Diagnosing embedded V2 in Old English and Old French

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1 Introduction

The goal of this paper is to discover the conditions under which embedded verb-second (V2) was permitted in Old English and Old French, and to explore the theoretical implications of these conditions for the analysis of the landing site of the finite verb.[1] Specifically, we seek to establish i) whether embedded V^0-to-C^0 movement is attested in OE and OF, and, if so, ii) whether its occurrence in verbal complement clauses is constrained according to the class of the embedding verb in Hooper and Thompson's (1973) five-way typology.

Both OE and OF exhibit at least a strong tendency towards surface V2 in main clauses.[2] For both OE and OF, influential early generative treatments (e.g. van Kemenade 1987 for OE; Vanelli *et al*. 1985 and Adams 1987, 1989 for OF) proposed that the finite verb in such clauses was to be found in C^0 – but for both languages this analysis has also been challenged (e.g. Pintzuk 1993, 1999 for OE; Dupuis 1989; Rinke and Meisel 2009 for OF), in favour of an analysis where the verb is in some lower position such as I^0. The two families of analysis, which we will henceforth refer

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[1] We would like to express our gratitude to the audiences of DiGS 15 and ICHL 21 as well as to two anonymous reviewers and the volume's editors for their helpful comments.
[2] This is one of the many apparently Germanic properties exhibited by OF; see Mathieu (2009) for an overview.

to as CP and IP analyses respectively, differ in terms of a crucial prediction: while CP analyses predict the existence of an asymmetry between main and subordinate clauses, IP analyses predict that there should be no such asymmetry. It is this prediction that the present chapter sets out to test. We limit our study to embedded *that*-clauses, thus leaving other types of subordinate clauses for future research. Our point of departure is Hooper and Thompson's (1973) typology of verbs that take clausal complements, and we apply this to historical corpus data. To our knowledge, this has not been done before.

The chapter is structured as follows. Section 2 lays out the two families of analysis and their motivations in more detail, and explains how these predictions are derived. Section 3 describes our methodology, presenting Hooper and Thompson's (1973) typology of verb classes. Section 4 presents our results, and explores their implications. We conclude that, for both OE and OF, CP analyses are better able to account for our data than IP analyses, but that there is a crucial difference between the two languages: OE does not permit embedded V2 at all, whereas OF permits it in some contexts. By relating this to the Merge site of finite complementizers, we link a micro-level parametric difference to the macro-level property of V2.

2 Types and analyses of V2 in modern and historically-attested languages

2.1 Definitions

Before we proceed, a word is in order on what we mean by V2. For us, the term is used in its 'surface' sense, to describe a structural configuration in which one and only one constituent precedes the finite verb, as in (1), and in which that constituent

need not be the subject.[3] A V2 language is then one in which this configuration

predominates, and a strict V2 language is one in which it is exceptionless.

(1)	Den	Mann	hat	der	Hund	gebissen
	the.ACC	man.ACC	has	the.NOM	dog.NOM	bitten

'The dog has bitten the man.'   (German)

2.2 V2 in modern Germanic

German, Dutch and the Mainland Scandinavian languages are all *asymmetric* V2

languages: as a general rule, V2 is restricted to main clauses, and is not possible in

subordinate clauses (see Holmberg 2015: §2.4). Another group of Germanic

languages, including Icelandic and Yiddish, are considered to be *symmetric* V2

languages in the sense that the verb is in second position in both main and subordinate

clauses (see Santorini 1994).[4] See Holmberg (2015) for detailed discussion of the V2

phenomenon in Germanic and beyond.

(2)   ASYMMETRIC V2 – NORWEGIAN

(a)	I	går	kom	jeg	for	sent	på jobb.
	In	yesterday	came	I	too	late	on work

'Yesterday, I was too late for work.'

(b)	Jeg	beklager	at	jeg	kom	for	sent	på	jobb	i	går.
	I	regret	that	I	came	too	late	on	work	in	yesterday

'I regret that I was too late for work yesterday.'

(c)   *Jeg beklager at i går kom jeg for sent på jobb.

(3)   SYMMETRIC V2 – ICELANDIC

	Jón	harmar	að	þessa	bók	skuli	ég	hafa	lesið
	John	regrets	that	this	book	shall	I	have	read

'John is sorry that I'll read this book.'   (from Hrafnbjargarson and Wiklund 2009)

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[3] A more theory-loaded definition is used by Poletto (2002), who sees V2 as a cover term to refer to any structural configuration in which the finite verb occupies a position in the C-domain.

