XP-V-Subject order, i.e. marked cases. One question that comes to mind, for instance is 'How to explain movement of the finite verb higher in the structure?' It is indeed difficult to motivate V°-to-Top° or V°-to-Foc°: These two heads share the property of hosting the finite verb, at least. But it is not true that each of these heads need to be lexicalized: when both a TopP and FocP are projected, the finite verb only shows up under the highest head position (namely, in V2 position):

(36) **Jón** mun UM JÓLIN koma heim, en ekki um páskana  
John will AROUND CHRISTMAS come home, but not at easter

In (36)  $\text{Foc}^\circ$  cannot be lexicalized since no phonologically overt element does show up under this head. Moreover under the assumption that projections in the Inflectional domain and projections of the C-domain do not share the same properties, it would seem awkward to claim that head movement to any inflectional projections and head-movement to the C-domain be the same:  $X^\circ$ -movement to the I-system and  $X^\circ$ -movement to the C-system should be distinguished, as A and A-bar movement are. Recall that in certain languages,  $\text{Top}^\circ$  can never be filled by a lexical element (Hungarian) and that in others it must, the same applies to  $\text{Foc}^\circ$ : in Gungbe, for instance, it must always be filled by a focus particle. Lexicalization seems to be a necessary requirement of  $\text{Foc}^\circ$  in Gungbe and in Hungarian, while not of  $\text{Top}^\circ$ . In English, neither  $\text{Top}^\circ$ , nor  $\text{Foc}^\circ$  must be lexicalized. What about Scandinavian?

Related to these questions are the following ones: What would be the trigger of the finite verb-raising till  $\text{Top}^\circ$  or  $\text{Foc}^\circ$ ? Why should the trigger of V-raising be the same in the two structures in questions? What is the difference between the two heads? Is there any difference between the two movements? These questions are very difficult to answer in syntactic terms and I have to confess that I have solutions to none of them in these terms. From this point, I see two possible ways worth exploring: either topicalization and focalization can be seen in a pure kaynian style, with successive movements leading a word order rearrangement, but with no feature-checking trigger, or we can understand V2 as a PF-phenomenon. The first option has already been explored by Nilsen (2001), and I want to investigate the second option. I would like to propose that verb raising of the Scandinavian finite verb to the left-periphery is not to be understood in terms of lexicalization of either  $\text{Top}^\circ$  or  $\text{Foc}^\circ$ , but involves some PF requirement.

### 3.3. PF movement of the Scandinavian finite verb

### 3.3.1. Against Boškovic 2001 and Holmberg 1997

In this section I would like to propose that V2 is a phonological phenomenon, independent of syntactic V-raising to  $\text{Fin}^\circ$ . This leads me to assume that  $\text{V}^\circ\text{-to-}\text{Fin}^\circ$  is a phenomenon applying in Narrow syntax, while  $\text{Fin}^\circ\text{-to-}\text{Foc}^\circ$ , or  $\text{Fin}^\circ\text{-to-}\text{Top}^\circ$  is a PF requirement. Although I do not follow them, my proposal is mainly influenced by some recent accounts of Scandinavian Stylistic Fronting (SF) and Object Shift (OS) advocated in Holmberg (1997a,b), Boškovic (2001) and Bobaljik (2001) (see also previous work). I will first discuss Boškovic (2001) and show that the idea of a phonological merger is not adequate when it comes to V2 in Icelandic. Then I will discuss Holmberg (1997a,b) and hope to show that his system can be adopted, with some modification related to the movement of the finite verb in the

Scandinavian languages. Here I will only focus on Icelandic SF and leave the discussion of OS aside<sup>35</sup>.

