# Verb-first and verb-second in the history of Icelandic

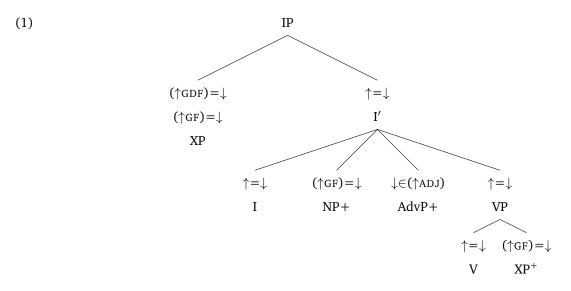
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# LFG2019

# 1 Introduction

### 1.1 Icelandic clause structure in LFG: what do we know so far?

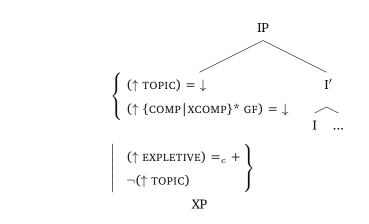
• Sells (2001, 2005) on the overall structural possibilities in (modern) Icelandic:



- Functional head, I, associated with finiteness
- SpecIP is information-structurally privileged position; can host any GF with a GDF (grammaticalized discourse function; Bresnan 2001)
- Flat 'midfield' area within I' (see also Börjars et al. 2003 on Swedish)
- Within midfield may occur: any GF not associated with a discourse function and any number of ADJs
- Linear order of midfield elements somewhat free; subject to OT constraints (see also Börjars et al. 2003)

• Booth et al. (2017) on the left periphery in modern Icelandic:

(2)



- SpecIP specifically associated with topics (see Rögnvaldsson & Thráinsson 1990)
- Alternatively SpecIP can host an expletive, provided the clause lacks a topic
- Expletive is a positionally restricted topic position placeholder, not a subject (see Thráinsson 1979, Platzack 1983, Maling 1988, Sigurðsson 2007)
- SpecIP can also be unoccupied (absent via Economy of Expression) rendering V1 sentences, which are topicless

### 1.2 Some interesting data

- Historical data from IcePaHC (Wallenberg et al. 2011) is problematic for these assumptions.
  - Topics are not exclusively clause-initial:

(3)	En fullt var <b>skipið</b> . but full.NOM be.PST ship.NOM.DEF 'But the ship was full.' (1210, Jartein.779)	(AdjP-V-TOPIC)
(4)	Þá hafði <b>hann</b> hálft annað hundrað skipa. then have.PST he.NOM half other hundred ships.GEN 'Then he had half of another hundred ships.' (1275, Morkin.268)	(adj-V-topic)
– And V	1 sentences can also have a postfinite topic (not accounted for in Booth et al. 2017):	
(5)	Þórir <b>hann</b> þá eigi að stefna til gatnanna. dare.PRS he.NOM then NEG to go.INF to paths.DEF 'He then dares not make for the paths.' (1250, Sturlunga.445.2015)	(V-topic)
(6)	Var <b>þetta smíði</b> hið virðulegasta. be.PST DEM.NOM building.NOM DEF magnificent.SUPL 'This building was the most magnificent.' (1400, Viglundur.94))	(V-topic)
• Moreover, n	nany of these structures are still possible in the modern language (i.e. attested 1901-	2008):

(7)	Sá	ég	þá	á	svipstundu	ı villu	míns	vegar.	(V-topic)
	see.PS	st I.noi	м then	n on	n moment	error	my.gen	way.gen	
	'I ther	n saw ir	n a mo	ome	nt the error	r of my	y way.' (	1985, Margsaga.689)	

- (8) Ekki mátti saumavélin til dæmis sigla eðe syngja...
   NEG could sewing-machine.DEF for example sail.INF or sing.INF
   'The sewing machine could not for example sail or sing...' (1985, Margsaga.406)
- (9) Þá deyr hann.
  then die.PRS he.NOM
  'Then he dies.' (1920, Arin.1021)
- Furthermore, Icelandic has a small class of 'discourse adverbs' (DAs) which behave in an interesting way diachronically: *nú* 'now'; *siðan* 'then'; *svo* 'so'; *þar* 'there'; *þá* 'then'

(NEG-V-TOPIC)

(AdvP-V-TOPIC)

- DAs occur in the postfinite domain where they appear to separate TOPIC from FOCUS:
  - (10) Þiggja þau þar ágærar gjafir. (V-TOPIC-DA-FOCUS) receive.PRS they.NOM there excellent.ACC gifts.ACC 'They receive there excellent gifts.' (1350, Finnbogi.661.2086)
    (11) Konungurinn lá þá í Sólundum... (TOPIC-V-DA-FOCUS) king.DEF lie.PST then in Sólundur 'The king was then at Sólundur.' (1260, Jomsvikingar.862)
- DAs can also introduce the focused element in clauses which lack a TOPIC:
  - (12) Voru **þar** tvö skip í búnaði. (V-DA-FOCUS) be.PST there two.NOM ships.NOM in preparations
     'There were two ships in the preparations.' (1250, Sturlunga.408.710)
- Early English: parallel DAs function as discourse partitioners, i.e. are connected with information structure (see van Kemenade & Los 2006 and van Kemenade 2009 on Early English).

