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# Syntax and Discourse Factors in Early New High German: Evidence for Verb-Final Word Order

Ann Bies

University of Pennsylvania, [bies@ldc.upenn.edu](mailto:bies@ldc.upenn.edu)

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# Syntax and Discourse Factors in Early New High German: Evidence for Verb-Final Word Order

## **Abstract**

Several recent studies have taken the approach that the word order variation in Early New High German (1300-1600) is indicative of a change in the underlying syntax. In this thesis, I argue that Early New High German (ENHG) was solidly verb-final in structure throughout its history and that the evidence for the existence of structurally INFL-medial sentences in ENHG is not convincing. I find no evidence of competing grammars in ENHG, and it is therefore notable that the loss of NP postposition between ENHG and modern German appears to be an example of language change due to a change in frequency of usage. In addition, NP postposition is shown to have a particular discourse function: forcing the postposed NP to be interpreted with narrow focus.

ENHG differs syntactically from modern German in allowing surface word orders that are ungrammatical or rare in later German. Three such syntactic constructions are investigated - NP postposition, PP postposition and Verb (Projection) Raising. The postposition of clauses and prepositional phrases occurs in both ENHG and modern German. However, in ENHG, NP objects can move to a position after a structurally final verb, a movement that is not possible in modern German. Verb Raising and Verb Projection Raising, in which the relative order of verb forms is reversed from the standard order, are also much more common constructions in ENHG than in modern German. All of these constructions involve surface word orders which are not verb-last, and each occurs at an overall rate of 24-30% of possible cases in my corpus. The variation shows synchronic social, stylistic and discourse effects.

I argue that in the absence of evidence for competing grammars, the observed variation in string verb-last word order in ENHG should be understood as syntactic variation in an underlyingly structurally verb-final language. The decline of these three unrelated syntactic constructions between ENHG and modern German may be due to the imposition of a standard surface verb-last template from above. Such a change from above forces unrelated structures, such as NP focus postposition, Verb (Projection) Raising and PP postposition, to change in the same direction, in this case toward surface verb-last word order.

## **Comments**

University of Pennsylvania Institute for Research in Cognitive Science Technical Report No. IRCS-96-24.



*Institute for Research in Cognitive Science*

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Early New High German: Evidence  
for Verb-Final Word Order**

**Ann Bies**

**University of Pennsylvania  
3401 Walnut Street, Suite 400A  
Philadelphia, PA 19104-6228**

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SYNTAX AND DISCOURSE FACTORS IN EARLY NEW HIGH GERMAN:  
EVIDENCE FOR VERB-FINAL WORD ORDER

Ann Elizabeth Bies

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Supervisor

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Graduate Group Chairperson

1. Introduction .....	1
1.1. Historical syntax and pragmatics .....	5
1.2. The ENHG corpus .....	8
1.3. Restricting data sets: not comparing apples and oranges .....	9
1.4. What is “verb-final”? .....	10
1.4.1. Diagnostics for structurally verb-final and INFL-final .....	11
1.4.2. Is ENHG structurally verb-final? .....	12
2. NP Postposition .....	14
2.1. Theoretical background .....	15
2.1.1. Syntax .....	15
2.1.2. Pragmatic/focus structure .....	16
2.2. The corpus .....	17
2.3. A pragmatic analysis .....	18
2.3.1. Information status .....	18
2.3.2. Restricting the data set .....	20
2.3.3. A better pragmatic analysis: Narrow focus .....	27
2.3.3.1. Types of narrow focus .....	29
2.3.3.2. Non-postposed wide (and narrow) focus .....	35
2.3.3.3. A comparison of the focus data .....	36
2.4. Evidence from Modern Yiddish .....	37
2.5. Conclusion .....	39
3. Verb Raising .....	40
3.1. The syntax of verb raising .....	41
3.2. Background for social and stylistic variation .....	44
3.2.1. Stylistic variation .....	44
3.2.2. Change from above .....	46
3.3. V(P)R patterns of variation .....	47
3.3.1. The corpus .....	48
3.3.2. The data .....	49
3.3.2.1. Time .....	50
3.3.2.2. Style .....	53
3.3.2.3. Social class .....	55
3.3.2.4. Inconclusive linguistic factors .....	57
3.4. Conclusion .....	62
4. PP Postposition .....	63
5. Conclusion .....	66
Appendix A: Bibliography of Early New High German data sources .....	68
Appendix B: Coding system for Early New High German .....	79
Appendix C: Comparison of V(P)R data with Ebert’s data .....	95
Bibliography .....	102
Index .....	108

## 1. Introduction

Modern German is a standard linguistic example of a structurally verb-final and INFL-final language, with verb-seconding in matrix clauses. It is not so clear, however, that German was structurally verb-final throughout its history. Early New High German (1300-1600), for example, differs syntactically from modern German in allowing surface verb-object (VO) word orders that are ungrammatical in later German. The postposition<sup>1</sup> of clauses and prepositional phrases occurs in both Early New High German (ENHG) and modern German (at least in some dialects). However, in ENHG, NP direct and indirect objects can move to a position after a structurally final verb, a movement that is not possible in modern German. Verb Raising and Verb Projection Raising, in which the relative order of verb forms is reversed from the standard order of uninflected before inflected, are also much more common constructions in ENHG than in modern German. Examples of these ENHG constructions are given in (1)-(4).

