Verbal Mood in Early Old High German Relative Clauses

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Abstract   In contrast to Modern German, which has almost completely lost the use of the subjunctive in relative clauses, Old High German exhibits indicative/subjunctive mood alternations. In this paper, I will present a pilot study on the interaction of mood in early relative clauses with morphosyntactic and information/discourse-structural factors which are discussed in the cited literature and are assumed to influence the use of the subjunctive in relative clauses. The survey is based on a corpus of Old High German texts from the 8th and 9th centuries. Furthermore, a syntactic analysis will be sketched in order to explain the licensing of the subjunctive in Old High German relative clauses and the loss of mood alternation in the later stages of the language.

Summary   1 Introduction. – 2 Properties of OHG Relative Clauses. – 3 Verbal Mood in Subordinate Clauses. – 4 Mood Alternation in Relative Clauses Cross-Linguistically and Its Counterpart in German. – 4.1 Mood Alternation in Romance Languages. – 4.2 Word Order Alternations in German Relative Clauses. – 5 Mood in OHG Relative Clauses. A Corpus Study. – 5.1 The Corpus. – 5.2 Interaction of Mood and Specificity. – 5.3 Further Possible Interactions. – 6 Syntactic Analysis. – 7 Conclusions.

Keywords   Indicative. Mood. Old High German. Relative clauses. Subjunctive.

1   Introduction

In Old High German (OHG), alternations between the indicative and the subjunctive mood are quite frequent in relative clauses (RCs), as exemplified in (1) and (2):[1]

1   If not otherwise stated, all examples cited were taken from the Old German Reference Corpus. See § 5.1.

(1)   […] so   ih   fona   dhemu   nam,   dher   ær   fora   dhir   **uuas**.   (I IX, 2)
            as   I   from   that   took   who   before   before   you   was.IND
        '[…] as I took it from him that was before you.'

(2)   Huuer   ist   dher   dhiz   al   ni   **chisehe**   […]   ?   (I VIII, 3)
        who   is   who   this   all NEG sees.SUBJ
        'Who is the one that does not see all this […]?'

In contrast, Modern German (MG) RCs do not typically exhibit such alterna-
tions, apart from in reported speech (for which *Konjunktiv I* 'subjunctive I'
is available) and counterfactual cases or some other specific contexts (in
which *Konjunktiv II* 'subjunctive II' is possible). The following example illus-
trates the impossible licensing of subjunctive in the modern version of (3):

(3)   Wer   ist   es,   der   das   alles   nicht   **sieht**   /   ***sehe**   ?
        who   is   it   that this all   NEG   sees.IND   /   sees.SUBJ
        'Who is the one that does not see all this […]?'

This paper addresses the ensuing question as to how one can explain the
OHG data when set against the same facts in MG. After a general intro-
duction on the typology of OHG RCs (§ 2), the cross-linguistic properties
and triggering factors of mood alternation are discussed. In section 3,
we evaluate the previous literature with respect to subordinate clauses
in general, and then with respect to RCs specifically in section 4. Section
5 discusses mood alternation in early OHG RCs based on the result of a
corpus study investigating the interaction of mood with other variables
potentially triggering the alternation. A syntactic interpretation of the
results is sketched in section 6.

2   Properties of OHG Relative Clauses

Based on the typology in Schrodt (2004, 170 ff.), three or four different
types of RCs may be distinguished in OHG (also cf. Tomanetz 1879; Del-
brück 1909; Johansen 1935; Fleischmann 1973, 114 ff.; Baldauf 1983;
Lehmann 1984; Ebert et al. 1993; etc.). In the first instance, RCs may be
introduced by a morphologically inflected relative pronoun or what is tra-
ditionally considered a demonstrative of the *d*-type (*d*-pronoun):

(4)   Iudas Scarioth,   [**ther**   inan   uuas   selenti   ]   (T 138, 2, in Schrodt 2004, 176)
        Judas Iscariot   who   him   was   betraying
        Lat. 'Iudas Scariothis, qui erat traditurus eum'
        'Judas Iscariot, who should betray him'

Secondly, RCs may be introduced by an uninflected relative particle (*the*, *de*, *thi*, etc.). Particle-like elements like *ther*, *dir*, sometimes analyzed as locative adverbs meaning 'there', will also be considered on a par with relative particles in this paper. Notice that the relative particle may occur alone or may directly follow a *d*-pronoun:

(5)   thero   manno,   [**thi** ih hera nu   bat   ]
        th(os)e.GEN   men.GEN   PART I here now asked
                                                    (O 4, 6, 25, in Schrodt 2004, 175)

        '[none] of the men I asked to come now'

(6)   [ther**de**   mih gisihit] gisihit then   [ther**de**   mih santa]
          who-PART me sees   sees   the.one   who-PART me   sent
                                                    (T 143, 2, in Schrodt 2004, 175)

        Lat. 'Et qui videt me videt eum qui misit me'
        'The one who looks at me is seeing the one who sent me'

A third rare type of RC is represented by asyndetic constructions, which exhibit neither a *d*-pronoun nor a relative particle:

(7)   enti quad zu   dem   [**Ø** dar   uuarun]
        and said to those   there were
                                                    (MF 26, 71, in Schrodt 2004, 174)

        Lat. 'et ait his, qui erant ibi'
        'and [he] said to those that stood there'

A fourth type of construction is introduced by *sô (h)uuer sô* (and variants thereof), which is traditionally considered a comparative construction made up of two particles *sô* 'so, as' and an indefinite pronoun *(h)uuer* 'someone, anyone', homophonous with the interrogative pronoun meaning 'who' (cf. Lühr 1998; Harm 2001; Schrodt 2004, 170 ff.):

(8)   [**so wer so** in lante ist furisto,] thes   ist er herosto

          who(ever) in land is   first   thereof is   he ruler
                                                    (O 1, 27, 56, in Schrodt 2004, 172)

        'whoever is the most noble in the country, he rules it'

Given the relative-like function of this construction, I will consider it on a par with RCs in the present study.