[4] It is doubtful whether Icelandic, at least, is truly symmetric; see Maling (1980). It should also be noted that at least Icelandic seems to be restricted as to embedded topicalization in much the same way as the asymmetric V2 languages even though Icelandic permits more instances of embedded V2 than e.g. Mainland Scandinavian (see Hrafnbjargarson and Wiklund 2009 and references therein).

The symmetric V2 languages have for the most part been analysed as involving the finite verb in I^0 in both main and subordinate clauses: see Diesing (1990) on Yiddish and Rögnvaldsson and Thráinsson (1990) on Icelandic. When it comes to the asymmetric languages, however, the main question has been how to derive the contrast between clause types without stipulation. The key insight came from den Besten (1977) and Evers (1981), who proposed that, in these languages, the finite verb was in complementary distribution with subordinating complementizers, with both in C^0. This type of analysis, in which the finite verb occupies C^0 in all main clauses, has been challenged by Travis (1984, 1991) and Zwart (1991, 1993), who argue that the verb only raises to C^0 when a non-subject constituent is in initial position; when the subject is initial, it remains in SpecIP, and the verb remains in I^0. The idea that the position of the finite verb depends on the nature of its preceding XP (subject vs. non-subject) is what we will refer to as *the split hypothesis.*

Schwartz and Vikner (1989, 1996) demonstrate that the split hypothesis faces a number of problems not shared by the consistent V^0-to-C^0 analysis, and as a result the majority of syntacticians today adopt a version of the latter, though Sells (2001) and Mikkelsen (2010) are exceptions.[5] See Poletto (2002), Roberts (2004), Frascarelli and Hinterhölzl (2007), and Mohr (2009) for variants of the V^0-to-C^0 approach, which differ in implementation but share the basic insight that the position of the finite verb in main clauses is uniform.

To sum up: There are three competing analyses that can in principle account for V2 word order in main clauses: i) the IP analysis, claiming that the finite verb does not move higher than I^0 and that the preceding element sits under SpecIP; ii) the CP analysis that claims that the finite verb sits under a head in the C-domain; and iii)

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[5] More exotic analyses of V2 exist: see Fanselow (2003) and Müller (2004). We will not consider these here.

the split hypothesis that suggests that the finite verb is in the C-domain when an XP other than the subject precedes it, and under I^0 when it is preceded by the subject. The analyses make differing predictions for subordinate clauses, which we will return to in section 2.5.

2.3 V2 in Old English

That OE has a high proportion of V2 main clauses has long been recognized (see e.g. Jespersen 1949). The analogy to the modern Germanic languages was first drawn in generative theory by Canale (1978) and van Kemenade (1987). However, OE differs from the modern languages in a number of ways: in particular, it exhibits a considerable number of V3 constructions. Most notably, with personal pronoun subjects, as in (4), main clauses are almost invariably V3; pronominal objects, some adverbs, and full nominal subjects as in (4) may also occupy this position.[6]

(4) æfter   his   gebede he   **ahof**   þæt   cild   up
     after   his   prayer he   lifted the   child up
     'After his prayer he lifted the child up'
     (cocathom2,+ACHom_II,_2:14.70.320)

(5) Nu   se   rica   mann   ne   **mæg**   her   habban ...
     now   the   rich   man   NEG   can   here   have ...
     'Now the rich man cannot here have ...'
     (coaelive,+ALS[Ash_Wed]:110.2758)

These data have been taken to motivate an analysis in which the verb is typically in the IP domain, for instance in Pintzuk (1993, 1999), Eyþórsson (1995), Haeberli (1999, 2002, 2005), Fuß (2003), and Speyer (2008, 2010). If the verb does not evacuate the I-domain, the prediction is that there will be no main-embedded asymmetries. Other authors, however, have pointed to the possibility of an expanded

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[6] There are also examples in which the verb occurs in a later position: see Koopman (1995), Pintzuk and Haeberli (2008), and Walkden (2014: 94–106).

CP layer following Rizzi (1997) as an alternative way of accounting for some of these patterns; these include Roberts (1996), Westergaard (2005), Hinterhölzl and Petrova (2009), and Walkden (2009, 2014).[7] We refer the reader to Walkden (2014: ch. 3) for more discussion of the range of constituent orders to be found in OE main clauses.

2.4 V2 in Old French

As for OE, the idea that OF is fundamentally a V2 language has a long pedigree, going back at least to Thurneysen (1892). Adams (1987, 1989) and Roberts (1993) are two influential early generative analyses exploiting the idea that the verb is in the C-domain. When an XP other than the subject precedes the finite verb, the subject is postverbal (6).