### (1) NP postposition

*sunder daz sie auch sehen Lazarum*  
but that they also see Lazarus  
'but that they see Lazarus also'

### (2) Verb Raising and Verb Projection Raising

*das ers herauß hette gezert*  
that he-it out had drawn  
'that he had drawn it out'

*das ich hab den manterl gestoll*  
that I have the coat stolen  
'that I stole the coat'

---

<sup>1</sup> By 'postposition' throughout I am referring to the movement of a constituent to the right of the verb in a structurally verb-final clause. This is also referred to in the literature variously as extraposition, exbraciation, and *Ausklammerung*.

**(3) PP postposition**

*waz hast du gedacht uber uns?*  
 what have you thought about us  
 ‘What did you think about us?’

**(4) Sentential complement postposition (some are obligatory, as this one in modern German)**

*Ich habe gefragt, wen Hans geküsst habe.*<sup>2</sup>  
 I have asked, who Hans kissed has  
 ‘I asked who Hans kissed’

All of these constructions involve surface word orders which are not verb-last (i.e., some constituent follows the structurally final and expected string-final verb form), and each occurs at an overall rate of 24-30% of possible cases in my corpus. The relatively high rate of surface verb-medial structures in ENHG has led several linguists (Ebert 1981, 1992, Burridge 1993, Vennemann 1984) to conclude that during this period, German underwent a syntactic change in the direction of an underlyingly verb-medial grammar.<sup>3</sup> Furthermore, these linguists agree that the move towards structurally verb-final grammar by the end of this period was a change from above, from a prestige dialect or as the result of the spread of literacy.

I will argue contra Ebert, Burridge and Vennemann that ENHG, like modern German, is a structurally verb-final language (that is, head-final at both the VP and IP levels) with verb-seconding in matrix clauses, and that the non-final surface word orders are the result of rightward movement.

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<sup>2</sup> Example taken from Koster (1975), about which he notes that “the embedded question has to be in extraposed position” (p.114).

<sup>3</sup> However, all seem to agree that both Proto-Germanic and modern German are verb-final languages.

The question of whether ENHG was or remained structurally verb-final is a question of whether there was any change in the underlying structure. The surface word order may not be verb-last, as there are several syntactic operations which move elements to the right of the verb, even in clauses which are demonstrably verb-final in underlying form (as will be seen in sections 2-4). The real question is whether these movements caused any confusion in the minds of speakers, hearers, and language learners of ENHG — in particular, whether they provided enough evidence to constitute a competing grammar of ENHG. If so, then they enter into the picture of diachronic syntactic change. If not, they constitute simply synchronic variation, interesting in its own right but not necessarily indicative of change in underlying word order.

I find no evidence of competing grammars in ENHG, and it is therefore interesting to note that the loss of NP postposition between ENHG and modern German appears to be an example of language change due to a change in frequency of usage. There is no evidence of change during the ENHG period, but in the time between ENHG and modern German a change took place such that NP postposition is no longer acceptable in modern German. No change in the underlying word order took place, however, since in both stages of the language German is structurally verb-final. What did change, presumably, was the frequency of NP postposition, an available syntactic operation sensitive to pragmatic function. Once the frequency was low enough, NP postposition became unacceptable, and NP objects now uniformly appear before the verb. NP postposition is not attested in any modern German dialect, unlike PP postposition, clausal postposition and verb raising. Thus, there appears to have been a real change in the grammar due to a change in frequency.

Since several recent studies have taken the approach that the word order variation in ENHG is indicative of change in underlying word order, some interesting data has



been overlooked. I will argue that ENHG was solidly verb-final in structure throughout its history and that the evidence for the existence of structurally INFL-medial sentences in ENHG is not convincing. Instead, there is solid evidence for verb-final structure combined with the rightward movement of NPs, PPs and clauses. As we will see, the postposition of NPs is of particular interest, being sensitive to pragmatic function.

The organization of the sections is as follows:

- Section 1 presents background information;
- Section 2 presents the results of the study of NP postposition and the interaction between syntax and pragmatics;
- Section 3 presents arguments that certain verb-medial sentences in ENHG are instances of verb raising and are not evidence of underlying verb-medial word order or of grammar change, contrary to the prevailing position in the literature;
- Section 4 presents a brief description of PP postposition in ENHG and modern German, and
- Section 5 presents closing remarks.

Three appendices follow with a bibliography of data sources (A), the system used to code the data for syntactic and pragmatic factors (B), and a close comparison of some of the V(P)R data and more restricted datasets with Ebert's data (C).

### 1.1. Historical syntax and pragmatics

There are two basic conditions that cause both small and large problems in studying the syntax and pragmatics of historical data: the only data available are written texts, and there are no native speakers to consult.

