

Reassessing the historical evidence for embedded V2

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1 Introduction

It is widely assumed that languages which are robustly verb-second in declarative main clauses vary in the extent to which they allow it in embedded clauses. This assumption often follows the lines of the rough three-way typology in (1).

- (1) a. *Well-behaved* V2 languages: V2 is strictly asymmetric and occurs only in complementizerless clauses, as observed by den Besten (1989). Typical examples: German, Dutch and Afrikaans.
- b. *Narrow embedded* V2 (*nEV2*) languages: V2 occurs with complementizers, but in a definable subset of embedded contexts (often linked to the possibility of “assertion”). Typical examples: Frisian and Mainland Scandinavian.
- c. *Broad embedded* V2 (*bEV2*) languages: V2 occurs more broadly in embedded contexts. Typical examples: Icelandic and Yiddish.

Terminologies differ, but something like (1) can be found, for example, in Vikner (1995, 65), Holmberg (2015), and Gärtner (2016a); the terms ‘narrow’ and ‘broad’ embedded V2 are due to Gärtner (2016a).¹

In recent years, however, typologies like (1) have faced some challenges. Biberauer (2002) calls into question the distinction between (1-a) and (1-b).

¹More common in the literature are the terms ‘limited’ and ‘general’ embedded V2, due to Vikner (1995, 65). However, as noted by Gärtner (2016a), the term ‘general embedded V2’ is liable to lead to misunderstanding, as it implies that embedded V2 should be available in *all* embedded contexts – a claim that can certainly not be attributed to Vikner (1995) himself, who argues for a uniform CP-recursion analysis of broad embedded V2, with embedded fronting constrained by Relativized Minimality.

She observes that the supposedly well-behaved languages German and Dutch have some embedded V2 when the proposition is informationally prominent (see Zwart, 1997, 232 and Freywald, 2008) – in exactly the same contexts in which Mainland Scandinavian and Modern Spoken Afrikaans permit it. Moreover, in all these languages, embedded V2 surfaces only as one possible variant in informationally prominent clauses (alongside the usual subordinate clause word order). Hence, she concludes, at least one of these classes has been ‘spuriously reified’ (2002, 25).

The other challenge has come from studies of present-day Icelandic: see Angantýsson, this volume, for an overview of the current state of knowledge. Rögnvaldsson & Thráinsson (1990) originally proposed that Icelandic was a *bEV2* language (see also Diesing, 1990 on Yiddish, and Iatridou & Kroch, 1992). Jónsson (1996) takes issue with some of their judgements and conclusions. He suggests a split between Icelandic A, which is roughly as described by these authors, and Icelandic B, which behaves more like Mainland Scandinavian and needs a *nEV2* analysis. Gärtner (2003), Bentzen (2007, §5.4), Wiklund et al. (2009) and Hrafnbjargarson & Wiklund (2009) go further: they suggest that Icelandic A (as a *bEV2* variety) may not exist at all.

A related, but not coextensive, issue is how to model *nEV2* and *bEV2* phrase-structurally, assuming both exist. The earliest analyses of *nEV2* involved the licensing of exceptional CP-recursion in embedded V2 environments (de Haan & Weerman, 1986), while early analyses of *bEV2* posited that the locus of V2 in these languages was IP, with SpecIP as an A'-position, thus accounting for the absence of complementarity with the complementizer (Rögnvaldsson & Thráinsson, 1990; Diesing, 1990). We will refer to this as the ‘IP-V2 analysis’. The recent overview article by Holmberg (2015) refers to well-behaved and *nEV2* languages as ‘C-V2’ and to *bEV2* languages as ‘I-V2’, thus presupposing that these analyses are essentially correct. Neither has gone unchallenged in the literature, however. In particular, Vikner (1995, chapter 4) makes a powerful case that the IP analysis is inadequate for Icelandic and Yiddish, favouring a generalized CP-recursion analysis (see also Gärtner & Eythórsson, this volume).

Given these developments, we can ask: should the typology of embedded V2 be rethought? A natural and restrictive hypothesis would be that there is only one type of V2 language, with variation – insofar as it exists – being attributable to universal properties of the mapping between syntax and information structure, and to idiosyncratic properties of individual lexical items such as complementizers and complement-taking verbs (see also Scherf & Freitag, this volume). From a Minimalist perspective this idea has much to recommend it conceptually, but making the case in detail would be beyond the scope of a chapter like this. A weaker hypothesis, albeit one still worth investigating, is that broad embedded V2 (especially of the type requiring an IP-V2 analysis) may not exist at all. This hypothesis is not new: Hrafnbjargarson & Wiklund (2009) suggest that ‘there are no pure GV2 [*bEV2* – GW/HB] languages’, and Wolfe (2015b, 149) suggests that ‘the widely-assumed class of truly ‘symmetri-

cal' V2 languages may not exist at all'.² However, the hypothesis has not been systematically investigated. Testing it will be the focus of this chapter.

We investigate a selection of early Germanic languages for which parsed historical corpora are available: Old English, Old Saxon, and historical Icelandic and Yiddish. Our methodology is corpus-based, and both quantitative and qualitative: we are looking for clauses that are compatible with only an IP-V2 or *b*EV2 analysis, and not with an *n*EV2 analysis. Supplemental files for the replication of the automatic part of our investigations are available at `FIXME FIXME`. It hardly needs saying that the apparent occurrence of a particular structure in a written historical corpus does not necessarily mean that that structure was ever grammatical for anyone: they could be performance errors. Quantitative considerations are important here, since, at the bottom end of the scale, the less robustly a structure is attested (compared to other options), the less likely it is to have been a grammatical possibility. There is of course no hard-and-fast cutoff point, though.

2 Embedded V2 languages: an overview

2.1 Diagnostics

Since absence of evidence is not evidence of absence, it is not possible to demonstrate that *b*EV2 or IP-V2 cannot exist. However, on the basis that a theory without the *b*EV2 or IP-V2 type is more restrictive than one that has it, we can look at the languages that have been claimed to be *b*EV2 or IP-V2 and assess whether the analysis is appropriate. To do this we need diagnostics.

2.1.1 Well-behaved V2 languages

Well-behaved V2 languages are simple to identify, in principle: V2 should be ruled out in all embedded clauses introduced by a subordinating complementizer or SpecCP element (such as a relative pronoun or *wh*-item).

2.1.2 Broad embedded V2 languages (and IP-V2)

It is important at this stage to distinguish between the typological claim that *b*EV2 languages exist and the analytical claim that languages exist for which an IP-V2 analysis is appropriate. The latter is a stronger claim: in IP-V2 languages, V2 should be possible in all embedded clauses introduced by a subordinating complementizer or SpecCP element. For a language to be a *b*EV2 language, on the other hand, all that is important is that it should allow embedded V2 in environments that are hostile to it in *n*EV2 languages.

