# THE PERIPHERALITY OF THE ICELANDIC EXPLETIVE

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#### **Abstract**

I argue here that the special distribution of the Icelandic expletive  $pa\delta$ , which restricts it to an intuitive 'first position', is due to the interaction of general constraints on Icelandic clause structure and the pragmatic function of a clause containing an expletive. The expletive is not restricted to V2 finite clauses, but can appear in principle in all matrix and embedded finite clauses, as well as certain non-finite clauses. I present an LFG analysis of the full range of facts which adopts a much more linear, relational view of Icelandic syntax than has been widely assumed in generative syntax studies.

## 1. Introduction

The data in (1) illustrate the distribution of the expletive *there* in English:

- (1) a. \*(There) was dancing in the living room.
  - b. Was \*(there) dancing in the living room?
  - c. When was \*(there) dancing in the living room?

Assuming that basic clauses are rooted in IP, we conclude from this data that the expletive is in SpecIP, a position which must be filled.

The expletive  $ba\delta$  in Icelandic shows a different distribution, for which it has received much attention in the literature (e.g., Zaenen (1985), Rögnvaldsson and Thráinsson (1990), Sigurðsson (1990), Hornstein (1991), Jónsson (1996), among others). While the expletive is grammatical in (2)a, it is ungrammatical in (2)b-c, which is surprising if the expletive is needed to fill a specific position in the clausal structure.

- (2) a. Það var dansað í stofunni. expl was danced in the living room
  - b. Var (\*það) dansað í stofunni? was (\**expl*) danced in the.living.room?
  - c. Þess vagna var (\*það) dansað í stofunni. therefore was (\**expl*) danced in the.living.room

These examples illustrate what I refer to as the 'peripherality' of  $pa\bar{o}$ ; Sigurðsson (2004) considers the expletive to obey 'First Position Constraint'. We can compare the ungrammaticality of (2)b with the expletive to a corresponding Swedish example (3), from Platzack (1983):

(3) Satt det en fågel på taket? sat *expl* a bird on the roof? 'Was there a bird sitting on the roof? Swe.

Swedish is like English in terms of the distribution of the expletive.

Assuming an approach in which all V2 clauses are rooted in CP, with an initial XP in SpecCP followed by a finite verb in C, one account of the data in (2) is that *það* appears only in SpecCP, and hence must be maximally peripheral in the clause (Hornstein (1991), Holmberg and Platzack (1995), Wurmbrand (2004), Richards and Biberauer (2005), among others; Berman (2003, 65) suggests that German *es* is only in

Special big thanks go to Jonas Kuhn for providing the raw material for section 5.2, and helping me get the details right. I also received good advice on the presentation of this material from Eve Clark, Bruno Estigarribia, and Laura Staum.

SpecCP). Such an approach might also implicate the presence of  $pa\delta$  with V2 – perhaps, one might suppose that  $pa\delta$  is only necessary to provide the first element in a V2 structure, if nothing else is available.

I will argue against this positional approach; in fact,  $pa\bar{\partial}$  is never in SpecCP. As I show in section 2, it is sometimes in SpecIP, and sometimes in a non-specifier clause-medial position. As one might expect in LFG,  $pa\bar{\partial}$  has no c-structure positional restriction per se. My alternative proposal builds on a view of Icelandic clause structure which is not fixated on hierarchical positions, but rather a very simple view in terms of linear positions relative to the (finite) verb. Such an account is independently motivated for the famous Icelandic phenomenon of Stylistic Fronting (Sells (2002)). Section 3 presents the various parts of the linear analysis of Icelandic syntax.

My analysis follows in section 4, based on the intuition that the reason that *það* never follows the first verb of its clause, is that it would have no (pragmatic) function if it did. Some key parts of the specific LFG analysis are that *það* bears the SUBJ function, and therefore can be in SpecIP; and *það* may not bear a DF, and therefore cannot be in SpecCP. As it bears the GF SUBJ, *það* is not merely a c-structure place-holder.

## 2. The Distribution of *það*

#### 2.1. Finite Clauses

As noted by some authors, there is considerable evidence that  $ba\delta$  can actually surface in SpecIP – (2)a is consistent with this. In embedded clauses,  $ba\delta$  can appear even where it could not be in SpecCP, and where it has nothing to do with V2. Rögnvaldsson and Thráinsson (1990) document a variety of embedded clause types where  $ba\delta$  may appear, and where the surface position of the expletive is clearly SpecIP – following the simple declarative complementizer  $a\delta$  is one such context. (4) is a relevant similar example, and (5) shows  $ba\delta$  with the main clause complementizer atli, which forms a matrix question without verb movement to C.

- (4) Ég spurði hvort [IP það hefðu margir komið í veisluna]. I asked whether [IP expl had many.people come to the.party] 'I asked whether many people had come to the party.'
- (5) Ætli [IP það verði talað við Jón a morgun]? (Jónsson (1996)) wonder [IP expl will.be talked to John tomorrow] 'Will John be interviewed tomorrow?'

