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Revisiting the configurationality issue in Old Icelandic

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The status of Old Icelandic with respect to (argument) configurationality was hotly debated in the early 1990s (e.g. Faarlund 1990; Rögnvaldsson 1995) and remains unresolved. Since this work, further research on a wide range of languages has enhanced our understanding of configurationality, in particular within Lexical Functional Grammar (e.g. Austin & Bresnan 1996; Nordlinger 1998) and syntactically annotated Old Icelandic data are now available (Wallenberg et al. 2011). It is thus fitting to revisit the matter. In this paper, I show that allowing for argument configurationality as a gradient property, and also considering discourse configurationality (Kiss 1995) as a further gradient property, can neatly account for word order patterns in this early stage of Icelandic, as well as the nuanced differences with the modern language. The positional distribution of subjects and objects, as well as previous studies on the diachrony of case and grammatical relations, indicates that Old Icelandic was subtly less configurational than the modern language. Furthermore, the observed word order patterns indicate a designated topic position in the postfinite domain, thus reflecting some degree of discourse configurationality at this early stage of the language.

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1 Introduction

Configurationality as a property of natural languages has attracted much attention since early work on the matter (e.g. Hale 1982; 1983) and work on “non-configurational” languages has touched on deep issues in linguistic theory (e.g. Jelinek 1984; Kiss 1987; Taylor 1988; Simpson 1991; Kroeger 1993; Payne 1993; Austin & Bresnan 1996; Nordlinger 1998; Baker 2001; Legate 2002; Junker 2004; Pensalfini 2004; Snijders 2015). Today one can recognise two different types of configurationality: (i) *argument configurationality* (e.g. Nordlinger 1998) and *discourse configurationality* (e.g. Kiss 1995). This paper will assume that argument configurationality (AC) concerns to what extent specific grammatical functions (e.g. subject, object) are associated with particular structural positions, while discourse configurationality (DC) concerns to what extent the discourse functions topic and focus are structurally expressed. Many contributions to date focus on either AC or DC, and there is little consensus on the relationship between the two. A common view is that AC and DC are alternatives spanning one typological dimension (e.g. Kiss 1987; Vilkkuna 1989; Sasse 1995; van der Wal 2009; Snijders 2015). However, empirical evidence suggests that AC and DC are to some extent independent. While there are a number of non-argument-configurational languages which have been shown to be discourse-configurational, e.g. East Cree (Junker 2004) and Warlpiri (Legate 2002; Laughren 2002), there are also languages which appear to be non-configurational with respect to both arguments and discourse functions, e.g. Quechua (Muysken 1995) and Fijian (Aranovich 2013). Moreover, there are also languages which exhibit both AC and DC to some extent, e.g. Japanese and Korean (Li 1976; Saito 1985).

Given the still unclear status of the relationship between AC and DC, more research examining the status of individual varieties with respect to the two types of configurationality together seems worthwhile. In this paper, I consider these issues in relation to Old Icelandic (c.1150–1350) which presents an interesting case study with respect to AC and DC, for two main reasons. Firstly, Old Norse/Icelandic has been claimed to be non-configurational with respect to arguments (Faarlund 1990), though this claim has been challenged by various authors (Platzack 1991; Stockwell & King 1993; Rögnvaldsson 1995). Secondly, more recent work on early Germanic in general has indicated that information structure is a key factor driving word patterns, and certain early Germanic varieties have even been claimed to be discourse-configurational to some extent (e.g. Trips & Fuß 2009 on early English and Petrova & Hinterhölzl 2010 on Old High German). Recent studies of Old Icelandic also indicate that information structure is an important organising principle for word order in the language (e.g. Booth & Schätzle 2019). These various strands of work suggest that Old Icelandic merits closer inspection, particularly given the current availability of parsed corpora designed specifically to facilitate syntactic studies.

Using data from such a resource, the Icelandic Parsed Historical Corpus (IcePaHC, Wallenberg et al. 2011), as well as additional data from a related corpus, MicePaHC,¹ I examine the status of Old Icelandic with respect to AC and DC. On the basis of the corpus evidence, I make three main claims. Firstly, I argue that Old Icelandic exhibits a mixture of endocentric and exocentric structures at c-structure, in particular what seems to be a relatively common combination typologically, that is an endocentric IP functional projection (capturing a second position phenomenon) which takes an exocentric phrasal category (S) as its complement. Secondly, I argue that Old Icelandic is *somewhat* less argument-configurational than modern Icelandic, given that the corpus data indicates that position is less important for the marking of subjects and objects compared to the modern language. Thirdly, I show that various word order patterns in the postfinite domain which Old Icelandic exhibits can be accounted for via assuming some level of DC in the language, specifically that there is a designated topic position. The formal analysis of the paper is conducted within the parallel architecture of Lexical Functional Grammar (LFG) (Bresnan & Kaplan 1982; Bresnan et al. 2015; Dalrymple et al. 2019), where different types of linguistic information are captured at independent, interacting dimensions. As I show, LFG is well-suited to tackling AC and DC side-by-side, since both grammatical functions and information structure are handled in their own dimensions, separate to constituent structure.

The paper proceeds as follows. In Section 2, I outline the details of LFG which are relevant to the paper. Section 3 presents an analysis of Old Icelandic clause structure, establishing precisely what structural positions are available, which is crucial background for the discussion of AC and DC. Section 4 discusses the nature of AC and DC, emphasising the gradient nature of the two properties and outlining precisely which types of linguistic characteristics can be used as evidence for and against AC/DC. On the basis of this understanding, the status of Old Icelandic with respect to AC and DC is discussed in Sections 5 and 6 respectively. Section 7 concludes the paper.

2 Lexical Functional Grammar

LFG assumes a parallel architecture model of grammar, in which different types of linguistic information are captured at independent, interacting dimensions (Bresnan & Kaplan 1982; Bresnan et al. 2015; Dalrymple et al. 2019). Each dimension differs in terms of its formal representation and must satisfy certain constraints. The core components of syntactic representation are *c(onstituent)-structure*, which captures information about category and constituency, and *f(unctional)-structure*, which captures abstract functional information. A third dimension which is relevant to this paper

¹ MicePaHC is an extended Penn-style treebank of Old Icelandic saga texts currently under development: <https://github.com/antonkarl/micepahc>.

is *i(nformation)-structure*. Each of these three dimensions is outlined below. The various dimensions are related to one another as part of an overall projection architecture, as also detailed below.

2.1 f-structure

f-structure captures the abstract functional information associated with a sentence. This includes both grammatical functions (GFs), e.g. SUBJ(ect) and OBJ(ect), as well as grammatical features, e.g. TENSE, CASE and DEF(initeness). A special type of functional feature is PRED, which is a pointer into the semantics of a predicate, takes a semantic form as its value, and captures the argument(s) (if any) a predicate requires in terms of grammatical function. f-structure representations take the form of attribute-value matrices which consist of a set of attribute(/feature)-value pairs. An example f-structure for the Icelandic sentence in (1) is given in (2).

- (1) *modern Icelandic*
 María sparkaði boltanum.
 María.NOM kick.PST ball.DAT.DEF
 ‘María kicked the ball.’

- (2)
$$\left[\begin{array}{ll} \text{PRED} & \text{'KICK <SUBJ,OBJ>'} \\ \text{TENSE} & \text{PST} \\ \text{SUBJ} & \left[\begin{array}{ll} \text{PRED} & \text{'MARIA'} \\ \text{CASE} & \text{NOM} \end{array} \right] \\ \text{OBJ} & \left[\begin{array}{ll} \text{PRED} & \text{'BALL'} \\ \text{CASE} & \text{DAT} \\ \text{DEF} & \text{+} \end{array} \right] \end{array} \right]$$

Any f-structure must satisfy certain wellformedness conditions, see (3)–(5) (Bresnan et al. 2015).

- (3) **Completeness**
 Every function designated by a PRED must be present in the f-structure of that PRED.
- (4) **Coherence**
 The value of every argument function in an f-structure must be designated by a PRED.
- (5) **Uniqueness**
 Every attribute has a unique value.

A consequence of assuming f-structure as an independent level of representation for abstract functional information is that grammatical functions such as SUBJ and OBJ are viewed as primitives of the theory. As such, unlike in some other generative approaches, SUBJ and OBJ need not be exclusively defined in terms of structural position. This flexibility thus neatly allows for accounts of languages where structural position plays a strong role in encoding grammatical

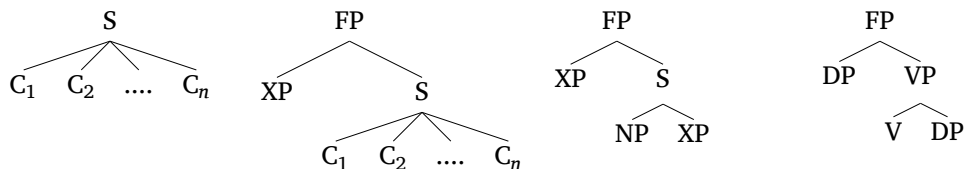
functions, e.g. English, those where morphological marking is the dominant encoding means, e.g. Latin, or languages which use a mixture of means (see Nordlinger 1998 for a relevant typology). I discuss this further in Section 4 in relation to AC.

2.2 c-structure

Since abstract functional information is captured at f-structure, c-structure captures information purely about category and constituency, determined on the basis of constituency tests and linear word order, and is represented as a tree diagram. With respect to category, there are lexical categories, e.g. N, V, P and functional categories, e.g. C, I and D. The functional category relevant to this study is I, as I discuss in Section 3 in relation to Icelandic verb-second. Another consequence of assuming f-structure as an independent dimension for abstract functional information is that a functional category is only motivated at c-structure when there is evidence that functional information, e.g. finiteness or definiteness, is associated with a fixed structural position (Kroeger 1993; Börjars et al. 1999). Again, this distinguishes LFG from some other generative approaches in which any functional information which is present in the sentence must be represented in terms of its own functional projection (see Rizzi & Cinque 2016 for an overview of such approaches).

With respect to constituency, LFG applies a “What You See Is What You Get” approach and allows for both *endocentric* (headed) and *exocentric* (headless) phrases, and c-structures need not be exclusively binary-branching. Endocentric phrases follow a version of the X-bar schema (Bresnan et al. 2015), while exocentric phrases lack a c-structure head and are captured under a non-projective category, S, which is not headed by something of the same category as itself.² Endocentricity can be viewed as one of two competing principles for c-structure organisation, the second being *predicate-argument locality* (Austin & Bresnan 1996), which is in essence a preference for structures with closer proximity between a verb and its arguments including the subject, and which can give rise to exocentricity. Furthermore, languages may mix endocentric and exocentric structures and typologically this flexibility can be visualised as a spectrum with a range of possibilities, see e.g. (6) (Bresnan et al. 2015), where C stands for any lexical category and FP any functional projection.

(6) Endocentricity/exocentricity scale



² An alternative to exocentric sometimes used in the LFG literature is “lexocentric” (Bresnan et al. 2015). “Exocentric” will be used throughout in this paper.

2.3 i-structure

This paper deals with information structure, a domain where terminology is notoriously problematic. I adopt an approach in which information-structural features are derived from two primitive binary properties, [\pm NEW] and [\pm PROMINENT]. This provides the four-way division in (7), where FOCUS is [+New, +Prominent] and TOPIC [-New, +Prominent] (Butt & King 1996; 1997; based on ideas from Vallduví 1992; Choi 1999).

(7)

	[+New]	[-New]
[+Prominent]	FOCUS	TOPIC
[-Prominent]	COMPLETIVE INFORMATION	BACKGROUND INFORMATION

In this view, TOPIC and COMPLETIVE INFORMATION are similar to the traditional topic-comment distinction, and FOCUS and BACKGROUND INFORMATION in line with the traditional focus-background distinction. That is, TOPIC is old information which is relevant in the current context and hence prominent, while COMPLETIVE INFORMATION is new information which is not prominent in the discourse. FOCUS, by contrast, is new information which is prominent. BACKGROUND INFORMATION is old information which may be a necessary part of the sentence for syntactic reasons or required to further clarify the relation between what is already known and the new information introduced in the sentence.

I assume a separate level of representation for information structure, i-structure, following work by Butt & King (1996), King (1997) and Butt et al. (2016). Like f-structure, i-structure is represented as an attribute-value-matrix. An example i-structure for the second sentence in (8) is shown in (9).

(8) Q: What did Maria buy?
 A: Maria bought a cactus
TOPIC FOCUS

(9)
$$\left[\begin{array}{l} \text{TOPIC} \quad \left\{ \left[\text{PRED-FN} \quad \text{'MARIA'} \right] \right\} \\ \text{FOCUS} \quad \left\{ \left[\text{PRED-FN} \quad \text{'CACTUS'} \right] \right\} \end{array} \right]$$

The values for information-structural features in the i-structure in (9) are shown within curly brackets to indicate that in each case the value is a member of a set. This allows for sentences which have e.g. more than one topic or focus (see e.g. Dalrymple & Nikolaeva 2011). The PRED-FN notation, as opposed to the standard PRED feature from f-structure, indicates that the predicate value is picked up from the value of PRED in the f-structure. Essentially, PRED-FN links information at i-structure to the semantics of the lexical item referred to at f-structure (see Butt et al. 2016).