(6)　　Lors　oste　　mes sires　Gauvains　son　　hiaume de　　sa　　teste
　　　　then　removes　my sire　　Gauwain　　his　　helmet　of　　his　　head
　　　　'Then Sir Gauwain removes the helmet from his head.'　　(Graal, 165d, l27)

There is no consensus as to the position of the finite verb in main clauses: Vance (1997), Labelle (2007) and Labelle and Hirschbühler (this volume) are proponents of the split hypothesis, whereas in the analyses of Vanelli *et al*. (1985), Adams (1987, 1989), Roberts (1993), Benincà (2006), Vance *et al*. (2010), Salvesen (2013), and Steiner (2014) there is always V^0-to-C^0-movement.

OF does, however, display numerous exceptions to the V2 rule, in general by allowing V3 structures. These are quite homogeneous in the sense that the initial XP is either a subordinate adverbial clause (Vance *et al*. 2010, Donaldson 2012a, 2012b; Radwan 2012; Salvesen 2013; Bech and Salvesen 2014) or belongs to a small set of

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[7] Recent work by van Kemenade and co-authors discussing information-structural variation in subject positions, e.g. van Kemenade and Milićev (2012) and van Kemenade and Westergaard (2012), proposes that the verb moves to the head of a functional projection FP, but is neutral as to whether this projection is in the C-domain or below it. Our data support the view that FP is in the C-domain.

adverbials (Vance 1997; Bech and Salvesen 2014). Examples that are not captured by this generalization are not widespread in the 13th century. Example (7) shows a fronted subordinate adverbial clause followed by S–V word order.[8]

(7) Et   quant il fu   auques   anuitié   et il fu   hore de dormir   li
     and when   he was   some   begun-night   and it was   hour of sleep   the
     rois prist Galaad   et   l'enmena   en   sa   chambre
     king took   Galahad   and him=brought in   his chamber
     'And when the night had started to fall and it was time to sleep, the king took Galahad and
     brought him into his own chamber.'
     (OF;Graal 164d l7)

As a fronted subordinate adverbial clause may be followed either by a S–V structure or (rarely) a V2 structure, these clauses have been analysed as occupying a specifier position to the left of the V2 scheme, probably the specifier of the Scene Setting position in the sense of Benincà and Poletto (2004) (see Donaldson 2012a; Salvesen 2013; Bech and Salvesen 2014). In the cases where the fronted subordinate clause is followed by the finite verb and (optionally) the subject, it must be analysed as the first element in the V2 structure. This implies that it occupies a different position than in the cases where it does trigger a V3 word order.

The standard description of OF says that it is an asymmetric V2 language, and that subordinate clauses have S-V word order (8).

(8) Et il   dient que ce   est voirs
     and they   say   that this is   true
     'and they say that this is true'   (Graal 414b)

In this paper we will show that embedded V2 in OF is fairly common, and we will examine these structures more thoroughly.

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[8] The main clause following a fronted subordinate adverbial clause may also be introduced by the particle *si*, especially if the two clauses contain the same subject (Schøsler and van Reenen 2000).

2.5 Embedded clauses: a neglected domain

If we assume, standardly, that complementizers originate in the C-domain, the predictions made by the two families of analysis are clear (Haeberli 2005: 273–274). All IP analyses predict that XP-V-(S) word order should be as prevalent in subordinate clauses as in main clauses, whereas CP analyses predict a clear asymmetry. IP analyses also predict that V1 structures should be possible in subordinate clauses.[9] In addition, Pintzuk's (1993, 1999) IP analysis of OE and Dupuis's (1989) and Rinke and Meisel's (2009) IP analyses of OF, since they treat SpecIP as an A'-position that can host any constituent, predict that V2 should be possible in all subordinate clause types, as should embedded topicalization. By contrast, the 'split' IP analyses (for OE see Eyþórsson 1995; Haeberli 1999, 2002, 2005; Fuß 2003; and Speyer 2008, 2010; for OF see Vance 1997, Labelle 2007, Labelle and Hirschbühler this volume), in which SpecIP is not an A'-position but where the finite verb moves to a head in the I-domain, predict that embedded topicalization and non-subject-initial V2 should be ruled out under certain predicates, as do the CP analyses mentioned above. Following Vikner (1995: 65), asymmetric V2 languages can be divided into two subclasses: languages such as standard German, which prohibit embedded V2 whenever the complementizer is present, and languages such as Mainland Scandinavian, which permit embedded V2 with an overt complementizer only in specific contexts.[10] In particular, embedded V2 is ruled out in these languages in complement clauses of verbs that are not 'bridge' verbs (Vikner 1995; see also Andersson 1975; Green 1976; Julien 2009).