Ottóson (1989) proposed that  $pa\delta$  is in SpecIP, and this idea has been adoped by Jónsson (1996) and Sigurðsson (2004), among others. Jónsson (1996) proposes the following account of the data in (2). First, he adopts an IP/CP analysis of V2, in which subject-initial V2 clauses like (2)a are rooted in IP while non-subject-initial V2 clauses like (2)c are rooted in CP. He then proposes that there is a competion between a null expletive (pro-expl) and the overt expletive, and that the Avoid Pronoun Principle favors the null expletive. Finally, he argues that pro-expl is only licenced under (canonical) government from I, and this is only possible when I has moved to C. Hence, in (2)a, pro-expl cannot be licensed, and so the overt expletive is used, in SpecIP. However, in (2)b-c, the finite verb has moved via I to C, so pro-expl is licensed and  $pa\delta$  is ungrammatical. Indeed, omitting  $pa\delta$  from those examples gives a fully grammatical sentence, and the account automatically extends to (4)–(5), which have no I-to-C movement.

Sigurðsson (2004) enforces the peripherality of  $pa\delta$  by proposing that main clauses have a null complementizer which attracts the expletive to immediately follow it. The position of this complementizer would be lexicalized in examples like (5) by  $\alpha tli$ . He notes that any account which puts  $pa\delta$  (necessarily) in SpecCP would have to treat (4)–(5) as examples of CP recursion. This would predict a correlation between clauses

allowing 'embedded topicalization' and those allow  $ba\delta$  in the initial position. However, there are several embedded clause types which do not allow embedded topicalization, but which do allow  $ba\delta$ :

- (6) a. Ég verð hissa ef  $[_{\rm IP}$  það hefur verið talað um þetta]. I will.be surprised if  $[_{\rm IP}$  expl has been talked about this]. 'I will be surprised if this has been talked about.'
  - b. Ég verð glaður þegar [IP það hefur verið talað um þetta].
     I will.be glad when [IP expl has been talked about this].
     'I will be glad when this has been talked about.'

From the perspective of LFG, one might wonder whether a positional restriction to a specific c-structure position within CP or IP is a very natural condition. I argue that  $pa\delta$  bears the SUBJ function, but as there are three potential c-structure positions for the SUBJ in Icelandic (see section 3), this does not contrain the linear position of  $pa\delta$ . I will account for the apparently peripheral distribution of  $pa\delta$  by considering interacting functional constraints – in particular, the signalling effects that  $pa\delta$  has in clause-initial position.

#### 2.2. *það* in Raising Structures

Important evidence about the constraints on  $pa\delta$  come from certain examples involving subject-to-object raising (SOR) structures such as (7)a, as any hypothesized function of  $pa\delta$  in main clauses does not carry over to such a context. The expletive is possible as the object of an SOR verb, as originally noted by Thráinsson (1979, 482); see also Platzack (1983, 87) and Bures (1992, 26).

- (7) a. Jón telur (það) vera mys í baðkerinu. John believes (*expl*) be mice in the bathtub
  - b. \*Jón telur (það) hafa einhver étið hákarlinn. John believes (*expl*) have someone eaten the.shark

The expletive is optional in (7)a, as in all embedded contexts (see e.g., (33)). If the lower predicate is transitive, as in (7)b, and if no (thematic) argument is raised, the example is ungrammatical regardless of the presence of  $ba\delta$ .

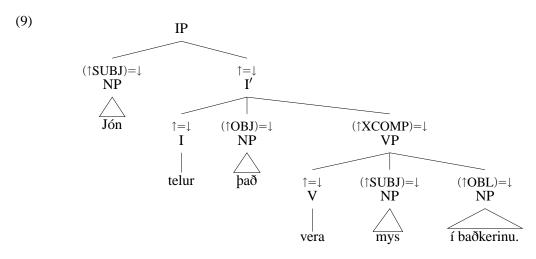
Examples similar to (7)a are given in Andrews (1990, 173):

- (8) a. Ég tel (það) hafa verið dansað á skipunu. I believe (*expl*) have been danced on the ship. 'I believe there to have been dancing on the ship.'
  - b. Ég tel (það) kveða að honum.
     I believe (*expl*) important to him
     'I believe him to be important.'
  - c. Ég tel (það) hafa verið beðið eftir honum. I believe (*expl*) have been waited after him 'I believe him to have been waited for.'

<sup>&</sup>lt;sup>1</sup>Additionally, only some speakers accept the raising examples (noted by Maling (1988)).

In these examples  $ha\delta$  is actually internal to I', in a non-thematic object position, and is not even a constituent with the following VP. Hence it is unlikely that any analysis which restricts the expletive to a specific c-structure position can cover the full range of data.

As a raising verb, 'believe' takes complements that are NP and VP (functionally, OBJ and XCOMP). Crucially, there is no IP structure above the infinitival VP (see Thráinsson (1984, 1993)), which means that there is no 'medial position', nor a specifier position, in front of the infinitival verb. Hence the structure of (7)a is the (unsurprising) (9):



As 'believe' takes NP and VP complements, it is immediately clear why no version of (7)b can be acceptable: the infinitival verb heads a structure no bigger than a VP, and Icelandic does not allow both direct arguments of the verb to be VP-internal.<sup>2</sup> Hence the only possible structure involves *einhver* in the raising position:

(10) Jón telur [einhver] [hafa étið hákarlinn]. (cf. (7)b) John believes [someone] [have eaten the.shark]

#### 2.3. Summary

We have now seen the following possibilities for the position of  $ba\bar{\partial}$ , and these exhaust the cases:

- (11) a. *það*: first element in a V2 clause
  - b. *það*: first element in IP in an embedded non-V2 clause
  - c. bað: a 'raised' subject under a subject-to-object raising (SOR) verb

The question is now, what unifies exactly these three positions? The descriptive generalization for  $pa\delta$  is simple: it must precede the (every) verb of which it is the SUBJ. This covers the initial examples (2), (4), (5), and the raising examples (7)a and (8). While the expletive follows *telur* in (7)a, it precedes *vera*, the verb of which it is the SUBJ. Note that the generalization cannot be that  $pa\delta$  precedes all coheads in its clause, because it follows the complementizer  $a\delta$ , for instance, which would be a co-head in C:

(12) Ég veit [ $_{CP}$  að [ $_{IP}$  það hefur enginn lesið bókina]]. I know [ $_{CP}$  that [ $_{IP}$  expl has no one read the book]] 'I know that no one has read the book.'