From the data collection point of view, unmonitored vernacular language is not available, since written language is almost always heavily monitored (Labov 1966). My corpus includes sources such as personal letters and the transcript of a trial in an attempt to maximize the chances of getting less monitored language, but even these are necessarily written down and likely to have been altered in ways we cannot know.<sup>4</sup> Therefore, it is difficult to cover the full variety of styles, since the most unmonitored end of the spectrum will be unrepresented.

From the perspective of interpretation, there is more difficulty than might be expected simply in understanding the meaning, let alone the structure, of many tokens. The obvious problem is that there are no native speakers of languages such as ENHG to consult for grammaticality or felicity judgments; every researcher is looking at a foreign language with no informants. However, a more difficult problem is that there will always be some base level of ungrammatical tokens produced. Even the strongest linguistic generalizations are found to be violated at a low rate of approximately 1% (Pintzuk 1991, Santorini 1989). Such deviations can be seen in modern corpora such as the Penn Treebank Project's Switchboard and Wall Street Journal corpora (Marcus, et al 1994). Thus, sentences like those in (5) cannot be successfully parsed in an annotated corpus even though they are produced by native speakers of American English and the annotators are native speakers as well.

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<sup>4</sup> Witness the difficulties discussed in (Shriberg 1994).

- (5) a. -- and I can take plastic like *milk cartons or if they have water in them.*  
[talking about recycling] (Switchboard)
- b. The company said there was an additional increase in loss and loss-expense reserves of \$71 million reflecting "higher than expected" development in *claims legal expenses from to prior periods.* (Wall Street Journal)

So the interpretation problem is in part a problem inherent in annotating text corpora. Treebank experience shows that a remarkable amount of variation in interpretation can remain, even among trained native speaker annotators (Marcus, et al 1993). The problem for historical linguistics is that because we cannot know for sure with historical data which tokens are ungrammatical and which are grammatical, we must assume that they are grammatical, undoubtedly counting some ungrammatical tokens as grammatical. It is reasonable to assume, however, that these will occur at a low enough rate that they will not significantly affect the results.

Discourse coding of historical data introduces additional problems. Determining discourse context and information structure is difficult in itself. Without knowing the historical and individual contexts in all cases, it can at times be an impossible challenge. For this reason, not every token can be coded for discourse information. However, it is possible in most cases to make a reasonable estimation of what the context and information structure are. For example, the crucial distinction to be made about focus in the next example is whether the information focus (see section 2.3.1) in the clause at the end of the example should be on 'Lazarus' or on 'see Lazarus.'

(6) *Vnd do sie horten zu Ierusalem, daz Ihesuß wider waz komen gen Wethania,*  
and since they heard in Jerusalem, that Jesus again was come to Wethania,  
'And since they heard in Jerusalem that Jesus had come again to Wethania,'

*do gieng ein grosse menig des volcks hin auß nit allein von Ihesus wegen,*  
there went a big many of-the folk there out not alone for Jesus's sake,  
'a crowd of people went there not only for Jesus's sake,'

*sunder daz sie auch sehen Lazarum...*  
but that they also see Lazarus...  
'but that they see Lazarus also...'

Here, the modern reader's initial response is that 'Lazarus' must be the focus, but the information structure in this example is not so easily determined. Our intuition is that the crowd is going in order to 'see Jesus' and 'see Lazarus also.' Thus, the proposition 'see x' is in some sense already present in the discourse. However, it is not overtly stated, and a wide focus reading is not entirely ruled out. The use of the focus particle *also* may give us a clue in this example, though we must look in the context for the scope (König 1991). Again, since 'see Jesus' is not overtly part of the context, we can only assume that it is present in the discourse, and thus the focus particle focuses 'Lazarus' rather than 'see Lazarus.' The strongest evidence comes from the use of the construction *not only...but also...*, which can be used only for contrast (König 1991) and sharply increases the odds of *also* having narrow focus.<sup>5</sup> In (6), 'Jesus' and 'Lazarus' are contrasted, in 'not only Jesus...but... Lazarus also.' Thus, we can count 'Lazarus' as having narrow focus, but only after some consideration.

There are also clauses for which the context is simply unavailable, such as the first sentence of a letter. With no context (previous letters, conversations, etc.) available, it is not possible to determine what the information focus should be.

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<sup>5</sup> Contrast and information focus need not necessarily coincide, however. See Vallduvi (1990).

(7) *lieber Peham, ich pit euch,*  
 dear Peham, I ask you,  
 ‘Dear Peham, I ask you’

*ir welt Sewald Furzagel von mir ausreichtten III haundert und XXX guldn.*  
 you will Sewald Furzagel from me pay three hundred and thirty guilders.  
 ‘to pay Sewald Furzagel three hundred and thirty guilders from me.’

Example (7) is the first sentence of a letter. Obviously we are missing some background between the writer and the intended reader of this letter. Without that context, we cannot determine the information structure of this sentence or the pragmatic function of the postposed NP *III haundert und XXX guldn*. There are many similar examples where more context is available, but it is still not clear what the information focus is. They may be ambiguous between VP and NP focus (wide and narrow focus), with both readings possible and no clear indication of how to choose one over the other. These sorts of tokens cannot be counted as clear cases of either narrow focus or wide focus. Without the full context, or prosodic information, many tokens fall into this category.