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[9] Pintzuk (1999: 223) acknowledges this problem. Haeberli (2005) is able to evade it by positing, like CP analyses, that the verb moves higher in main clauses (to $AgrS^0$) than in subordinate clauses (T^0).

[10] In German, embedded V2 is the only possibility when the complementizer is not expressed.

In this paper we aim to investigate the possibilities of embedded V2 in OE and OF. If embedded V2 exists, is the occurrence of such constructions limited to certain contexts? Instead of evoking the rather blurry term of bridge verb (Vikner 1995; see also Andersson 1975; Green 1976),[11] we will use Hooper and Thompson's (1973) classification of different types of verbs that take finite complement clauses. We take all instances of XP-V-S as an instance of V2 and do not consider Leftward Stylistic Fronting in the sense that has been proposed by Labelle and Hirschbühler (this volume).

3. Investigating complement clauses

3.1 Classes of complement-taking verb

'Main clause phenomena' (Emonds 1970; Green 1976) are found in the complements of some verbs, but not others. These main clause phenomena include Negative Constituent Preposing, as in (9) and (10), as well as VP preposing, topicalization, and more. (10) shows that main clause phenomena are ruled out at least in some subordinate clauses.

(9)   He's been out of work before, but never has he had to borrow money.

(10)   *The fact that never has he had to borrow money makes him very proud.

To account for the empirically observed distribution of main clause phenomena, Hooper & Thompson (1973) divide complement-taking verbs into five classes, labelled A–E, according to the discourse status of their complement clauses: strong

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[11] Vikner himself notes (1995: 70, fn. 7) that the notion of bridge verb is problematic: in particular, the term was introduced to denote verbs that did not permit extraction from their complement, and this does not always correlate with permitting embedded V2. See Biberauer (2002) and Julien (2007) for two critical views.

assertive verbs (Class A), weak assertive verbs (Class B), verbs that are neither assertive nor factive (Class C), factive verbs (Class D), and semifactive verbs (Class E).

Class A verbs in Hooper and Thompson's schema introduce strong assertions, and are typically verbs of saying, e.g. *say*, *report*, *exclaim*, *assert*, *claim*, *vow*, *be true*, *be certain*, *be sure*, *be obvious*. Class B verbs introduce weak assertions, and are typically verbs denoting mental processes: examples are *suppose*, *believe*, *think*, *expect*, *guess*, *imagine*, *it seems*, *it happens*, and *it appears*. Hooper and Thompson (1973) find that members of both these classes allow main clause phenomena in their complement clauses. The clauses in (11) both contain a topicalized element.

(11)   Root: Most embarrassing of all was falling off the stage.
         (a) Class A: Carol said that most embarrassing of all was falling off the stage.
         (b) Class B: I suppose that most embarrassing of all was falling off the stage.

In contrast to classes A and B, verbs of class C select complements that are not asserted. In English these are verbs such as *be (un)likely*, *be (im)possible*, *be (im)probable*, *doubt*, and *deny*. Hooper and Thompson show that main clause phenomena never occur in the complements of Class C verbs (12).

(12)   Class C: *It's unlikely that most embarrassing of all was falling off the stage.

The class D factive verbs *resent, regret, be sorry, be surprised, bother, be odd, be strange, be interesting* select complements that are presupposed, and typically express an emotion or subjective attitude. Class E verbs also select presupposed complements,

and are referred to as semifactive (Karttunen 1971); they include *realize*, *learn*, *find out*, *discover*, *know*, *see*, and *recognize*, and typically 'assert the manner in which the subject came to know that the complement proposition is true' (Hooper and Thompson 1973: 480).

Hooper and Thompson find that main clause phenomena are not permitted in the complements of Class D verbs. As for complements of Class E verbs, however, they allow root phenomena, but only when the complement is asserted. The generalization that emerges is that main clause phenomena are possible in asserted complement clauses only.

(13)   Root: She opened the window and in flew Peter Pan.

        (a) Class D: *Wendy was sorry that she opened the window and in flew Peter Pan.

        (b) Class E: Tinker Bell saw that Wendy opened the window and in flew Peter Pan.

Julien (2009) applies their diagnostics to the issue of embedded V2 using corpora of Norwegian, Danish and Swedish. In all cases, she finds that the contexts in which embedded V2 is permitted are exactly those that count as asserted using Hooper and Thompson's criteria, i.e. complements of verbs of classes A, B and E. Our prediction is therefore that, insofar as we find embedded V2 in OE and OF, it should be restricted to these contexts.