SF is a phenomenon that has been widely studied in the realm of Icelandic Syntax during the last decades (see Jónsson (1991), Maling (1980/1990), among others): it generally affects a category (generally a head, but sometimes an XP; generally a finite verb, but sometimes the negative constituent *ekki* 'not') and fronts it to the left of the clauses (37). A fundamental requirement of SF is that there is no lexically realised subject (38): this is what is called the subject gap requirement<sup>36</sup>. Note that it has 'no effect on LF' Holmberg (1997a):

(37) a. Hver heldur þú að **stólið** hafi hjólinu? (Ic)  
           who think you that stolen has the.bike  
           'Who do you think has stolen the bike?'  
   b. **Falið** hafa margir hermenn í þessu stríði  
       died have many soldiers in this war (Holmberg (1997a, his (1b-c))))

(38) a. \* Ég held að Halldór **ekki** hafi séð þessa mynd (Ic)  
       I think that Halldor not has seen this film  
   b. \* Ég held að **ekki** Halldór hafi séð þessa mynd  
   c. Ég held að Halldór hafi ekki séð þessa mynd  
       'I think that Halldor has not seen this film' (Boškovic (2001:77), his (2))  
   d. Þetta er maður sem ekki hefur leikið nítíu leiki  
       this is the.man that not has played ninety games  
       'This is a man that has not played ninety games' (Boškovic (2001:76), his (1a))

In order to account for such a phenomenon, Boškovic proposes that

'the subject gap restriction can be accounted for in a principled way if the stylistic fronting construction involves a phonologically null head which is lexically specified as being a verbal affix'. Boškovic (2001:78).

Relying on Bobaljik's (1994) account of *Do*-support in terms of a morphophonological rule applying at PF, Boškovic proposes that there is a phonological merger between 'an affix and its host in PF under adjacency' (78). Phonological merger is blocked if an overt phonological element is present. Hence when SF applies, the subject cannot be phonologically present, since it would block merging of the phonologically null head with the fronted element. Boškovic's analysis presupposes that SF is a syntactic phenomenon, while the subject gap restriction is a PF condition. Hence movement or fronting of an element to the front of the clause in SF contexts is a syntactic checking feature requirement (feature that he calls [F]). If the base generated lexical item has in its inventory of features the relevant feature [F], it would then move and check it: 'if F is inserted into the structure (...) it obligatory triggers stylistic fronting. When F is not inserted into the structure (...), stylistic fronting does not, and cannot take place.' (Boškovic (2001:81)).

Holmberg (1997) has a slightly different analysis of SF: he claims that SF is in fact movement of phonological features only. Syntactic or formal features being stranded lower in the clause: 'properties of SF are due to the fact that SF s movement of only phonological features, with no formal or other features pied-piped, in order to satisfy a "phonological

<sup>35</sup> I am using Boškovic analysis only to exclude the idea that V2 is an effect of a morpho-phonological rule. This is not an attempt to discuss his framework.

<sup>36</sup> Some researchers say that there is a phonologically null element (*pro* or a trace), others prefer to argue in favour of the absence of that element, hence the 'subject gap' requirement.

EPP'" (Holmberg (1997a)). The framework Holmberg assumes is that of O'Neil and Groat (1996) where there is no post-Spell-Out PF component, a 'single output model': phonological and formal features are rearranged in syntax and then transferred to the Interface levels, after Spell-Out.

When it comes to the V2 phenomenon, I hence only see two possibilities: either there is a sort of PF-merger *à la* Boškovic (2001), influenced by Bobaljik (1994), (1995), or there is a phonological feature checking requirement *à la* Holmberg (1997). I think that postulating that PF has certain responsibility when it comes to V2 is a valid claim, since the trigger for verb movement cannot be syntactic, nor semantic: finite verb movement has no effect at the Conceptual-Intentional interface. However I will adopt neither Boškovic's, nor Holmberg's framework, even if I am largely influenced by their ideas. First I think that postulating a phonological merger between a phonologically null head 'lexically specified as being a verbal affix' and the finite verb in Icelandic misses a lot of potential empirical coverage and is then inadequate<sup>37</sup>. In the following discussion, I will show that the idea of phonological merger to account for the V2 phenomenon is inadequate. Consider:

(39) a. Jón mun vanta peninga um jólín  
Jón will lack money around Christmas  
b. **Um jólín** mun Jón vanta peninga  
Around Christmas will Jón lack money

(39a) is the neutral order: the Subject *Jón* precedes the finite verb and the object is post-verbal. No special intonation is required on any of the elements involved in this sentence. Furthermore there is no special interpretation. The finite verb is spelled-out in that position. Conversely the (b) sentence is marked: syntactically the adjunct PP *um jólin* has been fronted to the left of the clause. Prosodically the fronted element receives some particular intonation which distinguishes it from its unmarked intonation in (39b). Interpretatively it is a Topic.