A property that is orthogonal to the four types considered is that either the subjunctive or the indicative mood may be used in such constructions. For the sake of brevity, only an example for the first type of RC is provided below, however all of the types of RCs considered above display mood alternation.

(9)	[…]	thio	brústi,	**thio**	Kríst	io	**gikústi**	(O I 11,39)
		the	breasts	that	Christ	ever	kissed.SUBJ	

'the breasts that Christ ever kissed'

3   Verbal Mood in Subordinate Clauses

Before taking account of the subjunctive mood in RCs, we will consider mood alternation in subordinate clauses. According to Schrodt's (1983; 2004, 184 ff.) view on mood selection in OHG complement clauses, mood distinctions depend on the truth value of the embedded proposition and on certain semantic properties of the selecting verb, such as, *inter alia*, negation and modalization. A similar view is shared by Petrova (2013), who discusses Schrodt's view and other recent theoretical proposals. For example, she points out that Giannakidou's (2009) approach based on (non-)veridicality yields accurate results for the description of mood alternation in OHG.

Based on the work of Giannakidou (2009), who elaborates on traditional distinctions of the type *realis/irrealis*, and on works by Farkas (1992) and Quer (1998) among others, one could argue that it is possible to distinguish between indicative or veridical predicates in (10), which express a commitment by the speaker (or subject of the main verb) to the truth of the complement clause, and subjunctive or non-veridical predicates in (11), for which such truth inference is not available.

(10)   *Veridical verbs* (adapted from Giannakidou 2009, 1887-8 and Petrova 2013)
    a.   assertives (Greek equivalents of the verbs *say*, *read*, *claim*)
    b.   fiction verbs (*dream*, *imagine*)
    c.   epistemics (*believe*, *think*)
    d.   factive verbs (*be glad*, *know*, *regret*)
    e.   semifactives (*discover*, *remember*)

(11)   *Non-veridical predicates* (adapted from Giannakidou 2009, 1887-8 and Petrova 2013)
    a.   volitionals (*want*, *hope*, *plan*)
    b.   directives (*order*, *advise*, *suggest*)
    c.   modals (*must*, *may*)
    d.   permissives (*allow*, *forbid*)
    e.   negative (*avoid*, *refuse*)

Crucially, Giannakidou (2009, 2013) predicts that Greek veridical predicates are associated with an indicative complement clause, marked by the special indicative complementizer *oti* (and *pu*).[2] In contrast, non-veridical

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2   There appear to be language-specific exceptions, though (cf. Giorgi, Pianesi 1997; Petrova 2013; among others).

predicates select a subjunctive complement, as testified by the Greek subjunctive marker *na*.[3]

(12)	O	Pavlos	nomizi	**oti**	/	***na**	efije	i	Roxani.
	the	Paul	think.3sg	that.IND		that.SUBJ	left.3sg	the	Roxani

(Giannakidou 2013, 23)

'Paul thinks that Roxanne left.'

(13)	Thelo	***oti**	/	**na**	erthi	o	Pavlos.
	want.1sg	that.IND		that.SUBJ	come.PNP.3sg	the	Paul

(Giannakidou 2013, 23)

'I want Paul to come.'

Thus, the subjunctive mood in the following OHG example cited in Petrova (2013) may be easily explained by the presence of the non-veridical predicate *gibót*.

(14)	**gibót**	thaz	sie	**fuorin**	/	ubar	then	giozon
	ordered	that	they	travel.SUBJ		over	the	current

(T 85, 20f, in Petrova 2013, 45)

Lat. 'iussit ire / trans fr&um'

'he ordered that they travel over the current.'

4 Mood Alternation in Relative Clauses Cross-Linguistically and Its Counterpart in German

4.1 Mood Alternation in Romance Languages

Mood alternations in RCs have also been observed in, for example, the Romance languages (cf. Cinque 1988, Farkas 1992, Quer 1998, Zwart 2005, among others) and can be illustrated by the following Italian example, in which a RC (with its referent) is embedded in a complement clause:

(15)	Gianni	vuole	che	una	persona	che	**ha**	/	**abbia**
	Gianni	wants	that	a	person	that	has.IND	/	has.SUBJ
	il	libro	lo	chiami					
	the	book	him	calls.SUBJ					

'Gianni wants that a person that has the book calls him.'

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3 PNP = perfective nonpast.