## 1.3 This talk

#### • Questions:

- How can we incorporate the additional data into an LFG analysis?
- Is there change at c-structure over time?
  - \* Is I already present in Old Icelandic?
  - \* What about SpecIP?
- What is the interrelation between information structure and c-structure? Does this change over time?
  - \* How is SpecIP changing over time? Has it always been a topic position?
  - \* What is going on in the midfield (DAs)?
- Corpus-based study:
  - Investigation of verb position, positional distribution of topics and positional distribution of discourse adverbs in IcePaHC (Wallenberg et al. 2011).
  - Focus on Old Icelandic (1150-1350); not previously treated in LFG.
  - Broader overview of subsequent diachronic change.

- Our theoretical assumptions:
  - A functional category at c-structure is only motivated when functional information is associated with a fixed structural position (e.g. Kroeger 1993; Börjars et al. 1999).
  - Unlike some analyses of Germanic V2 which posit extra layers of structure to account for (discourse-)functional information, c-structure positions are only motivated via direct structural evidence (e.g. word order diagnostics, constituency tests).
  - Functional differences are sufficiently captured via functional annotations on the c-structure.
  - We follow the four-way division of information structure by Butt & King (1996, 1997) (based on ideas from Vallduví 1992; Choi 1999; see also Mycock 2013; Butt et al. 2016):

(13)

	[+New]	[-New]
[+Prominent]	FOCUS	TOPIC
[-Prominent]	Completive information	BACKGROUND

- \* FOCUS, TOPIC, and BACKGROUND are GDFs.
- \* FOCUS indicates the presence of alternatives relevant for the interpretation of a linguistic expression (Krifka 2007); [+New] and [+Prominent] are correlates of this definition.
- \* We do not discuss contrastive focus in this paper; relatively rare in historical corpus data.
- \* TOPICS point to the entity about which relevant information should be stored in the Common Ground (Krifka 2007). TOPICS thus signal what the expression is about (see also Butt et al. 2016).
- \* In this paper, we talk about continuing topics (e.g. Frascarelli & Hinterhölzl 2007; cf. also center continuation in centering theory, Grosz et al. 1995). Hence, for us, TOPICS are [-New] and [+Prominent].
- \* BACKGROUND material provides information as to how new information fits in with known information (Butt & King 1997).
- \* Completive information is not especially salient, nor associated with a fixed structural position (see Butt & King 1997), hence not a GDF.

# 2 V1, V2 and I in Old Icelandic

- Old Icelandic differs from other early Germanic languages in terms of verb position.
  - Old English, Old High German, Old Saxon exhibit V1, V2, V3, V-later structures (e.g. Kiparsky 1995; Axel 2007; Walkden 2015).
  - Old Icelandic only has V1 and V2; no V3 or V-later structures (Faarlund 1994:64; Rögnvaldsson 1995); confirmed by a recent corpus study (Booth 2018).

#### 2.1 V2 in Old Icelandic

- V2 is robustly attested in Old Icelandic matrix clauses (82% of all matrix clauses, Booth 2018).
  - (14) a. Hann **átti** konu unga og fríða. (SUBJ-V-OBJ) he.NOM own.3SG.PST woman.ACC young.ACC and beautiful.ACC 'He was married to a young and beautiful woman.' (1310, Grettir.312)

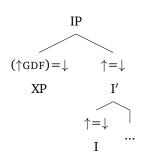
- b.Hana áttiGamli ÞórhallssonVínlendings.(OBJ-V-SUBJ)she.ACC own.3SG.PST Gamli Þórhallsson.NOM Vínlendingur.GEN'To her was married Gamli Þórhallsson of the Vínlendingur.' (1310, Grettir.15)(OBJ-V-SUBJ)
- c. Þar **átti** hann heima í Haugatungu. (ADJ-V-SUBJ) there own.3SG.PST he.NOM home in Haugatungu 'He had home there at Haugatunga.' (1250, Sturlunga.389.30)

# 2.2 V1 in Old Icelandic

- V1 is exhibited in declaratives, i.e. beyond the typical contexts for V1 in modern Germanic (yes/no-interrogatives, imperatives).
- V1 declaratives are relatively frequent in Old Icelandic (18% of all matrix clauses, Booth 2018; see also Butt et al. 2014; Faarlund 2004; Platzack 1985; Sigurðsson 1990; Walkden 2014).
- 3 types of V1 declarative (Booth 2018):
  - 1. Impersonal V1 (subjectless)
    - (15) Tekur nú að hausta.
       begin.PRS now to become-autumn.INF
       'It now starts to become autumn.' (1310, Grettir.48)
  - 2. Presentational V1 (V-(...)-SUBJFOCUS)
    - (16) **Eru** nú hér með oss *margir tígnir menn og góðir drengir...* be.PRS now here with we.ACC many.NOM noble.NOM men.NOM and good.NOM boys.NOM 'There are now here with us many noble men and good boys...' (1275, Morkin.401)
  - 3. Narrative inversion V1 (V-SUBJTOPIC)
    - (17) [Auðun tekur nú að auka sína ferð slíkt er hann má.] Þórir hann Auðun begin.PRS now to prolong.INF his-own journey such as he.NOM may dare.PRS he.NOM þá eigi að stefna til gatnanna. then NEG to go.INF to paths.DEF 'Auðun now beings to prolong his journey such as he may. He then dares not make for the paths.' (1250, Sturlunga.445.2015)