²Kroch & Taylor (1997, 305–310) presage these suggestions by proposing an 'IP-V2' analysis for Old English in which SpecIP is not an A'-position, and arguing that it extends to all IP-V2 languages.

2.1.3 Narrow embedded V2 languages

If a language is a *nEV2* language, V2 should be possible in some embedded clauses but not others. Identifying which contexts ought to permit V2 is not straightforward, however. Embedded V2 in these languages is an embedded root phenomenon in the sense of Heycock (2006). Embedded root phenomena have been associated with assertion (Hooper & Thompson, 1973; Julien, 2007) and more broadly with the possibility of independent clausal force (Andersson, 1975; Truckenbrodt, 2006; Krifka, 2014); these characterizations have been disputed, however (Green, 1976; Wiklund, 2009a,b), and in any case are extremely difficult to operationalize for corpus research in language stages that are only historically attested. On the syntactic side, there seems to be agreement that embedded interrogatives and restrictive relative clauses do not license root phenomena.³ Moreover, root phenomena are only licensed in the complements of certain verbs, which we will call ‘viaduct verbs’.⁴ Hooper & Thompson (1973) provide a typology of complement-taking verbs that still serves as the basis for much work in this area.

- Class A (‘strongly assertive’): verbs of reported assertion such as *say*, *claim*
- Class B (‘weakly assertive’): *believe*, *think*
- Class C (‘non-assertive’): *doubt*, *deny*
- Class D (‘factive’): verbs of emotion or subjective attitude such as *regret*, *be sad about*
- Class E (‘semi-factive’): verbs of perception and knowledge such as *discover*, *understand*

³As it stands, this statement is in need of qualification. Subject-auxiliary inversion is found in embedded interrogatives in some varieties of English (Emonds, 1976; McCloskey, 2006; Woods, 2016). In addition, Gärtner (2001) and Zwart (2005) show that Dutch and German restrictive relative clauses can be V2 under certain circumstances, as seen in (i).

- (i) Das Blatt hatt eine Seite, die ist ganz schwarz.
the sheet has a side that is completely black
‘The sheet has a side that is completely black.’

Even if they exist in the early Germanic languages, these structures are unproblematic for us, however, since the IP-V2 analysis does not predict such structures *per se*: since the *wh*-word or relative pronoun is in SpecCP, then, all else being equal, we would expect V2 *after* it, with the possibility of a non-subject constituent preceding the verb. Clauses in which the verb follows the SpecCP constituent immediately are outside the scope of the present chapter.

⁴The more usual term is ‘bridge verbs’, but this is now widely recognized to be misleading. This term was originally used for verbs that permit extraction from their complements (van Riemsdijk & Williams, 1986, 294; Iatridou & Kroch, 1992, 17). However, not all bridge verbs that take finite complements permit embedded V2 (Vikner, 1995, 70 fn. 7; de Haan, 2001, Biberauer, 2002, 29; Wiklund et al., 2009, 1915 fn. 1); only a subset do (Heycock, 2006, 192), and some non-bridge verbs, e.g. German *flüstern* ‘to whisper’, also allow embedded V2 (Vikner, 1995, 70 fn. 7; Gärtner, 2016b). Viaducts are similar to bridges, but not quite the same thing – hence the term.

To these we must add a new class:

- Class V: verbs of volition or preference such as *want*

Class V was proposed by Salvesen & Walkden (2017). These verbs do not take finite complements in present-day English, and so are ineligible to host embedded root phenomena in that language, hence why they are not considered by Hooper & Thompson (1973). In other languages, including early Germanic and Romance, however, they do take finite clauses as complements. Class V corresponds to the ‘preference predicates’ that Reis (1997); Frank (1998, 2000) and Truckenbrodt (2006) identify for modern German, and which allow complementizerless V2 clauses as arguments under some circumstances. Petrova (this volume) shows that this was also the case in Old High German. Hence, we might expect class V to allow V2 in its complements, in languages in which embedded V2 with complementizers is possible at all.

As a first approximation, potential viaduct verbs are thus taken to be those of class A, B, E, and V (see Salvesen & Walkden, 2017 for more discussion). A caveat is that the class of viaduct verbs may differ subtly from language to language (Vikner, 1995, 70–72, Heycock, 2006, 192): for instance, Icelandic *harma* ‘regret’ permits ‘topicalization’ in its complement, and hence seems to be a viaduct verb, unlike English *regret* (Wiklund et al., 2009). Nevertheless, the classes appear to be broadly similar across languages, and the lexical identity of the embedding predicate is straightforwardly identifiable in corpus research (Julien, 2007; Salvesen & Walkden, 2017).

2.1.4 The role of the preverbal element

A final point to be made is that the preverbal element in embedded V2 clauses needs to be taken into account. Subject-initial clauses tell us nothing, as these could simply involve V-to-I with subject raising to SpecTP, as in e.g. French. For whatever reason, adjuncts also front much more easily than arguments, at least in Icelandic (Jónsson, 1996; Hrafnbjargarson & Wiklund, 2009).⁵ The acid test is therefore whether a non-subject argument, e.g. an object of the verb, can be fronted in an embedded V2 clause that is a restrictive relative or embedded interrogative. If not, the IP-V2 analysis can be safely rejected. If, in addition, non-subject arguments cannot be fronted in the complement of a non-viaduct (class C or D) verb, the classification of a language as *bEV2* can also be rejected.⁶

⁵The adjunct-argument asymmetry can be derived under the intervention-based account of embedded root phenomena in Haegeman (2012), in which operator movement restricts access to the left periphery of the clause, if we assume that adjuncts may be base-generated high. Under an IP-V2 analysis it would remain mysterious.

⁶In what follows we focus on nominal objects, rather than e.g. predicate complements or PP arguments, since these are easiest to identify in historical corpora.

2.1.5 Stylistic Fronting

Another potential confounding factor that must be taken into account – certainly for Icelandic, and possibly for the other languages too – is Stylistic Fronting (SF). Rögnvaldsson & Thráinsson (1990) crucially assume that SF is a type of ‘topicalization’⁷ in arguing for IP-V2 in Modern Icelandic. But SF has little in common with ‘topicalization’: it is clause-bounded and can apply to constituents that normally can’t be ‘topicalized’ easily, like negation, participles and verbal particles (Maling, 1980; Ottósson, 1989, 95; Hrafnbjargarson, 2004; Hrafnbjargarson & Wiklund, 2009, 27). Examples (2-a)-(2-c), from Thráinsson (2007, 353), illustrate this property.