It is noticeable, however, that Giannakidou's (2009, 2013) analysis, which is based on (non-)veridicality, cannot be directly applied to RCs. In the example above, the complement clause depends on the non-veridical predicate *vuole* 'wants'. That explains why the predicate of the complement clause *chiami* 'calls' is in the subjunctive form as expected. However, considering the embedded RC, both the indicative and the subjunctive are available in this example despite the selecting (non-veridical) predicate. If the subjunctive is used, the speaker is referring to a potential person, who does not necessarily exist. If, instead, the indicative is used, the speaker is referring to a specific (existing) person. Hence, we must conclude that, in RCs, veridicality seems to be a property of the referent and is independent of the properties of the matrix verb (cf. von Heusinger 2002). As Giannakidou (2013, 34) puts it,

> the function of the subjunctive in the relative clause is to bring in the speaker's subjective point of view, in particular, her uncertainty about the existence of a value for the NP. I will call this epistemic weakening of the subjunctive.

While the view can be shared that the notion of "epistemic weakening" seems to be central for the licensing of the subjunctive in RCs, it must be observed here that such a notion is difficult to define and operationalize when collecting, annotating, and assessing empirical data.

In a similar vein, and based on a number of works on mood alternation in Romance RCs (cf. Quer 1998, among others), mood alternations in Italian are explained in terms of *de re / de dicto* interpretation by Catasso and Hinterhölzl (2016) (below, I will adopt this analysis since such alternation is easier to operationalize in a corpus-based investigation). The following examples illustrate the point:

(16)	a.	Gianni	cerca	una	donna	che	**ha**	gli	occhi	blu.	*de re*
		Gianni	looks.for	a	woman	that	has.IND	the	eyes	blue	
	b.	Gianni	cerca	una	donna	che	**abbia**	gli	occhi	blu.	*de dicto*
		Gianni	looks.for	a	woman	that	has.SUBJ	the	eyes	blue	

'Gianni is looking for a woman that has blue eyes.'

(Catasso, Hinterhölzl 2016, 109)

In (16a), the use of the indicative in Standard Italian forces a specific interpretation of the woman Gianni is looking for. Thus, the referent *donna* 'woman' receives a *de re* interpretation. In contrast, the subjunctive in (16b) is associated with a *de dicto* (or non-specific) interpretation of the referent. In Standard Italian, the use of the subjunctive is obligatory in this case. However, it should be noticed that, given a general tendency for the subjunctive to be replaced by the indicative, at least in Colloquial Italian, one can also observe a drift towards the use of the indicative in such contexts.

4.2 Word Order Alternations in German Relative Clauses

The situation in MG RCs is different. Apart from special contexts (such as reported speech, counterfactuality, etc.), MG has lost the use of the subjunctive in RCs. Nonetheless, specificity or *de re / de dicto* interpretation plays an important role in this language as well. For example, it has been noticed that this variable is relevant in determining the position of the verb in RCs (cf. Gärtner 2001, 138; 2002, 35). Catasso and Hinterhölzl (2016) discuss this distinction in (Early) New High German, based on the following examples:

(17) a. Hans sucht eine Frau, die blaue Augen **hat**. *de re / de dicto*
          Hans looks.for a woman who blue eyes has
      b. Hans sucht eine Frau, die **hat** blaue Augen. *de re / *de dicto*
          Hans looks.for a woman who has blue eyes
      'Hans is looking for a woman that has blue eyes.'

<div align="right">(Catasso, Hinterhölzl 2016, 109)</div>

The typical order in MG subordinate clauses is V-final. Thus, the pattern in (17a) is unmarked. In this case, the interpretation of the referent is open, since both the specific and the non-specific (or *de re / de dicto*) interpretations of the referent are available. The V2 order exemplified in (17b) is a marked word order in RCs instead. Crucially, this word order was shown to be only associated with a specific (or *de re*) interpretation of the referent. In the example, Hans is looking for a specific woman that he already knows.

This particular construction is extensively discussed in recent papers (cf. Gärtner 2001, 2002; Ebert, Endriss, Gärtner 2007; etc.) and is briefly presented below, as it is relevant for the following sections.

To start with, one should note that the V2 order is a typical main clause phenomenon in most Germanic languages. Cross-linguistically, it was shown to be restricted to root clauses, as well as special classes of dependent clauses exhibiting root properties, which display a certain degree of syntactic independence (Hooper, Thompson 1973; Reis 1997; Meinunger 2004; Julien 2007, 2010; Antomo, Steinbach 2010; etc.). Thus, for example, while the V-final order is the unmarked one in subordinate clauses (18b), the V2 order is possible in limited contexts (18a) as exemplified by the following colloquial MG examples taken from Antomo and Steinbach (2010, 2):

(18) a. Ich sag so was nicht, weil man **darf** das nicht sagen.
          I say such thing not because one may that not say
      b. Ich sag so was nicht, weil man das nicht sagen **darf**.
          I say such thing not because one that not say may
      'I don't say such things because it is not allowed.'