## 2.3 I as an obligatory category

- All matrix declaratives in Old Icelandic are rooted in I, with one available specifier position (SpecIP).
- SpecIP can be occupied by various categories, e.g. subjects, objects, adjuncts, and is associated with a GDF.
- Preliminary c-structure for V2 sentences:
  - (18)



- We assume that V1 declaratives in Old Icelandic are also IPs, where SpecIP is unoccupied (see Rögnvaldsson & Thráinsson 1990 for modern Icelandic; Brandt et al. 1992 and Önnerfors 1997 for German).
  - (19)



- This is contra other accounts which assume that the finite verb is in C in V1 declaratives ('double verb movement' e.g. Sigurðsson 1990 and Franco 2008 for Icelandic; Mörnsjö 2002 on Swedish).
- Since Icelandic has only V1/V2 and no V3/V-later structures, we assume that I is already an obligatory functional category in Old Icelandic; a fixed structural position for finiteness.
- This is contrary to e.g. Old English where I is optional. I is present in V1 and V2 sentences, but absent in V3 and V-later sentences.
- Our account for V1 and V2 where they are rooted in the same c-structure is in line with Kiparsky (1995).
- Kiparsky (1995) also argues that the functional head which hosts the finite verb is obligatory in Old Icelandic and optional in Old English, which accounts for the absence of V-later structures in the former and the presence in the latter.

# 3 Topics in Old Icelandic

<sup>1</sup>We

- Topics in Old Icelandic are not associated with a unique structural position.
- Topics may occur in the clause-initial position (SpecIP):

(20)	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.' (1310, Grettir.312)	(topic-V)
(21)	<b>Hana</b> átti Gamli Þórhallsson Vínlendings. she.ACC own.PST Gamli Þórhallsson.NOM Vínlendingur.GEN 'To her was married Gamli Þórhallsson of the Vínlendingur.' (1310, Grettir.15)	(topic-V)
(22)	Öxin kom á herðarblaðið. ox.NOM.DEF come.PST on shoulder-blade.DEF 'The ox came up onto his shoulder blade.' (1310, Grettir.1120)	(topic-V)
• Topics	may also occur in the postfinite domain (within I'):	
(23)	En fullt var <b>skipið</b> . but full.NOM be.PST ship.NOM.DEF 'But the ship was full.' (1210, Jartein.779) <sup>1</sup>	(SF-V-topic)
assume tha	t these examples are cases of 'Stylistic Fronting' (fronting of categories which cannot usually be fronted in	n a Germanic V2 language,
ing 1990)	even though they flaunt the 'subject gap condition' established for Modern Icelandic Maling 1990. It h	has been shown that these

Maling 1990), even though they flaunt the 'subject gap condition' established for Modern Icelandic Maling 1990. It has been shown that these diachronic examples satisfy other criteria for Stylistic Fronting (optionality, applies to heads, clause-bounded); see Booth (2019).

- (24) Þá hafði hann hálft annað hundrað skipa.
  then have.PST he.NOM half other hundred ships.GEN
  'Then he had half of another hundred ships.' (1275, Morkin.268)
- (25) Þórir hann þá eigi að stefna til gatnanna.
  dare.PRS he.NOM then NEG to go.INF to paths.DEF
  'He then dares not make for the paths.' (1250, Sturlunga.445.2015)

### 3.1 Corpus study

- Corpus investigation: positional distribution of topics in Old Icelandic (IcePaHC, 1150-1350).
- Approximation of topics: any referential NP argument which is pronominal or has overt definite marking
  - Not all pronominal/definite NP arguments will be topics.
  - Definiteness marking was not yet obligatory for semantically definite NPs in Old Icelandic, so we won't have captured all semantically definite NPs.
- A closer look at topical subjects (approximation):<sup>2</sup>

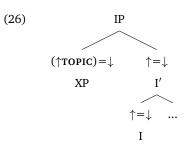
TC	TOPIC <sub>APPR</sub> -V		V-TOPIC <sub>APPR</sub> (V1)		/-TOPIC <sub>APPR</sub>	SF-V-TOPIC <sub>APPR</sub>		
n	% of total	п	% of total	n	% of total	п	% of total	
1574	58.8%	679	25.4%	381	14.2%	43	1.6%	

Table 1: Positional distribution of topical subjects in Old Icelandic (1150-1350).

• Topical subjects most often prefinite, but also frequent in immediately postfinite position.

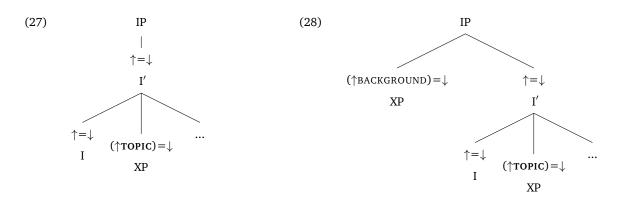
#### 3.2 Analysis

- Two possible topic positions in Old Icelandic:
  - prefinite position (SpecIP):



<sup>&</sup>lt;sup>2</sup>As an approximation of Stylistic Fronting we count matrix declaratives clauses where a finite verb, verbal particle, negation, an adjectival or nominal predicate occurs in SpecIP (e.g. Maling 1990).