- (2) a. Þetta er mál sem ekki hefur verið rætt.
this is issue REL NEG has been discussed
“This is the issue which has not been discussed.”
- b. Þetta er mál sem rætt hefur verið.
this is issue REL discussed has been
“This is the issue which has been discussed.”
- c. Þetta er mál sem upp hefur komið.
this is issue REL up has come
“This is the issue which has come up.”

Since the most salient property of SF is that it is restricted to clauses with subject gaps (Maling, 1980), we can search for and exclude clauses with no overt subject in order to control for the possibility of SF. As a means of finding all and only cases of ‘topicalization’, this is both too strong and too weak. It is well known that SF can also occur in clauses with a late subject (as noted by Maling, 1980, 80; see also Rögnvaldsson & Thráinsson, 1990, 27; Franco, 2009, 42–45; Franco, 2017), and these cases will not be excluded by removing clauses with no overt subject. In addition, as Thráinsson (2007, 369) emphasizes, the fact that an instance of fronting occurs in a subject-gap context does not necessarily mean that it is SF and not ‘topicalization’. The quantitative results for Icelandic and Yiddish below must be read with these provisos in mind. For Old English and Old Saxon, SF is not generally thought to be a possibility, and so we do not control for it in the same way.

2.2 Present-day languages

To our knowledge, the only present-day languages to have been described as *bEV2* are Icelandic (Rögnvaldsson & Thráinsson, 1990), Yiddish (Diesing, 1990; Santorini, 1992), and (varieties of) Faroese (Jonas, 1996). For Icelandic, the IP-V2 analysis has been called into question, as discussed above.

⁷In the literature on Icelandic (e.g. Maling, 1980; Thráinsson, 2007, chapter 7), ‘topicalization’ is a term loosely used to refer to the type of fronting found in non-subject-initial main clauses; the fronted constituent does not have to be a topic in any information-structural sense. Although the term is an unfortunate one, we will stick with it here for continuity.

2.2.1 Faroese

Jonas (1996) proposes that Faroese is split into two dialects, with the more conservative (southern) variety, Faroese 1, patterning with Icelandic as *bEV2* and the more innovative (northern) variety, Faroese 2, patterning with the Mainland Scandinavian languages as a *nEV2* variety. Wiklund et al. (2009) call the existence of Faroese 1 into question, as their three native-speaker consultants all reject object fronting in the complements of non-viaduct verbs. Heycock et al. (2010) find no difference between northern and southern speakers with respect to V-to-I movement in contrast to Jonas (1996) (see also Thráinsson et al., 2004), but find that Faroese patterns with Icelandic and against Danish in permitting adjunct-initial V2 in the complements of predicates which disallow it in Mainland Scandinavian; they do not test object fronting in these contexts.

2.2.2 Yiddish

The IP-V2 analysis of Yiddish in Diesing (1990) has not been challenged in subsequent literature (see also Santorini, 1992, 1994; Diesing & Santorini, this volume). Diesing reports that ‘topicalization’ is judged as less than perfect in embedded interrogatives and relative clauses (1990, 61–67; c.f. den Besten & Moed-van Walraven, 1986), as is generally agreed to be the case in Icelandic and Faroese (Hrafnbjargarson & Wiklund, 2009; Heycock et al., 2010), but argues that this degradation can be ameliorated by context and that non-subject-initial V2 is nevertheless grammatical in these clauses. Almost all her examples involve adjuncts rather than objects, and she does not discuss different types of embedding predicate.

On the basis of the current state of knowledge, Yiddish and Faroese could still in principle be IP-V2 languages, or at least *bEV2*: further investigation is needed as to the behaviour of different complement classes and the status of object fronting in these languages.

2.3 Historically attested languages

The majority of languages that have been claimed to be IP-V2 or *bEV2* are attested only in historical corpora. For medieval Romance, these include Old Spanish (Fontana, 1993) and Old and Middle French (Lemieux & Dupuis, 1995). Both these characterizations have been called into question – on the one hand by authors claiming that the languages in question were not V2 at all (Kaiser, 2002; Rinke & Meisel, 2009 for Old French; Sitaridou, 2012 for Old Spanish) and on the other hand by those arguing that the correct characterization is as a *nEV2* language (Adams, 1987; Vance, 1997 for Old French; Wolfe, 2015b for Old Spanish). Beyond noting that the issues are disputed, we cannot do justice to the medieval Romance facts here: see Sitaridou (2012), Wolfe (2015a), and the chapters by Galves, Poletto, and Wolfe (this volume), for more. Old French, at least the variety represented in *La Queste de Graal*, has been shown to display an asymmetry between the complements of viaduct and of non-viaduct verbs (Salvesen & Walkden, 2017), supporting a *nEV2* classification.

Several early Germanic languages have also been claimed to be IP-V2 or *bEV2*: at least Old English, historical Icelandic (Old Norse), and historical Yiddish. These, plus the closely related Old Saxon, are the languages that the rest of this contribution will focus on; Old High German is discussed by Petrova (this volume), albeit with a slightly different focus.

3 Old English

Since the typology of embedded V2 first came into focus at the end of the 1980s, there have been two theoretical treatments of Old English that have explicitly taken data from embedded clauses into account.

Pintzuk (1991, 1993, 1995, 1999) made the case for a symmetric account of Old English verb-second: “the structure and syntax of Old English main clauses and subordinate clauses are the same” (Pintzuk, 1995, 229). Under her analysis, both main and subordinate clauses may be either head-initial or head-final in IP, and SpecIP may be an *A'*-position. The immediate obstacle to this kind of approach is that apparently head-initial structures are vastly more common in main clauses. According to Pintzuk, these frequency differences result from a change in progress for which subordinate clauses are a disfavoured context but which is nevertheless a unitary change (in the sense of the Constant Rate Effect of Kroch, 1989).

In contrast, van Kemenade (1997) argued for an asymmetric account, primarily on the grounds that non-subject-initial V2 clauses are found only with *viaduct* verbs. van Kemenade reaches this conclusion by setting aside constructions in which a DP subject may merge in a low position and remain there: these involve “the classes of verbs that do not assign a thematic role to an external argument” (van Kemenade, 1997, 334), including impersonal verbs, impersonal passives, modals (analysed as restructuring verbs), raising verbs that take small clause complements such as *cuman* ‘come’, and presentational clauses with *there*. van Kemenade (1997, 338) notes that “in all these cases, it cannot be shown conclusively that the ‘topic’ is in Spec,IP. It might be, but Spec,IP could also be empty.” Once these examples are set aside, van Kemenade claims, embedded V2 is not found outside contexts that permit embedded root phenomena.