2.4 The projection architecture

Correspondences between the various linguistic dimensions are captured in terms of a projection architecture. Various versions and modifications of LFG's projection architecture have been proposed (see e.g. Kaplan 1987; 1989; Falk 2001; Asudeh 2006; 2012; Bresnan et al. 2015; Dalrymple et al. 2019), but most of these nuances are not relevant to this paper. What is relevant is the correspondence between c-structure and f-structure, i.e. between phrase structure and grammatical functions (in the context of AC) and that between c-structure and i-structure, i.e. between phrase structure and information-structural features (with respect to DC).

In terms of the correspondence between c-structure and f-structure, I uncontroversially assume that this is formally handled via the correspondence function ϕ , whereby c-structure nodes are related to f-structures (Bresnan et al. 2015; Dalrymple et al. 2019); see the overall projection architecture proposed by Asudeh (2006) in **Figure 1**. The details concerning ϕ are not strictly relevant to this study, and so I will just explain how mapping between c-structure and f-structure is handled notationally. To capture the correspondence between structural positions and functional information, phrase-structure rules, which in turn generate c-structure trees, are annotated with functional information. An annotated c-structure showing the structure-function correspondences for modern English is provided in (10), where it is relatively uncontroversial that SpecIP is a subject position and the complement of V an object position.

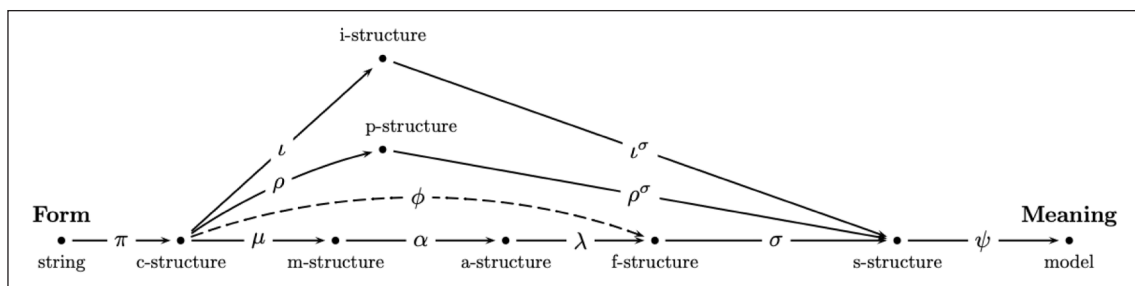
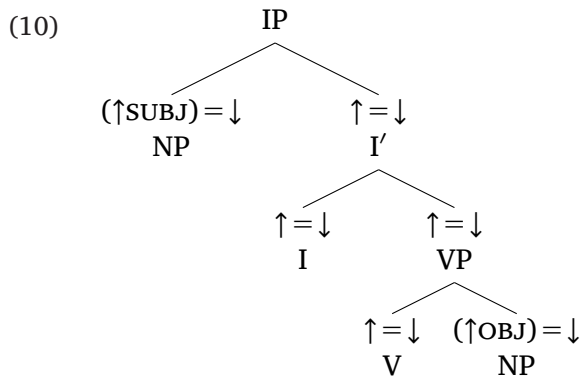
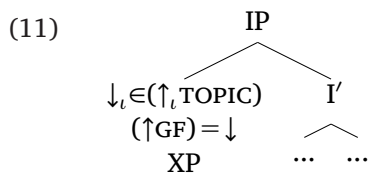


Figure 1: Parallel projection architecture of LFG (Asudeh 2006: 369).

In the tree in (10), \downarrow and \uparrow are metavariables over f-structure variables and serve to relate every node in the c-structure to its corresponding f-structure. \downarrow denotes the f-structure corresponding to that node itself, and \uparrow denotes the f-structure corresponding to that node's mother node. Multiple c-structure nodes may correspond to the same f-structure, in which case they are annotated as $\downarrow = \uparrow$: This indicates that the functional information associated with a given node is the same as the functional information associated with that node's mother node. The mapping between f-structures and c-structures will differ between languages, since c-structures differ considerably cross-linguistically, while f-structures are largely invariant.

The place of i-structure within the overall projection architecture requires some detail, as here various proposals have been put forward. In this paper, I follow Butt & King (1997) in assuming a model where i-structure projects from c-structure as defined by the function ι , which can be considered as a parallel to the ϕ function which relates c-structure nodes to f-structures.³ This is in line with Asudeh (2006), see again **Figure 1**. In a discourse-configurational language, where certain structural positions encode certain information-structural features, specific c-structure nodes will map to information-structural features at i-structure (see e.g. Butt & King 1997 on Urdu/Hindi and Gazdik & Komlósy 2011 on Hungarian). For example, one can capture a language where the clause-initial position can exclusively host any topical grammatical function, in terms of the annotated c-structure in (11) (cf. Butt & King 1997 on Urdu/Hindi).



Notationally, the DC is captured via the first annotation line on SpecIP in the tree in (11), where the arrows annotated with ι indicate projection to i-structure. The \in symbol captures the fact that the SpecIP topic may be part of a set, thus allowing for sentences with more than one topic. The second line of the annotation on SpecIP is the standard mapping to f-structure (see above), which associates the position with any type of grammatical function (provided, of course, it is a topic in information-structural terms).

3 Old Icelandic clause structure

Before examining to what extent grammatical functions and discourse functions are associated with particular structural positions in Old Icelandic, it must first be established what the available

³ For a different proposal, see Dalrymple et al. (2019) who present a model where i-structure instead projects from s-structure.

positions are. In this section, I review previous research on Old Icelandic clausal word order, and put forward my own account for the structure of the clause.

3.1 Evidence for endocentricity

The finite verb in Old Icelandic is positionally restricted. Word order patterns characteristic of *verb-second* (V2) are robustly attested, e.g. (12), and Old Icelandic is standardly assumed to be a V2 language (Eythórssón 1995; Rögnvaldsson 1995; Faarlund 2004).

- (12) a. (IcePaHC: 1310, Grettir.312)⁴
 hann átti konu unga og fríða
 he.NOM own.PST woman.ACC young.ACC and beautiful.ACC
 ‘he was married to a young and beautiful woman’
- b. (IcePaHC: 1310, Grettir.15)
 hana átti Gamli Þórhallsson
 she.ACC own.PST Gamli.NOM Þórhallsson.NOM
 ‘to her was married Gamli Þórhallsson’
- c. (IcePaHC: 1250, Sturlunga.389.30)
 þar átti hann heima í Haugatungu
 there own.PST he.NOM home.ACC in Haugatunga
 ‘he lived there at Haugatunga’

Strikingly, Old Icelandic does not exhibit *verb-third* or *verb-later (than third)* word orders (Rögnvaldsson 1995; Walkden 2014; Booth 2018), thus contrasting with early West Germanic varieties where such patterns have been observed (e.g. Kiparsky 1995; Axel 2007; Walkden 2015). The only exception to V2 are *verb-initial* (V1) word orders which occur in constructions involving *pro*-drop, e.g. (13a), impersonal constructions, e.g. (13b), presentational constructions, e.g. (13c), and the so-called “narrative inversion” construction, e.g. (13d); see Booth (2018) and Sigurðsson (2018) for more on these types.

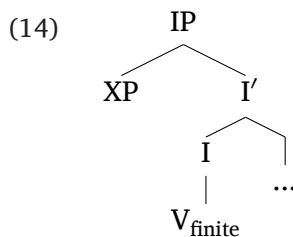
- (13) a. (IcePaHC: 1275, Morkin.1484)
 kastaði síðan fiskikuflinum
 throw.PST.3SG then fishing-jacket.DAT.DEF
 ‘he then cast off the fishing jacket’
- b. (IcePaHC: 1350, BandamennM.377)
 Er nú kyrrt um veturinn.
 is.PRS now quiet about winter.ACC.DEF
 ‘It is now quiet for the winter.’

⁴ All examples unless stated otherwise are from IcePaHC or MicePaHC. In each case I provide the year, the text and the sentence number allowing for the identification of the example in the relevant corpus.

- c. (IcePaHC: 1310, Grettir.605)
Var þar hinn mesti mannfagnaður og gleði.
 be.PST there DEF.NOM greatest.NOM entertainment.NOM and joy.NOM
 ‘There was there the greatest entertainment and joy.’
- d. (IcePaHC: 1210, Jarstein.86)
Þökkudu þau guði þessa jarstein og hinum sæla
 thank.PST they.NOM god.DAT DEM.ACC miracle.ACC and DEF.DAT holy.DAT
 Þorláki biskupi.
 Þorlákur.DAT bishop.DAT
 ‘They thanked God for this miracle and the holy bishop Þorlákur.’

As such, Old Icelandic exhibits a fixed position associated with finiteness, with one available prefinite position (henceforth *prefield*) which can be optionally occupied by a wide variety of phrasal constituents; I return to the nature of prefield in Section 6.

In line with the theoretical assumptions outlined in Section 2, these facts can be captured at LFG’s c-structure in terms of a left-headed endocentric functional projection, IP, headed by the finite verb in I, with SpecIP as one available prefinite position, cf. the tree in (14).



This is in line with previous proposals for the Icelandic left periphery within LFG (Sells 2001; 2005; Booth et al. 2017; Booth & Schätzle 2019; Booth & Beck 2021). The IP-rooted account outlined here contrasts with other formal accounts of Icelandic clause structure which assume an additional CP-projection to allow the subject to remain in SpecIP in non-subject-initial V2 clauses as well as in V1 clauses (e.g. Sigurðsson 1990). However, as Booth & Beck (2021) point out, this is motivated by the assumption that SpecIP is a unique subject position, within approaches to grammar where subjects are structurally defined; the subject is assumed to be fixed in SpecIP and the finite verb must thus occur in different functional heads (typically I and C) in order to account for the observed word order possibilities. As outlined in Section 2, in LFG subjects are captured at f-structure and need not necessarily be associated with a fixed structural position at c-structure. This more abstract view of subjecthood, and the flexibility with which subjects can be associated with c-structure, means that in principle an analysis where the subject is assumed to occupy a fixed structural position – as in the more standard generative analysis described above – is equally acceptable as an alternative analysis where rather the finite verb is fixed, with

two available positions for the subject. In fact, as I show in Section 6, there is empirical evidence with respect to information structure which indicates that the prefield and the immediately postfinite position are not one and the same position. As such, I opt for the IP-rooted account which neatly captures the key intuition borne out by the Old Icelandic data, namely that the position of the finite verb is restricted.

3.2 Does Old Icelandic have a VP?

The original discussion on (argument) configurationality in Old Icelandic featured a claim concerning its structural organisation by Faarlund (1990), specifically that the language lacks a VP-constituent. Faarlund's evidence for the absence of a VP-constituent centred on negative evidence, namely the fact that structures involving VP-fronting, VP-clefting and VP-pronominalisation did not appear to be attested. However, in historical linguistics this type of negative evidence is famously problematic; the absence of a structure in a language stages's written attestation carries much less weight than synchronic judgements of a structure as ungrammatical. Instead, it is sensible to investigate whether also *positive* evidence against a VP-constituent can be found, taking into account a broader range of types of evidence. In this section, I test Faarlund's original claims against the (M)IcePaHC data and also consider further diagnostics for constituency. In order to abstract away from V2, I only examine sentences with a finite auxiliary and a nonfinite lexical verb which is transitive, specifically examining the behaviour of the nonfinite lexical verb and its object. As I discuss below, Faarlund's claim regarding the absence of VP-pronominalisation has since been challenged by Rögnvaldsson (1995: 13), who claims that tests for VP-constituency "appear to give the same results for Old and Modern Icelandic". As I show in this section, if one extends the diagnostics to a broader range, this is not the case; subtle differences between Old Icelandic and the modern language can in fact be found.

3.2.1 Fronting

As discussed in Section 3.1, the position of the finite verb in Old Icelandic is highly restricted, allowing for maximally one prefinite constituent in the prefield. This restriction in turn feeds into a useful diagnostic for constituency: if a string occupies the prefield, it is a constituent. Faarlund (1990), citing data from Nygaard (1906), does not observe any attested examples featuring a fronted verb and its object in the prefield. Rögnvaldsson (1995: 8) goes one step further, claiming that no examples of "topicalization of the VP as a whole" can be found at all in Old Icelandic. Corpus searches of (M)IcePaHC confirm this. As both Faarlund (1990) and Rögnvaldsson (1995) point out, examples where a nonfinite verb is fronted to the prefield, stranding the object, are however robustly attested, e.g. (15). Such configurations are reminiscent of *stylistic fronting* as widely discussed for modern Icelandic (e.g. Maling 1990; Holmberg 2000; Hrafnbjargarson 2004;

Egerland 2013), but note in Old Icelandic such patterns can occur in clauses which do not have the “subject gap” which is required in the modern language (Maling 1990).

- (15) a. (IcePaHC: 1350, Bandamenn.103)
Svikið hefir þú oss Egill.
 betray.PST.PTCP have.PRS you.NOM we.ACC Egill.NOM
 ‘You have betrayed us, Egill.’
- b. (IcePaHC: 1450, Vilhjalmur.99.2040)
Vera munu þar nokkurir óvíglegri en þú.
 be.INF may there some.NOM more-unwarrior-like.NOM than you.NOM
 ‘There may be some more unwarrior-like than you.’