<sup>&</sup>lt;sup>2</sup>More specifically, Icelandic does not allow Agents and Experiencers to be VP-internal (Maling (1988)).

The first verb in every clause in Icelandic marks whether that clause is finite or not, and there are conditions on clausal structure which make direct linear reference to the first verb, as described below. *það* must precede the exponent of finiteness in its nucleus:

(13)  $ba\delta$  precedes the exponent of finiteness.

I discuss this condition more thoroughly in section 5.1.

#### 3. Icelandic Clause Structure

In this section I sketch an LFG analysis of Icelandic clausal c-structures, showing that the structures are less hierarchically organized than has been assumed in most of the recent literature, and that major constraints on clausal constituent order derive from linear conditions, not hierarchical ones.

#### 3.1. Hierarchical Positions

Icelandic clause structure has figured prominently in the development of the Minimalist Program (e.g., Chomsky (1995)) due to the various positions that subject and object may take in main clauses, especially in the Transitive Expletive Construction (TEC), which shows two subject positions, either side of the finite verb ((14) is from Bobaljik and Jonas (1996)):

(14) Það hafa margir jólasveinar borðað búðinginn. there have many Christmas-trolls eaten the pudding 'Many Christmas trolls have eaten the pudding.'

Following the finite verb, there is certainly evidence in Icelandic for what we might call a 'Mittelfeld': an area of the V2 clause following the initial phrase and the finite verb, where various arguments and adjuncts may appear, to the left of the edge of the canonical VP. It is relatively uncontroversial for the Scandinavian languages that that left edge is marked by the position of negation. Hence in (15), from Jonas and Bobaljik (1993, 90), the constituents *sennilega margir stúdentar þessar bækur aldrei*, including the subject and object, all follow the finite verb in INFL and precede VP:

(15) Á bókasafninu settu sennilega margir stúdentar þessar bækur aldrei [ $_{\mathrm{VP}}$  á borðið]. in the.library put probably many students these books never on the.table 'In the library, probably many students never put these books on the table.'

The relative order of arguments and adverbials in the medial area is somewhat free, but there is at most only one occurrence of subject and object.

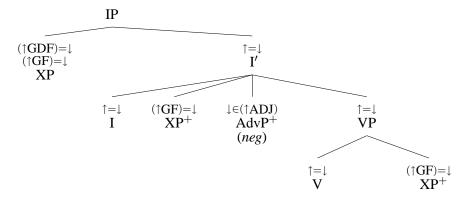
Sells (2001) proposed an analysis of Scandinavian clause structure built around the standard CP-IP-VP spine, which allowed intermediate elements between INFL and the left edge of VP (e.g., negation and other medial adverbs). I argued that, due to the lack of any positive evidence for further hierarchical structure, the medial elements should be analyzed as immediate descendants of I', following a sister INFL and preceding a sister VP. Icelandic allows any kind of definite or quantificational objects, as well as subjects, and adjuncts of many kinds, in the medial domain.<sup>3</sup> In fact, from this perspective, we can say that what Bobaljik and Jonas (1996) showed was that Icelandic has a medial domain following the finite verb where all kinds of subjects, objects and adjuncts may appear. Work in the Minimalist Program following on from their proposals has assumed that there are several specifier positions within the clause (e.g., SpecAgrSP, SpecTP, SpecAgrOP,

<sup>&</sup>lt;sup>3</sup>In this regard, Icelandic may be more liberal than Swedish, although Börjars et al. (2003) effectively argue for clausal structures like (16) in Swedish, suggesting that the account of Swedish in Sells (2001) was too structurally conservative.

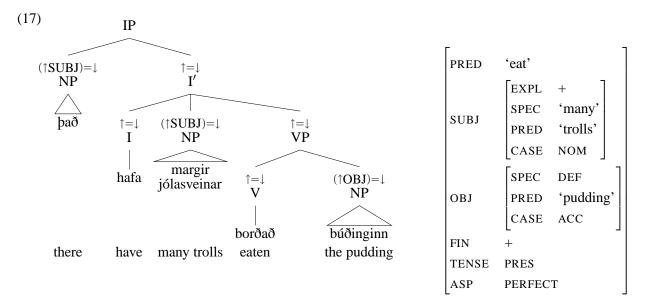
SpecVP – see (46) below), but many of the predicted positions cannot be supported empirically. I briefly discuss the problems with the proposal of Bobaljik and Jonas (1996) in the Appendix at the end of this paper.