- immediately postfinite position (midfield):



- In structures like (28) with a postfinite TOPIC ([-New, +Prominent]), we suggest that SpecIP is a 'discourselinking' position, i.e. can host BACKGROUND information which is [-New, -Prominent].
- This accounts for the fact that DAs commonly occur clause-initially, even in clauses with topics, e.g. (24).
- Our account also fits with the narrative inversion V1 data (V-SUBJ<sub>TOPIC</sub>, e.g. (25)), which is limited to contexts where the same scene is maintained, so no need for a scene-setter or discourse linker in SpecIP.
  - (29) Continuous narrative:

a.	Gissur <b>kom</b>	í Reykjaholt um nóttir	na eftir Máritíus	smessu.	(scene change $>$ V2)
	Gissur come.P	ST to Reykjaholt in night.	.DEF after mass		
	'Gissur came t	o Reykjaholt in the night a	after the mass.'		
b.	Brutu þeir	upp skemmuna	er Snorri svaf	í.	(same scene > V1)
	break.PST they	NOM up storehouse.DEF	REL Snorri sleep.F	PST in	
	'They broke op	pen the storehouse where	Snorri was sleepin	ıg.'	
c	En hann hi	lión unn og úr skomn	munni og í h	in litlu húcin	or voru við

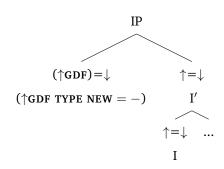
- En hann hljóp upp og úr skemmunni og í hin litlu húsin er voru við but he.NOM leap.PST up and out storehouse.DEF and in DEF little houses.DEF REL be.PST by skemmuna. (scene-change > V2) storehouse.DEF
   'But he leaped up and out of the storehouse and into the little houses which were next to the storehouse.'
- d. Fann hann þar Arnbjörn prest og talaði við hann. (same scene > V1) find.PST he.NOM there Arnbjörn priest and speak.PST with he.ACC 'He found there Arnbjörn the priest and spoke with him.'
- e. Réðu þeir það að Snorri gekk í kjallarann er var undir loftinu þar í plan.pst they.NOM DEM COMP Snorri go.PST in cellar.DEF REL be.PST under ceiling.DEF there in húsunum. (same scene > V1) house.DEF
   'They plotted that Snorri would go into the cellar which was under the ceiling there in the house.'
- f. Þeir Gissur fóru að leita Snorra um húsin. (scene change > V2) they.NOM Gissur begin.PST to lead.INF Snorri around house.DEF 'They and Gissur began to lead Snorri around the house.'

(1250, Sturlunga.439.1766 - 1250, Sturlunga.439.1772)

- Moreover, it is also in line with the fact that 'out-of-the-blue' presentational sentences are typically V1, e.g. (16).
  - 'all new' sentences
  - no motivation for overt discourse-linking (BACKGROUND)
  - SpecIP is unoccupied

- Finally (and tentatively!), this blue print could work with Stylistic Fronting if we follow the proposal by Egerland (2013) that SF is a backgrounding device.
- Interpretation in terms of features: given the possibility for both TOPIC and BACKGROUND to occur in SpecIP, we characterise this position as [-New]:

(30)



- Although not made explicit in the present analysis, we generally assume that information structural content is projected to a separate i(nformation)-structure (following, e.g. Butt et al. 2016).
- In sum: understanding the behaviour of topics has given us insights both into SpecIP and the midfield, as well discourse management strategies.

# 4 Discourse adverbs in Old Icelandic

- DAs can occur in various positions in Old Icelandic:
  - Prefinite position (SpecIP):
    - (31) Þá hafði hann hálft annað hundrað skipa.
       (clause-initial DA) then have.PST he.NOM half other hundred ships.GEN
       'Then he had half of another hundred ships.' (1275, Morkin.268)
  - Postfinite position (midfield):

(32)	Konungurinn lá <b>þá</b> í Sólundum king.DEF lie.PST then in Sólundur 'The king was then at Sólundur.' (1260, Jomsvikingar.862)	(topic-initial V2)
(33)	Þiggja þau <b>þar</b> ágærar gjafir. receive.PRS they.NOM there excellent.ACC gifts.ACC 'They receive there excellent gifts.' (1350, Finnbogi.661.2086)	(narrative inversion V1)
(34)	Voru <b>þar</b> tvö skip í búnaði. be.PST there two.NOM ships.NOM in preparations 'There were two ships in the preparations.' (1250, Sturlunga.408.710)	(presentational V1)

- Parallel DAs function as discourse partitioners in Early English (van Kemenade & Los 2006; van Kemenade 2009).
- The behaviour of DAs in historical Icelandic has scarcely been investigated to date.

## 4.1 Corpus study

• Corpus investigation: positional distribution of DAs in Old Icelandic (IcePaHC, 1150-1350).

DA-V		ТО	PIC-V-DA	V-1	COPIC-DA	V-1	DA-FOCUS
n	% of total	п	% of total	п	% of total	п	% of total
1001	72.0%	196	14.1%	185	13.3%	9	0.6%

Table 2: Positional distribution of discourse adverbs in Old Icelandic (1150-1350).

• DAs are predominantly prefinite (SpecIP), but also occur in postfinite position (midfield) in various constructions.