Under the analysis sketched in the previous sections, *mun* should raise from  $T^\circ$  to  $\text{Fin}^\circ$  for checking reason (probably for D°/EPP/OCC checking, but this not totally clear). That it moves higher seems to be obvious: under a Split-CP approach, the subject moves to the specifier of  $\text{FinP}$  and a Topicalized constituent undergoes A-bar movement to the left periphery. Hence the finite verb should raise to a higher head position since it is adjacent to the fronted constituent and appears to the left of the subject. Assuming Boškovic's proposal of the phonologically null head, call it *F* 'which is lexically specified as being a verbal affix', I could suggest that the finite verb moves higher up in the left-periphery to this phonologically null head. Consider

(40) a. \* **Um jólin,** Jón mun vanta peninga (Ic)  
           Around Christmas, Jón (A) will lack money (A)  
   b. \* **Um jólin,** peninga mun vanta Jón  
           Around Christmas, money will lack Jón

This idea would perfectly account for the preceding ungrammatical sentences in (40): between the following null head (maybe  $\text{Top}^\circ$ , maybe  $\text{F}^\circ$ , located below  $\text{TopP}$ ) and the finite verb, a phonological element occurs: in (40a), *Jón* and in (40b) *peninga*: phonological merger is then blocked, as expected.

At this point comes the question of the position of this phonologically null head. There are at least two possibilities: it could be located under  $\text{Top}^\circ$ , meaning the  $\text{Top}^\circ$  has the feature

<sup>37</sup> The examples are in Icelandic, but recall that when it comes to V2, I assume that the same phenomenon applies in the Mainland Scandinavian languages.

[+F] added to [+specificity]<sup>38</sup> or it can be located below  $\text{Top}^\circ$ , but higher than  $\text{Fin}^\circ$ . The second possibility seems to be the best one when we look at Contrastive Focus constructions, as in (41):

(41) Um JÓLIN      mun Jón vanta peninga, en ekki um páskana  
around CHRISTMAS will Jón come home, but not at easter

(41) suggests that the finite verb is merged with a phonologically null head  $F^\circ$  either in  $\text{Foc}^\circ$  or below  $\text{Foc}^\circ$ . The problem here is the same as in topic-constructions. There is another potential problem to this analysis however. Consider:

(42) **Jón** mun UM JÓLIN      koma heim, en ekki um páskana  
John will AROUND CHRISTMAS come home, but not at easter

Under this approach, (42) is not a problem: it is indeed argued that merging of the null head with the finite verb is not blocked by adjuncts, since adjuncts are 'exempted' from blocking PF-adjacency: adjuncts

'can be inserted into the structure acyclically and shows that given the assumption and the multiple spell-out hypothesis, according to which the phonology has multiple derivational access to the syntax, the [adjunct] adjacency problem disappears'. Boškovic (2001:89)

If this analysis is correct, (42) is indeed unproblematic, since *UM JÓLIN* is not a blocking element for merging of the null head ( $\text{Top}^\circ$ ?) and the finite verb. This is however unwilling and the following example seems to go in the opposite direction:

(43) **Um Jólin**      mun JÓN vanta peninga, en ekki Sigga  
Around Christmas will JÓN lack money, but not Sigga

The grammaticality of (43) is not expected, since *JÓN* is an argument and not an adjunct: hence it should block merging<sup>39</sup>. Using Boškovic's analysis for explaining V2 and postulating a phonological merger is not appropriate however: it predicts that V2 is a syntactic phenomenon, an assumption that I want to avoid, since there seems to be no trigger for Verb-raising from  $\text{Fin}^\circ$ -to- $\text{Top}^\circ$ , or from  $\text{Fin}^\circ$ -to- $\text{Foc}^\circ$ . Moreover, if merging of a phonological null head with the finite verb takes place, there should be some reason: Boškovic's account of SF involves the idea that merging is of the null head 'which is specified as being a verbal affix' with the verbal element. SF is overt movement to the [F] head, the subject remaining phonologically null:

'...elements affected by stylistic fronting move to a functional projection right above IP, whose head, call it F, is a verbal affix, which must merge under PF-adjacency with a verb' (most precisely, finite verb, given that stylistic fronting cannot occur in infinitives.) (id. 79)

<sup>38</sup> See Baunaz (2002) for a claim that  $\text{Top}^\circ$  has a feature [+specificity] to be checked in the Scandinavian languages. See also Puskás (2001).

<sup>39</sup> Note that if we adopt a Multiple Spell-out analysis, it should be able to assume that the syntax transfers information to PF before Focus-insertion to the derivation. In this case, (43) is expected. Why it should be so, I have no idea. Hence I will not continue in this approach.

This analysis works perfectly when explaining the Affix Hoping and the *do*-support phenomena in English. In a way, this null head is the  $\text{Fin}^\circ$  with the strong [V] that Haegeman (1996) talked about: if these two heads, independently motivated, have the same properties, it would be very weird to postulate two distinct heads fulfilling the same function: hence it is enough to postulate one head. So the question that comes to mind is what prevents the finite verb from moving to  $\text{Fin}^\circ$  in (38b) and what motivates *ekki* 'not' to raise to  $\text{Fin}^\circ$  in (44):

(44) Þetta er maður sem ekki hefur leikið nítíu leiki  
 this is the man that not has played ninety games  
 'This is a man that has not played ninety games' (Boškovic (2001:76), his (1a))

In this case, merging of a verb affix and *ekki* seems unmotivated. Furthermore this merging is in a way very close to the notion of 'Agree' in Minimalist terms, with the relevant difference that no phonologically overt elements can intervene between the phonological null head and the  $\text{V}^\circ$ : the question that comes to mind is then if Agree is in order, why does raising apply? I leave these questions concerning SF apart. Concerning V2, it is clear this analysis is not adequate, since  $\text{V}^\circ$ -raising to  $\text{F}^\circ/\text{Fin}^\circ$  is not sufficient to account for topicalized/focalized constructions: it seems that my analysis and Boškovic's are then not compatible.

According to Holmberg, what triggers SF is a feature [P] located in a higher projection between C and T triggering phonological features [or the phonological matrix] to raise. The projection to which it moves is what he calls, following Kiss (1996) TopP<sup>40</sup>.

Holmberg's proposal is very intriguing and I would like to propose more or less the same to account for the V2 phenomenon. Obviously the whole idea about a "phonological EPP" cannot be advocated here, since V2-constructions have overt subjects realised, presumably minimally in [Spec, FinP] and so the trigger for [P]-raising should be remodelled. Furthermore my task is much more complex to achieve than in Holmberg's framework, since the C-system contains at least two more projections to which the [P] feature can be located: transposing his framework to mine, let us say that his TopP corresponds roughly to FinP, whose Spec can host any XP of any category (it then is not an EPP-position, in my sense, but it is in Haegeman's). Hence I will only take into account the idea that there must be a [P]-feature that triggers Verb movement to the linear highest head position of the clause in the Scandinavian V2 clause, however I will slightly modify this idea, since it seems difficult to locate the exact position of the [P]-feature: it can occupy either  $\text{Foc}^\circ$  or  $\text{Top}^\circ$ . Note that  $\text{C}^\circ$  should not be able to host the finite verb in V2 constructions, since in EV2 it is filled by the complementizer *að* in Icelandic or *att* in Swedish. Another problem that this theory does not resolve is the fact that in the Top-Foc construction in (42) the finite verb moves to  $\text{Top}^\circ$  and not to  $\text{Foc}^\circ$ ; hence the questions are: why is it that the verb can potentially raise to two different heads, namely  $\text{Foc}^\circ$  and  $\text{Top}^\circ$  and how can it skip  $\text{Foc}^\circ$  in (43)?