From the LFG perspective, the overall structural possibilities for Icelandic are given in (16) (from Sells (2001, 191)), a relatively flat structure:<sup>4</sup>

#### (16) Icelandic Clause Structure (Sells (2001, 191):



In the TEC (see (14) above), the expletive  $pa\delta$  is in SpecIP, associated with a thematic subject elsewhere in the clause. By appearing in SpecIP, the expletive prevents any other constituent from being 'topicalized', and as it is an expletive, it cannot bear a DF itself. Hence the annotation on SpecIP when the expletive appears there is ( $\uparrow$ SUBJ)= $\downarrow$ , and in the TEC the expletive unifies in f-structure with the thematic SUBJ which appears lower in the c-structure. Hence (17) is the structure of (14); the expletive and its 'associate' both map to the SUBJ function, though only the latter provides contentful information; the f-structure is in (18).



For my purposes here, the key point is that there are just 3 linear positions for subjects in Icelandic, the GF positions in (16). This structure illustrates all of the hierarchical properties that are necessary for Icelandic (with CP on top of IP). The main constraints on clause structure are linear, as I now demonstrate.

<sup>&</sup>lt;sup>4</sup>I assume that the GDFs include SUBJ, and the true DFs TOP and FOC.

<sup>&</sup>lt;sup>5</sup>Sells (2005) argues that finiteness is an f-structure attribute independent of tense. Finiteness is an essential part of the generalization about the distribution of  $pa\delta$ .

#### 3.2. The V2 Constraint

The approach is one which factors out different and interacting parts of syntactic constructions, based on the general pattern in (16). For example, I will claim that V2 is satisfied in regular finite clauses by a sequence of overt elements in SpecIP and INFL, while V2 can also be satisfied by a sequence of two heads, INFL and V, in Stylistic Fronting clauses. Therefore, V2 cannot be associated with a single hierarchical structural configuration (at least in Icelandic). Rather, it is a constraint which must unify with some sequence of positions in (16); it is given in (18), which looks for two constituents, the first of which is at the left edge of the relevant domain, and the second of which is a finite verb.<sup>6</sup> For ease of reference below, I refer to the two positions in the V2 structure as V2-1 and V2-2, respectively.

A V2 clause will then be characterized by the unification of (18) with some structure conforming to (16). When V2-1 is SpecIP and V2-2 is INFL, the canonical structure, there will be certain pragmatic information associated with the structure (see (23) and (34) below).

## 3.3. The $I^0$ Constraint

There is one more constraint that is part of the definition of Icelandic clauses. INFL is in fact overtly present in all finite clauses which are IPs. Even in embedded clauses, the finite verb always precedes a medial adverb such as the negative *ekki*, as seen in (19), (examples from Holmberg (1986)):

- (19) a. Það var gott að [hann keypti ekki bókina]. it was good that [he bought not the.book]
  - b. Ég veit ekki hvers vegna [Sigga setur aldrei hlutina á réttan stað].

    I know not why [Sigga puts never the.things in the right place]

    'I do not know why Sigga never puts the things in the right place.'

These embedded clauses are simple subject-initial non-V2 clauses, in which there is not even an option for the finite verb to follow negation, meaning that the finite verb cannot be internal to VP. This motivates the constraint in (20). The fact that this constraint holds of all finite clauses is what makes embedded clauses in Icelandic look like they are V2 clauses even though, logically, (20) and (18) are separate constraints.

(20) The  $I^0$  Constraint: INFL is present in every IP.

IP is present in all finite clauses, and even in some non-finite ones (Thráinsson (1984, 1993)) – in particular, control complements – in which case the first verb is in INFL, as (21) illustrates:

(21) Risarnir lofa að [ $_{IP}$  éta ríkisstjórnir ekki]. the giants promise COMP [ $_{IP}$  eat.INF governments not] 'The giants promise not to eat the government.'

In the bracketed embedded clause, the verb appears in the INFL position, allowing the object to shift out of the VP ('Object Shift'), leaving the final word *ekki* marking the left edge of the would-be VP. If the

<sup>&</sup>lt;sup>6</sup>Cf. Maling and Zaenen (1990), who propose that "the simplest statement of V2 is as a single positive template".

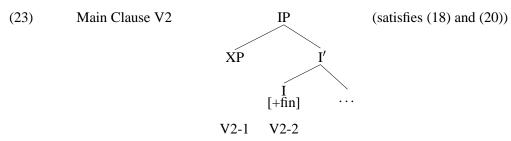
complement to a Control verb such as 'promise' is of category IP, as Thráinsson argues, then (20) will require that the INFL head is also present, hosting the non-finite verb. This is exactly what we find in (21).

Finally, in impersonal embedded finite clauses, no subject need precede the finite verb (in SpecIP), yet the verb still must be in INFL. The examples from Sigurðsson (1990, 53) show this clearly:

- (22) a. Ég veit ekki hvers vegna [IP kemur ekki að þessu]. (Sigurðsson (1990, 53)) I know not why [IP comes not to this] 'I do not know why it does not come to this.'
  - b. Við förum ef [IP rignir ekki mikið]. we will.go if [IP rains not much]

These examples demonstrate the independence of the I<sup>0</sup> Constraint and the V2 Constraint, as clearly V2 is irrelevant, but the verb must nevertheless be in the INFL position.

Returning to V2 main clauses, (18) and (20) are respected in virtue of the fact that INFL itself hosts the finite verb; the INFL position is the V2-2 part of V2, as shown in (23).