3.2 Our methods

The corpus used for OE was the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE; Taylor *et al.* 2003). From this corpus we took an exhaustive sample of complement clauses with surface order (non-nominative-)XP–V–.... In

addition, a sample of 881 other complement clauses was taken.[12] For OF, the *Base du Français Médiévale* (BFM; Heiden *et al.* 2010) was used, and all verbal complement clauses from the text *La Queste de Graal* were analysed (879 in total).

We then classified all matrix predicates as falling under one of Hooper and Thompson's (1973) five categories. Applying this typology to OE and OF was not entirely straightforward, since more verbs in OE and OF take finite clausal complements than in their modern counterparts. In particular, verbs of 'volition', as in (14) and (15), are difficult to fit into the system. In Modern English, these verbs take non-finite complements, as shown by the translations.

(14) gyf we **willað** þæt us gehyre se heofonlica God
      if we want that us hear the heavenly God
      'if we want heavenly God to hear us'
      (OE; coaelhom,+AHom_5:178.795)

(15) Dame, fait il, que **volez** vos que je vos face
      lady made he what want you that I you do
      'Milady, he said, what do you want me to do?'
      (OF; *Graal*, 132,36)

The complements of these verbs seem to be neither asserted nor presupposed, but express the protagonist's attitude towards a hypothetical state of affairs. In both OE and OF these clauses typically take the subjunctive mood. For the purposes of our study, we have chosen to treat these 'volitives' as a separate group, Class V.

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[12] Given that the YCOE is not lemmatized and a search for these other complement clauses turned up 13,407 examples, an exhaustive manual analysis of non-V2 clauses was not undertaken for reasons of time. Instead, a sample of non-V2 clauses was randomly selected for further analysis.

4. Results and discussion

4.1 Breakdown of results by verb class

The overall distribution of V2 clauses by embedding predicate type is given in Table 1.[13]

Table 1: Embedded V2 in OE and OF by class of embedding predicate: overall results

	Old English			Old French		
	Total	**V2**	**%**	**Total**	**V2**	**%**
A	476	172	*3.6%*	286	78	28.0%
B	230	93	*4.3%*	196	18	9.2%
C	14	5	*3.5%*	0	0	0.0%
D	96	13	*1.0%*	35	0	0.0%
E	280	123	*4.9%*	235	24	10.2%
V	240	49	*1.7%*	127	1	0.8%
Total	**1336**	**455**	**3.3%**	**879**	**121**	**13.8%**

It is, however, uninstructive to compare the different classes of embedding verbs without taking into account the type of embedded verb, since we know that several types of constructions will merge the DP subject in a low position that may cause it to surface postverbally. This is the case for unaccusative and impersonal verbs, passive, presentative, and modal constructions, and clauses with copulas (see in particular van Kemenade 1997 for OE, and Legendre and Sorace 2003 for Modern Romance). If we assume that there is no requirement for the DP subject to evacuate the vP domain, these embedded verbs may therefore have a postverbal DP subject without verb movement to the C-domain (Salvesen and Bech 2014), yielding a surface V2 word

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[13] For OE, the italicized percentages in Tables 2 and 3 are estimates reached by assuming that the proportions of the different classes represented in the non-V2 sample can be extrapolated to all 13,407 non-V2 clauses.

order which we label *accidental V2*. Therefore, these kinds of clause have been left out. We have also excluded embedded clauses with a *pro* subject in OF, even though *pro* is often seen as an indication of V^0-to-C^0 movement in main clauses (Adams 1987, Vance 1989, 1997, Roberts 1993). The reason for this is that there are known cases where *pro* may occur without V^0-to-C^0 movement (Hirschbühler and Junker 1988, Ingham 2012; Salvesen 2014a).[14] When we leave out these groups, we get a set of clauses that are clearly instances of embedded V2.

Table 2: Embedded V2 in OE and OF by class of embedding predicate: only non-accidental V2

	Old English			Old French		
	Total	**V2**	**%**	**Total**	**V2**	**%**
A	476	11	*0.2%*	286	60	21.0%
B	230	6	*0.3%*	196	6	3.1%
C	14	0	0.0%	0	0	0.0%
D	96	2	*0.2%*	35	0	0.0%
E	280	8	*0.3%*	235	12	5.1%
V	240	2	*0.1%*	127	0	0.0%
Total	**1336**	**29**	**0.2%**	**879**	**78**	**8.9%**

We see that in OF there are no instances of embedded V2 after Class C or D predicates. Even though we do not have any occurrences of Class C verbs in the OF data, the differences observed in table 2 are statistically significant: a Fisher's exact test (Fisher 1922) for classes A, B, E, and V vs. C and D gives us p=0.03615. In OE, the difference between classes A, B, E, and V and classes C and D is not significant

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[14] OE examples where it is clear that no overt subject is present (instances of subject extraction from the subordinate clause, as well as eleven instances of referential null subjects) were also excluded from the V2 figures in Table 2, as it is not clear that these do not also involve accidental V2. Italicized figures for OE are extrapolated estimates.