Subsequent accounts of verb position in Old English subordinate clauses have for the most part accepted Pintzuk’s claim that the verb is able to move to the head position of a head-initial projection in the IP-domain (though see Fuß & Trips, 2002 for counterarguments).⁸ However, the idea of SpecIP as an *A'*-position has not found favour in more recent research on Old English. Kroch & Taylor (1997) follow van Kemenade (1997) in treating Old English as a *nEV2* language, albeit one in which the verb moves to I. Salvesen & Walkden

⁸There is debate as to whether this is the same position that the verb moves to by default in main clauses in this language. Eythórsson (1995); Haeberli (1999, 2002); Fuß (2003) and Speyer (2008, 2010) posit that it is; Roberts (1996); Haeberli (2005); Westergaard (2005, 2009) and Walkden (2014) all posit that the verb moves higher in main clauses. See Walkden (2014, §3.4) for discussion.

(2017) look at finite complement clauses in Old English through the lens of the Hooper & Thompson (1973) typology. Their first striking finding is purely quantitative: of 13,407 complement clauses in the York-Toronto-Helsinki Corpus of Old English Prose (Taylor et al., 2003), only 455 (3.3%) were of the form $XP-V_{fin}\dots$, where XP is not a nominative subject. Moreover, once the contexts described by van Kemenade (1997) are discounted, this number sinks to 29 (0.2%). On this basis, Salvesen & Walkden (2017) argue that Old English is not a $nEV2$ language, but rather a well-behaved asymmetric V2 language.

Of the 29 true examples of embedded V2, none occur in complements of class C predicates (though these are rare in the corpus as a whole). Only 2 occur in the complements of a class D predicate, and curiously enough, these are in the same sentence: example (3) below.

- (3) Gif hire ðonne se wiðsace, ðonne is cynn ðæt him spiwe
 if her then DEM.NOM deny then is proper that him spit.SBJV
 ðæt wif on ðæt nebb, ðæt is ðæt hine tæle ðæs
 the woman in the nose that is that him blame.SBJV the.GEN
 folces gesomnung
 people.GEN assembly
 ‘‘If he then denies her, then it is proper that the woman should spit in
 his face, that is, that the people’s assembly should blame him’’
 (cocura,CP:5.45.2.249)

For the present paper we have supplemented Salvesen & Walkden’s study with an investigation of other types of embedded clause: relatives, free relatives, adverbials and interrogatives. Table 1 presents the data; ‘unambiguous’ is defined following the criteria of van Kemenade (1997).

Clause type	Total	Raw V2	%	Of which unambiguous	%
<i>That</i>	13407	455	3.4%	29	0.2%
Relative	19381	185	1.0%	29	0.1%
Adverbial	19572	510	2.6%	81	0.4%
Interrogative	3374	46	1.4%	5	0.1%
Free relative	1835	6	0.3%	2	0.1%
Total	57569	1202	2.1%	146	0.3%

Table 1: Embedded V2 in Old English, raw and unambiguous

Quantitatively, only adverbial clauses show more unambiguous V2 than *that*-clauses. Moreover, in almost all the examples of interrogatives and (free) relatives, the subject surfaces in string-final position, so that the clauses are analysable as involving subject extraposition and may not involve verb movement as high as I. An example is (4).

- (4) to þam us gelæde se mildheorta Drihten, se ðe ...
 to which.DAT us lead.SBJV the mild-heart Lord who ...
 ‘‘to which we are led by the merciful Lord, who...’’

(cocathom1,+ACHom_I,_32:458.226.6542

One might claim that the rarity of embedded V2 in OE is due to extrasyntactic factors – though in light of the syntacticization of discourse properties as part of the cartographic program (Cinque & Rizzi, 2010) such a claim is not as appealing as it might have been in the early 1990s. Nevertheless, the fact remains that example (3) is the only positive evidence for an IP-V2 grammar in a 1.5-million-word corpus of Old English. Furthermore, the classification of the embedding predicate *cynn wesan* ‘to be suitable/proper’ as class D is not beyond question. We therefore conclude that Old English was not an IP-V2 language.

4 Old Saxon

Erickson (1997) suggests that Old Saxon is an asymmetric V2 language like modern German and Dutch, and tentatively draws parallels with the analysis proposed by van Kemenade (1987) for Old English. Main clause word order in Old Saxon is discussed in more detail in Walkden (2014, 65–89). There, however, the assumption of asymmetry was not justified by data from embedded clauses. The availability of the HeliPaD (Walkden, 2015), a parsed version of the Old Saxon *Heliand* in the style of the Penn historical corpora (see Walkden, 2016), makes it easy to remedy this. Table 2 presents the data.

Clause type	Total	Raw V2	%	Of which unambiguous	%
<i>That</i>	569	30	5.3%	11	1.9%
Relative	290	3	1.9%	1	0.3%
Adverbial	447	22	4.9%	8	1.8%
Interrogative	160	4	2.5%	1	0.6%
Free relative	94	0	0.0%	0	0.0%
Total	1560	59	3.8%	21	1.3%

Table 2: Embedded V2 in Old Saxon, raw and unambiguous

There is a single unambiguous example of V2 in a relative clause, (5), and one example of V2 in an embedded interrogative, (6), both given below.

- (5) thar ... thar giuuald habit min mahtig fader
 there ... where power has my mighty father
 “where my mighty father has power” (OSHeliandC.449.825-828)
- (6) huo gibodon habit is engilon alamahtig fader ...
 how ordered has his angels almighty father ...
 “how the almighty father has ordered his angels”
 (OSHeliandC.593.1085-1089)

What is striking about both these examples is that the subject surfaces in string-final position.⁹ Particularly in the latter case, this suggests that a process

⁹As noted by a reviewer, example (6) has a strong flavour of Stylistic Fronting. It is not

of subject extraposition is available: right-adjunction to some phrase in the verbal extended projection, or its equivalent in a Kaynean approach. If these cases can be analysed as involving subject extraposition, then we are dealing with ‘accidental’ V2 and not necessarily movement of a non-subject to SpecIP. Turning to the eleven unambiguous *that*-clause examples, one is a complement of a class A verb (*seggian* ‘to say’) and four are complements of class E verbs; six more are non-complement clauses. None are embedded under predicates of classes C or D; moreover, several of these and of the adverbial cases can also be analysed as instances of subject extraposition. There is no evidence for an IP-V2 analysis, then, and little motivation even for an account in which embedded V2 is possible at all.