Rögnvaldsson (1995: 8) dismisses the absence of VP-fronting as relevant evidence in the context of Old Icelandic, on the basis that VP-fronting is “at best very marginal and usually ungrammatical” in modern Icelandic. Indeed, searches in the IcePaHC data for 1900-2008 produce no examples. This is line with Thráinsson (2007: 349), who claims for modern Icelandic that VPs “cannot really be preposed in a natural fashion”, marking the examples in (16) as ungrammatical.⁵

- (16) *modern Icelandic* (Thráinsson 2007: 349)
- a. ***[Keypt nokkrar bækur]** hefur hún.
 bought some books has she
- b. ***[Lesað allar bækurnar]** mun hún.
 read all books-the will she

Rögnvaldsson (1995) takes a specific – and common – view of configurationality, namely that it is a binary parameter. Thus for Rögnvaldsson, the fact that Old Icelandic does not exhibit VP-fronting is not an important observation, since it is also absent in modern Icelandic which is in his view clearly configurational and has a VP-constituent. I return to this view of configurationality and present a different view which I claim better models the empirical facts in Section 5.

Eythórsson (2009: 73) provides examples (“about twenty cases”) from Old Icelandic poetry that appear to show VP-fronting, e.g. (17).

- (17) *Old Icelandic, Poetic Edda* (Eythórsson 2009: 73)
- a. **Höfuð höggva** / ek mun þér hálsi af
 head.ACC hew I will you.DAT neck off
 ‘I will cut the of you neck’
- b. **Höfði veðja** / vit skolum höllu í.
 head.DAT bet we shall hall in
 ‘We shall bet our heads in the hall’

⁵ See Holmberg & Platzack (1988: 32) though for a different view.

However, as these examples also show, word order in the *Poetic Edda* shows some striking differences in comparison to the prose texts studied here, permitting e.g. OBJ-V_{nonfinite}-SUBJ-V_{finite} orders which deviate from V2, as in (17). Such divergences from otherwise canonical word order patterns are likely driven by metrical considerations, especially in a tightly constrained verse form such as the *ljóðaháttir* exhibited here. As such, I conclude that examples like (17), while interesting in their own right, should not bear directly on the VP-constituency issue.

3.2.2 Clefting

Faarlund's claim that Old Norse/Icelandic lacks VP-clefting is based on the fact that neither of the studies of clefts in historical North Germanic by Lundebj (1976) and Grønvik (1991) provide examples involving clefted-VPs. Rögnvaldsson (1995) does not mention clefts. In (M)IcePaHC, clefts are explicitly annotated as CP-CLF and can thus be easily isolated. Of the 32 annotated clefts in the corpus data, none involve a clefted-VP; clefted-NPs and -PPs are however attested, e.g. (18).

- (18) a. (IcePaHC: 1260, Jomsvikingar.340)
 En það var jafnt jólaaftan sjálfan er þeir börðust.
 and it be.PST precisely yule-eve self COMP they.NOM fight.PST.RECP
 'It was precisely on yule-eve itself that they fought one another.'
- b. (IcePaHC: 1260, Jomsvikingar.717)
 En þetta var um kveldið, er þessum umbúnaði var
 but DEM.NOM be.PST about evening.DEF COMP DEM.DAT preparation.DAT was
 lokið.
 finish.PASS.PTCP
 'But it was in the evening that these preparations were finished.'

Thráinsson (2007), in his discussion of clefts in modern Icelandic, does not provide any examples of VP-clefting. Of the 63 structures annotated as clefts in the IcePaHC data for 1900-2008, none involve a clefted-VP. Thus the evidence for modern Icelandic here does not appear – at least on the basis of the limited data to hand – to differ from the evidence for Old Icelandic, though the absence of VP-clefts should be taken with caution given that clefts overall are relatively low-frequency in the corpus data.

3.2.3 Pronominalisation

Faarlund (1990: 88) is somewhat agnostic regarding the status of VP-pronominalisation in Old Norse/Icelandic, stating that it is difficult to find unambiguous examples, but at the same time that "it is impossible to ascertain that it does not exist". On the first point, Faarlund (1990:

89–94) argues that what on first sight look like instances of VP-pronominalisation, e.g. (19), instead involve “sentence pronominalisation”, on the basis that verbs like *henda* ‘happen’ as in (19) typically take a clause rather than a verb phrase as its argument; *svá* ‘so’ is thus taken to pronominalise the preceding sentence rather than a VP.

(19) (Faarlund 1990: 89)

Nú skalt þú ríða vestr með mér, frændi, ok vera með mér í vetr. Eigi
now shall you ride west with me kinsman and be with me in winter not

hendir svá...

happens so

‘Now you shall ride west with me, kinsman, and stay with me this winter. It doesn’t happen so...’

Contra Faarlund, Rögnvaldsson (1995) provides examples which he argues are straightforward examples of VP-pronominalisation, e.g. (20), and which indeed do not appear to involve verbs which can take a clausal argument.

(20) Rögnvaldsson (1995: 8)

Þórir *hvarf aptr* ok **gerði þat** at ráði Þorgils.

Þórir.NOM went back and did it for advice Þorgils.GEN

‘Þórir went back because Þorgils advised him to do so.’

Similar examples can also be found in (M)IcePaHC, e.g. (21).

(21) a. (IcePaHC: 1325, Arni.726)

Þið skuluð *grafa upp bein Odds Þórarinssonar* og **gerið**
you.NOM should dig.INF up bones Oddur.GEN Þórarinsson.GEN and do.IMP

það vandlega.

DEM.ACC carefully

‘You should dig up the bones of Oddur Þórarinsson and do that carefully’

b. (IcePaHC: 1350, Finnbogi.663.2184)

Finnbogi *kvað þetta satt vera, bað Hrafn litla*
Finnbogi.NOM say.PST DEM.ACC true be.INF ask.PST Hrafn.ACC little.ACC

taka hest sinn. Það gerði hann.

take.INF horse.ACC his.REFL.ACC DEM.ACC do.ACC he.NOM

‘Finnbogi said that to be true, asked little Hrafn to take his horse. He did that.’

It seems sensible to assume that examples as in (20) and (21) indeed involve instances of VP-pronominalisation. In this respect, Old Icelandic is similar to modern Icelandic, where VP-pronominalisation is also possible (Platzack 2012).

3.2.4 Coordination

Neither Faarlund (1990) nor Rögnvaldsson (1995) discuss whether VP-coordination is possible in Old Norse/Icelandic, despite coordination being a classic constituent test. In fact, in the (M)IcePaHC data there are a number of attested examples which appear to involve VP-coordination, e.g. (22). I bracket the second conjunct in each example.

- (22) a. (IcePaHC: 1260, Jomsvikingar.923)
 ...og það þá fara og sæta því er Áki
 and ask.PST DEM.ACC go.INF and sit-in-ambush DEM.DAT COMP Áki.NOM
 færi aftur frá boðinu, og [taka hann af lífi og allt
 go.PST.SBJV back from banquet.DEF and take.INF he.ACC of life and all
 föruneysi hans]....
 company his
 ‘... and (the king) asked him to go and sit in ambush for when Áki
 would return from the banquet and to take his life from him and all his
 company...’
- b. (IcePaHC: 1300, Alexander.1167)
 Svo kemur þessi maður fyrir konunginn, að hann hafði
 so come.PRS DEM.NOM man.NOM before king.DEF COMP he.NOM have.PST
 bæði slitið af sér klæði sín og [ryskt
 both tear.PST.PTCP from REFL.DAT clothes.ACC his.REFL.ACC and shake.PST.PTCP
 sig]
 REFL.ACC
 ‘This man comes before the king such that he had both torn his clothes from
 himself and shaken himself.’
- c. (IcePaHC, 1250 Sturlunga.423.1165)
 Viljið þér út ganga og [sjá högg stór]?
 wish.PRS you.NOM out go.INF and see blow.ACC great.ACC
 ‘Do you want to go out and see the great blow?’

Examples like (22) would seem to support VP-constituency. VP-coordination is also grammatical in the modern language, e.g (23).

- (23) (IcePaHC: 2008, Mamma.922)
 Maður getur bæði tjáð sig og [þjónað einhverju
 man.NOM could both express.PST.PTCP REFL.ACC and serve.PST.PTCP someone.DAT
 öðru og hálteitara]...
 other.DAT and sublime.CMPR.DAT
 ‘A man could both express himself and serve someone else and more sublime...’

3.2.5 Ordering

Faarlund (1990) does not mention the relative ordering of the verb and its object in his discussion concerning VP-constituency. Rögnvaldsson (1995: 4) acknowledges that the word order patterns found “in the VP” in Old Icelandic show that “the relation between a verb and its complements is somehow looser in Old Icelandic than it is in modern Icelandic” but this does not seem to feed into his ultimate claim that Old Icelandic has a VP-constituent and is configurational. Indeed, in sentences with a finite auxiliary and a nonfinite lexical verb, the relative order of the nonfinite verb and its object is flexible, as is well known for Old Icelandic (Rögnvaldsson 1996; Hróarsdóttir 2000). Rögnvaldsson (1995), citing data from Rögnvaldsson (1996), points out that in sentences with two nonfinite verbs (auxiliary and lexical) and two objects (direct and indirect), at least 12 of the 18 possible word orders are attested in Old Icelandic, while only one is grammatical in the modern language, in line with the restriction to $V_{\text{nonfinite}}$ -OBJ order in modern Icelandic, where OBJ- $V_{\text{nonfinite}}$ is only preserved in a few very specific constructions (Hróarsdóttir 2000; Thráinsson 2007).

Moreover, the word order variation attested in Old Icelandic appears to be at least somewhat independent from the weight of the object, with both orders attested for clauses involving lexical objects, e.g. (24), and pronominal objects, e.g. (25).

- (24) a. (IcePaHC: 1150, Homiliubok.473)
 en þeir vildu og hafa **orð** **þeirra**
 but they.NOM wish.PST also have.INF word.ACC they.GEN
 ‘but they wished also to have their word’
- b. (MicePaHC: 1350, Viga.4422)
 Hér munuð þér first **nokkura** **dvöl** eiga.
 here will you.NOM first some.ACC short-stay.ACC own.INF
 ‘Here you will first have a short stay.’
- (25) a. (IcePaHC: 1150, Homiliubok.1260)
 Nú munum vér lofa **þig**.
 now will we.NOM praise.INF you.ACC
 ‘Now we will praise you.’
- b. (IcePaHC: 1350, Finnboga.232)
 Eigi mun eg **það** gera.
 NEG will I.NOM DEM.ACC do.INF
 ‘I will not do that.’

The IcePaHC corpus data for 1150–1350 confirms that, in matrix clauses where a nonfinite lexical verb and its object are directly adjacent, both $V_{\text{nonfinite}}$ -OBJ and OBJ- $V_{\text{nonfinite}}$ orders are robustly attested, albeit with a preference for the former, see **Table 1**.⁶ This flexibility in ordering between

⁶ See also Wallenberg et al. (2021) for a recent study of OV/VO variation and change in Icelandic via IcePaHC.

V _{nonfinite} -OBJ		OBJ-V _{nonfinite}		Total	
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
2590	72%	986	28%	3576	100%

Table 1: Relative ordering of nonfinite lexical verb and object in Old Icelandic (1150–1350).

V_{nonfinite} and OBJ has been captured in two principle ways in the literature, and in both cases in terms of endocentricity: (i) as the result of a VP-constituent whose “head-parameter” is unspecified (Rögnvaldsson 1996); (ii) as an “underlying” left-headed VP, with extensive movement operations accounting for “surface” OBJ-V orders (Hróarsdóttir 2000). Both types of account are tied to the assumption that the object must be encoded via a particular structural position within an endocentric VP (sister of V). By contrast, in LFG this type of word order variation need not necessarily be captured in terms of endocentricity due to the flexibility of LFG’s c-structure, as I show below in Section 3.3.

3.2.6 Intervening sentence-adverbs

Another diagnostic for VP-constituency is to examine what can intervene between a verb and its object. Kaplan & Zaenen (1989) apply this to modern Icelandic, arguing that the fact that a sentence adverb (S-adverb) cannot intervene between the verb and its object in a sentence with an auxiliary and a nonfinite lexical verb, e.g. (26), is evidence for a VP-constituent in the modern language.

(26) *modern Icelandic* (Kaplan & Zaenen 1989: 140)

*Hann mun stínga sjaldan smjörinu í vasann.
 he.NOM will put.INF seldom butter.DAT.DEF in pocket.DEF
 ‘He will seldom put butter in the pocket.’

By contrast, the (M)IcePaHC data shows that, in Old Icelandic, S-adverbs can in fact occur in this position, i.e. intervene between the lexical verb and its object, e.g. (27).⁷

⁷ An anonymous reviewer points out that a few examples of clauses where an S-adverb intervenes between a nonfinite verb and its object can be found in modern Icelandic in the Icelandic Gigaword Corpus (IGC, Steingrímsson et al. 2018):

(i) (IGC: Sjónvvarpsfréttir Stöðvar 2, 07-08-2016)

... ég hef haft **stundum** áhyggjur af því að við skulum sjálf vera
 I.NOM have.PRS have.PST.PTCP sometimes worries.ACC of DEM COMP we.NOM shall self be.INF
 að tala okkur niður...
 to speak.INF us.ACC down
 ‘... it often worries me that we are belittling ourselves...’

However the reviewer also states that such sentences are “very rare” in the modern language and that “many speakers would probably judge them doubtful or ungrammatical”. Moreover, the (M)IcePaHC data indicates that it is not just a case of a few scarcely attested examples in Old Icelandic; rather, this pattern is found in at least 68 examples. As such, it seems reasonable to assume that intervening S-adverbs between the nonfinite verb and its object are much more heavily restricted in modern Icelandic than in Old Icelandic and, where they do occur in the modern language, are perhaps best considered as a remnant of an older structure which was more freely available in earlier stages.