### 3.3.2. V2 is a stylistic phenomenon: on [P]-checking at PF

I would like to propose that the Icelandic (and Swedish) V2 constructions are in fact mainly stylistic: recall that more than 70% of the Scandinavian sentences are Subject-prominent. This analysis suggests that the neutral order S-V-O, without any special intonation, nor interpretation, is not a V2 clause. These clauses must be analysed as syntactic V-raising to  $\text{Fin}^\circ$  and DP-movement of the Subject to its Spec, because of EPP. Topic-and Focus-constructions involve syntactic verb-movement to  $\text{Fin}^\circ$ , as in neutral constructions. The subject shows up in its specifier. Then an element is either topicalized or focalized: be it an

<sup>40</sup> Which is not really the same projection advocated here for Topics, it is more a 'Subject of Predication' position than a TopP à la Rizzi (1997).

argument or not, it is fronted to the left-periphery of the clause, yielding (39b) and (41), for instance.

The analysis that I would like to investigate is more in line with Holmberg's (1997). For some stylistic constraint applying at PF, the phonological features of the finite verb raise to  $\text{Top}^\circ$  or  $\text{Foc}^\circ$ , stranding the syntactic element in  $\text{Fin}^\circ$ . This movement is, in a way, syntactically related, meaning that PF-movement is in fact motivated by feature-checking<sup>41</sup>. Recall that this presupposes, following Chomsky (1995), that within the Lexical Array (LA) the lexical item (LI) comes with all its various features, namely syntactic, phonological and semantic; features that it would need to check during the derivation. This idea predicts that in neutral clauses (S-V-O unmarked cases), [P] is checked as a free rider against  $\text{Fin}^\circ$ .

This suggests that PF-head movement goes on the following way: after syntactic verb movement takes place for formal feature checking<sup>42</sup>, I propose that the finite verb can either stay within the clause as in neutral sentences, or move to the left periphery when CP is activated. This is not really a choice, but depends on what kind of feature(s) it still needs to check, namely if it needs to check [P] or not. Recall that under our hypothesis, V2 only applies to marked clauses: marked clauses as V-raising to the left-periphery are triggered for phonological reasons. Recall that Topics in Icelandic, as in Swedish, must receive some intonation, distinct from the neutral intonation assigned to any constituent in neutral constructions. In Top-Foc constructions, the same applies. The phonological features of the finite verb move to  $\text{Top}^\circ$  for PF's sake.  $\text{Foc}^\circ$  remains phonologically empty, why this should be so I have no clear idea: maybe for pragmatic reasons: the oldest information is the information on which the speaker insists. Note that the process advocated here is partly syntactic, since it involves movement of an element to a syntactic position, namely either  $\text{Top}^\circ$  or  $\text{Foc}^\circ$ .

From the beginning of this paper, I am treating both  $\text{Top}^\circ$  and  $\text{Foc}^\circ$  equally. In the next section, I will show that this is not the right path to follow. This idea will be refined.

### 3.3.3 *A refinement: the finite verb never moves to $\text{Foc}^\circ$*

Building on a work still in progress (see Puskás and Baunaz (2002)), I would like to propose that V2 involves three kinds of operations: syntactic, semantic and phonological. I would like to propose that the Verb-raising in Scandinavian is partly phonological and this accounts for V-adjacency with the fronted XP in these languages.

Suppose now that there are two types of EPP-features: (i) an obligatory EPP-feature and (ii) an optional EPP-feature. (i) triggers the subject to move to the highest specifier of the IP, namely  $\text{Fin}^\circ$  in the cartography line of reasoning. This is what I would call the syntactic EPP-feature and is not to be considered differently to what the traditional EPP-notion encodes. (ii) is also a syntactic feature, but has a distinct function yielding distinct movement-types. First it is located under the highest semantico-syntactic head of the CP. Recall that I argued that V2 XP movement is a requirement of the informational level, i.e., an XP can either be topicalized or focalized and lands in one or another position within the Split-CP *à la Rizzi* 1997. These positions involve distinct syntactic heads, each having distinct semantics ([+specific/+Top], for TopP and [+presupposition/+Foc] for FocP)<sup>43</sup>, and distinct intonational patterns (a fall-rise

<sup>41</sup> Recall that Holmberg's framework explicitly suggests that he adopts 'a 'single output model' (...), where the syntax includes operations moving from formal and phonological features, subject to the MLC, and where the output is an LF-like representation, which is input to Phonology (operations on individual phonological features) and Semantics (operations on semantic features)' (Holmberg (1997a)).