## 1.2. The ENHG corpus

My Early New High German corpus, totaling 5034 tokens,<sup>6</sup> consists mainly of personal and business letters written between 1300 and 1500 by a variety of literate people from various social levels, the transcript of a 1525 monastic trial, and a few excerpts from other early 16th century writings (see Appendix A for a bibliography of sources). The corpus includes data from a range of dialects. An attempt was made to represent the state of ENHG prose across time, dialects, styles and social groups, but the distribution across social classes is not complete. As with the collection of unmonitored language, the collection of language produced by lower, especially uneducated or

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<sup>6</sup> Each token is one complete clause, matrix or subordinate.

illiterate, classes is nearly impossible. Poetry was not included as it is known frequently to be unrepresentative of the common language, retaining archaic features and employing innovative (ungrammatical to the prose speaker) syntax.<sup>7</sup>

### **1.3. Restricting data sets: not comparing apples and oranges**

In a study of postposition and verb raising, we must limit our data to clauses where verb-seconding does not obliterate the evidence for verb-final underlying order. I count as structurally determinable all clauses which have something overt (i.e., a verb or a particle) in the original verb position: all subordinate clauses that are not possibly verb second (V2), main or subordinate clauses with both auxiliary and main verbs, and clauses with particle verbs.

In addition, for each construction it is necessary to compare only clauses where that construction would be possible. Verb raising, for example, is possible only when the clause contains a finite verb form and at least one non-finite form. Thus, the rate of verb raising is calculated using only clauses which either could or do exhibit verb raising. Similarly, PP or NP postposition is possible only in clauses where there is a non-topicalized PP or NP — see section 2 for more detailed restrictions on possible NP postposition. Topicalized NPs would be candidates for postposition from a purely syntactic viewpoint. However, they are unavailable for pragmatic reasons. Topicalized NPs are overwhelmingly discourse-old relative to non-topicalized NPs (Birner 1994). Postposed NPs, on the other hand, are found to be the information focus of the clause (see section 2). Thus, the discourse functions of topicalization and postposition are so different that a single NP in any given clause and context probably could not be a

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<sup>7</sup> This corpus was collected under NSF Grant BNS 89-19701 (Anthony Kroch, Principal Investigator).

candidate for both. The rate of postposition is calculated as the number of postposed tokens divided by the total number of tokens in which postposition requirements are met.

#### 1.4. What is “verb-final”?

Since the term “verb-final” is ambiguous in the literature, I will use *structurally verb-final* to refer to a phrase structure with a head-final verb phrase and inflection (INFL) phrase. Ebert (1981, 1991) and Burridge (1993) argue that the occurrence of a string order in which the inflected verb is not the last word in the clause raises doubts about the uniformity of the underlying phrase structure. They use the occurrence and frequency of verb-medial string orders as evidence that the verb and inflection phrases are not uniformly verb-final in ENHG. However, in determining whether a language has undergone a shift in the underlying phrase structure, string orders are evidence only in so far as they reflect the underlying structure. Syntactic operations which alter the base word order are common and, in fact, provide the data for most syntactic research. Syntactic operations such as verb second in many Germanic languages, dative shift in English or topicalization are not in general analyzed as evidence for competing grammars. Modern English, for example, is analyzed as structurally verb-medial, SVO. Yet sentences such as *John I saw* are perfectly acceptable, and no one argues that they provide evidence that modern English is in fact structurally verb-final or OSV in spite of the fact that the verb is string-last. To answer the question of whether ENHG remained structurally verb-final or underwent a period of grammar competition, we must determine which string orders in which the verb is not string-final are simply the result of syntactic operations and which are indications of verb-medial underlying structure.

Diagnostics for testing structurally verb-final vs. structurally verb-medial constituency and their application to ENHG follow. We find that ENHG exhibits none of the structurally INFL-medial behavior that later developed in Yiddish (a language which developed from a dialect of ENHG, Santorini 1989). ENHG patterns like modern German rather than Yiddish by being categorically both verb-final and INFL-final in structure.<sup>8</sup>

#### 1.4.1. Diagnostics for structurally verb-final and INFL-final

Koster (1975) uses the distribution of particles as evidence for structurally verb/INFL-final word order in Dutch. Santorini (1989) and Pintzuk (1991) use the following diagnostics for structurally INFL-final vs. INFL-medial:

- Particles do not postpose and should therefore precede structurally INFL-final verb forms. Particles appear after uninflected verb forms only if the verb has moved to the left.
- Unstressed pronouns precede rather than follow uninflected verb forms in structurally INFL-final clauses.
- Sentential negation precedes uninflected structurally final verb forms.
- One-syllable adverbs also do not postpose in structurally INFL-final clauses.
- Verb (projection) raising is a construction that is possible only with structurally INFL-final clauses.<sup>9</sup>

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<sup>8</sup> Also with respect to V2, which is to say, V2 in matrix clauses/clauses without complementizers, V-to-I-to-C movement for V2.