(p=1), apparently because embedded V^0-to-C^0 as a whole is incredibly infrequent with all classes of verbs: in no class does it occur more than 0.3% of the time.

4.1.1 Class A predicates

In OE most tokens of Class A verbs involve *secgan* and *cweðan* 'to say', including 9 of the 11 cases of embedded V2.

(16)　ac　　　hit　wæs　　　openlice gecyþed,　þæt　his　　forðfore
　　　 but　　 it　 was　　　openly　 said　　 that　his　　death
　　　 begeat　seo　þingung　　þæs　　　arwyrðan　Anastasies
　　　 obtained　the　intervention　the.GEN　venerable　A.
　　　 'But it was openly said that the intervention of the venerable Anastasius caused his death'
　　　 (OE; cogregdC,GD_1_[C]:8.53.29.608)

In OF, 21% of the clauses attached to a Class A predicate display V2. The vast majority of these (51 of 60) are attached to the verb *dire* 'say'.

(17)　Or　dit　li　contes　que　.iii.　jorz fist　li　　preudons　Lancelot demorer　o　lui
　　　 now　says the　story　　that　four days made　the　prud'homme Lancelot stay　　with him
　　　 'Now the story tells you that the gentleman made Lancelot stay with him for four days.'
　　　 (OF; Graal col 187s, l 3)

4.1.2 Class B predicates

In OE, Class B verbs include *geliefan* 'to believe', as in (18), and *limpan* 'to happen', and in OF *cuidier* 'believe', *avenir* 'happen' and *sembler* 'seem'.

(18)　þæt　　　þu　　　gelyfe,　þæt　　þa　　　wiþercorenan　　　　bærneþ　þæt
　　　 that　　　you　　 believe　that　　the.ACC against-chosen.ACC　burns　　the
　　　 ece　　fyr　　of　　þam　dæge　heora　　　ændes　and　　forðfore
　　　 eternal　fire　　from　the　day　　their.GEN　　end.GEN and　　death
　　　 'that you believe that the wicked are burned by eternal fire from the day of their death'
　　　 (OE; cogregdC,GDPref_and_4_[C]:29.303.14.4509)

(19)　Si　m'　en　　est　si　bien　puis　avenu　　que　mout　i　　ai　　　　gaaingnié
　　　 SI　me　of-it　is　　so　well　then　happened　that　much　there　have.1PS　won
　　　 'And it all turned out so well for my part that I won a lot there.'
　　　 (OF; Graal col 173a l36)

(20)　et　bien　i　　　paroit　a　ce　qu'　il　avoit　le　jor　fet　　que d' iluec　en
　　　and　well　there　seemed　of that　what　he　had　　that　day　done　that of here　in
　　　avant　　porroit　il　legierement　sormonter　de　proece　　　toz les　autres　chevaliers
　　　forward　could　　he　easily　　　　surmount　of　prowess　　　all the　other　　knights
　　　'And based on what he had done that day, it seemed likely that he would easily surpass the
　　　boldness of all the other knights in the future.'
　　　(OF; Graal col 163a l 32)

In (20), the matrix verb is *paroir* 'seem', and the subject of the embedded clause is the personal pronoun *il* 'he'. There is a long tradition among OF linguists to consider the postverbal personal pronoun as enclitic to C^0 (Roberts 1993, Vance 1997). Thus, the construction in (20) strongly indicates that there is V^0-to-C^0 movement.

4.1.3　Class C predicates

Hooper and Thompson's Class C is incredibly rare in our corpora: there are no examples for OF, and only 14 in total for OE. In neither language is there a single example of unambiguous V2: (21) below, from OE, appears to be one, but this is an instance of a passive with a low nominative, and hence accidental V2 (see van Kemenade 1997: 335).

(21)　Forþon　se　ylca　wer　wiðsoc,　þæt　him　moste　beon　ænigu　nydþearfnes　geþegnod
　　　therefore　the　same　man　denied　that　him　must　be　　any　need　　　　served
　　　'Therefore that man denied that there was any need for him to be served'
　　　(OE; cogregdC,GDPref_and_4_[C]:12.276.9.4027)

4.1.4　Class D predicates

In OE, of the 96 examples of clauses embedded under Class D predicates, only two appear to contain embedded V2, and both are embedded under the same predicate in the same sentence. The offending example is given in (22) below.