#### 4.2 Analysis

- DAs ([-New, -Prominent]) in SpecIP are discourse-linkers; BACKGROUND, as above.
  - See parallels in Germanic: van Kemenade & Los (2006) on 'discourse operators' in Early English; Hinterhölzl & Petrova (2010) and Petrova & Rinke (2014) on 'discourse linkers'/'discourse linking elements' in Old High German (and Old French); Los (2009) and Komen et al. (2014) on the discourse-linking function of the clause-initial position in Old and Middle English.
- DAs in the midfield appear to act as discourse partitioners between TOPIC and FOCUS:
  - Topic-initial V2:
    - (35) Konungurinn lá þá í Sólundum... (TOPIC-V-DA-FOCUS) king.DEF lie.PST then in Sólundur
       'The king was then at Sólundur.' (1260, Jomsvikingar.862)
  - Narrative inversion V1:
    - (36)Þiggjaþauþarágærargjafir.(V-TOPIC-DA-FOCUS)receive.PRS they.NOM there excellent.ACC gifts.ACC'They receive there excellent gifts.' (1350, Finnbogi.661.2086)'Topic-DA-FOCUS'
- In topicless sentences (presentationals): DA closes off the (empty) topic domain and introduces the focus
  - (37) Voru **þar** tvö skip í búnaði. (V-DA-FOCUS)
     be.PST there two.NOM ships.NOM in preparations
     'There were two ships in the preparations.' (1250, Sturlunga.408.710)
- We suggest that DAs in the midfield act as a boundary separating topic from focus (cf. van Kemenade & Los 2006 and others).
- Previous work (Booth et al. 2017 on Icelandic; Hinterhölzl & Petrova 2010 on Early West Germanic): finite verb (in I) as information-structural boundary separating topic (prefinite) and comment (postfinite).
- But this doesn't work for Old Icelandic where topics occur relatively frequently in the postfinite domain.

# 5 Continuity and change

- We have now established some facts for Old Icelandic and provided a revised account for the new data.
- How can this new account be reconciled with the previous LFG accounts of Modern Icelandic clause structure, in terms of continuity and change?
- Corpus study investigating the diachronic interaction between information structure and word order over nine centuries of Icelandic (1150-2008).
- We apply a novel periodization for the analysis of the diachronic data:
  - Derived via a data-driven method based on hierarchical clustering (DiaHClust, Schätzle & Booth to appear).
  - This groups temporally adjacent IcePaHC texts into time stages based on their similarity with respect to syntactic features (V1, subject position, VO/OV, Stylistic Fronting, dative subjects, expletives).
  - Breaks are inserted between time stages where the characteristics of the data show a quantifiable shift.
  - This method also carves out the genre bias inherent in texts around the 16th century (bible translations stemming from the Reformation) which was previously identified and is known to affect the syntactic characteristics (e.g. Butt et al. 2014; Booth et al. 2017).

#### 5.1 Continuity

• V2 in matrix clauses remains robustly attested throughout the diachrony, with V1 also an option (Butt et al. 2014; Booth et al. 2017), see Table 3.

Period	V1	non V1	Total	% V1	$\chi^2$
1150-1349	2829	10888	13718	20.6%	***
1350-1549	3656	14693	18349	19.9%	***
1550-1749	1654	9556	11210	14.8%	***
1750-1899	2072	9185	11257	18.4%	***
1900-2008	292	10569	10861	2.7%	***

Table 3: Distribution of V1 matrix declaratives in IcePaHC (taken from Booth et al. 2017).

- So we assume that the functional category I remains obligatory and consistently hosts the finite verb.
- SpecIP remains optional; can be unoccupied resulting in V1 (but is increasingly occupied).

#### 5.2 Change

- What changes in Icelandic is the way in which information structural properties are encoded syntactically.
  - Association between i-structure and c-structure changes over time.
  - Topics ([-New, +Prominent]) increasingly target SpecIP.
  - SpecIP is becoming more firmly associated with topics.
  - The finite verb in I can now serve as boundary between TOPIC (SpecIP) and FOCUS (midfield).
  - DAs as discourse partitioners in the midfield no longer motivated.

#### 5.2.1 Topics

- Table 4 and Figure 1 show the positional distribution of topical subjects in IcePaHC over time (1150-2008).
- Again, we take any referential NP argument which is pronominal or has overt definite marking as an approximation to topics and look at subjects more closely.

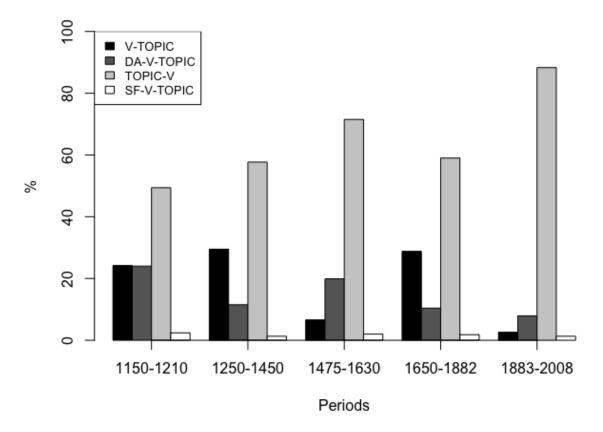


Figure 1: Positional distribution of topical subjects in IcePaHC (1150-2008).