<sup>9</sup> Pintzuk (1991) points out that under her double-base hypothesis for Old English, V(P)R is ambiguous between verb-final/INFL-medial and verb-final/INFL-final with verb raising. In order to separate the two,



Some of the above are diagnostics for structurally INFL-final vs. INFL-medial rather than structurally verb-final vs. verb-medial at the VP level. Particles remain in the original verb-final position when the inflected verb moves to a higher position. Verb raising is a possibility only in clauses that are structurally both verb-final and INFL-final. It does not change the relative order of main verbs and their complements, only the order of inflected and uninflected verbs. Thus it too is a diagnostic not for verb-final but for INFL-final structure. However, cross-linguistic evidence in the literature shows that underlying VOI or V-XP-I order does not occur (Besten 1986, Pintzuk and Kroch 1989). Therefore, if it can be shown that ENHG is structurally INFL-final rather than INFL-medial, the language must also be structurally verb-final. The clitic data, however, may be a diagnostic for structurally verb-final in VP as well. Pronouns, negation and one-syllable adverbs precede uninflected structurally final verb forms.

#### **1.4.2. Is ENHG structurally verb-final?**

There are no instances of postposed sentential negation or other one-syllable adverbs in the ENHG corpus. The rates of postposition for particles and pronouns can be seen in Table 1.

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she counts only clauses with two or more non-temporal heavy constituents before the auxiliary verb as verb-final/INFL-final with verb raising. However, as the data in Table 1 shows, there is no reason to suspect that ENHG is INFL-medial or that a double-base hypothesis is necessary to account for this data. Therefore, it is not necessary to make this distinction with regard to the verb raising data.

Table 1.			
Postposition of particles and pronouns in ENHG. <sup>10</sup>			
	Postverbal	Preverbal	Rate of postposition
particle	2	358	0.6%
pronominal object	1	979	0.1%

Both of these rates of postposition are well within the accepted rate of grammatically insignificant deviation (Pintzuk 1991, Santorini 1989). I will therefore disregard these three instances of postposition in what follows. The postposition rates in Table 1 are quite similar to the comparable rates of pronoun and particle postposition with structurally verb-final clauses in Old English and Yiddish. In Old English 0/222 or 0% of pronouns and one-syllable adverbs and 1/94 or 1.1% of particles are postposed (Pintzuk 1991). Santorini (1989) concludes for Yiddish that a .7% (15/2247) rate of postposition of particles, sentential negation, pronouns and *loshn koydesh* compound elements in structurally INFL-final clauses is grammatically insignificant.

Thus, ENHG can be shown to be a structurally verb-final language using the diagnostics from Santorini (1989) and Pintzuk (1991). As mentioned above, only structurally verb-final clauses can be used for all of the constructions under consideration here, so it is necessary to establish that ENHG is an underlyingly verb-final language by standard tests. Sections 2-4 will present arguments for the position that these tests are not misleading, and that the data which has been used in the past to argue for underlying verb-medial structure in ENHG cannot be counted as proper evidence.

<sup>10</sup> Clauses considered here are either V2 with an auxiliary verb or subordinate clauses that are not V2 (i.e., not including second conjunct subordinate clauses and *denn/wenn* clauses, which have a tendency to seem to be V2). This is an even less restricted set of data than Pintzuk (1991) uses, since here the set is not restricted to clauses with more than one heavy constituent before the verb.

## 2. NP Postposition

The postposition of clauses and prepositional phrases occurs in both ENHG and modern German (at least in some dialects). However, in ENHG, NP objects also can move to a position after the structurally final verb, a movement that is ungrammatical in modern German, as in (8). This section will therefore address NP postposition, which occurs at the overall rate of 28% of potential cases.

(8) a. Mod. German OV:

Ich habe *den Film* gesehen  
 I have the film seen  
 'I saw the film'

\* Ich habe gesehen *den Film*  
 I have seen the film

b. ENHG OV with postposition, yielding surface VO:

sunder daz sie auch sehen *Lazarum*  
 but that they also see *Lazarus*  
 'but that they see Lazarus also'

The purpose of this section is to determine the nature of this postposition, which is taken to be the movement of an object NP to the right of the clause boundary (the final verb or particle in structurally verb-final clauses). As seen above in section 1.4.2, postposition is limited to full NPs and does not apply to pronouns.<sup>11</sup> NP postposition in ENHG is found to be movement to a focus position that is not available in modern German. This section will argue that NP postposition in ENHG forces the interpretation of narrow focus on the postposed NP object, while sentences with no postposition remain ambiguous with respect to object vs. VP focus.