(22) | Gif | hire | ðonne | se | wiðsace, | ðonne | is | cynn | ðæt | him |
      | if | her | then | DEM.NOM | deny | then | is | proper | that | him |

spiwe ðæt wif on ðæt nebb, ðæt is ðæt hine
spit.SBJV the woman in the nose that is that him

tæle ðæs folces gesomnung
blame.SBJV the.GEN 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'

(OE; cocura,CP:5.45.2.249)

These clauses are the only two counterexamples in our corpora to the claim that non-accidental embedded V2 is ruled out with verbs of classes C and D. Moreover, the predicate here – *cynn wesan* 'to be suitable/proper' – is classified as D because it expresses an emotion/attitude, like Hooper and Thompson's (1973) examples *be interesting* and *be strange*; it could also be classified as A, parallel to Hooper and Thompson's (1973) classification of *be obvious*. In any case, this sentence alone cannot be taken to indicate that embedded V2 was a productive possibility in OE.

In OF, there are no instances of embedded root phenomena after a Class D predicate. Class D verbs are, however, attested. This group typically include *douter* 'fear', *plaisir* 'please' and *soffrir* 'suffer'.

4.1.5   Class E predicates

In OE, *seon* 'to see', *witan* 'to know' and *ongietan* 'to perceive/understand' account for most of the Class E predicates. In OF, we find verbs such as *savoir* 'know', *conoistre* 'know', *veoir* 'see' and *oïr* 'hear'. The verbs *savoir* and *veoir* are the most common verbs to embed a V2 subordinate clause, with 10 and 9 clauses respectively.

(23) | In | þære | wisan | mæg | beon | ongyten | be | þæs | ylcan |
      | In | this | way | may | be | perceived | by | the.GEN | same.GEN |

Stephanes life, þæt in him wunnon and campedon þa
S.GEN life that in him fought & struggled the

yfel his lichaman wið þam weorce his ælmesdæda
evil his.GEN body.GEN against the work his.GEN alms-deeds

'In this way one can see from Stephen's life that in him the evil of his body fought against the

works of his charitable deeds'
(OE; cogregdC,GDPref_and_4_[C]:37.320.16.4809)

(24)	car	tu	sez	bien	que	la	fille	le	roi	Pellés	coneus	tu	charnelment
	for	you	know	well	that	the	daughter	the	king	Pelleas	knew	you	carnally

'For you know well that you were intimate with the daughter of the king Pelleas'
(OF; Graal, col 192d, l. 30)

4.1.6   Class V predicates

In the YCOE there are only two unambiguous examples of embedded V2 under class

V predicates; (25) is one of them.

(25)	gyf	we	willað	þæt	us	gehyre	se	heofonlica	God
	if	we	want	that	us	hear.SBJV	the	heavenly	God

'if we want to be heard by God'
(OE; coaelhom,+AHom_5:178.795)

In OF, there are no unambiguous examples of embedded V2 after Class V predicates.

4.2 Analysis: embedded V2 and the complementizer

Our results show a difference in behaviour between OE and OF: while in OF,

embedded V2 appears to be possible under certain predicates but not others, much as

in Mainland Scandinavian (Julien 2009), in OE embedded V2 is completely ruled out,

much as in modern German, with only a handful of non-accidental counterexamples

(0.2%). For both OE and OF, we would expect embedded V2 to be generally

productive with all types of embedding predicates under a pure IP analysis, since

SpecIP is an A'-position. Our data falsify this prediction, indicating that only a CP

analysis, or a 'split' IP analysis, is realistic.

Why do certain types of verbs permit V2 word order in the subordinate

clause in OF whereas others seem to prohibit this? Using Rizzi's (1997) model of an

exploded CP, we will argue that the difference is caused by the verb's selectional

properties: Verbs permitting embedded root phenomena select a larger phrasal unit headed by a higher complementizer – presumably under Force^0. Verbs that do not permit embedded root phenomena select a smaller phrasal unit headed by a lower complementizer presumably merged under Fin^0. This is in the same vein as analyses proposed by Roberts (2004), Benincà and Poletto (2004), Rouveret (2004), Paoli (2006), Villa-García (2012), Ledgeway (2012), Dagnac (2012), just to mention a few.

Under the CP analysis we would thus expect to find an asymmetry between different types of verbs with respect to embedded root phenomena. This asymmetry would be unexpected under the IP analysis. We thus believe that the distribution we find, where embedded V2 does not occur under predicates of types C and D, indicates that main clause constituent order involves verb movement to the CP layer.