However, the case of RCs in MG is more problematic. This becomes clear when one considers the peculiar properties of V2 RCs like the one in (19a). V2 RCs are restrictive subordinate clauses which typically lack independent illocutionary force. These peculiar constructions, which in contrast to other RCs must be obligatorily extraposed, share with restrictive V-final RCs (19b) the presence of a continuation rise, which is illustrated by the symbol "(/)" in the following example (Gärtner 1998, 2001; Endriss, Gärtner 2005; Ebert, Endriss, Gärtner 2007):

(19)	a.	Das	Blatt	hat	eine	Seite,	(/)	[	die	**ist**	ganz	schwarz	].
		the	sheet	has	a	side			that	is	completely	black	
	b.	Das	Blatt	hat	eine	Seite,	(/)	[	die	ganz	schwarz	**ist**	].
		the	sheet	has	a	side			that	completely	black	is	

<div align="right">(Gärtner 2001, 112)</div>

Gärtner (2001, 138; 2002, 35) points out that the position of the verb in the RC also depends on the interpretation of the referent in the matrix clause. The following contrasts illustrate the point:

(20)	a.	Ich kenne **eine Frau**, die besitzt ein Pferd.
	b.	* Ich kenne **keine Frau**, die besitzt ein Pferd.
	c.	* Ich kenne **jede Frau**, die besitzt ein Pferd.
		'I know a/*no/*each woman who owns a horse'

<div align="right">(Endriss, Gärtner 2005, 198)</div>

The examples show that only specific indefinite antecedents ('wide scope indefinites') allow for V2-RCs in MG (cf. Gärtner 1998; Ebert, Endriss, Gärtner 2007).

From the properties considered above, Gärtner (1998, 2001) and Endriss and Gärtner (2005) conclude that V2 RCs are semantically integrated structures, but that their syntactic behavior seems to indicate that they are unembedded structures.

With respect to OHG, and as pointed out above, this language exhibits mood alternations which have not yet been thoroughly investigated (Schrodt 2004, 195-6). In contrast, alternations between V2 and V-final orders in historical RCs are investigated in a recent work by Axel-Tober (2012). She claims that alternations as those described by Gärtner (1998, 2001) and colleagues are already attested in historical German. Therefore, she extends Gärtner's analysis to certain V2 RCs in OHG (and MHG) and argues that they exhibit the same properties as MG constructions. Among others, she provides the following example:

(21)   Ein ander tier   ist, daz **heizzent** die Chrieche Hinam.
         an   other animal is   that call.IND   the Greeks   hyena
         'There is another animal which the Greeks call a hyena.'

(WPh VI, 1, in Axel-Tober 2012, 246)

Now, given that OHG displays both types of alternations observed for modern languages (word order and mood alternation), the obvious questions that arise are how such alternations should be interpreted and how they are related to each other. In order to answer these questions, a corpus study was conducted to assess possible interactions between the variables considered.

5   Mood in OHG Relative Clauses. A Corpus Study

5.1   The Corpus

For the present corpus study, a sample of RCs from the following (major) OHG texts was selected:
  a. *Isidor*
  b. *Benediktinerregel*
  c. *Monseer Fragmente*
  d. *Tatian*
  e. *Otfrids Evangelienbuch*

The reason for examining early texts from the eighth and ninth century is that they are heterogeneous enough if compared to later OHG texts (which mainly consist of Notker's work). Furthermore, they were already linguistically annotated and available in the Old German Reference Corpus[4] when the research was conducted. Later texts were published later.

For this pilot study, the first 50 tokens of each subcorpus were selected, with a total of 250 tokens (227 indicative verbs and 23 subjunctive cases). The dataset was enriched with further syntactic, semantic and information-structural annotation (for instance, specificity, verb position, etc.). Below, the results of this pilot study are presented.

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4 URL http://www.deutschdiachrondigital.de/. Searchable with ANNIS (cf. Krause, Zeldes 2016).

5.2   Interaction of Mood and Specificity

Let us consider possible interactions between specificity and mood. Given that, in contrast to MG, OHG displays mood alternations, one would expect an interaction of mood with specificity as is the case with the Romance languages. This expectation is borne out. The following examples illustrate the case of a specific referent with the indicative mood in the RC and a non-specific referent associated with the subjunctive mood in the dependent clause respectively:

(22)	[…]	drúhtin	got	[…],	ther	únsih	**irlósta**	(O I 10, 3-4)
		Lord	god		who	us	redeemed.IND	
	'God, our Lord, […] who redeemed us'							
(23)	[…]	er	[…]	then	lésan	iz	**gilústi**	(O I 1, 10)
		he		whom	read	it	pleased.SUBJ	
	'he who felt like reading.'							

By comparing the distribution of the indicative and the subjunctive moods with specific and non-specific referents, we are able to ascertain the findings displayed in table 1.[5]

Table 1. Specificity and mood
Fisher Exact p=.0012; ɸ: 0.23

	indicative	subjunctive	na
specific	105	4	2
non-specific	84	18	0
na	33	2	2

The very significant distribution in table 1 shows that, despite the low frequent realization of the subjunctive in RCs, this mood correlates more often with non-specific referents than with specific referents. There are only four cases of the subjunctive used with a specific referent, such as the one in (24):

(24)	[…]	thio	brústi,	thio	Kríst	io	**gikústi**	(O I 11,39)
		the	breasts	that	Christ	ever	kissed.SUBJ	
	'the breasts that Christ ever kissed'							

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5 Cases for which no clear value of the variable could be determined are listed in tab. 1 as "na" (not applicable).

Notice that, in this case, one could argue that the subjunctive is used with a specific antecedent due to the necessity for the verb to rhyme with *brústi* and/or as the effect of the presence of the adverbial element *io* contributing to "epistemic weakening".