- (27) a. (MIcePaHC: 1250, Egils.901)
 Höfðu þeir Hallvarður haft **jafnan** andvirði.
 have.PST they.NOM Hallvarður.NOM have.PST.PTCP always value.ACC
 ‘They and Hallvarður had always had value.’
- b. (IcePaHC: 1350, Finnboga.855)
 En eigi munuð þér bana **svo** öðrum birni.
 but NEG will you.NOM kill.INF so other.DAT bear.DAT
 ‘But you will not kill the other bear so.’
- c. (MIcePaHC: 1350, Víga.1578)
 en ef hann deyr muntu eiga **aldrei** landvætt
 but if he.NOM die.PRS will-you.NOM own.INF never land-rights.ACC
 ‘but if he dies you will never own the land-rights’

The examples in (27) all feature V-(...)-O order, but S-adverbs can also intervene between the lexical verb and its object in O-(...)-V contexts, e.g. (28).

- (28) a. (IcePaHC: 1210, Jarstein.436)
 En griðungurinn vildi hana **ávallt** ofan færa.
 but bull.NOM.DEF wish.PST she.ACC always down bring.INF
 ‘But the bull wished to bring her down always.’
- b. (MIcePaHC: 1275, Laxdæla.4260)
 og fyrir það vil eg þig **svo** af höndum leysa
 and for DEM.ACC wish.PRS I.NOM you.ACC so of hands.DAT release.INF
 ‘and for that I wish to free you by the hands so’
- c. (MIcePaHC: 1300, Njals.10029)
 þá skal eg þig **aldrei** drepa
 then shall. I.NOM you.ACC never kill.INF
 ‘then I shall never kill you’

Examples like (28) are reminiscent of modern Icelandic *object shift* (e.g. Holmberg 1986; Thráinsson 2001), which “shifts” an object to a position left of an element which is not part of the VP (e.g. negation or an adverbial). However, the Old Icelandic data differs crucially from modern Icelandic object shift, which is only permitted in clauses with a single finite lexical verb and ruled out in clauses with a finite auxiliary and a main verb in its lexical projection (*Holmberg’s Generalisation*, Holmberg 1986; 1999) cf. (29) which permits a “shifted” object and (30), which does not.

- (29) *modern Icelandic* (Broekhuis 2020: 413)
 a. Jón las ekki **þessa bók**
 Jón read not this book

- b. Jón las þessa bók ekki
 Jón read this book not

(30) *modern Icelandic* (Broekhuis 2020: 413)

- a. Jón hefir ekki keypt bókina.
 Jón has not bought book.the
- b. *Jón hefir bókina ekki keypt.
 Jón has book.the not bought

Thus the examples from Old Icelandic cannot be dismissed as standard object shift and show that Old Icelandic is freer in terms of what can intervene between a nonfinite lexical verb and its object than the modern language.

3.2.7 Intervening subjects

Strikingly, there are also some instances in the (M)IcePaHC data where a subject intervenes between a nonfinite lexical verb and its object in the postfinite, e.g. (31).

- (31) a. (IcePaHC: 1310, Grettir.263)
 og vildi sitt mál hvortveggi hafa
 and wish.PST their-own.ACC case.ACC each-one.NOM have.INF
 ‘and each wished to have their own case’
- b. (IcePaHC: 1350, Bandamanna.310)
 Mun það engi maður mistrúa.
 will DEM.ACC no.NOM man.NOM mistrust.INF
 ‘No man will mistrust that.’
- c. (IcePaHC: 1350, Bandamanna.812)
 nú mun það engi maður gruna
 now will DEM.ACC no.NOM man.NOM suspect.INF
 ‘now no man will suspect that’

Within LFG’s “What You See Is What You Get” approach to c-structure (see Section 2), examples like (31) constitute strong evidence against a VP-constituent. It is noteworthy that each of the examples in (31) involve a quantified subject. In fact, such examples have been observed and pointed out before, and have been a contentious issue in the literature (Haugan 2000; Faarlund 2001; Jónsson 2018), a point I return to in Sections 5 and 6 below.

This configuration, with a subject intervening between a nonfinite lexical verb and its object, is not attested in the IcePaHC data for 1900–2008 (modern Icelandic). As Jónsson (2018: 139–140) points out, in modern Icelandic a pronominal object can be “shifted” across an indefinite or quantified subject, but again this is constrained by Holmberg’s Generalisation and is only

possible in clauses without an auxiliary, where the lexical verb occupies a higher functional projection, e.g. (32).

- (32) *modern Icelandic*, (Jónsson 2018: 139)
 Það sáu það allir í gær.
 there saw it.ACC all.NOM yesterday.
 ‘Everybody saw this yesterday.’

As Jónsson (2018) also points out, this constraint does not apply in Old Icelandic, as shown by the data here in (31).

3.2.8 Summary

In this section, I have shown that taking a wider range of evidence into account concerning the status of a VP-constituent in Old Icelandic yields two important findings: (i) that the evidence is conflicting, with some diagnostics pointing towards a VP-constituent (pronominalisation and coordination) and others indicating the lack of such a constituent; (ii) that certain diagnostics yield different results for Old Icelandic compared to the modern language, with the evidence for a VP-constituent being stronger overall for the modern stage. The results of the diagnostics, compared against the earlier claims in Faarlund (1990) and Rögnvaldsson (1995), are shown in **Table 2**.

The conflicting results in **Table 2** reinforce the view that constituency tests are useful heuristics rather than foolproof diagnostics (e.g. Croft 2001; Carnie 2010). Moreover, the contrasting results

Diagnostic	Old Ice.			modern Ice.
	Faarlund (1990)	Rögnvaldsson (1995)	(M)IcePaHC	
VP-fronting	✗	✗	✗	✗
VP-clefting	✗	–	✗	✗
VP-pronominalisation	✗	✓	✓	✓
VP-coordination	–	–	✓	✓
Fixed order of V and O	–	✗	✗	✓
No intervening S-adverb	–	–	✗	✓
No intervening subject	–	–	✗	✓

Table 2: Diagnostics for the presence of a VP-constituent in Old and modern Icelandic.

for Old and modern Icelandic can be taken to indicate a diachronic trend whereby a VP-constituent becomes increasingly solidified over time. While the typical, generative, discrete views of constituency find it difficult to accommodate such facts, the notion of gradient constituency has been particularly explored in cognitive (Langacker 1997; 2001) and usage-based approaches to grammar (Bybee & Scheibman 1999; Bybee 2002; Beckner & Bybee 2009; Bybee 2010).⁸ Langacker (1997; 2001), for instance, argues that constituents are emergent in character, thus allowing for constituency to be sometimes fluid and variable. An emergent view of constituency has also been proposed by Bybee and colleagues (Bybee & Scheibman 1999; Bybee 2002; Beckner & Bybee 2009; Bybee 2010). In this work, elements that occur frequently together are predicted to show a tighter constituent structure than those that appear together less frequently (Bybee & Scheibman 1999). Moreover, this proposal is set within the context of diachrony, specifically with respect to changes in constituent structure involved in grammaticalisation. Beckner & Bybee (2009), for instance, show via corpus data that complex preposition sequences in English, e.g. *in spite of*, display varying degrees of emerging constituency at a synchronic level, as evidenced by conflicting results from the classic constituency tests. In their account, as *in spite of* “strengthens” in constituency, it does not instantaneously become fused into an indivisible unit; rather, the separate elements continue for some time to maintain some independence.

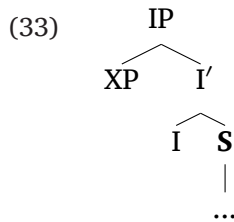
Compared to traditional, discrete models of constituency, such gradient approaches thus seem to be strongly motivated by the well-established empirical observations that (i) structural change is gradual and (ii) constituency tests often yield mixed results at synchronic stages. Next, I present a formal analysis for the structure of the clause in Old Icelandic and discuss formal ways to capture the increasing consolidation of the VP-constituent over time.

3.3 Old Icelandic as an IP-S language

In this section, I have shown empirical evidence that Old Icelandic exhibits both endocentricity in terms of V2 and also a certain level of word order freedom in the postfinite domain, with evidence both for and against a VP-constituent. In this respect, Old Icelandic exhibits a clausal shape which is reminiscent of diverse languages which exhibit some second position phenomenon – whereby a functional feature is firmly associated with the second position in the clause – but where word order after this second position is relatively free. Such properties are in fact relatively common among those languages which have been classically labelled as (argument)-non-configurational and which have been analysed within LFG, e.g. Tagalog (Kroeger 1993), Warlpiri (Simpson 1991; Austin & Bresnan 1996) and Wambaya (Nordlinger 1998).

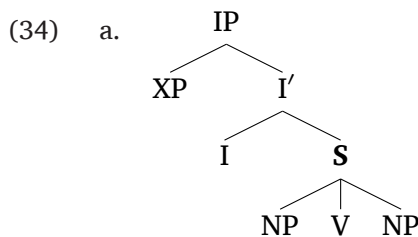
⁸ Emergent properties can also be at least partially accommodated within generative grammar via the *competing grammars* approach (e.g. Kroch 1989; 2001; Pintzuk 1999; 2003), although this still relies on (competing) discrete properties.

Many of these accounts (Kroeger 1993; Austin & Bresnan 1996; Nordlinger 1998) capture these observations via an IP structure where the second position phenomenon is captured under I, and make use of the exocentric non-projective category S (see Section 2) to capture the post-second freedom. The assumption for the relevant languages is that this S is the complement of I, see the tree in (33).

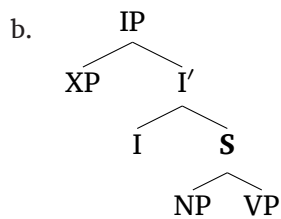


The intuition behind S is that it allows for languages which favour predicate-argument locality (see Section 2) by permitting “internal subjects” (Austin & Bresnan 1996).⁹ As such, S is similar to the small clause (SC) proposed for Irish by Chung & McCloskey (1987), in that it is distinct from IP and can dominate a subject and a predicate without an overt expression of tense. The internal structure of S can vary typologically (Kroeger 1993), as I return to below.

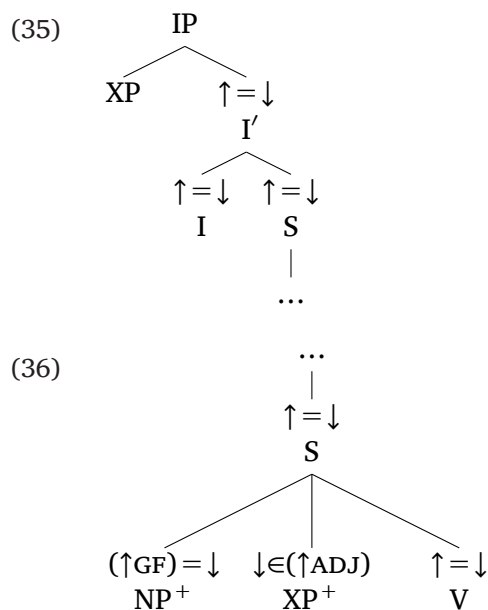
In this respect, such languages, which I term *IP-S languages*, differ from languages where I takes a VP as a complement, e.g. English, cf. (10) above. At the same time, the presence/absence of a VP-constituent in a particular language is to some extent independent of its status as an IP-VP or IP-S language. Since the internal structure of S is assumed to vary cross-linguistically (Kroeger 1993), this allows for a flat structure where the verb and its arguments are sisters to one another, e.g. (34a) (cf. Kroeger 1993 on Tagalog; Austin & Bresnan 1996 on Warlpiri) or equally a structure where S contains a VP-constituent e.g. (34b) (cf. Chung & McCloskey 1987 on Irish).



⁹ As Kroeger (1993: 227) points out, assuming an S which contains a subject and a predicate is similar in some ways to the internal subject hypothesis, where a VP containing a subject is permitted (e.g. Koopman & Sportiche 1988). However, since an endocentric VP containing a subject goes against the basic tenets of X-bar theory, an exocentric S category is more favourable, provided one’s theoretical approach allows for it.

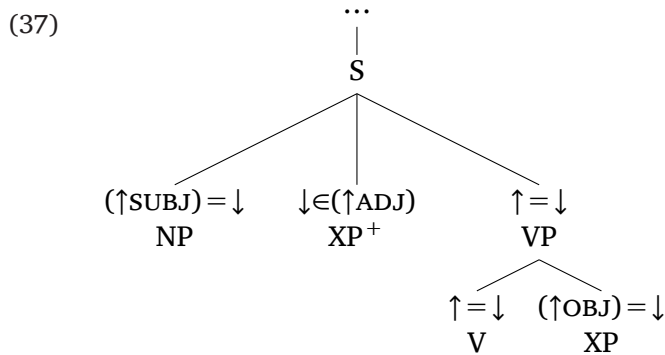


On the gradient view of constituency as outlined in Section 3.2, and since there is mixed evidence for and against a VP-constituent in Old Icelandic, it seems reasonable to assume that Old Icelandic allows for both (34a) and (34b); an endocentric VP has to some extent developed, cf. (34b), but is not yet fully solidified, with the result that we also get word orders which are licensed by the older flat structure within S, cf. (34a). By comparison, for modern Icelandic, where the evidence for a VP-constituent is considerably stronger, it seems reasonable to assume that the structure in (34b) is more dominant.¹⁰ As such, I propose the structure in (35) as the basic clause structure for Old Icelandic, building on the assumptions regarding the left periphery outlined in Section 3.1, see (14). As outlined already, the mixed evidence regarding the status of a VP-constituent can be captured via assuming two alternative expansions of S, a flat expansion as in (36) and an expansion with a VP as in (37).¹¹



¹⁰ Assuming an IP-S structure for a Germanic verb-second language is not without precedent. Sells (1998), for instance, proposes an IP-S structure similar to (34b) for modern Icelandic, and Kroeger (1993) assumes an IP-S structure for the typologically similar modern Germanic V2 language, Yiddish.