## 3.4. Stylistic Fronting

In Sells (2002), I argued that Icelandic has another way of simultaneously satisfying (18) and (20), which is manifest in Stylistic Fronting clauses. The Stylistic Fronting construction was brought to the attention of generative syntacticians by Maling (1990) (first published in 1980). Stylistic Fronting is restricted to clauses in which the subject is missing from the canonical initial position, and involves the inversion of a word which would normally follow the finite verb to a position just in front of that verb:

- (24) Stylistic Fronting (Maling (1990) [1980])
  - a. the subject of the clause must be a 'gap' (or at least not in the canonical subject position)
  - b. the clause must be finite
  - c. the fronted element is a word, not a phrase

A representative set of examples which illustrate Stylistic Fronting involve relative clauses where the subject is relativized, and therefore absent. In (25), the a/c examples are canonical, and the b/d examples involve Stylistic Fronting. I use underlining to indicate the element that is a (potential) target for the fronting, and '\_\_ ' marks the usual position of the fronted word:

- (25) a. Petta er tilboð sem [er ekki hægt að hafna]. this is an offer that [is not possible to reject] 'This is an offer which it is not possible to reject.'
  - b. Petta er tilboð sem [ekki er \_ hægt að hafna].

    ← Stylistic Fronting this is an.offer that [not is possible to reject]

- betta er maður sem [hefur leikið níutíu leiki].
   this is a.man that [has played ninety games]
   'This is a man who has played ninety games.'
- d. Petta er maður sem [leikið hefur \_ níutíu leiki]. this is a.man that [played has ninety games]

The Stylistic Fronting clauses have a structure that satisfies the verb-second (V2) constraint (see Maling (1990, 73); also Anderson (1997, 20ff.)). However, they do not easily assimilate to canonical SpecIP – INFL structures (as in (23)), as the first element is a word, not a phrase.

Stylistic Fronting is also possible in main clauses (examples in (26) from Jónsson (1991, 24)), where the affinity with V2 is clear:

- (26) a. Keypt hefur verið \_ tölva fyrir starfsfólkið.

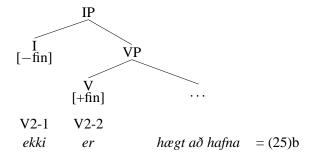
  bought has been a.computer for the.staff

  'A computer has been bought for the staff.'
  - b. <u>Fallið</u> hafa <u>margir</u> hermenn í þessu striíði. died have many soldiers in this war 'Many soldiers have died in this war.'

Such clauses are like those introduced by *það* in lacking any topical argument. Rögnvaldsson and Thráinsson (1990) discuss the similarities and differences between main clause 'topicalization' (V2 clauses) and Stylistic Fronting. Considering the mechanisms that derive the two kinds of structure, they "conclude that they are *syntactically* a unified process, even though they are certainly different *functionally*" (p. 28). In Sells (2002) I presented an LFG account of Stylistic Fronting, which also adopts the idea that regular V2 clauses and Stylistic Fronting clauses share a syntactic similarity, but in a different way from Rögnvaldsson and Thráinsson (1990): while they analyze the common syntactic process as being movement of some element to SpecIP in both V2 clauses and Stylistic Fronting clauses, my approach is that the two types of clause both instantiate the abstract V2 pattern (18).

For Stylistic Fronting clauses, suppose that INFL is present but hosts a non-finite element, as a marked property. As long as a finite verb is in some head position within the c-structure, the clause will be characterized as finite at f-structure, and of course the possibility of 'head mobility' in head positions such as C, INFL, or V is part of the design of the theory (see e.g., Bresnan (2001)). So if a non-finite element is in INFL, this will be the V2-1 part of V2, and then it must be that the next element is a finite verb. As INFL is already filled, the finite verb must appear as the first element in VP, which is the next available head position. This same insight is also sketched in Anderson (2000, 328–9). In other words, the structure is as in (27).

(27) Stylistic Fronting: As a marked option, a non-finite element is generated in INFL. The element in INFL occupies the first position of the V2 constraint.



This satisfies the V2 constraint (18), the INFL constraint (20) and conforms to the structural possibilities in (16) just as well as the canonical SpecIP – INFL– rest-of-clause structure, but as it does this in a different way, we can assume a different functional or stylistic value. This account explains the fact that what fronts is an  $X^0$ , the subject gap restriction, other constraints on Stylistic Fronting, and the restriction to finite clauses.

This account can only be stated if linear and hierarchical conditions are separated, in an analysis which guarantees the structural generalizations in (28) (such as the LFG analysis presented here):

- (28) a. Except for  $I^0$ , no hierarchical position is privileged in the clause.
  - b. Even the finite V in V2 clauses **is not fixed** in its hierarchical position.

### 4. Functions in the Clause

#### 4.1. Linear Positions in the Clause

Following on with the reasoning developed in the previous section, I will show here that the linear properties of Icelandic clause structure have certain semantic and pragmatic values, determined by the structural possibilities in (16). As in other V2 languages, the basic contrast is simply between whether a single constituent precedes the finite verb, or whether the finite verb is clause-initial (a 'V1 clause'):

(29) Linear Positions (cf. (16)):

V2 and V1 clauses have the linear properties shown shown in (29). If V2-1 is absent, we have a verb-initial clause which is interpreted as a polar interrogative (if a main clause), or as a 'V1 Declarative' (see (31)b):

- (30) V1 Declaratives (from Sigurðsson (1990))
  - a. Það voru oft langar umræður á fundunum. expl were often long discussions at the meetings 'There were often long discussions at the meetings.'
  - Voru oft langar umræður á fundunum.
     were often long discussions at the meetings

For any argument GF, there are 3 relevant positions, summarized in (31), where  $V_f$  and  $V_l$  refer to the two V positions in (29) ('first' and 'last'). NPs have different semantic and pragmatic properties in each of these 3 positions:

- (31) 'Functional' positions in Icelandic, for some GF
  - a. Before the first/finite verb,  $V_f$  ('first position').
  - b. Somewhere after the first/finite verb,  $V_f$ , but before the last verb  $V_l$  ('medial position').
  - c. After the last verb,  $V_l$  (complement of V position).