Time period	TOPIC <sub>APPR</sub> -V		V-TOPIC <sub>APPR</sub>		DA-V-TOPIC <sub>APPR</sub>		SF-V-TOPIC <sub>APPR</sub>		$\chi^2$
	n	% of total	n	% of total	п	% of total	n	% of total	
1150-1210	266	49.4%	130	24.2%	129	24.0%	13	2.4%	***
1250-1450	2014	57.7%	1031	29.5%	400	11.5%	47	1.3%	***
1475-1630	748	71.5%	69	6.6%	208	19.9%	21	2.0%	***
1650-1882	1795	59.0%	876	28.8%	316	10.4%	56	1.8%	***
1883-2008	2593	88.3%	76	2.6%	231	7.9%	37	1.3%	***

Table 4: Positional distribution of topical subjects in IcePaHC (1150-2008).

- The increase in topics in SpecIP goes hand in hand with a decrease in DAs in that position (DA-V-TOPIC<sub>APPR</sub>).
- We explain this in terms of the changing information-structural associations of SpecIP:
  - SpecIP is still characterised as [-New] but can increasingly host [+Prominent] constituents, i.e. topics.
  - SpecIP becomes increasingly associated with topics, i.e. prominence.

• Table 5 and Figure 2 display the positional distribution of DAs across time (IcePaHC, 1150-2008).

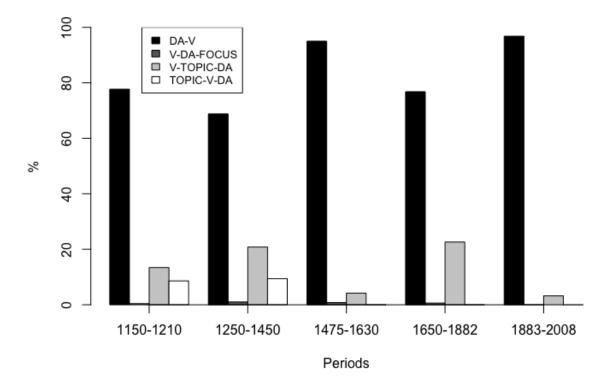


Figure 2: Positional distribution of discourse adverbs in IcePaHC (1150-2008).

Time period	DA-V		topic-V-DA		V-topic-DA		V-DA-FOCUS		$\chi^2$
	n	% of total	n	% of total	п	% of total	п	% of total	
1150-1210	209	77.7%	23	8.6%	36	13.4%	1	0.4%	*
1210-1450	1191	68.8%	162	9.4%	359	20.8%	18	1.0%	***
1475-1630	495	95.0%	0	0.0%	22	4.2%	4	0.8%	***
1650-1882	788	76.8%	0	0.0%	232	22.6%	6	0.6%	***
1883-2008	368	96.8%	0	0.0%	12	3.2%	0	0.0%	***

Table 5: Positional distribution of discourse adverbs in IcePaHC (1150-2008).

- DAs become increasingly confined to SpecIP, losing their function as discourse partitioner in the midfield.
- DAs as a discourse partitioner separating TOPIC from FOCUS are no longer motivated, since topics are now more firmly associated with SpecIP.
- The constructions which have a topic in SpecIP together with a midfield DA are virtually lost after the Old Icelandic period, i.e., post-1350.
- We thus suggest that the postfinite domain is developing into an exclusive focus domain.

#### 5.3 Related developments

• Now that SpecIP is an established topic position, expletive *bað* increases in frequency as a filler for this position and as a signaller of an 'all new' clause (Booth 2018).

(38)	Voru <b>þar</b> tvö skip í búnaði. be.PST there two.NOM ships.NOM in preparations 'There were two ships in the preparations.' (1250, Sturlunga.408.710)	(V-DA-Focus)
(39)	<b>Pað</b> vartöluverðursnjóryfiröllu.EXPL be.PST considerable.NOM snow.NOM over everything'There was a considerable amount of snow over everything.' (2008, Ofsi.772)	(expl-V-focus)
(40)	?EXPL-V-DA-FOCUS (not attested in IcePaHC)	

- Furthermore, since topics are often subjects, subjects overall increasingly target SpecIP and SpecIP is on its way to becoming a subject licensing position (Booth et al. 2017; Schätzle 2018).
- Further evidence: SpecIP increasingly hosts subjects while other elements DAs, object NPs, and SF material occur less often in SpecIP over time (see Table 6 and Figure 3).

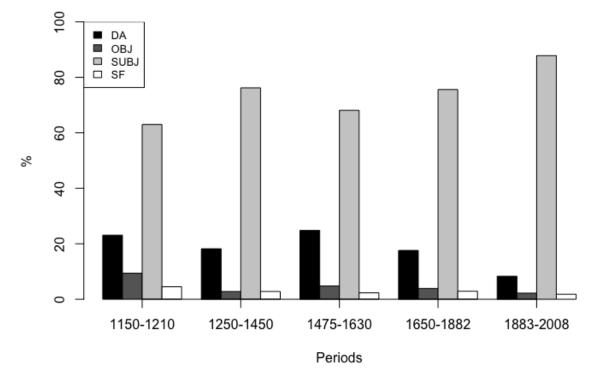


Figure 3: Overt elements in clause-initial position in IcePaHC (1150-2008).

Time period	DA		SUBJ		OBJ		SF		$\chi^2$
	n	% of total	n	% of total	n	% of total	п	% of total	
1150-1210	209	23.1%	570	63.0%	85	9.4%	41	4.5%	***
1210-1450	1191	18.2%	4985	76.2%	184	2.8%	180	2.8%	***
1475-1630	495	24.8%	1360	68.1%	96	4.8%	46	2.3%	***
1650-1882	788	17.6%	3381	75.6%	175	3.9%	129	2.9%	***
1883-2008	368	8.3%	3915	87.8%	97	2.2%	80	1.8%	***

Table 6: Overt elements in clause-initial position in IcePaHC (1150-2008).