¹¹ There is also precedent for assuming an optional VP-constituent within LFG work on modern Scandinavian. Kaplan & Zaenen (1989), for instance, propose for modern Icelandic that clauses with a single finite verb lack a VP, while clauses with a finite auxiliary and a nonfinite lexical verb have a VP; see Engdahl et al. (2004) for a similar proposal for modern Swedish.



Under the flat expansion of S in (36), any grammatical function (GF) can occur, as well as any number of adjuncts, and nonfinite verbs. The functional annotation $(\uparrow GF)=\downarrow$ reflects the assumption that no specific grammatical functions are assigned within S, but that the information with respect to the specific grammatical functions comes from other sources, i.e. morphological marking (see Nordlinger & Bresnan 2011). The freedom of order between the nonfinite verb, its object, the subject and adjuncts is captured via S being the mother node; the sisters are assumed to be, in syntactic terms at least, freely ordered (see also Kroeger 1993 on Tagalog). By comparison, in the alternative expansion in (37) the verb and its object(s) form a VP-constituent to the exclusion of the subject.

Note that the diachronic proposal here, as supported by the data in Section 3.2, is that both expansions of S in (36) and (37) are available in Old Icelandic and that the structure with a VP in (37) becomes increasingly dominant over time, and by modern Icelandic is overwhelmingly dominant. While gradient models of constituency have been for the most part restricted to non-generative approaches to syntax (as discussed in Section 3.2), non-discrete models of constituency have also been considered within generative syntax (see e.g. discussion in Carnie 2010). In LFG specifically, diachronic accounts of gradual structural change have been captured in terms of the “growth of c-structure” (Vincent 1999; Börjars et al. 2016), whereby endocentric phrasal organisation gradually emerges over time. Another approach to gradual change at clause structure has been developed by Clark (2004) in terms of *stochastic optimality-theoretic LFG*. Moreover, recent work by Bresnan (2021) has shown how LFG’s parallel architecture can be adapted to produce a hybrid model which combines the formal representation central to generative approaches with usage-based insights (e.g. Bybee 2006) via an exemplar-based model of the mental lexicon (Pierrehumbert 2001; 2002). Developing a formal model to capture the gradience involved in an increasingly consolidated VP-constituent in the history of Icelandic would be beyond the scope of this paper. Here, I just point out that the assumptions and approaches which could underpin such a model are not without precedent, provided one considers insights from a broad range of approaches to language.

In sum, on the account outlined here, Old Icelandic is an IP-S language exhibiting a mixture of endocentricity and exocentricity at c-structure, and a somewhat established VP-constituent, which, by comparison, has become increasingly consolidated by the modern stage. This in turn has bearings on the language's status with respect to argument configurationality, as I discuss in Section 5.

4 Argument configurationality and discourse configurationality as gradient properties

In recent years, there has been a good deal of research focusing on the need to recognise gradience within models of word order, both in the cognitive and usage-based work discussed in Section 3, and in typological work (e.g. Levshina 2019; Namboodiripad to appear). This is in line with a wider trend towards allowing for more gradience within formal accounts of language generally (e.g. Sorace & Keller 2005; Wasow 2007; Coetzee 2009). As I show in this section, this is also relevant with respect to argument configurationality and discourse configurationality, despite the fact that gradience has often been neglected or ignored in relation to these two properties to date.

4.1 Argument configurationality

Early work on (argument) configurationality (Hale 1982; 1983) cast it in terms of a binary parameter whose “non-configurational setting” could account for various syntactic phenomena, most notably free word order, discontinuous expressions and extensive use of unexpressed arguments (cf. Baker 2001, “narrow configurationality”). However, various authors have since argued that these three phenomena are in fact independent of one another, and that discontinuous expressions and unexpressed arguments in particular are fairly superficial typological features exhibited also in many (argument-)configurational languages (e.g. Speas 1990; Kroeger 1993; Austin & Bresnan 1996). In this paper, I adopt the now standard view within LFG that argument configurationality is a gradient property and strictly concerns how a language marks grammatical relations (e.g. Nordlinger 1998; see also Baker 2001, “broad non-configurationality”). In a radically argument-configurational language such as English, the difference between subject and object is positionally marked (subject in SpecIP, object as complement of V). By contrast, in a radically non-argument-configurational language, other means must be employed for marking grammatical relations, e.g. case-marking and/or agreement patterns (cf. Kiparsky 1987; 1988; 1997; Nordlinger 1998).

Given this narrower definition of (argument) configurationality, one might ask precisely what types of evidence can be taken to indicate AC or a lack thereof and, perhaps more importantly, which cannot. In this view the presence/absence of two classic “non-configurational”

characteristics, discontinuous expressions and unexpressed arguments, will not directly bear on a language's status with respect to AC. At the same time, subject-object asymmetries, which are often taken to indicate an (argument-)configurational language, are also no watertight diagnostic, since many non-(argument-)configurational languages have been observed to exhibit subject-object asymmetries, e.g. Warlpiri (Hale 1983; Baker 2001) and Tagalog (Kroeger 1993). This in turn fits with the design principles behind the parallel architecture of LFG which, as discussed in Section 2, assumes that grammatical functions (at f-structure) are independent of structural configuration (at c-structure); such an approach permits subject-object asymmetries even in a non-argument-configurational language, since it is assumed that these operations refer to abstract functional information captured at f-structure, without necessarily resorting to structural properties at c-structure; see Mohanan (1982) for discussion.

Similarly, one might ask how endocentric/exocentric organisation at c-structure intersects with AC. From typological evidence alone, it is clear that the relation between AC and endocentricity/exocentricity is complex. A standard view within LFG (e.g. Nordlinger 1998) is that non-argument-configurational languages will have free word order in terms of the ordering of arguments, but need not necessarily have an exclusively exocentric structure; some level of endocentricity may be present, provided specific structural positions are not exclusively associated with particular grammatical functions. As discussed in Section 3.3, some of the classic non-(argument)-configurational languages, e.g. Warlpiri, do not encode grammatical relations via structural position, but exhibit some second position phenomenon which motivates an endocentric IP. In turn, this view means that one is left with a rather narrow set of linguistic characteristics which can be taken as evidence for or against AC, specifically those characteristics which reveal the status of the relation between grammatical functions and (i) phrase-structure configuration and (ii) morphology, since this will situate a particular language on the scale of argument configurationality in (38).

(38) **Scale of AC, based on how grammatical relations are marked**
 exclusively structural ←————→ exclusively morphological

With respect to the relation between grammatical functions and phrase-structure configuration, i.e. structural encoding, indication as to how strong this relation is in a particular language will come from (i) constituency tests and linear word order patterns which show whether the verb and its object do/do not form a phrasal constituent (VP) to the exclusion of the subject and (ii) linear word order patterns which show to what extent subject, verb and object have a fixed order relative to one another and occur in specific positions (cf. Nordlinger & Bresnan 2011). In terms of the other relation, between grammatical functions and morphology, relevant considerations are to what extent specific grammatical functions are expressed via dependent-marking (i.e. case-marking on nominals) or head-marking strategies (i.e. agreement-marking on verbs).

The gradient nature of AC is evidenced both synchronically and diachronically. From a synchronic perspective, the sheer fact that many languages encode grammatical relations via a mixture of means, structural and morphological, indicates that the gradience of AC should be taken seriously (Nordlinger 1998; Nordlinger & Bresnan 2011; Snijders 2015). For example, there are languages which combine structural means with head-marking morphology, e.g. Chicheŵa (Bresnan & Mchombo 1987), and similarly languages which combine structural means with dependent-marking, i.e. case, e.g. modern Icelandic (Zaenen et al. 1985), as I return to in Section 5. On the other hand, diachronic evidence from various languages indicates that languages change their means for marking grammatical relations over time (e.g. Kiparsky 1997; Vincent 1997; Hewson & Bubenik 2006; Ponti & Luraghi 2018). This means that individual language stages will naturally exhibit intermediate stages along a particular change's trajectory, i.e. gradient levels of AC. In computational work, recent corpus-based approaches have made important strides towards quantifying the extent to which languages use structural and/or morphological means to encode grammatical relations (e.g. Montemurro & Zanette 2011; Futrell et al. 2015; Levshina 2019; Namboodiripad to appear). Although such studies are often not explicitly connected with the issue of (argument) configurationality, their findings in turn reinforce the need to recognise the gradient nature of AC in theoretical work.

Still, previous acknowledgement of the gradience of configurationality in the wider theoretical literature, and attempts towards a typology of configurationality, have generally relied on the broader set of properties typically associated with non-configurationality as diagnostics. Payne (1993), for instance, argues for a distinction between noun-phrase configurationality and verb-phrase configurationality, based on evidence from Panare. Baker (2001), meanwhile, allows for three types of (argument)-non-configurational language, primarily based on which specific types of subject-object asymmetries a language exhibits. In this paper, I will examine Old Icelandic with respect to the specific diagnostics for AC outlined here, namely the extent to which grammatical relations are encoded via (i) structural means and (ii) morphological strategies.

4.2 Discourse configurationality

In early work, the term discourse configurationality (DC) was motivated as a way to capture “topic-prominent” and “focus-prominent” languages (Kiss 1995). According to the original criteria in Kiss (1995), a language's status as discourse-configurational is evidenced by the fact that topic and/or focus is expressed through a particular structural relation, i.e. associated with a particular structural position. In line with this, DC has been taken to be a rather narrow term, which can only be applied to languages where a particular structural position is *systematically and exclusively* associated with a discourse function e.g. topic or focus. Surányi (2015), for instance, argues on this narrow definition that discourse-configurational languages should be kept distinct from what he calls “discourse prominence”, i.e. where information structure plays a role in

word order, but where the relevant discourse functions are *not* systematically and exclusively associated with particular structural positions.

Whatever one's position with respect to how broadly/narrowly the label DC should be employed, it is clear from typological evidence that languages vary along a continuum with respect to how they mark topic and focus, just as they vary in their encoding of grammatical relations. As languages often make use of multiple means to mark grammatical relations, they also typically employ a range of strategies to encode topic and focus (e.g. position, intonation and/or topic-/focus-markers) (see e.g. Oshima 2005; Buring 2009; Zimmermann & Onea 2011). On this basis, a classically discourse-configurational language in which topic and focus are associated with particular structural positions, e.g. Finnish (Kiss 1987; Vilkuna 1989; Kiss 1995; Surányi 2015) can be viewed as being towards one end of a continuum, which I propose as a scale of discourse configurationality, see (39); cf. Sasse (1995), Öhl (2010) and Latrouite & Van Valin Jr. (2019) who also suggest typological spectra relating to DC.

(39) **Scale of DC, based on how topic and focus are marked**
 exclusively structural ←————→ exclusively non-structural

Like gradience with respect to AC, the gradient nature of DC is well-attested cross-linguistically. For instance, we find languages which are discourse-configurational with respect to one discourse function only, such as Aghem, which has been shown to exhibit DC specifically with respect to focus (Horvath 1995), and Japanese which is discourse-configurational in relation to topics (Kiss 1995). Moreover, since topic and focus are relatively broad terms, there is also the possibility that a language is discourse-configurational specifically with respect to certain types of topic or focus. Vallduví (1992), for instance, shows that Catalan is discourse-configurational with respect to certain types of topic. At the same time, there is also evidence that a language's place on the scale in (39) can change (typically subtly and gradually) over time, just as AC (see Section 4.1). For instance, it is well-known that word order is information-structurally driven in early Germanic (e.g. Trips & Fuß 2009; Hinterhölzl & Petrova 2009; 2010; Petrova & Hinterhölzl 2010; Bech & Eide 2014) and that, by comparison, position is generally more important at this early stage for marking information structure than in the corresponding modern languages. I return to this issue in Section 6 in relation to Old Icelandic.

5 How argument-configurational is Old Icelandic?

The original claim by Faarlund (1990), i.e. that Old Norse/Icelandic is a non-(argument-) configurational language, met with heavy criticism at the time (Platzack 1991; Stockwell & King 1993; Rögnvaldsson 1995). The two main points of criticism from these authors, however, are theoretically rather than empirically driven. Stockwell & King (1993: 63), for instance, reject the claim on the basis that “non-configurational languages do not, in fact, exist”, in line with trends

in mainstream generative theory at the time which argued that the various “non-configurational” phenomena could in fact be derived from an underlying configurational structure (e.g. Stowell 1982). As outlined in Section 4.1, other approaches within generative syntax, e.g. LFG, still allow for non-(argument-)configurationality so I do not pursue this counterargument further.