<sup>42</sup> Checking of [-Interpretable]-features in syntax, see Chomsky (1995).

<sup>43</sup> With slight modification which will appear soon in the core text, I would like to think of these projections more or less as Beghelli (1995) among others thought of the functional projections hosting quantifiers. He proposes that every type of QPs moves to the specifier of a distinct functional projection: there are as much

intonation for Topics and a pitch accent for Foci). These features all go together. If one is dropped, there is syntactic change. Optional-EPP is a feature present only when an information-related head is available, namely when a special information structure is activated. The only requirement this feature involves is that its specifier be filled<sup>44</sup>. This seems to suggest that both  $\text{Top}^\circ$  and  $\text{Foc}^\circ$  behave in the same way, which is partially true.

What attracts the finite verb is however not the optional-EPP mentioned above: this feature only ensures that the syntactico-semantic projections  $\text{TopP}$  and  $\text{FocP}$  have their specifier filled. In Scandinavian, however, it is not sufficient for V2 to apply: something else needs to be added. I would like to propose that a special phonological feature, call it [P] and deprived of semantic content, attracts the finite verb to  $\text{Top}^\circ$  only, activating the V2 specific intonation. When the CP-field is activated, [P] comes then together with a [+specific/+Top] -feature. The reason why adverbs cannot occur between Topics and the finite verb is immediately accounted for: Topics and finite verbs are adjacent and cannot be separated; they are part of the same projection. It is important to stress that the syntactic, semantic and phonological features are independently related. They form a block and cannot survive independently from each other without leading to different interpretation, syntax and phonology. Crucially [P] only occurs in one of the two heads in the left periphery, triggering verb-movement to  $\text{Top}^\circ$  and never to  $\text{Foc}^\circ$ : I have found no  $\text{Foc-Top}$  orders, but plenty of  $\text{Top-Foc}$  constructions. This seems to indicate that  $\text{Top}^\circ$  and  $\text{Foc}^\circ$  do not behave identically: this is due to the fact that  $\text{Foc}^\circ$  hosts an operator, while  $\text{Top}^\circ$  does not. We can understand this constraint by saying that only  $\text{TopP}$  needs to be fully filled, namely both its specifier and its head, when both informational projections are activated, while  $\text{FocP}$  does not, since  $\text{Foc}^\circ$  comes to be an operator and binds a variable inside the clause. Plausibly then in  $\text{Top-Foc}$  constructions, the focalized constituent stays within the clause and is assigned its Focus interpretation/stress by Agree, later in the derivation. This is never available for Topics<sup>45</sup>, since topics are not operators and then, [P] is available. Hence  $\text{Foc-Top}$  constructions are ruled out, because  $\text{Foc}^\circ$  has neither [P], nor optional [EPP]-feature: that is why Foci are *in situ* when a Topic is involved. Where is the finite verb then? I would like to claim that  $\text{Foc}^\circ$  selects for a functional projection, which hosts a head with the [P]-feature. The finite verb in such constructions undergoes PF-movement to a functional head located between  $\text{FocP}$  and  $\text{FinP}$ . This head hosts a [P]-feature attracting the phonological feature of the finite verb. The nature of this head must be closely related to the nature of  $\text{Foc}^\circ$  and is selected only when  $\text{Foc}^\circ$  is activated. For this reason, I will call it  $\text{F}^\circ$ .  $\text{F}^\circ$  must be deprived of semantic and syntactic features, which appear on  $\text{Foc}^\circ$ . The only function of this [P] head is to attract the finite verb. This attraction, and consequently the checking of [P], allows the activation of a PF-mechanism that gives the focus its prosodic force, namely the *pitch accent*.