5 Historical Icelandic

Early Icelandic is perhaps the most interesting case of all. Faarlund (2004, 253) cites (7) as a case of embedded verb-second:

- (7) en þó vil ek, at fé þetta þiggir þú af mér
 but still want I that money this accept.SBJV you from me
 “But still I want you to accept this money from me” (Hkr II.115.18)

Faarlund (2004, 252–253) considers both an IP-V2 analysis and a CP-V2 analysis with CP-recursion, finally opting for the latter primarily on the grounds that embedded V2 clauses often express assertions. Rögnvaldsson (1996), on the other hand, opts for an IP-V2 analysis. Which is correct?

The availability of IcePaHC 0.9 (Wallenberg et al., 2011), a million-word diachronic sample corpus of historical Icelandic, enables a thorough investigation. As previously mentioned, in order to control for the possibility of Stylistic Fronting, we searched IcePaHC only for clauses with an overt subject.

As for Old English and Old Saxon, we have excluded the contexts that van Kemenade (1997) claims to be ambiguous. Since we have already restricted the search to object fronting, this only involves excluding modals. There is good reason to do this, as Hrafnbjargarson (2008) shows that apparent non-subject ‘topicalization’ is possible with modals for some Icelandic speakers who otherwise reject it.

With all this in mind, Table 3 gives the results.

Clause type	Total	Raw V2	%	Of which object fronting	%
<i>That</i>	9393	1156	12.3%	50	0.6%
Relative	11138	211	1.9%	10	0.1%
Adverbial	8777	501	5.7%	31	0.4%
Interrogative	2341	60	2.6%	4	0.2%
Free relative	652	10	1.5%	1	0.2%

inconceivable that SF is (exceptionally?) available in Old Saxon, though to our knowledge the case has never been made in the literature.

Total	32301	1938	6.0%	96	0.3%
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Table 3: Embedded V2 in historical Icelandic, raw and object fronting

The absolute frequency of embedded V2 is much higher than it is in Old English or Old Saxon, though at 6.0% it is still not particularly substantial. In a study of modern German newspaper prose, Fabricius-Hansen & Solfeld (1994, 101–102) report that in 36.8% of main clauses the prefield is filled by an adverbial, and in 6.6% by an object (N=984). Similarly, for Swedish non-fiction, Westman (1974) finds that 30.8% of prefields are filled by adverbials, and 2.3% by objects (N=5588). A contrastive study by Bohnacker & Rosén (2008, 517) finds that 23% of prefields in Swedish and 42% of prefields in German are filled by adverbials, and 3% of prefields in Swedish and 7% of prefields in German are filled by objects (N=535 and N=1173 respectively). Our own findings from main clauses in the IcePaHC are similar: in 2.9% of main clauses the prefield is filled by an object, and in 40.8% by a non-subject, non-object constituent (N=35740). Quantitatively, then, at least, there is no symmetry here.¹⁰

The more interesting question from a theoretical perspective is whether there are any structures that are grammatical in main clauses but not in embedded clauses. Here we focus on object fronting because, as Hrafnbjargarson & Wiklund (2009, 32) observe, adjuncts front more easily than arguments. As shown by the last column of Table 3, however, object fronting is vanishingly rare in IcePaHC. The only convincing example of an embedded interrogative with object fronting is given in (8).¹¹ This example involves *hvort (sem)* ‘whether’, which allows object fronting in modern Icelandic (Hrafnbjargarson & Wiklund, 2009, 28).

- (8) hvort sem hlut áttu í meiri menn eða minni
 whether part owned in greater men or lesser
 “whether greater or lesser men had a part in it”
 (interrogative; 1210.THORLAKUR.REL-SAG,.360)

(9) is the only example of a free relative with object fronting. There are a handful of potential examples of other relative clauses with object fronting, as in (10), but these constitute only 0.1% of the total number of relative clauses, and so it is difficult to know how seriously to take them.

- (9) Hvað oss hefur á vorum dögum fyrir sjónir sett dagleg reynsla
 what us has in our days before sights set daily experience

¹⁰Though in principle there could be extrasyntactic reasons for this, such as the function of main clauses in achieving discourse coherence, as a reviewer observes; see also Santorini (1992, 597, fn. 3) on Yiddish.

¹¹The other three examples found in the corpus plausibly involve misparsing: 1745.KLIM.NAR-FIC,48.416; 1908.OFUREFLI.NAR-FIC,.1355; 1985.MARGSAGA.NAR-FIC,.790.

“what daily experience has put before our eyes in our time”
 (free relative; 1611.OKUR.REL-OTH,24.239)

- (10) Skal eg eigi drekka þann kalek sem mér gaf minn faðir?
 shall I NEG drink DEM chalice REL me gave my father
 “Shall I not drink the cup that my father gave me?”
 (relative; 1540.NTJOHN.REL-BIB,225.1395)

Note that (8), (9) and (10) all involve clause-final subjects. As discussed for Old Saxon above, a subject extraposition analysis is possible for these. Unlike in Old Saxon and Old English, however, the position of the preverbal element must be SpecIP at the lowest, since the finite verb is universally agreed to move at least as far as IP in all clauses. It is possible that SF, rather than any information-structurally-motivated fronting, is operational here, as well as in instances of the type discussed by van Kemenade (1997) for Old English in which the highest (finite) verb does not select for an external argument. It is well known that SF is a possibility not only in subjectless clauses but also when a low subject is present (Thráinsson, 2007, 355; Franco, 2009, 2017). Moreover, SF of object DPs is restricted in modern Icelandic (Jónsson, 1991; Holmberg, 2000), but not ruled out, and SF can apply to PPs relatively freely.

Such reasoning is dangerous. As Thráinsson (2007, 356) states, ‘there is not a complete consensus as to where the boundary lies’ between SF and ‘topicalization’. Many things can be fronted by both types of operation, and hence distinguishing between SF and ‘topicalization’ on the basis of surface word order becomes impossible or nearly so. Yet the crucial intonational and information-structural diagnostics that could be used to disambiguate between the two possibilities in a living language are not readily available to us in a historical corpus.

That-clauses warranted further investigation, so we went through these by hand. These clauses are further broken down by Hooper & Thompson (1973) class in Table 4. The percentages here are to be understood vertically, as a proportion of unambiguous V2 *that*-clauses, rather than horizontally as a proportion of all complements of predicates of that class (as in Table 3). *That*-clauses in the IcePaHC include many adverbial clauses introduced by *því að* ‘because’ or *tíl þess að* ‘in order that’, as well as some clauses with no obvious embedding predicate. We have lumped these together under the heading of ‘non-complement’ *that*-clauses.