# 6 Conclusions

- We have shown that Icelandic undergoes a generalisation of V2 over time (while V1 becomes more restricted).
- Stage I (pre-IcePaHC):
  - SpecIP is associated with discourse-linking material (BACKGROUND).
  - In the midfield we have a position associated with topics and a position associated with foci, with DAs which can demarcate the two.
  - This is a 'restricted' type of V2.
- Stage II (Old Icelandic):
  - Topics occur relatively frequently in SpecIP, but are still common in the midfield, too.
  - Like BACKGROUND material, a TOPIC is [-New].
  - V1 declaratives are robustly attested, making use of the midfield topic position.
  - DAs function as discourse partitioners in the midfield.
- Stage III (Modern Icelandic):
  - SpecIP is firmly associated with topics, resulting in increased dominance of V2 over V1.
  - V1 declaratives are now a marginal phenomenon.
  - Information-structural distinctions now encoded via I which demarcates the TOPIC.
- This idea is in line with the development of Germanic clause structure suggested by Kiparsky (1995), whereby the Specifier position gradually extends to topical constituents and becomes the preferred site of every type of fronting in the 'generalised V2' system found in the modern Germanic V2 languages.

# References

- Axel, K. 2007. Studies on Old High German Syntax: Left Sentence Periphery, Verb Placement and Verb-Second. Amsterdam: John Benjamins.
- Booth, Hannah. 2018. *Clause Structure and Expletives: Syntactic Change in Icelandic*. Ph.D thesis, University of Manchester.
- Booth, Hannah. 2019. How to fill the prefield in Icelandic: the diachrony of expletives and Stylistic Fronting. Handout, Invited talk at the University of Konstanz, June 2019.
- Booth, Hannah, Christin Schätzle, Kersti Börjars & Miriam Butt. 2017. Dative subjects and the rise of positional licensing in Icelandic. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'17 Conference, University of Konstanz*, 104–124. Stanford, CA: CSLI Publications.
- Börjars, Kersti, Elisabet Engdahl & Maia Andréasson. 2003. Subject and object positions in Swedish. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'03 Conference, University at Albany, State University of New York*, 43–58. Stanford, CA: CSLI Publications.
- Börjars, Kersti, John Payne & Erika Chisarik. 1999. On the justification for functional categories in LFG. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'99 Conference, University of Manchester*, Stanford, CA: CSLI publications.
- Brandt, Margareta, Marga Reis, Inger Rosengren & Ilse Zimmermann. 1992. Satztyp, Satzmodus und Illokution. In Inger Rosengren (ed.), *Satz und Illokution*, vol. 1, 1–90. Tübingen: Niemeyer.
- Bresnan, Joan. 2001. Lexical-functional syntax. Oxford: Blackwell.
- Butt, Miriam, Tina Bögel, Kristina Kotcheva, Christin Schätzle, Christian Rohrdantz, Dominik Sacha, Nicole Dehé & Daniel A. Keim. 2014. V1 in Icelandic: A multifactorical visualization of historical data. In Proceedings of the LREC 2014 Workshop on Visualization as added value in the development, use and evaluation of LRs (VisLR), 33–40. Reykjavík, Iceland.
- Butt, Miriam, Farhat Jabeen & Tina Bögel. 2016. Verb cluster internal wh-phrases in urdu: Prosody, syntax and semantics/pragmatics. *Linguistic Analysis* 40(3-4). 445–487.
- Butt, Miriam & Tracy Holloway King. 1996. Structural topic and focus without movement. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the first annual lfg conference*, Stanford: CSLI Publications.
- Butt, Miriam & Tracy Holloway King. 1997. Null elements in discourse structure. In Karumuri V. Subbarao (ed.), *Papers from the NULLS seminar*, .
- Choi, Hye-Won. 1999. *Optimizing structure in context: Scrambling and information structure*. Stanford, CA: CSLI Publications.
- Egerland, Verner. 2013. Fronting, background, focus: a comparative study of Sardinian and Icelandic. *Lingua* 136. 63–76.
- Faarlund, Jan Terje. 1994. Old and Middle Scandinavian. In Johan van der Auwera & Ekkehard König (eds.), The Germanic Languages, 38–71. London: Routledge.