4.3 Embedded V2 in OF

We argue that in OF there are two options for the CP where ForceP is projected: Either the complementizer is merged under Fin^0 and moved by standard head movement to Force^0, or it is merged directly under Force^0 (Rouveret 2004, Salvesen 2014b). In the former case the subordinate clause crucially has a S-V structure with the subject under SpecTP (or enclitic to Fin^0, see Vance 1997). In certain cases there may be material in the CP field which is preceded and followed by a complementizer (in boldface) – known as complementizer doubling (CD) (26).[15][16] In cases where no

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[15] As complementizer doubling implies the selection of a higher complementizer (under Force^0), we could have chosen to include these in our tables as they too provide information about the selectional properties of the matrix verb. For reasons of clarity we have chosen to limit this paper to the discussion of unambiguous V2 cases.

[16] See also Ribeiro and Torres Morais (2012) for Old Portuguese. These examples are occasionally found for OE too, though are rare:

(i)

Wel	mæg	gehwa	witan	**þæt**	gif	ahwær	is	myrcð	and	wuldor
well	may	each	know	that	if	anywhere	is	mirth	and	glory
þæt	þær	is	unasecgendlic	wuldor	þær	se	wunað	þe	ealle	ðincg	gesceop
that	there	is	unspeakable	glory	where	he	lives	who	all	things	shaped

'All may well know that if there is mirth and glory anywhere, there is incredible glory where he who created all things lives' (OE; coaelive,+ALS[Ash_Wed]:92.2751)

slots in the left periphery are filled, the complementizer is merged under Force°, leaving Fin° open for V°-to-C°-movement (27). This gives us the structure in (28) for the cases under discussion in this paper (excessive structure omitted).

(26) (…) car vos savez bien **que** quant vos alastes a cort **que** mes sires
      (…) for you know well that when you went to court that my sir
      sires li rois avoit guerre contre le roi Libran
      sir the king had war against the king Libran
      'for when you went to court, you knew well that the king was at war with king Libran.'
      (OF; Graal, col. 178d, l. 26)

(27) Et il respont que ce ne feroit il pas.
      and he responded that that NEG does he NEG
      'And he replied that he would not do that.'
      (OF; Graal, col. 183a, l.40)

(28) [Force° que [SpecFinP ce [Fin° ne feroit (…)]]]

If we consider the different subtypes discussed here, we see that they all represent different kinds of root phenomena and that these may be linked to the presence of a high complementizer. In structures that express two complementizers, the word order is always S-V. When only the higher complementizer is expressed, it is possible to get V2 structures following the initial element. Both kinds of root phenomena show the same pattern as we did when we only considered V2: they exclusively appear after verbs of classes A, B, E and V.

4.4 Embedded V2 in OE

Finally, OE, as we have seen, basically disallows embedded V2 entirely. The microparametric difference between OE and OF – the same that distinguishes German and Mainland Scandinavian – can be captured lexically if we assume that there is no high complementizer in OE: all complementizers are first merged in Fin^0. Whether or not the complementizer remains there, its lower copy will then block verb movement

to the left periphery.[17] While there are traces of the structure found in OF – a handful of examples of apparently non-accidental embedded V2, and double-complementizer structures – it does not seem to be a productive possibility in OE.

5. Conclusion

In this paper we have tested the predictions of two families of analyses of OE and OF with respect to embedded V2. IP analyses predict that embedded V2 should occur freely, as has been argued for Icelandic and Yiddish – a prediction that is false for both OE and OF. By contrast, CP analyses (and 'split' analyses) predict that embedded V2 should either a) be ruled out entirely except where accidental, or b) occur only under specific types of predicate. Using Hooper and Thompson's (1973) typology of predicate classes, we found that OE, like modern German, instantiates option a): non-accidental embedded V2 is vanishingly rare. OF, like the modern Mainland Scandinavian languages, instantiates option b), allowing embedded V2 only under certain predicates. We link this difference to the site of first Merge of complementizers in the two languages.

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[17] A reviewer questions what happens in cases of OE relative clauses in which the relative pronoun is in SpecFinP and there is no overt complementizer. In these cases, the finite verb might be predicted to move to Fin^0; however, embedded V2 is vanishingly rare in such contexts as it is in other relative and complement clauses with an overt complementizer. This problem in fact exists for all accounts that seek to translate the den Besten (1977) intuition into X'-theoretic terms (cf. Richter & Sailer 1998). We do not have a solution at present.

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