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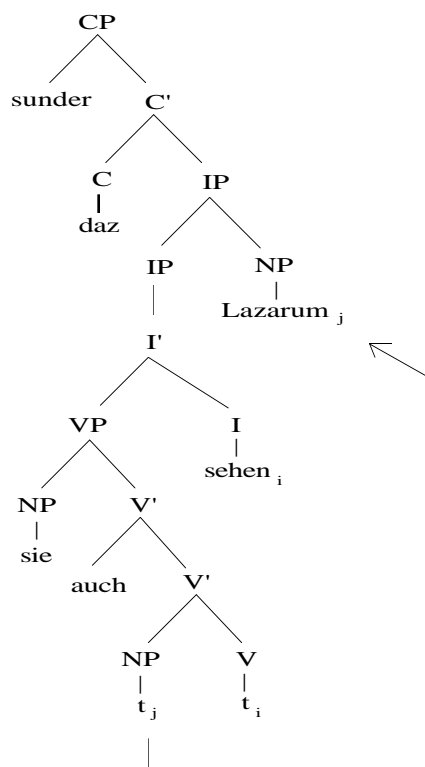
<sup>11</sup> There is also significant PP postposition, roughly 30% (see section 4), and postposition of clauses as well.

## 2.1. Theoretical background

### 2.1.1. Syntax

We can assume a structure like Figure 1 for postposition, with the postposition of the NP as adjunction to IP. The precise level of adjunction, however, is not crucial. This is simply a likely level of adjunction for movement to the right of the clause boundary, since postposed objects appear to the right of all inflected verbs (although adjunction to CP would be linearly indistinguishable from adjunction to IP).

**Figure 1.**



Postposition (or exbraciation) seems to occur in many historical Germanic languages, and it is accounted for in opposing ways in the literature: Pintzuk and Kroch

(1989) analyze Old English postposition as an optional heavy NP shift. Stockwell (1977) analyzes it as afterthought (that is, *unfocused*) for Old English. Burridge (1993), on the other hand, analyzes it as a pragmatic difference between topical material inside the “brace” and new information outside for Middle Dutch.

One obvious question is whether this could be the beginnings of verb-medial phrase structure in ENHG, and such a position is taken with regard to ENHG and Middle Dutch in Burridge (1993).

A purely syntactic analysis cannot explain the variation that occurs. An optional syntactic rule of moving an NP object to the right and adjoining it to IP allows for the creation of the structure, but it does not account for when it occurs. This optionality in the syntax leads one to look for explanation in the pragmatics of the structure.<sup>12</sup>

### **2.1.2. Pragmatic/focus structure**

Since the pragmatic structure that this paper will address is focus structure, it is necessary to identify the definition of focus that will be used. The possibilities are limited in the obvious ways by the fact that all of the data is textual and historical. The interpretation of focus that this paper will use is informational focus, essentially the same as the Vallduvi (1990) focus/ground, as in Figure 2.

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<sup>12</sup> The possibility that prosodic/phonological structure has an effect on postposition was also considered. Zec and Inkelas (1990) propose a bi-directional phonology-syntax interface, under which syntactic operations, such as HNPS in English, can be sensitive to phonological conditions, mediated by prosodic structure. The most likely possibility for ENHG, a prosodic constraint on the branchingness of phonological phrases, was investigated in the course of this research. However, there was found to be no effect of this sort.

**Figure 2.**

(i) Presupposition/Open Proposition Focus:

open proposition: [... x ...]  
 x = focus

(ii) Question Test for Focus:

What did you do?

Answer = VP focus (wide)  
 I [**F** saw the film.]

What did you see?

Answer = I saw x.  
 x = focus (narrow)  
 I saw [**F** the film.]

The presupposition of a sentence is the information presumed to be known to the hearer, and the focus is the value of the variable in an open proposition, the new information provided by the sentence. Thus, *saw the film* or *the film* fills the variable position in the open proposition and is the focus of the clause in the above example. It is possible to use this definition of focus in studying historical texts because the context (which provides the presupposition) is in general available, although information on the intonation, pitch, stress, and accent generally is not.

**2.2. The corpus**

The size of the usable corpus shrinks dramatically to 983 tokens when limited to structurally verb-final clauses with NP objects. This restriction is necessary for several reasons. First, clauses with postposed NPs should be compared to clauses with non-postposed NP complements to avoid a comparison of unlike conditions.

Second, it is necessary to use only structurally verb-final clauses because the base position of NPs in V2 clauses with nothing in the original verb position will be linearly indistinguishable from the postposed position. As noted above, structurally verb-final clauses include any clause that has something overt in the original verb position: all subordinate clauses that are not possibly V2, main or subordinate clauses with both auxiliary and main verbs, and clauses with particle verbs. In order to see that an NP has been postposed, there must be a visible boundary to the VP, and this can be found only in structurally verb-final clauses.

### 2.3. A pragmatic analysis

#### 2.3.1. Information status

Burridge (1993) argues that NP postposition in Middle Dutch, as in (9), is the postposition of new material out of the VP, which she argues contains only old information.

- (9) *Also dit is ghedaen, so selmen nemen hursene melc*  
 when this is done, so shall-one take horse's milk  
 'When this is done, then one shall take horse's milk' (Ho. 1350)

Since Middle Dutch is a language closely related to ENHG linguistically and sociologically (both are from the same 1350-1600 period, and a great deal of personal and business contact existed between speakers of the two languages), it is reasonable to investigate whether ENHG shows the same pattern.