5.3   Further Possible Interactions

The interactions of other variables were tested as well. For example, verb position was investigated *vis-à-vis* specificity. We have seen that the verb position in a RC also depends on the interpretation of the referent in the matrix clause (Gärtner 2001, 138; 2002, 35). If it is true that OHG and MHG V2-RCs are the same constructions as in MG (cf. Axel-Tober 2012, 192 ff.), then we would expect some interaction between specificity of the referent and verb position in earlier stages as well. In fact, we find some examples pointing to the expected distribution in the corpus. In (25), the referent is specific and indefinite, with the verb in the RC occupying the second position. In contrast, the non-specific indefinite referent patterns with a V-final order in (26):

(25)   […] chuninge · der **frumita** bruthlauft   sinemo sune   […]   (MF XV, 5f.)
        king.DAT   that made   wedding.feast his.DAT son.DAT
        '[…] to a king that prepared a wedding feast for his son […]'

(26)   neouueht […], daz   fer   **sii**,   (Ben.Reg. 2)
        nothing   that far   is.SUBJ
        'nothing […] that is far away/abstracted'

Unfortunately, the number of specific indefinite referents in the selected corpus is very small, namely only five. There are three V2 and two V-late/final cases.

Table 2. Specificity and verb position
Fisher Exact p=.10; φ: 0.15

	V2	V-late/final	na
specific indef.	3	2	0
other	33	104	5
na	20	73	10

Table 2 shows that the distribution of other referents is much clearer, with only a fourth of V2 order. V-late/final orders are predominant in contrast to what we would expect to conclude observing the distribution of the five examples for specific indefinite antecedents. Even though we should be

careful in interpreting these little data, there is a weak indication (p=.10) that we can reject the hypothesis that verb order is unrelated to the question of whether a referent is a specific indefinite or not. It seems that specific indefinite referents have no clear preference for a V2 or V-late/ final order whereas other types of referents tend to prefer a V-late order.

Interestingly, Catasso and Hinterhölzl (2016) observe a parallelism between Romance languages and (E)NHG (also cf. Meinunger 2004, 2006). While Romance languages exhibit a correlation between mood and specificity (cf. Quer 1998, Zwart 2005, among others), (E)NHG shows a correlation between verb position and specificity (cf. Gärtner 2001, among others). Contrary to expectations, our corpus indicates that only the first correlation clearly holds for OHG. We will come back to this aspect later.

At this point, one could argue that there is the possibility of a direct correlation between verb position and mood in OHG (cf. examples (25) and (26)). Table 3 summarizes the distribution of indicative and subjunctive forms in V2 and V-late/final clauses.

Table 3. Verb position and mood
Fisher Exact p = 1; φ: 0.01

	indicative	subjunctive	na
V2	51	5	0
V-late/final	162	17	1
na	9	2	3

Despite expectations, the distribution in the corpus shows that V2 RCs do not exhibit the indicative more frequently than other types of RCs. Mood alternations are almost identical in V2 and V-late/final RCs.

To sum up, the facts revealed by this pilot study may be represented as in figure 1.

The small OHG corpus shows a correlation between specificity and mood, as pointed out for the Romance languages, but no significant interaction may be observed between verb position and specificity or mood. In contrast, the situation in MG – which is known from synchronic (theoretical) studies – is very different and looks like in figure 2.

In MG there is an interaction between specificity and verb position, but no interaction with mood at all given its absence. At this point, we could argue for a complex semantic and morphosyntactic change taking place from OHG to MG. This line of reasoning suggests that a pattern in which specificity correlates with mood is substituted by a pattern in which specificity correlates with verb position.

While it is true that there is hardly any empirical evidence in OHG for a correlation between specificity or mood on the one hand, and verb position on the other, the correlations become clearer if we resort to more complex
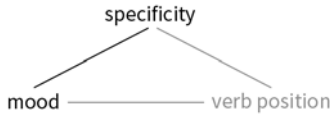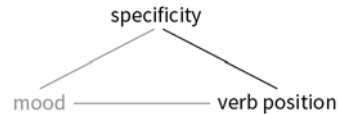
Figure 1. Correlations in OHG

Figure 2. Correlations in MG

theoretical explanations. In many cases, the V2 pattern could be interpreted as being only an apparent one. Consider the following example:

(27)   Daz   ist   daz   hêreste   guot,   daz   der   uore
         that   is   the   greatest   wealth   that   PART.REL   before
         gegariwet   **ist**   gotes   trûtfriunden   (HiH 153, 36)
         afforded   is   god's   intimate.friends.DAT
         'This is the greatest wealth which is provided to God's intimate friends before'

The sentence above shows very clearly that OHG still exhibit VO orders, i.e. OHG RCs allow for a VO order even if the verb does not occur in second position. Syntactically, such VO orders have been explained in different ways in the literature. There are a number of traditional works on apparent embedded VO phenomena in verbal complexes in Germanic languages (e.g. Haegeman, van Riemsdijk 1986; den Besten, Edmondson 1983; Kroch, Santorini 1991; Pintzuk 1991; etc.). Focusing on the position of objects with respect to the (full) verb, more recent works assume that, in such cases, the object is "extraposed" to the right of the verb (Axel 2007, 80) or, alternatively, that the verb is base-generated in, or moved to a position preceding the object (Hinterhölzl 2004, 2009; Petrova, Hinterhölzl 2010; Schlachter 2004, 2012; Tomaselli 1995; Weiß forthcoming):