The major point of criticism from Platzack (1991) and Rögnvaldsson (1995), meanwhile, is rooted in the traditional view of (argument) configurationality as a binary property (e.g. Hale 1982; 1983), whereby a language is either fully argument-configurational or not at all. On this basis, Platzack (1991) and Rögnvaldsson (1995) interpret Faarlund’s claim as implying a radical reversal of the “configurationality parameter” later in the history of the Scandinavian languages, in order to match up with the modern languages which they view as uncontroversially (argument-)configurational. Rögnvaldsson (1995: 2), for instance, remarks that “the syntactic changes between Old and Modern Icelandic are far from being as radical as the reversal of the configurationality parameter would entail”; a similar line of argumentation is found in Platzack (1991). However, assuming the view of AC as outlined in Section 4.1 – that AC is a gradient property – allows one to posit subtle changes in how languages change their strategies for encoding grammatical relations over time. As I show in this section, on this view, the fact that Icelandic has become *somewhat* more argument-configurational over the course of several centuries does not seem so unreasonable, particular in light of the empirical data. I first review what has been said about the marking of grammatical relations in modern Icelandic, before considering to what extent Old Icelandic differs by comparison.

5.1 Grammatical relations in modern Icelandic

As outlined in Section 3, the evidence supporting a VP-constituent in modern Icelandic is relatively strong, which led me to propose that by the modern stage, the c-structure with the VP in (37) is dominant. In other words, the object is now (more) firmly associated with a structural position within the endocentric VP (sister of V) to the exclusion of the subject. At the same time, it is clear that modern Icelandic employs both structural configuration and case-marking to encode grammatical relations, as has been widely observed (e.g. Zaenen et al. 1985; Nordlinger 1998). Accounts vary, however, as to how much weight is given to the structural vs. morphological encoding strategies in the language. Sells (1998), for instance, claims that rich case marking on modern Icelandic noun phrases allows their grammatical function to be determined without reference to a specific structural position, referencing the constructive case approach of Nordlinger (1998) as a formal mechanism within LFG for this. More common, however, are accounts which emphasise the relation between structural position and grammatical functions and thus argue, either implicitly or explicitly, for at least some degree of (argument) configurationality. Jónsson (2018), for instance, points out for modern Icelandic that subjects precede objects in main clauses in neutral word order, and that in e.g. yes-no questions only subjects, not objects, can invert with

the verb, in line with what is expected of a Germanic V2 language, see the contrast in (40) (see also Sigurðsson 1989; Jónsson 1996; Thráinsson 2007).

- (40) *modern Icelandic* (Jónsson 2018: 138)
- a. Hefur söngvarinn sungið þetta lag?
 has singer.NOM.DEF sung this.ACC song.ACC
 ‘Has the singer sung this song?’
- b. *Hefur þetta lag söngvarinn sungið?
 has this.ACC song.ACC singer.NOM.DEF sung
 ‘Has the singer sung this song?’

Jónsson (2018) takes contrasts like (40) to indicate that the immediately postfinite position in modern Icelandic is a designated subject position, despite citing counterexamples where the immediately postfinite position can host an object followed by a subject in a “lower subject position”, provided the object is pronominal e.g. (41) (= (32)).

- (41) *modern Icelandic* (Jónsson 2018: 139)
- Það sáu það allir í gær.
 EXPL saw.PL it.ACC all.NOM.PL yesterday
 ‘Everybody saw this yesterday.’

Data like (41) are well-known in the literature and are generally taken as evidence that there is a “lower subject position” available to indefinite or quantified subjects (Jónsson 1996; Bobaljik & Jonas 1996; Vangsnes 2002). An object may also precede a subject in the postfinite domain in modern Icelandic in another context, specifically when the subject is indefinite and relatively heavy, e.g. (42).

- (42) *modern Icelandic* (Jónsson 2018: 140)
- Þá vissu svarið nánast allir nemendurnir í bekknum.
 then knew.PL answer.ACC.DEF almost all.PL.NOM student.PL.NOM.DEF in class.DEF
 ‘Then almost all the students in the class knew the answer.’

In many accounts, including Jónsson (2018), data like (41) and (42) can still be reconciled with the assumption that the immediately postfinite position remains, underlyingly, a designated subject position; “deviant” word orders where the object precedes subject in the postfinite domain are attributed to surface-level syntactic processes such as “object shift”, cf. (41) and “heavy/indefinite subject shift”, cf. (42), which disrupt the underlying positions. I return to below this point below in connection with Old Icelandic.

In the context of how grammatical relations are marked, various authors also cite the existence of non-nominative subjects, that is non-nominative-marked arguments which qualify

as subjects due to their syntactic behaviour (Andrews 1976; Zaenen et al. 1985; Sigurðsson 2004). An example is provided in (43), where the dative argument *henni* behaves like a subject in triggering the obligatory reflexive *sín*; see also Maling (2001) for discussion of mismatches between case and grammatical functions in modern Icelandic.

- (43) *modern Icelandic* (Sigurðsson 2004: 141)
Henni leiðist bókin **sín**/*hennar
 she.DAT bores book.NOM.DEF her-own.NOM/she.GEN
 ‘She finds her (own) book boring.’

The possibility for non-nominative subjects is taken to suggest that structural subject-encoding (i.e. position) has primacy over morphological subject-encoding (i.e. case) in modern Icelandic. On the other hand, some have raised doubts over the primacy of structural encoding. Zaenen et al. (2017) – who extend the investigation to late subjects in presentational constructions (*pivots*) – point out that their observations indicate that position does not uniquely identify subjects. As they state, the facts lead to the “somewhat paradoxical conclusion that in Icelandic, neither case marking nor position uniquely identify subjects” (Zaenen et al. 2017: 269). Of course, there is no paradox here if one allows for gradience in AC, as outlined in Section 4, and thus for languages which employ some combination of structural and morphological encoding.

Moreover, Zaenen et al. (2017) cast doubt over the status of what they refer to as the “canonical subject positions”, i.e. the prefield and the immediately postfinite position. They point out that while they are, in statistical terms, the most prevalent positions in which subjects are found in modern Icelandic, this is “hardly a syntactic distribution” (Zaenen et al. 2017: 270) and that, furthermore, they cannot host any type of subject. Citing Thráinsson (2007: 323), they note that the grammaticality of a bare non-specific indefinite subject in the prefield is questionable, e.g. (44). Thráinsson (2007: 323) specifically states that such subjects “seem more natural inside the VP than outside”.¹²

- (44) *modern Icelandic* (Thráinsson 2007: 323)
 ?Mús hefur verið í baðkerinu.
 mouse.NOM has been in bathtub.DEF
 ‘A mouse has been in the bathtub.’

Furthermore, Zaenen et al. (2017) show that the positional coding properties typical of prefield and immediately postfinite subjects do not hold for the pivots; in other words, only canonical subjects (i.e. those which are not pivots) can occur in those positions which have been taken to be “canonical” or even “designated” subject positions. In fact, as Zaenen et al. suggest, the

¹² An anonymous reviewer suggests examples as in (44) are fine in formal written modern Icelandic, reinforcing the fact that the judgements are complex here, and likely influenced by style and register factors.

positional coding properties may in fact turn out to be properties of topics, rather than of subjects *per se*, and have been conflated with subjects, since subjects are often topics (e.g. Lambrecht 1994: 131–145). Although they do not pursue this possibility any further, it would seem to be a nod in the direction of discourse configurationality, specifically the notion that the “canonical subject positions” are in fact canonical *topic* positions. I return to this point in Section 6 in the context of Old Icelandic.

With so much focus on subject positions and case in modern Icelandic, the other morphological marking strategy, agreement, has a tendency to be glossed over. Nevertheless, there are interesting and highly complex patterns on display here and the relation between agreement and grammatical relations is far from straightforward. Sigurðsson (1996), for instance, points out that while nominative subjects control person and number agreement on the finite verb, e.g. (45a), non-nominative subjects do not, e.g. (45b); in the latter it is standardly assumed that the finite verb shows default (3SG) agreement, in the absence of a nominative noun phrase.

- (45) *modern Icelandic* (Sigurðsson 1996: 1)
- a. Strákarnir leiddust/*leiddist.
 boys.NOM.PL.DEF walked-hand-in-hand.3PL/*3SG
 ‘The boys walked hand in hand.’
- b. Strákunum leiddist/*leiddust.
 boys.DAT.PL.DEF bored.3SG/*3PL
 ‘The boys were bored.’

Clearly this complicates the situation with respect to AC, adding to the mixed picture with respect to the morphological encoding of grammatical relations; just as there is no one-to-one correspondence between case marking and grammatical function, there is no clear-cut pattern with respect to how agreement marks grammatical relations. Moreover, while verbal agreement in modern Icelandic is most commonly controlled by nominative subjects (Sigurðsson 1996), we also find nominative-marked objects which control verb agreement, although this is not obligatory and is limited by number to 3rd person objects (Taraldsen 1995; Sigurðsson 1996), e.g. (46).

- (46) *modern Icelandic* (Sigurðsson 1996: 1)
- Henni leiddust strákarnir.
 her.DAT bored.3PL boys.NOM.PL.DEF
 ‘She found the boys boring.’

In this respect, agreement appears to be closely connected with case, as evidenced by the fact that nominative arguments, whether subject or object, can control agreement.

In sum, it is clear that modern Icelandic employs a complex combination of structural and morphological means for the encoding of grammatical relations; neither structural position, nor case or agreement alone can be said to straightforwardly mark grammatical relations in a clear-cut way.

5.2 Grammatical relations in Old Icelandic

I now consider the encoding of grammatical relations in Old Icelandic, with respect to both structural and morphological strategies, and specifically whether there is evidence to suggest a different balance between these means in Old Icelandic compared to the modern language. Like modern Icelandic, Old Icelandic employs a complex combination of structural means (i.e. position) and morphological strategies (i.e. case and agreement) to mark grammatical relations. However, there is evidence to suggest that the balance between these two means in Old Icelandic is more strongly weighted towards the morphological compared to modern Icelandic. Firstly, there is evidence that the relationship between structural configuration and grammatical functions is somewhat weaker in Old Icelandic; as shown in Section 3, there is good reason to assume that the VP-constituent, though to some extent available in Old Icelandic, was not yet consolidated and that the flat expansion of S was more dominant. Crucially, in the flat structure, the subject and other verbal arguments are all immediate daughters of S, i.e. in a sisterhood relation to one another, cf. (36). As such, there is already evidence towards Old Icelandic being at least *somewhat* less argument-configurational than modern Icelandic where, as discussed, the structure with the VP in (37) is more dominant.

There are also further indications that the role of structural configuration is weaker in Old Icelandic from linear word order patterns showing which positions are available to subjects and objects. In previous work, the question of whether Old Icelandic has a designated subject position immediately after the finite verb has been debated (Haugan 2000; Faarlund 2001; Jónsson 2018). All three authors have observed examples in Old Icelandic where an object can occur in the immediately postfinite position, before an indefinite or a quantified subject, e.g. (47) (cf. (41) for modern Icelandic above). Note that this is possible when the object is pronominal, e.g. (47a) or nominal, e.g. (47b).

(47) (Faarlund 2001: 117)

- a. Mundu þat sumir men mæla í mínu landi.
 would.PL it.ACC some.PL.NOM man.PL.NOM say.INF in my country
 ‘Some men would say so in my country.’
- b. Þá skal sínum húsum hver ráða.
 then shall.SG one’s-own.PL.DAT house.PL.DAT each.NOM rule.INF
 ‘Then each shall decide over his own house.’

Faarlund (2001) and Haugan (2000) cite examples such as (47) as evidence that objects can occur in the “canonical subject position” (= the immediately postfinite position) in Old Icelandic, and thus that this is not a unique subject position.¹³ Faarlund (2001), in fact, goes one step further and shows that all of the positions available to nominative subjects in Old Icelandic are also available to objects.

An investigation of the Old Icelandic texts in IcePaHC (1150–1350) yields similar data to that observed by Haugan (2000) and Faarlund (2001). Indeed, some similar clauses where the object precedes the subject in the postfinite domain were already provided in Section 3.2 as (31), repeated here in (48), where a quantified subject can intervene between the object and a nonfinite verb.

- (48) a. (IcePaHC: 1310, Grettir.263)
 og vildi sitt mál hvortveggi hafa
 and wish.PST their-own.ACC case.ACC each-one.NOM have.INF
 ‘and each wished to have their own case’
- b. (IcePaHC: 1350, Bandamanna.310)
 Mun það engi maður mistrúa.
 will.PRS DEM.ACC no.NOM man.NOM mistrust.INF
 ‘No man will mistrust that.’
- c. (IcePaHC: 1350, Bandamanna.812)
 Nú mun það engi maður gruna þó að...
 now will.PRS DEM.ACC no.NOM man.NOM suspect.INF although
 ‘Now no man will suspect that, although...’

In total, once erroneous examples are removed, there are 54 matrix clauses in the data where, as in (48), a direct object with non-nominative marking precedes a nominative-marked subject in the postfinite domain. The majority (51/54) of these 55 examples are distributed over the properties in (49).

- (49) a. pronominal/definite object – quantified subject ($n=19$)
 (IcePaHC: 1210, Thorlakur.73)
 Og sjá það margir vitrir menn.
 and see.PRS it.ACC many.NOM wise.NOM men.NOM
 ‘And many wise men see it.’

¹³ As with the modern Icelandic data outlined in Section 5.1, Jónsson (2018) contests this; in his account, data like (47) do not necessarily show that subjects do not precede objects at an “underlying” level, since the object-subject order on show here is presumably attributable to surface-level processes, e.g. object shift and heavy/indefinite subject shift. Since LFG assumes a “What You See Is What You Get” approach with respect to word order (see Section 2), I do not consider this counterclaim further.