Returning to the main topic of this paper, the position of  $pa\delta$ , suppose that it follows  $V_f$ . This would force an associate NP to be in the ComplV position. However, the (necessary) presence of  $V_l$  indicates the associate NP is in the ComplV position, regardless of the presence of  $pa\delta$ . As detailed by Vangsnes (2002), the medial and final positions are only associated with different quantificational properties:

al position
dded definite
eneric
artitive
efinite
re indefinite

(Vangsnes (2002), Table 1, (his terminology))

Vangsnes shows that NPs have their semantics restricted as shown in (32) when in medial and final positions, regardless of whether the initial position is filled by  $pa\delta$  or something else. In other words, while the first two positions of (29) indicate something about clause-type, the last 3 positions serve to indicate quantificational properties of NPs (and presumably, other subtle informational-structural properties).

Recall that there is no phrasal position in Icelandic, such as SpecIP, which needs to be filled (cf. (28)a). This is fundamentally why  $pa\delta$  has a restricted distribution. As nothing about the pragmatics of the clause is signalled by the medial or final NP positions,  $pa\delta$  would have no function if it appeared there.

When  $pa\delta$  does appear, it does carry some pragmatic information about the (sub-)clause in which it appears. For example,  $pa\delta$  in an SOR structure like (7)a indicates that the speaker has chosen not to raise the thematic subject of the infinitival complement. In finite embedded clauses,  $pa\delta$  is never structurally required, but its presence or absence in the initial position has semantic and pragmatic effects, and may be related to whether the clause is asserted or presupposed (see e.g., Rögnvaldsson (1984, 17ff.)):

- (33) a. Ég vissi að það/∅ væri ekið vinstra megin í Ástralíu. I knew that expl/∅ were driven left side in Australia 'I knew that (there) were driven on the left side in Australia.'
  - b. Ég veit að það/\*∅ er ekið vinstra megin í Ástralíu.
    I know that expl/∅ is driven left side in Australia
    'I know that \*(there) is driven on the left side in Australia.'

The embedded verb in (33)a is past subjunctive, while the verb in (33) is present indicative, and in that case  $pa\delta$  is (pragmatically) obligatory. (Rögnvaldsson suggests that the more strongly a clause is asserted, the less felicitous is the expletive-less version.)

### 4.2. More on bað

I have suggested above that  $pa\delta$  may have some pragmatic or signalling function when it precedes the  $V_f$  of its clause; in other positions, it has no function, and therefore is dispreferred on general grounds of structural economy. In this subsection, I explain this latter claim a little more. Returning to V2 clauses, we can identify 6 sub-types in Icelandic, depending on the nature of the element in V2-1:

### (34) Pragmatic functions in main (V2) clauses:

Element in V2-1	Pragmatic Value	Clause Type
subject NP non-subject XP það	subject is more topical than any other XP non-subject is more topical than any other XP no XP is topical	(declarative) (declarative) (declarative)
non-referential X <sup>0</sup>	no XP is topical (Stylistic Fronting; e.g., (27)b)	(declarative)
subject NP[+wh] non-subject XP[+wh]	constituent question constituent question	(interrogative) (interrogative)

*það* has the function of indicating a V2 clause in which nothing is topical.

Now I consider in more detail the properties of clauses containing  $pa\delta$  in different positions. (35) shows the schematic distribution in clauses with  $pa\delta$  and a definite subject. In fact,  $pa\delta$  is incompatible with a [+def] subject:

This looks like a classic case of the 'Definiteness Effect' on existential constructions, though as noted above, Vangsnes (2002) shows that this pattern is not due to  $pa\delta$ , for the same distributional facts hold when the initial position is occupied by a referential non-subject such as the adverb 'today'. (35) is in fact the kind of case analyzed by Mikkelsen (2002) in an Optimality Theory (OT) approach: a definite NP must be topical, so the first structure in (35) 'wins' over the others (this account is effectively anticipated for Icelandic in Sigurðsson (1989, 296ff.)). Mikkelsen proposed an analysis which I have summarized in (36), based on this idea of a priority for initial position:

In the context of an OT system, the effect of (36) is the following: if a definite is present, it will be in the initial position; if an indefinite is present it may alternate with an expletive for the initial position. A bare indefinite can be in the initial position ((37) from Vangsnes (2002)):

Roughly speaking, indefinites can appear in all 3 NP positions, though with some semantic differences between the two non-initial positions (see (32)). What are the options for  $ba\delta$  with an indefinite subject?

All of these are well-formed in structural terms, and potentially semantically interpretable. However, the last structure here loses to the third one, on grounds of Economy – there is no information for the hearer contributed by  $pa\delta$ – it is simply a V1 clause with an indefinite subject.