(28)   a. $[_{\text{VP}} t_i V] O_i$ VO as a result of the "extraposition" of the object
       b. $[_{\text{VP}} V O]$ VO as a base-generated order
       c. $V_i [_{\text{VP}} O t_i]$ VO as a result of verb movement

The reason for the special configuration should be looked for in information structure. In particular, Hinterhölzl (2004, 2009) points out important OHG word order restrictions arguing that, while background (and contrastively focused) information is realized preverbally, presentational focus typically follows the verb, as illustrated in (29) and exemplified in (30):

(29) C background contrastive focus V presentational focus (Hinterhölzl 2009, 52)

(30)	liohtfaz	thes	lihhamen	**ist**	ouga	/	oba	thin	ouga
	light	of.the	body	is	eye		if	your	eye
	uuirdit	luttar		thanne	ist	al	thin	lihhamo	liohter
	uuirdit	light/simple,		then	is	all	your	body	bright

<div align="right">(OHG, T 69, 21ff)</div>

'The light of the body is the eye. If your eye becomes light/simple, then all your body is bright.'

Lat. Lucerna corporis. **est** <u>oculus</u>. / si **fuerit** <u>oculus tuus</u> simplex. / totum corpus tuum lucidum erit.

<div align="right">(adapted from Hinterhölzl 2009, 48)</div>

In (30), the predicative element *ouga* 'eye' is in focus and is realized after the copula *ist* 'is' in the first sentence. In the following subordinate clause, *thin ouga* 'your eye' is background information and is therefore realized in a position preceding the finite verb *uuirdit* 'becomes'.

Testing these recent theories on a corpus of OHG RCs, Coniglio, Linde and Ruette (forthcoming) show that the OV/VO order in RCs is determined by similar information-structural and discourse-structural properties. In particular, it is shown that narrow focus of the object in a RC is typically associated with a VO order, whilst contrastive focus or broad focus actually triggers an OV order. As expected, this is in line – but not always coinciding – with the observations made in Hinterhölzl (2004, 2009), as well as with the results found in Petrova and Hinterhölzl (2010), Schlachter (2004), among others.

Furthermore, Coniglio, Linde and Ruette (forthcoming) point out a correlation between restrictivity and word order in RCs. Non-restrictive and restrictive RCs differ at a highly significant level in the linearization of verb and object, with a slight preference for VO orders in non-restrictive contexts and a clear preference for OV orders in restrictive RCs. This is interpreted as having to do with the different illocutionary and information-structural potential of the two types of RCs (cf. Holler 2005, 58 ff.).

Other factors sometimes discussed in the literature (weight of the object, definiteness, specificity of the referent, presence of a particle, etc.) did not yield any statistically significant results with respect to the linearization of verb and object.

If we interpret the data in our corpus in the light of such theories, many cases of VO orders are only apparent cases of V2. They are 'superficially' V2 orders, but are rather to be analyzed as V-late or V-final orders. Consider another example for a RC with a surface V2 order:

(31) […] dhiu chrumba nadra […] dhea **chisaughida** gotes   uuordes   […] (I IX,10)
          the   crooked   viper   that suckled   God.GEN word.GEN

'[…] the crooked viper […] that suckled God's word […]'

[$_{CP}$ *dhea* … [$_{V?P}$ [$_V$ *chisaughida*] [$_{DP}$ *gotes uuordes*]]]

If we accept these recent theoretical approaches to OHG syntax, the verb *chisaughida* could be interpreted as being *in situ* or at least in a low position. That means that it has not moved to C. In turn, the object *gotes uuordes* is either *in situ* or has moved to a position following the verb, assumedly for focus reasons.

In the present investigation, we refrain from presenting a possible data distribution in the light of these recent syntactic investigations, since the attempt of determining "covert" sentence-final VO orders would be highly aleatory. Nonetheless, under a certain interpretation of the data in our corpus, the exclusion of apparent V2 cases would yield neater correlations between specificity, mood and verb position, as illustrated in figure 3.
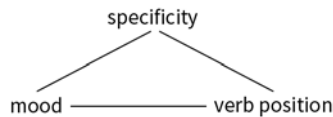
Figure 3. Correlations in OHG (interpreted according recent theoretical proposals)

This amounts to saying that while, on the one hand, the data in our corpus clearly show only a correlation between specificity and mood, their interpretation according to recent syntactic theories could lead to a different scenario in which the three variables perfectly interact with each other. This aspect is left for further investigation, possibly one based on more data.

Before presenting the syntactic analysis, we should consider the possible effects of another variable, namely restrictivity. The latter was argued to play a fundamental role for the linearization of verb and object in Coniglio, Linde and Ruette (forthcoming). The following examples illustrate the case of a restrictive RC with the subjunctive and of a non-restrictive RC with the indicative mood respectively:

(32) neouueht   […],   daz   fer   **sii**,   (Ben.Reg. 2)
        nothing   that   far   is.SUBJ

'nothing […] that is far away/abstracted'

(33) […]   osee   propheta,   dher   **quhad**   heilegu   gheistu: (I VIII, 3)
              Hosea   prophet   who   said   Holy.INSTR Ghost.INSTR

'[…] Prophet Hosea, who said inspired by the Holy Spirit:'

The distribution of verbal mood *vis-à-vis* restrictivity is represented in table 4.