- Faarlund, Jan Terje. 2004. The Syntax of Old Norse: with a survey of the inflectional morphology and a complete bibliography. Oxford: Oxford University Press.
- Franco, Irene. 2008. V1, V2 and criterial movement in Icelandic. Studies in Linguistics 2. 141-164.
- Frascarelli, Mara & Roland Hinterhölzl. 2007. Types of topics in german and italian. In Susanne Winkler & Kerstin Schwabe (eds.), *On information structure, meaning and form*, John Benjamins.
- Grosz, Barbara J., Scott Weinstein & Aravind K. Joshi. 1995. Centering: A framework for modeling the local coherence of discourse. *Computational Linguistics* 21. 203–225.
- Hinterhölzl, Roland & Svetlana Petrova. 2010. From V1 to V2 in West Germanic. Lingua 120(2). 315-328.
- van Kemenade, Ans & Bettelou Los. 2006. Discourse adverbs and clausal syntax in Old and Middle English. In Ans van Kemanade & Bettelou Los (eds.), *The Handbook of the History of English*, 224–248. Oxford: Blackwell.
- Kiparsky, Paul. 1995. Indo-European origins of Germanic syntax. In Ian Roberts & Adrian Battye (eds.), *Clause Structure and Language Change*, 140–167. Oxford: Oxford University Press.
- Komen, Erwin R., Rosanne Hebing, Ans van Kemenade & Bettelou Los. 2014. Quantifying information structure change in English. In *Information structure and syntactic change in germanic and romance languages*, 81–110. Amsterdam/Philadelphia: John Benjamins.
- Krifka, Manfred. 2007. Basic notions of information structure. In Caroline Féry & Manfred Krifka (eds.), *Interdisciplinary studies on information structure*, vol. 6, 13–56. Potsdam: Universitätsverlag.
- Kroeger, Paul. 1993. Phrase Structure and Grammatical Relations in Tagalog. Stanford, CA: CSLI Publications.
- Los, Bettelou. 2009. The consequences of the loss of verb-second in English: Information structure and syntax in interaction. *English Language and Linguistics* 13(1). 97–125.
- Maling, Joan. 1988. Variations on a theme: existential sentences in Swedish and Icelandic. *McGill Working Papers in Linguistics: Special Issue on Comparative Germanic Syntax* 6(1). 168–191.
- Maling, Joan. 1990. Inversion in embedded clauses in Modern Icelandic. In Joan Maling & Annie Zaenen (eds.), *Syntax and Semantics: Modern Icelandic Syntax*, 71–91. San Diego, CA: Academic Press.
- Mycock, Louise. 2013. Discourse functions of question words. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings* of the *lfg13* conference, 419–439.
- Mörnsjö, Maria. 2002. V1 Declaratives in Spoken Swedish: Syntax, Information Structure, and Prosodic Pattern. Doctoral dissertation, Lund University.
- Önnerfors, Olaf. 1997. On narrative declarative V1 sentences in German. In Toril Swan & Olaf Jansen Westvik (eds.), Modality in Germanic Languages: Historical and Comparative Perspectives, 293–319. Berlin: de Gruyter.
- Petrova, Svetlana & Esther Rinke. 2014. Formal properties of event-reporting sentences in Old High German and Old French271. In *Information structure and syntactic change in germanic and romance languages*, 271–294. Amster-dam/Philadelphia: John Benjamins.
- Platzack, Christer. 1983. Existential sentences in English, German, Icelandic and Swedish. In F. Karlsson (ed.), Papers from the 7th Scandinavian Conference of Linguistics, 80–100. Department of General Linguistics, University of Helsinki.

Platzack, Christer. 1985. Narrative inversion in Old Icelandic. Íslenskt mál 7. 127-144.

Rögnvaldsson, Eiríkur. 1995. Old Icelandic: a non-configurational language? NOWELE 26. 3–29.

Rögnvaldsson, Eiríkur & Höskuldur Thráinsson. 1990. On Icelandic word order once more. In Joan Maling & Annie Zaenen (eds.), *Syntax and Semantics: Modern Icelandic Syntax*, 3–40. San Diego, CA: Academic Press.

Schätzle, Christin. 2018. Dative subjects: Historical change visualized: University of Konstanz dissertation.

- Schätzle, Christin & Hannah Booth. to appear. Diahclust: an iterative hierarchical clustering approach for identifying stages in language change. In 1st international workshop on computational approaches to historical language change at acl2019, .
- Sells, Peter. 2001. Structure, Alignment and Optimality in Swedish. Stanford, CA: CSLI publications.
- Sells, Peter. 2005. The peripherality of the Icelandic expletive. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'05 Conference, University of Bergen*, 408–428. Standford, CA: CSLI Publications.
- Sigurðsson, Halldór Ármann. 1990. V1 declaratives and verb raising in Icelandic. In Joan Maling & Annie Zaenen (eds.), *Syntax and Semantics: Modern Icelandic Syntax*, 41–69. San Diego, CA: Academic Press.
- Sigurðsson, Halldór Ármann. 2007. Argument features, clausal structure and the computation. In Tammoy Bhattachayra, Eric Reuland & Giorgos Spathas (eds.), *Argument Structure*, 121–158. Amsterdam: John Benjamins.
- Thráinsson, Höskuldur. 1979. On Complementation in Icelandic. New York: Garland.

Vallduví, Enric. 1992. The informational component. New York: Garland Press.

- van Kemenade, Ans. 2009. Discourse relations and word order change. In Roland Hinterhölzl & Svetlana Petrova (eds.), *Information Structure and Language Change: New Approaches to Word Order Variation in Germanic*, 91–117. Berlin: de Gruyter.
- Walkden, George. 2014. Syntactic Reconstruction and Proto-Germanic. Oxford: Oxford University Press.
- Walkden, George. 2015. Verb-third in early West Germanic: a comparative perspective. In Theresa Biberauer & George Walkden (eds.), *Syntax over Time: Lexical, Morphological and Information-Structural Interactions*, 236–248. Oxford: Oxford University Press.
- Wallenberg, Joel C., Anton Karl Ingason, Einar Freyr Sigurðsson & Eiríkur Rögnvaldsson. 2011. Icelandic Parsed Historical Corpus (IcePaHC), version 0.9. http://linguist.is/icelandic\_treebank.