#### 4.3. Summary

Crucially, all of the structural inferences just considered are interpreted relative to the finite verb  $V_f$  and the last verb  $V_l$ , and there is only one subject position between the two. It is a mistake to think that there are two or more medial positions, as is the case in an analysis in which the finite V can be in C, followed by SpecAgrSP and SpecTP (see (47) below). The distribution of  $pa\delta$  follows from an analysis with the properties summarized in (39):

- (39) a. No c-structure position in Icelandic needs to be present except for  $I^0$  in IP.
  - b. The position before the first verb  $V_f$  may signal a pragmatic property of the clause (nucleus) headed by that verb, across clause-types; no other position signals such a property.
  - c.  $ba\delta$  has no function unless it precedes  $V_f$ .

## 5. Formalizing the Analysis

#### 5.1. The Linear Constraint on bað

We might wish to formalize the generalization in (13), as shown:

(13) *bað* precedes the exponent of finiteness:

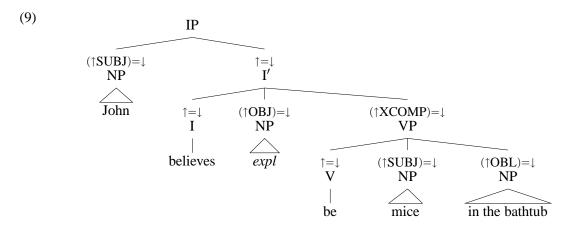
¬ FIN f-precedes SUBJ[EXPL]

If we consider this generalization to be a formal property of the grammar, we should state it as a constraint introduced by the expletive (the (rest of the) lexical entry is below in (45)).

It is always the first verb in the clause which indicates the finiteness [ $\pm$ ] of its nucleus. This verb may be located in C, I, or V, but it is always the first verb – hence the notation  $V_f$  used above.<sup>7</sup> Let us assume

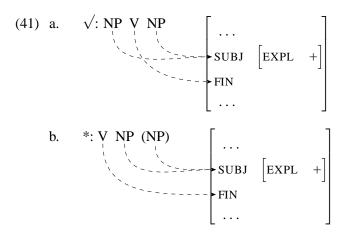
<sup>&</sup>lt;sup>7</sup>In finite clauses, the verb is usually in I; it could also be in C, depending on the analysis of V2. Some non-finite clauses are IPs, with the verb in I (e.g., (21)), while some are VPs, with the verb in V (e.g., (9)).

an attribute [EXPL +] introduced by  $pa\delta$ , which will distinguish a clausal nucleus which corresponds to a c-structure with an expletive in it from one that lacks an expletive. Then the relevant linear condition is that the node instantiating FIN cannot precede the node instantiating SUBJ with an EXPL attribute. (41) is the f-structure for (9):



In (40), the exponent of B cannot precede the exponent(s) of A, according to the condition above:

More generally, (13) allows (41)a but not (41)b:



This analysis motivates the use of the attributes FIN and EXPL in f-structure, for the statement of the f-precedence condition.

#### **5.2.** Linear Constraints on C-Structure

The constraint specific to the expletive in (13) is stated in terms of f-precedence. The other major constraints on Icelandic syntax require more detailed access to c-structure properties, but can be encoded in the Monadic Second-Order Logic system of Kuhn (2003). The CoProj' predicate used below is defined in Kuhn (2003), the symbol  $\triangleleft$  means 'immediately dominates, and  $\exists$ ! means 'there is exactly one'.

The I<sup>0</sup> constraint is stated as follows:

(42) The 
$$I^0$$
 Constraint

$$(\forall x)[\mathrm{IP}(x) \to (\exists y)[\mathrm{I}^0(y) \wedge CoProj'(x,y)]]$$

The formula says that every IP node has a  $I^0$  node with which it is a coprojection – both map to the same f-structure, and a contiguous c-structure path connects the two nodes (see Kuhn (2003)).

The V2 constraint is an existential constraint, one which needs to find a finite verb with exactly one element preceding it in the clause:

### (43) V2 Constraint:

$$(\exists x)[Fin(x) \land \mathbf{X}^0(x) \land (\exists z)[(\exists !y)[CoProj'(x,z) \land z \triangleleft y \land y \prec x] \land \neg (\exists w)[CoProj'(w,z) \land w \triangleleft z]]]$$

where x is the Finite element in second position and y is any element in first position, dominated by z, which coproject's with x. The formula assumes that the precedence relation  $\prec$  can be defined between adjacent constituents, even if they are not sisters. (43) says, "There is a node x which is the exponent of FIN and which is zero-level, and there is a node x such that there is exactly one node x such that x and x coproject and x immediately dominates x, and x precedes x, and there is no node x which x with x such that x dominates x." This has the consquence that node x is the top of the coprojection path, immediately dominating x, which is the one element which precedes x, which is the finite verb. (Compare with (23) and (27).)

## 6. The Syntax of the Expletive

My approach here is that the expletive  $pa\delta$  lacks an independent PRED, yet bears the SUBJ function. Hence, if the clause has a thematic SUBJ, this will be the associate of the expletive (e.g., (14)).  $^8$   $pa\delta$  may also appear in impersonal clauses, in which it would be the only expression of SUBJ. If  $pa\delta$  bears a GF, rather than simply being a c-structure place-holder, the data are straightforwardly accounted for.