Table 4. Restrictivity and mood
Fisher Exact p =.0122; φ: -0.19

	indicative	subjunctive	na
restrictive	100	15	0
non-restrictive	59	1	2
free	38	5	1
na	25	3	1

Free RCs were excluded from calculation, since they are a special class of RCs (probably similar to restrictive RCs with a null antecedent). If we compare only restrictive and non-restrictive clauses, we observe that, whereas the indicative is always the preferred mood for both restrictive and non-restrictive RCs, restrictive RCs are more prone to exhibiting subjunctive verb forms than non-restrictive RCs. This is probably connected to the fact that the subjunctive is a mood typically marking subordination. It is unlikely to find the subjunctive in a non-restrictive RC, given its higher illocutionary potential.

For this survey, other factors that possibly influence mood alternation were also tested (position of the RC with respect to the main clause, presence of a relative particle, grammatical function of the relativizer, etc.), but none of these proved to be statistically significant.

6   Syntactic Analysis

Let us now briefly consider the syntactic licensing of the subjunctive. There are several approaches as to where mood is encoded. Different works indicate that its licensing must affect (part of) the C-domain or the I-domain (or both). As to the encoding of mood in the C-layer, some works discuss evidence indicating that Rizzi's (1997) Fin° (or another projection in the C-domain) could be responsible for the licensing of indicative/ subjunctive alternations. Just to cite some of them, Giorgi (2009) and Giorgi and Pianesi (1997) link Complementizer Deletion and mood alternation in Italian to the presence or absence of a projection (or a feature) in the C-layer (cf. Poletto 1995, 2000), where the speaker's coordinates are represented (also cf. Costantini 2009). Furthermore, and with respect to Southern Italian dialects, Ledgeway (2012) argues for the existence of realis and irrealis complementizers merged in different positions and links them to verb movement (also cf. Mensching 2012 on Southern Sardinian). Roberts and Roussou (2003, 88) also assume the realization of the

Southern Italian modal complementizer *mu* in the C-domain, analogously to the Greek particle *na*.

As an alternative, the encoding of indicative/subjunctive mood could be assumed to involve a projection in the I-domain, such as Cinque's (1999) Mood$_{irrealis}$ projection. However, some authors assume that such a Mood projection should be located in C. Interestingly, based on evidence from Salentino and Southern Calabrian, Damonte (2010) combines the two approaches and proposes that the subjunctive is licensed via mood concord between the CP and the IP (cf. Rivero 1988, Calabrese 1993). For ease of representation, I will make use of a projection Mood below without specifying whether it is located in the C-domain or in the I-domain (or in both). In fact, this point is not crucial and has no particular consequences for the present analysis.

With respect to a possible syntactical encoding of specificity, instead, two main proposals have so far been put forward in the literature. A first group of authors have argued for the existence of a projection for specificity (SP) above the DP (cf. Enç 1991, Guillemin 2007, Zamparelli 2000). Alternatively, one could assume that a feature is realized in D (or a specificity operator in SpecD), which determines whether a referent is specific or not (Campbell 1996; Sio 2008; cf. Cardinaletti, Giusti 1992, 2002). Though the present analysis does not hinge on a feature-based approach, I will use this approach in the following discussion.

Before putting all the ingredients together, I would like to observe that, for the analysis below, I will adopt a notion of Agree as defined in Zeijlstra (2012), in which the goal c-commands the probe (so called *upward Agree*):

(34) *Agree*:
      α can Agree with β iff:
      a.   α carries at least one uninterpretable feature and β carries a matching interpretable feature.
      b.   β c-commands α.
      c.   β is the closest goal to α.

                                                                              (Zeijlstra 2012, 514)

This definition does not reflect the standard view on Agree (cf. Chomsky 2000, 2001; and successive modifications such as Pesetsky and Torrego 2007; Bošković 2007, etc.), but – besides accounting for various phenomena – Zeijlstra's (2012) proposal can explain the phenomena discussed above in a more straightforward and elegant way.

Let us assume now that a projection Mood is responsible for the licensing of the indicative or the subjunctive mood. The RC, in turn, is assumed to be base-generated in the spine of the matrix DP (cf. Cinque 2008a, 2008b, 2013).

In the case of the indicative, the verb in the RC is the carrier of morphological specifications and exhibits an uninterpretable feature [uInd].