- b. pronominal/definite object – personal name subject ($n = 13$)
 (IcePaHC: 1325, Arni.381)
 Hafði þann stað áður haldið **Sighvatur**
 have.PST DEM.ACC place.ACC earlier hold.PST.PTCP Sighvatur.NOM
Halfdanarson.
 Halfdanarson.NOM
 ‘Sighvatur Halfdanarson had managed that place earlier.’
- c. pronominal/definite object – indefinite subject ($n = 7$)
 (IcePaHC: 1210, Jarlein.302)
 Kunndu þá síðan **rosknir menn.**
 recognise.PRS he.ACC then mature.NOM men.NOM
 ‘Mature men then recognised him.’
- d. pronominal object – definite subject ($n = 7$)
 (IcePaHC: 1350, BandamennM.312)
 Eigi hryggir mig **geldingahvarfið.**
 NEG grieve.PRS I.ACC gelding-disappearance.NOM.DEF
 ‘The gelding’s disappearance does not grieve me.’
- e. pronominal/definite object – pronominal subject with relative clause extension ($n = 5$) (IcePaHC: 1150, Homiliubok.1474)
 og finna munu mig þeir, er snimma vaka til mín
 and find.INF will I.ACC they.NOM REL soon wake.PRES to I.GEN
 ‘and those who soon wake to me will find me’

The three remaining examples are provided in (50).

- (50) a. (IcePaHC: 1310, Grettir.954)
 Vissu þetta **félagar hans.**
 know.PST DEM.ACC kinsman.NOM he.GEN
 ‘His kinsman knew this.’
- b. (IcePaHC: 1325, Arni.787)
 Fylgdi því transscriptum **páfans bréf.**
 follow.PST DEM.DAT transcript.DEM pope.GEN.DEF letter.NOM
 ‘The pope’s letter follows that transcript.’
- c. (IcePaHC: 1325, Arni.1105)
 Tóku mál fyrir hann **lender menn.**
 take.PST speech.ACC before he.ACC landed.NOM men.NOM
 ‘Landed men took to speech before him.’

In Section 6.1, I show how the various relative orderings of subject and object exhibited in this section can be accounted for in terms of information structure, with bearings on the status of Old Icelandic with respect to discourse configurationality.

Since structural configuration seems to play a weaker role in marking grammatical relations in Old Icelandic than in modern Icelandic, we would also expect to find evidence that morphological means are stronger in this early stage of the language, in order to compensate for this. With respect to agreement, Old Icelandic appears to exhibit similar behaviour to modern Icelandic. Faarlund (2001), for instance, observes that, as in modern Icelandic, in Old Icelandic the verb never agrees with a non-nominative subject (Faarlund 2001). In other words, agreement is exclusively controlled by nominative-marked arguments in Old Icelandic, as is the case in the modern language.

More instructive than the agreement data is data with respect to case and grammatical functions. The role of case in marking grammatical relations in Old Icelandic is disputed, in line with the debate as to whether non-nominative subjects are already a part of the Old Icelandic grammar or not. On the one hand, various authors claim that Old Icelandic does have non-nominative subjects (e.g. Rögnvaldsson 1991; Rögnvaldsson 1995; Rögnvaldsson 1996; Barðdal 1998; 2000; Haugan 2000; Barðdal & Eythórsson 2003; 2009; Barðdal et al. 2012; Jónsson 2018). On this account, there would be no radical difference in the relation between case and grammatical relations in Old Icelandic compared to modern Icelandic. However, others have also provided data which points against the existence of non-nominative subjects in Old Icelandic, i.e. that the relevant arguments are not subjects at this early stage (Faarlund 1990; Juntune 1992; Mørck 1992; Faarlund 2001). Faarlund (2001), for instance, discusses what qualifies as subject tests in Old Icelandic and shows that on these tests, non-nominative arguments of the quirky type in modern Icelandic do not qualify as subjects in Old Icelandic. Such authors thus assume that certain oblique arguments have acquired subject properties over time (cf. the Object-to-Subject Hypothesis, Cole et al. 1980; Haspelmath 2001).

Many of these authors are guided by their specific theoretical approach and its corresponding view of subjecthood. Barðdal & Eythórsson (2003; 2009), for instance, assume that a subject is the leftmost argument in the argument structure of a predicate, while Jónsson (2018) uses positional criteria as evidence for subjecthood. Both of these definitions of subjecthood are ruled out here; in the LFG-approach adopted in this paper, subjects are considered independently of argument-structure and position which, as shown in this section, cannot be taken as a subject criterion to the exclusion of objects.

Whatever one assumes about whether non-nominative subjects were already established in Old Icelandic or not, it is reasonable to assume that case is becoming less important compared to structural position for the encoding of grammatical relations throughout the Icelandic diachrony. For instance, the change known as “Dative Substitution” or “Dative Sickness” is well-documented

(e.g. Svavarsdóttir 1982; Smith 1996; Jónsson 2003; Barðdal 2011), whereby dative case is increasingly associated with experiencer subjects; a similar change as been observed on the basis of IcePaHC data by Schätzle et al. (2015) and more fully in Schätzle (2018). An increase in dative marking on theme arguments in the history of Icelandic has also been observed (Barðdal 2001; 2003; Maling 2002).

Moreover, in line with the linking theory developed by Kiparsky (1987; 1988; 1997; 2001), in which case, agreement and position are viewed as interacting licensing strategies for grammatical relations, Kiparsky (1997) suggests that morphological marking (i.e. case and agreement) are still relevant in modern Icelandic, but have become recessive strategies in comparison to position, which is now the dominant strategy. Booth et al. (2017) and Schätzle (2018) develop the rise of positional licensing account for the history of Icelandic further, based on diachronic investigations using IcePaHC. Specifically, they show that subjects are increasingly realised in the prefield (SpecIP on the account outlined in Section 3); see also Booth & Beck (2021). Crucially, it is observed that, compared to nominative subjects, dative subjects lag behind in this development, showing the increasing tendency for the prefield only later in the diachrony; in other words, dative subjects become overall more subject-like over time, in line with the strengthening of positional encoding of grammatical relations.

In sum, the evidence provided here with respect to the structural positions available to (nominative) subjects and (non-nominative) objects in Old Icelandic, together with the account of an increasingly dominant VP in Section 3 and previous accounts of the diachronic status of non-nominative subjects, indicate a change in status, albeit a rather subtle one, with respect to argument configurability. Structural position is less dominant as a strategy for encoding grammatical relations in Old Icelandic compared to the modern language, and there is good reason to assume that the increasing dominance of position over time coincides with a concomitant weakening of case-marking as a strategy. Moreover, this subtle change can only be captured if one takes the view of argument configurability outlined in Section 4.1, whereby it is a gradient property allowing for languages to shift moderately along the AC-continuum over time.

6 How discourse-configurational is Old Icelandic?

I now turn to the status of Old Icelandic with respect to discourse configurability (DC), working on the rather broad definition of DC outlined in Section 4.2 and assuming it to be a gradient property dependent on to what extent a language marks topic and focus via structural means, i.e. position. With respect to non-structural topic and focus encoding strategies, i.e. morphology and intonation, one can only comment on morphology, since prosodic information is not easily available for a language stage for which we only have written data. The role of morphological marking is, however, available from the written attestation, where there is no

evidence to suggest that Old Icelandic has a type of focus- or topic-marking particle. As such, we are left with the relation between topic/focus and structural position to investigate, as presented in this section. Working on the clause structure outlined in Section 3, I will investigate two domains with respect to DC, the prefield (SpecIP in the account assumed here) and the postfinite domain (i.e. within S).

6.1 The information-structural characteristics of the prefield

In Germanic V2 languages, it is typically assumed that there is a close relationship between the prefield and topicality (see e.g. Holmberg 2015). The observation that the prefield typically hosts topical constituents in Old Icelandic (e.g. Kossuth 1978: 455; Faarlund 2004: 231) is in line with the information-structural account of early Germanic clause structure proposed by Hinterhölzl & Petrova (2010), whereby the verb is assumed to serve as an information-structural boundary, separating topic (prefinite) and comment (postfinite); see also Booth et al. (2017) who adopt this account for early Icelandic. Prefield-topics are indeed robustly attested in Old Icelandic, e.g. (12a) and (12b) above. However, there is evidence that the prefield is not exclusively associated with topics. For instance, there are some examples where the subject of a presentational sentence – which is discourse-new and thus cannot be a topic – can occur in the prefield, e.g. (51); see also discussion in Faarlund (2004) and Booth (2018).

(51) (Faarlund 2004: 199)

a. **Björn** er þar ok á því landi.
bear.NOM be.PRS there also on DEM land
'There is also a bear in that land.'

b. **Kastali** var fyrir austan sundið en her manns fyrir sunnan.
castle.NOM be.PST before east strait.DEF and host man.GEN before south
'There was a castle to the east of the strait and a host of men to the south.'

Note that, as outlined in Section 5, in modern Icelandic a bare non-specific indefinite subject in the prefield is by contrast deemed questionable, or at least not very natural (Thráinsson 2007; Zaenen et al. 2017), cf. (44) above.

Furthermore, there is also evidence that elements in new information focus can occupy the prefield, e.g. (52) and (53), which both introduce a new individual to the discourse.

(52) (Topic of previous discourse is some other unnamed woman)

(IcePaHC: 1250, Sturlunga.412.803)

Halldóra hét kona og var Þórðar-dóttir
Halldóra.NOM be-called.PST woman.NOM and be.PST Þórður.GEN-daughter.NOM
'There was a (different) woman called Halldóra and she was daughter of Þórður.'

- (53) (Topic of previous discourse is King Harald and an Earl)
 (IcePaHC: 1275, Morkin.2040)
Friðrekur hét sá maður er merkið bar.
 Friðrekur.NOM be-called.PST DEM.NOM man.NOM REL banner.ACC.DEF carry.PST
 ‘The man who carried the banner was called Friðrekur.’

Additionally, examples can be found where a constituent which is clearly in contrastive focus occupies the prefield, e.g. (54), where the nine host angels are contrasted with God in the previous sentence.

- (54) (IcePaHC: 1150, Homiliubok.885)
 Þá helgum vér Guði musteri í hjörtum órum ... **Níu**
 then hallow.PRS we.NOM god.DAT temple.ACC in hearts our nine.DAT
englasveitum helgum vér musteri ...
 host-angels.DAT hallow.PRS we.NOM temple.ACC
 ‘Then we hallow to God a temple in our hearts... To nine host angels we (also) hallow a temple...’

Since topics and focus – which are both +PROMINENT (see Section 2) – can occur in the clause-initial position in Icelandic, one might be tempted to characterise SpecIP as a position where any +PROMINENT constituent can occur. However, this would fail to capture the fact that sentences with a clause-initial adjunct, typically a scene-setting adverb phrase, are very common in Old Icelandic, e.g. (55).

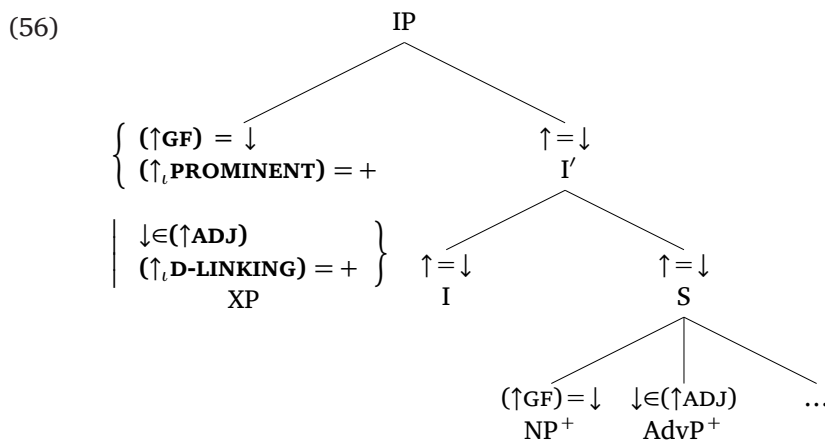
- (55) a. (IcePaHC: 1310, Grettir.507)
Síðan reif hann upp viðuna.
 then tear.PST he.NOM up mast.ACC.DEF
 ‘Then he tore up the mast.’
- b. (IcePaHC: 1275, Morkin.268)
Þá hafði hann hálf annað hundrað skipa.
 then have.PST he.NOM half.ACC other.ACC hundred.ACC ships.GEN
 ‘Then he had half of another hundred ships.’
- c. (IcePaHC: 1275, Morkin.1646)
Nú leggja þeir snekkjuna fram hjá skipinu.
 now lay.PRS they.NOM swift-ship.ACC.DEF forth by ship.DEF
 ‘Now they set forth the swift sailing ship by the ship.’

Examples like (55) are in line with observations elsewhere in early Germanic that the prefield frequently hosts constituents which are ‘discourse-linking’; more specifically, it has been shown that clause-initial discourse adverbs typically mark a sequence of foregrounded successive

actions or events which do not overlap temporally, see e.g. Foster (1975); Enkvist & Wårvik (1987); Wårvik (2011); Trips & Fuß (2009); Los (2012) on Old English, Betten (1987) on Old High German and Klein (1994) on Gothic.

Moreover, the fact that stylistically fronted elements occupy the prefield (see Section 3) may indicate a further diversification of what can go in this position in information-structural terms. Although stylistic fronting in modern Icelandic has been traditionally assumed to be pragmatically neutral (Maling 1990; Holmberg 2000), more recent research has led to claims that it serves an information-structural function, e.g. contrastive focus (Hrafnbjargarson 2004; Molnár 2010) or as a backgrounding strategy (Egerland 2013). Research on stylistic fronting in Old Icelandic is notably lacking, and a precise characterisation would be beyond the scope of this paper. Here, I just point out that the nature of stylistic fronting is a relevant concern for future work on syntax and information structure in Old Icelandic.