In NV2 clause, namely in neutral order constructions a [P]- is on  $\text{Fin}^\circ$ , hence no phonological movement is required, since [P] is here checked as a free-rider. Note moreover that in NV2-clauses there is no special intonational pattern, nor special interpretation, which suggests that no special stylistic requirement is needed, hence PF-movement is not involved.

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functional projections as different possible interpretations. So the particular scope of a QP is determined by its syntactic position. Quantifier movement is to a specific head who is responsible for its semantics (Dist, Ref, Share...). The idea is that each QP moves to the specifier of distinct functional projection whose head has a specific semantic ([+Distributive], [+ref]...). Interface with semantics is so mediated by LF where logico-semantic features are checked. In other words, Quantifier movement is triggered by the syntactic-semantic features of these heads.

<sup>44</sup> Its function is more or less to be associated with Chomsky's (2001) *OCC*.

<sup>45</sup> That Topics must occur before Foci has maybe a pragmatic reason: old information are often preferably uttered first.

3.3.4 *A potential problem*<sup>46</sup>

Apparent V3 orders in the two main languages under discussion, namely Icelandic and Swedish, seem to be dangerously problematic for the analysis proposed above:

(45) a. Ég veit bara/einfaldlega ekkert um það  
I know just/simply nothing about it  
b. Ég bara/einfaldlega veit ekkert um það  
I just/simply know nothing about it  
(B&T (1998:65), their (34))

(46) a. Han bara gick sin väg (Sw)  
he only went away  
b. Han gick bara sin väg  
he went only away  
(Egerland (1998:1), his (2), (5))

Note that it seems that these adverbs are intonationaly marked. I refer the reader to Egerland's (1998) analysis of apparent freedom of the Swedish *maybe* type of adverbs: it indeed seems that these adverbs can appear in more positions than other adverbs, even sometimes leading to V3 constructions. Note that these constructions are only concerned with *kanske* 'perhaps', *bara* 'only' and *nästan* 'almost', which suggests that these adverbs belong to the same class.

A plausible solution, which still needs to be worked out, would be to say that this uniform type of adverb is Late Inserted, more in line with Lebeaux (1988). I won't pursue it here.

#### 4. CONCLUSION

Under the view adopted here, any analysis of the V2 phenomenon as Verb movement to  $C^\circ$  is naturally challenged: verb movement to  $C^\circ$  does not take place anymore;  $C^\circ$  being related to some discourse function. Note that it would be equally problematic to state that the finite verb moves to the highest head of the clause: it is indeed the case that the finite verb shows up in the second position of a V2 clause, but this does not clearly mean that its position is the head position of the highest functional projection in the clause structure, nor is it  $\text{Fin}^\circ$ , as Haegeman (1996) claimed. My final claim is that the V2 phenomenon as it has traditionally been described in the literature is in fact a mixed phenomenon, triggered by syntactic, semantic and sometimes phonological requirements. In Topic-constructions, the finite verb would show up in the  $\text{Top}^\circ$  position. Certainly this position is available in V2 languages, while not in others (see Rizzi (1997)): what distinguishes languages is the availability of the optional [P]-feature. This seems to be in line with Chomsky's recent proposal that Object shift is a PF-phenomenon. In Focus-constructions, another phonological mechanism is in order: the finite verb must be in second position too, apparently adjacent to the focalised constituent. The finite verb, however, does not undergo PF-movement to  $\text{Foc}^\circ$ . I argued that  $\text{Foc}^\circ$  does not host the [P]-feature. Rather, it selects a closely related projection whose head contains [P], attracting the finite verb. This process is meant to apply in both Foc-V-S and Top-Foc constructions.

This is clear that the V2 constraint is then not a uniform syntactic phenomenon: the finite verb does not show up in a structurally second position requiring its specifier to be filled, nor does it show up under the highest structural head. In Scandinavian then neither  $\text{Top}^\circ$  nor  $\text{Foc}^\circ$  or  $\text{F}^\circ$  is always filled by a lexical element. Syntactic checking of the finite verb

<sup>46</sup> Thanks to Christopher Laenzlinger for pointing this out to me.

occurs within  $\text{Fin}^\circ$ . So only phonological checking is available, and this is achieved in the left-periphery.

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