To look at pragmatic factors, I coded my database for the information status of NP complements. Information status was coded using a three-way distinction of

givenness— new, evoked/inferrable<sup>13</sup> and given. A much more limited hierarchy of givenness than that in Prince (1981b) was used, because fine distinctions that could be made if the sources were spoken or more contemporary could not realistically be made from the historical texts. Those noun phrases that refer to something previously mentioned in the discourse segment were coded as given. The corpus consists mainly of short personal letters which generally deal with one topic, so each letter was treated as a single discourse segment. Those noun phrases that were not previously mentioned in the discourse segment and that were also new information (i.e., information new to the “hearer”) were coded as new. Those noun phrases that were new in the discourse segment but old information (or known) to the “hearer,” including entities that can be considered universally given in any discourse taking place at the time (also including NPs with information inferrable from the discourse) were coded as evoked/inferrable. Thus noun phrases like personal names, *my daughter*, *the King*, and *Godare* included in this category. The examples in (10) illustrate this category.

- (10) a. *Also hat die himelisch kayserin bekant **die almechtikait deß vaters***  
 thus had the heavenly queen known **the omnipotence of-the father**  
 ‘Thus the heavenly queen knew the omnipotence of the Father’
- b. *sunder daz sie auch sehen **Lazarum***  
 but that they also see **Lazarus**  
 ‘but that they see Lazarus also’

At first glance, information status does not provide a very clear correlation with postposition.

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<sup>13</sup> Evoked and inferrable elements are found to be treated exactly alike in English by Birner (1994).



	<u>Postverbal</u>		<u>Preverbal</u>	
<u>New</u>	48	(13.6%)	304	(86.4%)
<u>Evoked/Inf.</u>	71	(20.7%)	272	(79.3%)
<u>Given</u>	10	(3.5%)	272	(96.5%)

Table 2 shows that the evoked/inferable NPs postpose at a higher rate than either given or new NPs. This is an unexpected result, because the intermediate nature of the evoked/inferable information status (in ways both new and given) would suggest that these NPs should pattern somewhere between the new and given NPs. Instead their rate of postposition is higher than either of the others. So it appears that looking at information status does not neatly answer the question of what triggers NP postposition.

### 2.3.2. Restricting the data set

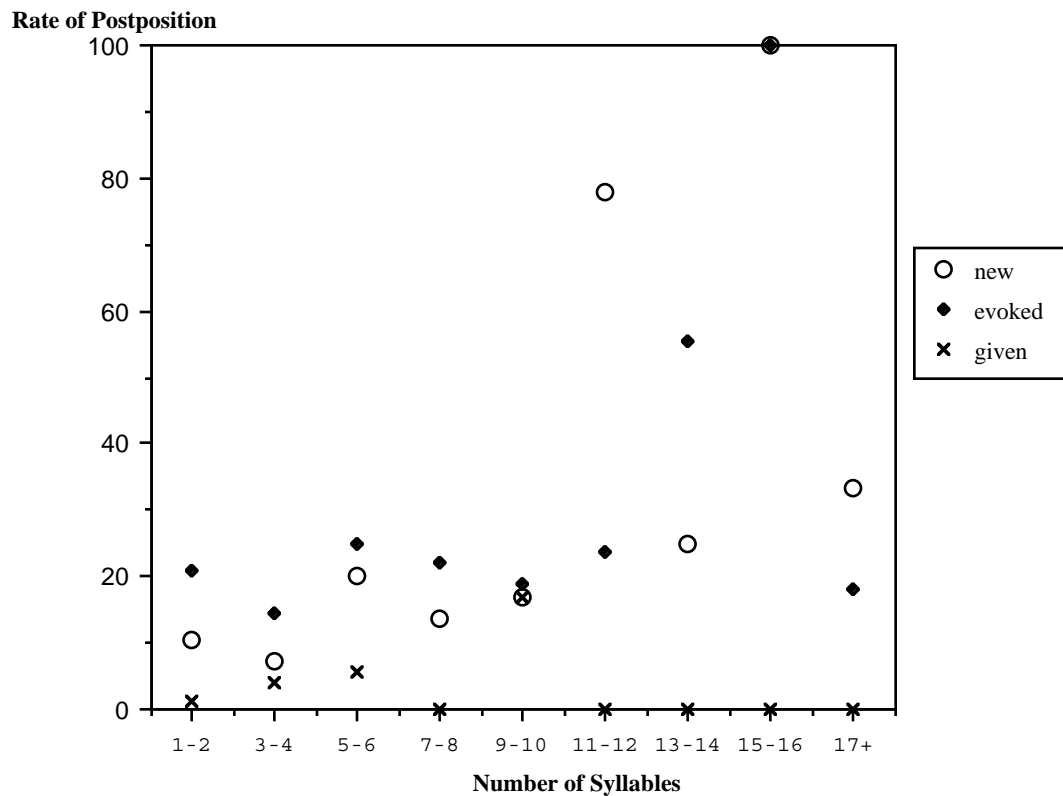
Restricting the data set in several ways allows a clearer pattern to emerge. Postposition of NPs that are either syntactically heavy or quantificational is found to occur at a rate different enough from the overall rate that those NPs must be removed from the pool of postposition candidates. The position of the preverbal NPs must also be taken into account.