In sum, it is clear from the data outlined here that the prefield in Old Icelandic has a dual nature in information-structural terms. On the one hand, it can host a nominal argument if that argument is information-structurally prominent; on the other, it can host scene-setting adjuncts which cannot be considered prominent, but which serve a discourse-organisational function, linking narrative events in time and space. These two options for the prefield can now be added to the c-structure tree for Old Icelandic originally provided in Section 3.3, see (56). The prefield (SpecIP) now bears annotations which assume the features $[\pm \text{PROMINENT}]$ and $[\pm \text{D(iscourse)-LINKING}]$ at i-structure.¹⁴ I do not fully provide all the daughters of S in order to generalise over the two alternative expansions with and without the VP argued for in Section 3.3, cf. (36) and (37).



¹⁴ Assuming the additional feature $[\pm \text{D(iscourse)-LINKING}]$ goes beyond the four-way division outlined in Section 2 (see (7)). As pointed out elsewhere (e.g. Dalrymple et al. 2019), assuming only the features $[\pm \text{PROMINENT, NEW}]$ yields a rather crude set of distinctions. More work is needed on finer-grained information-structural feature classifications in LFG, towards which there is promising progress (Lowe & Mycock 2014; Mycock & Lowe 2014).

Strikingly, the observations made with respect to the prefield in Old Icelandic share similarities with those made for the clause-initial position in Warlpiri and related Australian languages by Simpson & Mushin (2008). They observe that the clause-initial position can host prominent nominal forms as well as scene-setting adjuncts, which they say are “drawn” to the clause-initial position in order to be situated at the junction of two utterances. More exploration of this dual nature in Old Icelandic and beyond I leave for further research. For now, one can conclude that, being broadly associated with prominence (as well as discourse-linking), there is no evidence that the prefield in Old Icelandic is associated with an exclusive discourse function, either topic or focus and that, on the gradient model outlined in Section 4.2, Old Icelandic does not appear to be particularly discourse-configurational in this respect.

6.2 Discourse configurationality in the postfinite domain

With so much emphasis on the information-structural characteristics of the prefield in Germanic V2 languages, the postfinite domain is often neglected in this context. In this section, I take a closer look at the correspondence between word order and information structure in this part of the clause in Old Icelandic. This involves revisiting some of the word orders discussed in Section 5 in relation to argument configurationality, which showed that the relative position of the subject and object in the postfinite domain varies. Taking information structure into account, I show that these patterns can be accounted for if one assumes that Old Icelandic exhibits some level of discourse configurationality in the postfinite domain.

As shown in Section 5, the relative order of subject and object in the postfinite domain in Old Icelandic is not fixed; the object can precede the subject under certain conditions, cf. the examples in (49) and (50) above. This was taken as evidence that subject and object are not exclusively positionally encoded in the postfinite domain, in line with the flat structure within S proposed in Section 3. In fact, if one reexamines clauses where the object precedes the subject in the postfinite domain with respect to information structure, a striking pattern emerges; in each of the examples, the object exhibits properties which generally correlate with topichood (e.g. definiteness, pronominality and thus discourse-givenness) and the subject properties which tend to correlate with non-topics (quantification, indefiniteness and discourse-newness). This indicates that word order in the postfinite domain is information-structurally governed, specifically that topical material, whether subject or object, must precede non-topical material. Furthermore, this constraint can account for the examples in (31) above, whereby a subject intervenes between an immediately postfinite object and its verb; in each case, the object can be construed as a topic, versus the subject which is quantified in some way.

Further evidence with respect to information-structural structural properties in the postfinite domain is hard to come by in the corpus data, since (M)IcePaHC is not annotated for information structure. As such, one can only use correlates such as definiteness,

pronominality and quantification, which are explicitly encoded in the corpus. However, more evidence can be gained by considering the behaviour of a small class of discourse adverbs (e.g. *nú* ‘now’, *síðan* ‘then’, *svo* ‘so’, *þar* ‘there’, *þá* ‘then’) which have been previously observed to show interesting structural properties with respect to information structure in the postfinite domain (Booth & Schätzle 2019). These discourse adverbs regularly appear in the postfinite domain directly following a topical constituent and preceding non-topical material, e.g. (57).

- (57) a. (IcePaHC: 1350, Finnbogi.661.2086)
 Þiggja þau þar ágætar gjafir.
 receive.PRS they.NOM there excellent.ACC gifts.ACC
 ‘They receive there excellent gifts.’
- b. (IcePaHC: 1210, Jarstein.66)
 Fékk hún síðan lurk nekkvern er lá í fjörunni.
 get.PST she.NOM then cudgel.ACC some.ACC REL lie.PST in beach.DEF
 ‘She got then some cudgel which lay on the beach.’
- c. (IcePaHC: 1250, Sturlunga.396.290)
 Sendi hann þá men vestur til Sturlu.
 send.PST he.NOM then men.ACC westwards to Sturla
 ‘He then sent men westwards to Sturla.’

Strikingly, in clauses where there is a quantified argument (i.e. nontopical subject or object) in the postfinite domain, but no topic, there is also a frequent word order where a discourse adverb intervenes between the finite verb and the quantified argument. Examples of this in the IcePaHC data are plentiful ($n = 146$), and some examples are given in (58).

- (58) a. (IcePaHC: 1310, Grettir.1897)
 Stukku þá margir men í burt.
 run.PST then many.NOM men.NOM away
 ‘Many men then ran away.’
- b. (IcePaHC: 1310, Grettir.287)
 Grettir segir þá allan áskilnað þeirra.
 Grettir.NOM say.PRS then all.ACC disagreement.ACC they.GEN
 ‘Grettir then tells all of their disagreement.’

By contrast, there are only 12 instances where a quantified argument precedes one of these discourse adverbs in the postfinite domain, but these involve either misannotations of the adverb or the quantified argument, or cases with two discourse adverbs flanking the quantified argument, e.g. (59).

- (59) (IcePaHC: 1210, Jarstein.last sentence)¹⁵
 fór þá hver síðan leiðar sinnar
 go.PST then each.NOM then way.GEN their-own.GEN
 ‘each then went their own way’

Informatively, similar behaviour is observed in clauses which have an indefinite subject in the postfinite domain, i.e. presentational sentences, which are generally taken to be thetic, i.e. topicless constructions (e.g. Sasse 1987; Lambrecht 2000). The corpus data reveals that, in presentationals with a postfinite non-topical subject and a discourse adverb, the subject always follows the adverb, e.g. (60).

- (60) a. (IcePaHC: 1250, Sturlunga.408.710)
 Voru þar tvö skip í búnaði.
 be.PST there two.NOM ships.NOM in preparations
 ‘There were two ships in the preparations.’
- b. (IcePaHC: 1310, Grettir.896)
 Grettir fór nú norður í Vogu og var þar allmikið fjölmenni.
 Grettir go.PST now north in Vogu and be.PST.SG there all-great.NOM crowd.NOM
 ‘Grettir now travelled northwards into Vogu and there was there a very great crowd.’
- c. (IcePaHC: 1310, Grettir.407)
 Komu þá lekar að skipinu.
 come.PST then holes.NOM at ship.DEF
 ‘Then came holes into the ship.’

By contrast, there are no attested examples of a configuration like (61), where the subject of a presentational sentence occurs in the midfield before an adverb.

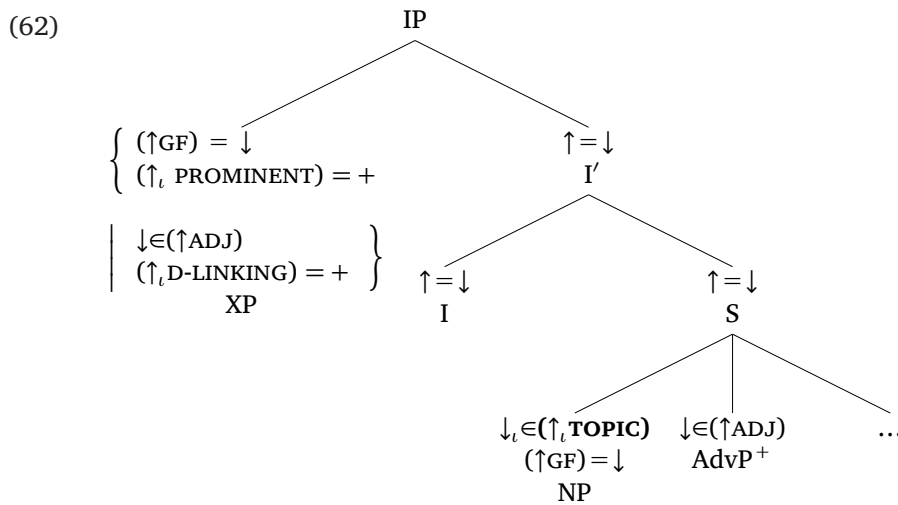
- (61) ?V_{finite} – SUBJ_{nontopic} – ADV

While this is not definitive evidence that such a configuration is not grammatical, given the commonness of configurations as in (60) and the absence of the configuration in (61) in the corpus data, one can at least interpret a clear preference for the order in (60).

In sum, the data indicates that there is a position in the postfinite domain which is exclusively associated with topics – in linear terms a position directly after the finite verb and before the canonical position for discourse adverbs. In light of this, the annotated tree provided in (56) above can now be furnished with more detail within S, see the updated tree in (62) with

¹⁵ This sentence lacks a complete ID in IcePaHC.

annotations capturing the projection to i-structure for the designated topic position. Assuming that the evidence provided above is indeed indicative of a c-structure position being exclusively associated with topical material, it therefore follows that Old Icelandic is at least *somewhat* discourse-configurational as per the definition adopted in this paper; while the prefield is associated with a variety of information-structural functions, in the postfinite domain topics are structurally expressed.



On this view, the ordering of subject and object in the postfinite domain in the modern language, including the “object shift” patterns and various subject positions outlined in Section 5, can be seen as remnants of this older stage, with DC as a dominant organising principle in the postfinite domain. In fact, it has been observed for various modern Scandinavian varieties that the “object shift position” (=the immediately postfinite position) is only available to objects which are topical (Andréasson 2008; 2009; 2010; Anderssen & Bentzen 2012), and specifically for Icelandic that shifted objects must be definite or specific, while nonshifted objects must be indefinite or nonspecific (Diesing 1992; 1996; Collins & Thráinsson 1996), suggesting such an account is on track.

Furthermore, the findings in this section with respect to the information-structural nature of the prefield and the immediately postfinite position in turn lend further support for the IP-S analysis of Old Icelandic clause structure proposed in Section 3. From the data presented here, it is clear that the prefield and the immediately postfinite position in fact have nuanced differences in their information-structural characteristics; the prefield can host both topical and focal material, whereas focal material is barred from the immediately postfinite position, this being a unique topic position. These differences speak against capturing the prefield and the immediately postfinite position under a single position (SpecIP), as in some generative accounts of Icelandic clause structure (e.g. Sigurðsson 1990), and fits better with the structure assumed

here, where the prefield (SpecIP) is assumed to be structurally distinct from the immediately postfinite position (within S).

7 Conclusion

In this paper, I have demonstrated that the debate concerning the status of Old Icelandic with respect to (argument) configurationality can be given new light by assuming that argument configurationality is a gradient property, based strictly on to what extent a language uses structural means to encode its grammatical relations. The claim that structural position is less dominant in Old Icelandic than in the modern language as a strategy for encoding grammatical relations was supported by corpus evidence regarding the status of a VP-constituent, the relative order of subjects and objects in the postfinite domain, as well as data from previous studies concerning case and agreement as morphological encoding strategies. Moreover, as I showed, the attested word order patterns in the postfinite domain can be accounted for in terms of information structure, specifically that the immediately postfinite position is a designated topic position, thus implying a certain degree of discourse configurationality. In fact, such a claim is not without precedent in Germanic. Frey (2004) has made a similar claim for modern German, on the basis of evidence which also indicates a designated topic position in the postfinite domain, before the position occupied by sentence adverbs. As mentioned, similar claims have been made for North Germanic in the context of object shift, where it has been shown that the “object shift position” (= the immediately postfinite position) is only available to objects which are topical (Andréasson 2008; 2009; 2010; Anderssen & Bentzen 2012). At the same time, the account outlined here, whereby a small class of discourse adverbs act as an information-structural boundary in the postfinite domain separating topic and focus has a parallel in the early Germanic literature, where a similar claim has been made for discourse adverbs in early English (van Kemenade & Los 2006; van Kemenade 2009). These parallels may indicate a wider cross-Germanic tendency in the mapping between syntax and information structure, well beyond Old Icelandic. Further investigation of this possibility would, however, be beyond the scope of this paper, so I leave this for future work.

Abbreviations

ACC = accusative, ADJ = adjunct, CMPR = comparative, COMP = complementiser, DAT = dative, DEF = definite, DEM = demonstrative, GEN = genitive, GF = grammatical function, INF = infinitive, MASC = masculine, NEG = negation, NOM = nominative, OBJ = primary object, OBJ_θ = secondary object, OBL_θ = oblique, PL = plural, PRS = present, PST = past, PTCP = participle, RECP = reciprocal, REL = relativizer, SG = singular, SUBJ = subject

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Competing Interests

The author has no competing interests to declare.

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