This feature is interpretable on the head Mood. As represented in (35), the uninterpretable feature probes for its interpretable counterpart in Mood and gets checked via Agree. In turn, Mood is assumed to display an uninterpretable specificity feature [uSpec], which probes for its interpretable counterpart, which is necessarily encoded on the D head of the antecedent of the RC:[6]

(35) $[_{DP}\ D_{[iSpec]} \ldots [_{CP\text{-}Rel} \ldots Mood_{[iInd]\,[uSpec]} \ldots V_{[uInd]}\ ] \ldots NP\ ]$ *Agree*

$[_{DP}\ D_{[iSpec]} \ldots [_{CP\text{-}Rel} \ldots Mood_{[iInd]\,\overline{[uSpec]}} \ldots V_{\overline{[uInd]}}\ ] \ldots NP\ ]$ → indicative

Hence, the indicative is licensed in the presence of a specific referent.[7]

Conversely, and as illustrated in (36), the presence of a non-specific referent in an irrealis context will be associated with the simultaneous presence 1) of an interpretable subjunctive feature [iSubj] on Mood, which will be probed by its uninterpretable counterpart [uSubj] on the verb carrying subjunctive morphology and 2) of a feature [u¬Spec] on the same head Mood. The latter will act as a probe looking upward for its interpretable counterpart of the same feature [i¬Spec] in D. If Agree is successful, the subjunctive will be licensed in such (non-specific) cases:

(36) $[_{DP}\ D_{[i\neg Spec]} \ldots [_{CP\text{-}Rel} \ldots Mood_{[iSubj]\,[u\neg Spec]} \ldots V_{[uSubj]}\ ] \ldots NP\ ]$ *Agree*

$[_{DP}\ D_{[i\neg Spec]} \ldots [_{CP\text{-}Rel} \ldots Mood_{[iSubj]\,\overline{[u\neg Spec]}} \ldots V_{\overline{[uSubj]}}\ ] \ldots NP\ ]$ → subjunctive

This approach can straightforwardly explain why, in an appositive RC, the referent is typically specific (and, thus, why the subjunctive cannot be licensed). Given their semantic properties, appositives are interpreted as being merged above the DP, thus being outside the scope of the specificity feature in D, as shown in (37a). They are assumed to exhibit an interpretable feature [iSpec]/[i¬Spec], given that – because of their appositive character – their (non-)specificity must be independently interpretable. Notice that, as (37b) shows, a feature [u¬Spec] could not probe downward

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[6] One could wonder how this syntactic licensing mechanism can work under Chomsky's (2001) phase theory. How can Agree take place across phase boundaries? A similar issue is discussed in Zeijlstra 2012, in which the author proposes that Agree is only possible if an equivalent feature is also present at the phase edge. In the case at hand, this means that a feature related to specificity must necessarily be encoded in the C-domain (or in the C and I-domain at the same time, cf. Damonte 2010).

[7] At this point, it should be noted that, in such case, an (uninterpretable) feature [uV] is optionally realized in the C head of the RC requiring the movement of the verb to the C-domain in V2 RCs. As an alternative, the optional movement of the verb to C could be explained by the necessity for the event argument of the verb in the RC to be anchored with respect to the utterance situation (Catasso, Hinterhölzl 2016, 117).

to agree with a possible interpretable counterpart in D, given that under Zeijlstra's (2012) approach the goal must c-command the probe:

(37)   a. $[_{CP\text{-}Rel} \dots Mood_{[iInd]\,[iSpec]} \dots V_{[uInd]}] \dots [_{DP}\,D_{[iSpec]} \dots]$

   b. $[_{CP\text{-}Rel} \dots Mood_{[iSubj]\,[u\neg Spec]} \dots V_{[uSubj]}] \dots [_{DP}\,D_{[i\neg Spec]} \dots]$

*

Before concluding, a short remark is necessary at this point. As pointed out above, the indicative mood is also very frequently attested in non-specific or *de dicto* contexts in OHG. This might indicate that a drift towards the indicative is already taking place during this period (probably a drift similar to the one taking place in Colloquial Italian). This will ultimately lead to the complete loss of the subjunctive in RCs, as we have seen for MG. If we espouse the syntactic modelling above, we must conclude that, while the specificity feature still plays a role in MG (in determining verb position, for example), the possibility for the realization of a subjunctive feature both on the verb and on the head Mood has become obsolete in the course of time. Something was probably already going on during the OHG period, given that the indicative was realized in the majority of cases even when the subjunctive would have been expected. This change is probably linked to notorious significant morphological changes occurring in the early stages of German, such as the emergence of periphrastic forms realizing mood alternations and, more importantly, the weakening and levelling of verbal endings with the consequent loss of mood distinctions in many cases. This amounts to saying that, syntactically, the ambiguous verb morphology has led to the reinterpretation of the feature on the verb and on Mood as a default [Ind] feature. However, since more data (also from the following periods) would be needed to support the analysis, this point should be left for further research.

7   Conclusions

Let us summarize the results of the present investigation. For OHG, a correlation was shown to hold between the (non-)specificity of the referent and the realization of the indicative/subjunctive mood in RCs, which is very similar to a correlation observed in RCs of the Romance languages. A link between specificity and verb position, as observed for MG, could not be proven based on corpus data. Nonetheless, a theoretical interpretation of the data collected would lead to perfect correlations between specificity, mood and verb position.

   In the course of time, German has lost the use of the subjunctive in RCs with a non-specific referent, a process that has probably already started

in OHG (presumably in a way similar to present-day Colloquial Italian). However, specificity still plays a role in determining the position of the verb thereby allowing V2 orders in specific contexts.

The licensing of the subjunctive was modelled according to an upward Agree mechanism involving mood specifications on the head Mood and on the verb, as well as a feature checking mechanism linking Mood to D allowing for the (non-)specificity of the referent to display its syntactic effects in the RC.

The syntactic change was interpreted in such a way that, in MG, the possibility to realize a subjunctive feature has been lost, probably due to the loss of unambiguous morphological mood specifications on the verb.

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