As I have mentioned above, the function of  $ba\delta$  in main clauses is essentially to present a V2 clause in which nothing is given special prominence. Rögnvaldsson and Thráinsson (1990, 29) observe "what the dummy actually does is to allow for the sentence type in which nothing is topicalized, not even the subject that in general acts as a discourse topic by default"; see also Zaenen (1983, 496). However, Sigurðsson (1990, 54) offers a slightly different diagnosis of the facts, and considers various embedded clauses, suggesting that the right condition on the expletive is that it itself cannot be associated with a DF (see also Sigurðsson (2004)). He shows that examples in which the subject associate of  $ba\delta$  is itself associated with a DF (in a question, a relative clause, etc.) are robustly ungrammatical (see (44)a), but that a DF associated with some non-SUBJ GF is not so bad, and impersonal clauses like (44)b are relatively acceptable (see also Rögnvaldsson and Thráinsson (1990, 30–31)). In the examples in (44), \_\_\_ indicates the 'gap'.

<sup>&</sup>lt;sup>8</sup>I assume that *það* lacks a PRED value and is optionally specified for 3rd singular agreement features; in the absence of any associate to provide a PRED value for the clausal SUBJ attribute, the 3rd singular agreement features of the expletive (or the finite verb in its default form) will suffice for the formal condition of Completeness. This follows the analysis of German developed in Berman (2003) (see especially pp.56ff.).

```
(44) a. maður sem (*það) __ elskar margar konur a.man who (*expl) __ loves many women (það = SUBJ, gap = TOP = SUBJ)
b. ?maðurinn sem (það) var talað við __ the.man who (expl) was talked to __
```

 $(ba\delta = SUBJ, gap = TOP = OBL OBJ)$ 

If  $ha\delta$  bears a GF, in particular SUBJ, then by association in (44)a,  $ha\delta$  is also an expression of the TOP function, and the example is ungrammatical. (44)b lacks this association of  $ha\delta$  with a DF, and is somewhat acceptable. Consequently, I propose that  $ha\delta$  must appear as the value of SUBJ, and cannot also be the value of a DF-structure (see (45)). These functional specifications guarantee that  $ha\delta$  is only generated in positions in which it can be associated with a SUBJ, and the prohibition against a DF means that it cannot be associated with a DF in f-structure, or generated in SpecCP, which always associated with a DF (see e.g., Bresnan (2001)).

```
(45) pa\check{o}: (SUBJ↑)

\neg((SUBJ↑) DF) = ↑ (rules out (44)a, allows (44)b)

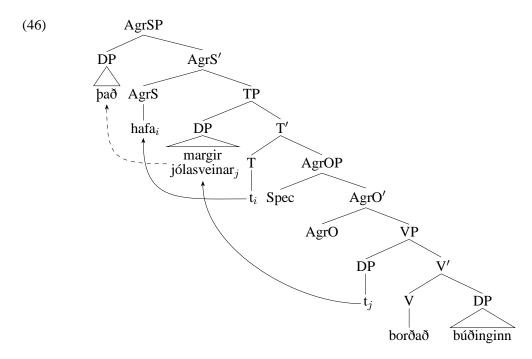
(↑ EXPL) = + (see (41))
```

## 7. Conclusion

The restrictions on the distribution of  $ba\delta$  are not due to positional restrictions per se, but rather, are due to the pragmatic signalling functions of  $ba\delta$ : if it follows the exponent of finiteness in its clause, it has no possible function. The specific analysis that I developed necessarily involves treating Icelandic clause structure as less hierarchical than has been widely assumed, as well as stating the main properties of clause structure in terms of relative linear position. These linear properties cannot be 'reduced' to hierarchical properties (see the following Appendix), showing that such linear properties are indeed constitutive of syntax.

## **Appendix: 'Minimalist' Structures**

The structure proposed in (17) constrasts with the structure proposed by Bobaljik and Jonas (1996):



While the technical details have changed, the basic configuration assumed for Icelandic has persisted in Minimalist syntax, with at least a CP on top of the structure shown in (46).

It is precisely this concentration on hierarchical structure, neglecting relative linear properties, which has led many researchers astray in considering the problems posed by  $pa\delta$ . For example, if we consider the schema in (47) as representing the positions occupied in a regular declarative existential in Icelandic, the lower line 'int' shows the pattern that we would expect for a polar interrogative, with the finite verb fronted to C. The ! notations in (47) show positions assumed by the theory but which are never overtly filled:

### (47) Subject Positions in the Minimalist Clause

$$SpecCP-C-SpecAgrsP-AgrS-SpecTP-T-SpecVP-V-ComplV \\ (decl.) & \textit{bað} & V & Subj & ! & ! & V \\ (int.) & V & \textit{bað} & ! & Subj & ! & V \\ [+fin] & & ! & Subj & ! & ! & V \\ \end{array}$$

The lower interrogative structure makes it look like there are two 'subject positions' following the finite verb in C and preceding a non-finite verb in V (technically, three subject positions if SpecVP is counted), and one of these positions, SpecAgrSP, is the grammatical position of  $pa\delta$  in a declarative. Hence, there seems to be no reason to suspect that  $pa\delta$  would be impossible in the interrogative.

However, Icelandic is not organized this way. Depending on the clause type, there may be one XP in front of the finite verb, and then in the 'Mittelfeld' area, following the finite verb and before any non-finite verb, there is just one potential subject position (as well as a potential object position, and many other adjunct positions). The hierarchy-only approach to syntax instantiated by (46) is not suited to expressing these clear generalizations.

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