Class	Raw V2	%	Of which object fronting	%
A	226	19.6%	16	32.0%
B	100	8.7%	3	6.0%
C	62	5.4%	6	12.0%
D	26	2.2%	0	0.0%
E	175	15.1%	15	30.0%
V	58	5.0%	4	8.0%
Non-complement	509	44.0%	6	12.0%
Total	1156	100.0%	50	100.0%

Table 4: Embedded V2 *that*-clauses, raw and object fronting

All but six of the cases of object fronting in *that*-clauses are under viaduct verbs. These six are all embedded under class C predicates; one is given as (11) below.

- (11) og það kann og vera að þess hug sjálfs
 and EXPL can also be COMP DEM.GEN mind.ACC self.GEN
 lokki sú umræða til nokkurs metnaðar
 entice.SBJV DEM.NOM debate.NOM to some.GEN ambition.GEN
 “and it may also be the case that that debate entices the mind of the
 man to some ambition” (1210.THORLAKUR.REL-SAG,181)

Examples like this constitute the strongest evidence for an IP-V2 grammar. However, these examples are also compatible with the approach to Icelandic A presented in Hrafnbjargarson & Wiklund (2009), in which fronted arguments occupy the specifier position of the lower TopP in the sense of Rizzi (1997), immediately above FinP.¹² They observe that even the most liberal speakers reject embedded argument fronting under non-viaduct verbs when there is no overt indication of contrastivity such as a demonstrative.

Finally, there is no clear evidence for change over the nine hundred years covered by the IcePaHC. There is a gentle downward trend in Figure 1, but enough noise in the data that this could easily be a coincidence.

In summary, examples exist that seem to point towards an IP-V2 analysis for historical Icelandic, but these are very rare. Exactly how they are treated depends on the tricky question of the difference between SF and ‘topicalization’, among other things.

6 Historical Yiddish

In contrast to the Icelandic situation, the history of Yiddish embedded V2 has been treated in detail by Santorini (1989, 1992, 1993). According to Santorini, Yiddish has transitioned from a head-final IP to a head-initial IP over its history. In addition, East Yiddish – but not West Yiddish – has become an IP-V2 language.

Santorini’s presentation of the data contains an interesting caveat: “While clause-initial thematic non-subjects do not occur as frequently in [+wh] subordinate clauses, this appears to be due to discourse rather than syntactic factors’ (1992, 597, fn. 3) (see also Cardinaletti & Roberts, 2002). In light of the syntacticization of discourse properties, as well as the progress that has been made in understanding the conditioning factors of embedded V2, it is worthwhile revisiting this dataset.

¹²However, see the appendix to Gärtner & Eythórsson, this volume, for a critique of this analysis.

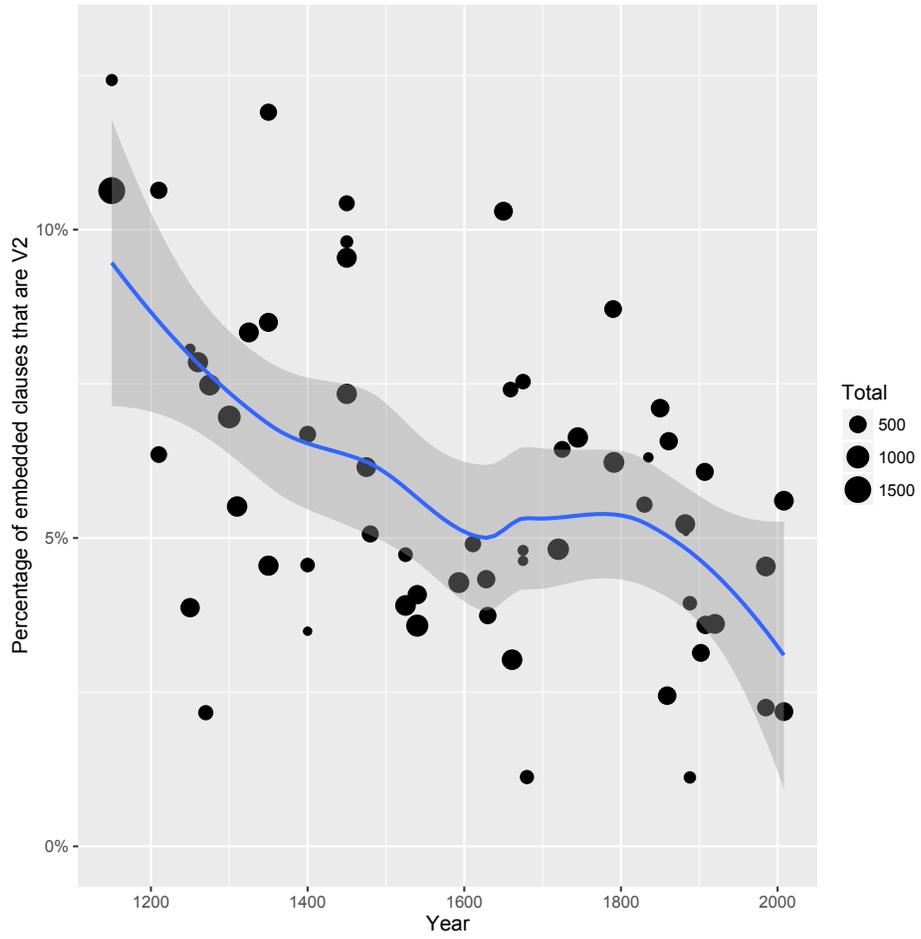


Figure 1: Icelandic raw embedded V2 by text across time

Santorini’s constructed example, (12), involves the complementizer *oyb* ‘whether’. If this item is anything like Icelandic *hvort*, then it would not be expected to disallow embedded V2 in all contexts. Moreover, the example involves adjunct fronting in the context of a modal. To our knowledge it has not been established whether (historical) Yiddish has Stylistic Fronting, but it would not be unexpected, especially if there is a relation between SF and V-to-I movement as argued by Holmberg (2000, 454).

- (12) *oyb* *oyfn* *veg* *vet* *dos* *yingl* *zen* *a* *kats*
 whether on-the way will the boy see a cat
 “whether on the way, the boy will see a cat” (Santorini, 1992, 597, her
 (5)b)

The examples that Santorini (1992, 622, fn. 28) takes from Olsvanger (1947) also involve missing subjects, and we do not see what the embedding predicate is, except in one case, (13) below.

- (13) *volt* *er* *gepaskent* *vi* *far* *got* *iz* *gut*
 would he decided how for God is good
 “he would decide in God’s favour”
 (Olsvanger, 1947, 169, in Santorini, 1992, 622, her (i)b)

Santorini’s examples (36)a–c, drawn from her East Yiddish corpus and reproduced as (14-a)–(14-c) below, all involve adjuncts; (14-a) is also subjectless, and we do not see what the embedding predicates are for (14-b) and (14-c).

- (14) a. *di* *al* *ir* *tag* *habi[n]* *zikh* *nit* *vi* *gitan* *tsu* *lernn*
 who all their day have REFL not than done to learn
 “who all the days of their lives have done nothing but learn ...”
 (Preface to Sefer ha-Magid 4a; 1623–1627)
 b. *d[a]s* *da* *hut* *n[e]bukh[a]d* *n[e]trs* *giv[o]rfn* *in* *klikh* *uven*
 that there has Nebuchadnezzar thrown into-the furnace
 “that Nebuchadnezzar there threw into the furnace”
 c. *das* *in* *zeyn* *her* *tsihn* *iz* *eyn* *goy[e]* *tsu* *ihm* *gikumin*
 that in his here pulling is a Gentile to him come
 “that in his wanderings a non-Jewish woman came up to him”
 (Court testimony (EY) 174, 1600–1648)

As for the other languages, what is needed to make an ironclad case for IP-V2 is examples of object fronting in restrictive relatives, embedded interrogatives, or the complements of non-viaduct verbs. None of these examples meets those requirements. Ideally, an analysis as SF should also be ruled out.

In addition, Santorini’s quantitative data from historical Yiddish, 1540-present, show that XP-V_{fin}-... sequences are rare. She finds no examples in historical West Yiddish (N=392), and only 26 in East Yiddish (N=1221).

Beatrice Santorini has kindly given us access to the Penn Parsed Corpus of Yiddish (Santorini, 2016), which contains circa 200,000 words of historical Yiddish annotated according to the standards of the Penn Parsed Corpora of

Historical English. If we run essentially the same searches as for Icelandic – looking for embedded clauses with the verb in second position and preceding an overt subject – we get the results in Table 5.

Clause type	Total	Raw V2	%	Of which object fronting	%
<i>That</i>	547	20	3.7%	4	0.7%
Relative	391	8	2.0%	0	0.0%
Adverbial	604	12	2.0%	2	0.3%
Interrogative	132	1	0.8%	0	0.0%
Free relative	142	1	0.7%	0	0.0%
Total	1816	42	2.3%	6	0.3%

Table 5: Embedded V2 in historical Yiddish, raw and object fronting

The overall percentage of raw embedded V2, 2.3%, is actually less than for Old Saxon. Furthermore, when we examine the examples we see that they do not constitute unambiguous evidence for an IP-V2 analysis. There is only one example of V2 in each of the crucial contexts of interrogatives and free relatives; the interrogative example is given as (15).

- (15) vrugt ... vs da vern di grimn di da im kann
 asks ... what there were the frights that there him came
 “asks ... what the frights were that came to him”
 (interrogative; 1507W-BOVO,58.428)

This presentational example plausibly involves extraposition of the heavy subject. Moreover, both this and the free relative example (1465W-COURT,24.89) are from extremely early West Yiddish texts. In the 1400s and the first half of the 1500s, the rates of head-initial IP were very low – not above 10% (Santorini, 1992, 617) – making it unlikely that we are dealing with head-initial IP in these cases.¹³ Turning to the object-fronting examples, these only occur in adverbial and *that*-clauses. Among the four examples of *that*-clauses retrieved by the search, one (1565E-COURT,73.4) is a non-complement case, one (1620E-LEVTOV1,51.119) is plausibly a parenthetical main clause rather than a *that*-clause, one (1620E-LEVTOV1,61.195) is embedded under a class E verb (*hern* ‘to hear’) and the last, given below as (17), is embedded under a class V verb (*betn* ‘to request’). Both of the instances of object fronting in adverbial clauses ((16) below and 1507W-BOVO,100.733) and at least two of the four *that*-clauses (e.g. (17) below) can also be analysed as instances of subject extraposition.

¹³It is also striking that both of these examples involve *da* ‘there’, as do four of the eight examples of V2 in relative clauses. The case has been made for present-day German (Bayer & Suchsland, 1997) and for Early New High German (Light, 2015) that *da* is in fact a subject expletive. More investigation would be needed to establish whether this analysis could extend to early Yiddish.

- (16) dos in zol zingen der menatseyekh
that him shall sing the victorious
“that the victorious shall sing it” (adverbial; 1600E-MAGID,.1)
- (17) das bit der shreybr dz es zaln koyfn mann un veybr
that asks the writer that it shall buy men and women
“The writer requests that men and women buy it”
(*that*-clause; 1620E-LEVTOV1PREF,3l.116)

Table 5 conflates East and West Yiddish across all time periods. The diachronic development is shown in Table 6 for West Yiddish and Table 7 for East Yiddish.¹⁴ Strikingly, there is no significant difference between East and West Yiddish with regard to the proportion of embedded V2 (Fisher’s exact tests: $p = 0.2709$ for raw V2; $p = 1$ for object fronting).

Century	Total	Raw V2	%	Of which object fronting	%
C15th	126	3	2.4%	0	0.0%
C16th	219	8	3.7%	1	0.5%
C17th	50	0	0.0%	0	0.0%
C18th	32	2	6.3%	0	0.0%
Total	427	13	3.0%	1	0.2%

Table 6: Embedded V2 in West Yiddish by century

Century	Total	Raw V2	%	Of which object fronting	%
C16th	686	9	1.3%	1	0.1%
C17th	504	11	2.2%	4	0.8%
C18th	64	1	1.6%	0	0.0%
C19th	68	6	8.8%	0	0.0%
C20th	57	2	3.5%	0	0.0%
Total	1379	29	2.1%	5	0.4%

Table 7: Embedded V2 in East Yiddish by century

Finally, Figure 2 shows the overall diachronic development. Each text is represented by a circle (East Yiddish) or a triangle (West Yiddish). It is difficult to discern any diachronic trend.

To summarize this section: embedded V2 in early Yiddish seems to be no more common than it is in any other early Germanic language. Insofar as it exists, it can be captured by an analysis in which Yiddish develops a head-initial IP with verb movement to I over time, as proposed by Santorini (1989, 1992, 1993), but without the possibility of true embedded ‘topicalization’. Instead, we have suggested that Stylistic Fronting may be operative in early Yiddish. As

¹⁴The 10 examples from undated, unlocalized court documents have been excluded from Tables 6-7 and Figure 2. Figure 2 also excludes texts containing fewer than five examples of embedded clauses in total.

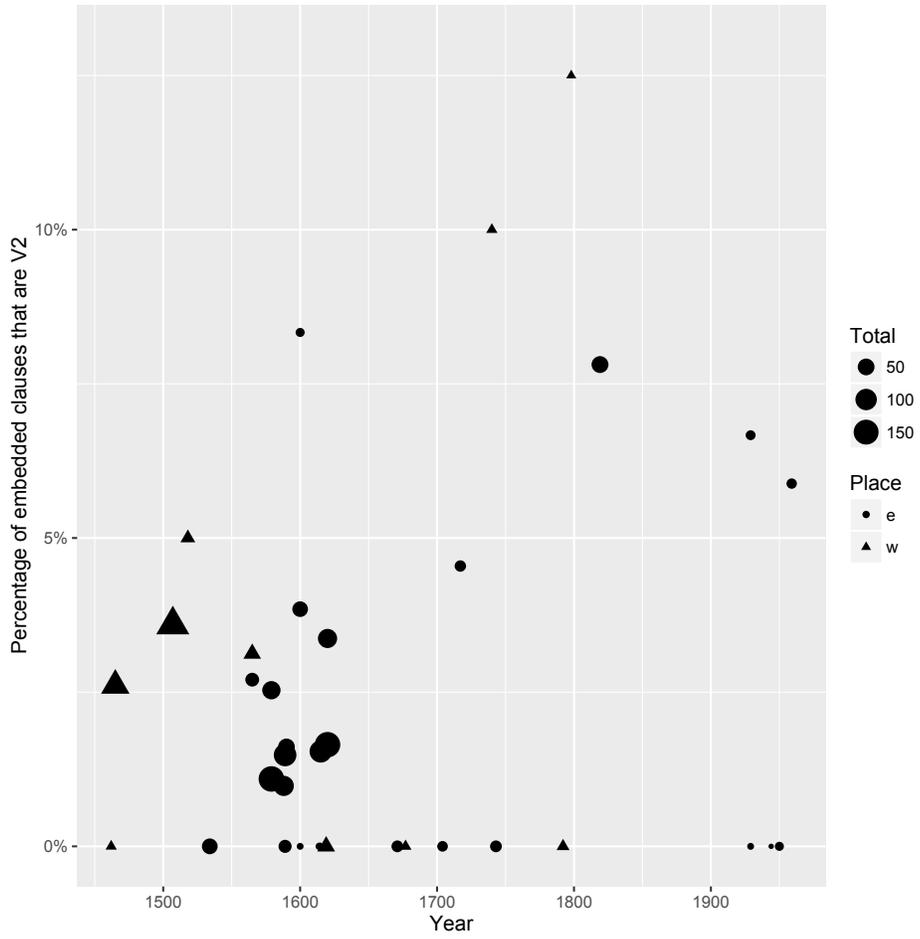


Figure 2: Yiddish raw embedded V2 by text across time

mentioned, Holmberg (2000, 454) argues for a necessary connection between SF and V-to-I movement. Cardinaletti & Roberts (2002, 129) suggest that present-day Yiddish allows SF. This is disputed by Santorini (1994, 101–102) on the grounds that alternative analyses are available for all apparent examples, and that fronting of the negation particle *nit* appears to be ruled out. Santorini (1994) also assumes that SF applies only to heads, following Maling (1980), but this assumption has been overturned in recent work (Holmberg, 2000; Hrafnbjargarson, 2004; Thráinsson, 2007, 380–385). We think that the question of SF in Yiddish should be reopened, and that (in particular) the information-structural properties of SF and ‘topicalization’ are worth investigating in more detail.

7 Summary and conclusion

Our aim in this chapter was to test the hypotheses that the early Germanic languages are not ‘symmetric’ IP-V2 languages, in the sense of V-to-I occurring in all clauses with SpecIP as an A’-position, and potentially not *bEV2* languages either. Evidence against this position would take the form of embedded [non-subject-XP]-V_{fin}-... sequences in different clause types. As we have seen, purely quantitatively, such evidence is rare. A summary of the key findings is given in Table 8. For Yiddish and Icelandic, only XP-V_{fin}-... clauses with an overt subject are included as ‘raw V2’.

Language	%	Total N
Old English	2.1%	57,569
Old Saxon	3.8%	1,560
Historical Icelandic	6.0%	32,301
Historical Yiddish	2.3%	1,816

Table 8: Raw embedded V2 in historically-attested Germanic

Compared to declarative main clauses in Germanic languages, in which 30–40% of clauses are of the form [non-subject-XP]-V-*fin*..., these figures are unimpressive: there is certainly no ‘symmetry’ when it comes to usage. More importantly, however, these numbers can be whittled down even further by taking into account several important facts.

First, not all embedded clauses count: *bona fide* IP-V2 can only be demonstrated in restrictive relative clauses, interrogatives and under non-viaduct complement-taking predicates, with the latter being crucial for a diagnosis as *bEV2*. Otherwise, we might be dealing with a *nEV2* language. Secondly, even in these contexts, [non-subject-XP]-V-*fin*-... sequences are not necessarily to be analysed as instances of IP-V2. In many such instances the verb has not demonstrably left the *vP*, and/or the preverbal constituent is not demonstrably in SpecIP (van Kemenade, 1997). Thirdly, Stylistic Fronting must be taken into account: insofar as SF is a different process from the ‘topicalization’ commonly

found in main clauses, instances of SF do not count as symmetric IP-V2, even if the landing site of SF is assumed to be SpecIP. This is especially relevant for historical Icelandic, but we have suggested that it may be relevant for historical Yiddish as well. When the examples are investigated in detail, then, none of these historically-attested Germanic languages provides robust evidence for IP-V2 as an analysis, nor for *bEV2* as a syntactic ‘type’.

While we do not rule out an analysis in which the verb moves only as high as I, there are also plausible analytical alternatives available. Hrafnbjargarson & Wiklund (2009) propose that the verb moves as high as Fin in a split CP. In an update of the CP-recursion analysis, Vikner (2017) pursues an analysis in which there is a *cP* above CP, and the verb only moves to (the lower) C. These analyses may be more appealing than the V-to-I analysis, though we do not wish to take a firm stance here.

There remain many interesting avenues for future research, as we have only been able to scratch the surface of each corpus. We do not see much evidence for a distinction between *nEV2* and well-behaved V2 languages in this dataset either. It is true that in Old Saxon, historical Icelandic and historical Yiddish *that*-clauses display the most raw non-SV embedded V2, and relative clauses and embedded questions display the least. However, in light of recent findings on spoken German and Dutch, it might be that this sort of distribution is actually universal when we take prescriptive factors out of the equation – much more corpus-based work would be needed to know for sure.

All in all, our findings are compatible with the view that there is only one type of V2 language – at least as regards embedded clauses – and that any cross-linguistic variation that does exist is attributable to idiosyncratic properties of individual overt lexical items such as complementizers and complement-taking verbs.

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