First, the syntactic heaviness of NPs is found to affect the rate of postposition. However, simple length in syllables does not markedly affect the rate postposition. As

can be seen in Figure 3, an increase in the number of syllables does not correspond to a higher rate of postposition.

**Figure 3.**

**Percent Postposition of ENHG NP objects by Information Status and Syllable Heaviness**



Most of the Ns for the longest NPs are quite small. In particular, the two 100% points in Figure 3 represent 1/1 tokens, and so do not represent reliable rates. Even disregarding the outlying points (those above 50%), Figure 3 still does not show a strong effect. New NPs could be seen as showing something of a syllable heaviness effect; there appears to be a gradual rise in the rate of postposition as the NPs get heavier. Given NPs certainly do not show an increased rate of postposition with increased heaviness. In fact, there are no given NPs longer than ten syllables postposed, which is notable, even though there are

only ten given NPs postposed altogether. The evoked NPs, those with the highest rate of postposition, show a basically flat distribution with respect to syllable heaviness.

However, if we look at “syntactic length” and “prosodic heaviness” rather than the number of syllables, we find that there is indeed a heaviness effect. “Syntactically long” or “prosodically heavy” NPs are those NPs which are either coordinated or postmodified (by a relative clause or a PP). Prosodic heaviness here is based on branching intonational phrases as opposed to phonological phrases, as in Nespor and Vogel (1986). “Regular length” NPs are those which are neither coordinated nor postmodified. Table 3 shows that the syntactically long NPs have a rate of postposition that is significantly higher ( $p < .001$ ) than the regular length NPs.<sup>14</sup>

Table 3. Effect of syntactic length on postposition.			
Length of NP object	Postposed	Preverbal	Rate of Postposing
Conjoined	13	17	43.3%
Relative Cl.	5	2	71.1%
PP Postmodifier	25	34	42.4%
Regular length	82	722	10.2%
totals	125	775	13.9%

In addition, the postposed heavy NPs pattern with preverbal NPs rather than with postposed regular length NPs with respect to information focus as discussed in section 2.3.3. Of the postposed heavy NPs where the information focus is unambiguous, 21 have wide focus on the VP while only 4 (16%) have narrow focus on the NP. This is

<sup>14</sup> I will adopt the sociology and sociolinguistic standard of chi-squared  $p < .05$  as significant.

insignificantly different ( $p < .8$ ) from the potentially postposable preverbal NPs, where 13.4% or 19/142 are narrow focus (vs. 92% focus of postposed regular NPs; see Table 8, section 2.3.3.3). Thus it is clear that heavy NP shift in ENHG does not have the pragmatic function of forcing narrow focus on the postposed NP. As we will see, this result is markedly different from what we find with regular length NPs.

Similar processes of heavy NP shift (HNPS) operate in modern English, Old English and modern Turkish. I will not attempt an explanation of the phenomenon of HNPS, and will assume that whatever explanation holds in these languages (possibly processing constraints) also holds here. If we assume that a separate process of HNPS is available in ENHG for syntactically long and prosodically heavy NPs, much of the postposition could be based on length and not necessarily on any pragmatic factor. We can now consider the postposition of regular length NPs separately.

Considering only regular length NPs, the effect of information status still is not monotonic, with more newness leading to more postposition, but the rate of postposition of evoked objects is not quite so much higher than the others as it was when all NPs were included, as can be seen in Table 4.

Table 4. Effect of information status on postposition of regular length NPs.			
Information Status of NP	Postposed	Preverbal	Rate of Postposing
Given	12	242	4.7%
Evoked/Inf.	41	214	16.1%
New	29	266	9.8%
totals	82	722	10.2%

Let us consider now the effect of quantification on the postposition of regular length NPs.<sup>15</sup> Examples of quantified NPs are in (11).

(11) a. QP:

*daz sy yedermann uberkiemen haben*  
that they everyone conquered have  
'that they conquered everyone'

b. Negated NP:

*Und eur genad darf kein sorg haben*  
and your grace should no worry have  
'And your grace should have no worries'

c. Indefinite NP:

*do wir kaum einen groschen haben*  
because we hardly a groschen have  
'because we have hardly a groschen'

Note that indefinite NPs pattern with quantified NPs rather than with non-quantified NPs in Table 5. See Heim (1988) for arguments that the correct analysis of indefinite NPs is as quantified phrases. Santorini (1993) notes that negated NPs appear preverbally at a

<sup>15</sup> Since we have now removed syntactically heavy NPs from the dataset under consideration here. However, there are a few quantified NPs modified by relative clauses in the HNPS data.

rate of roughly 50% in Yiddish (under an analysis of Yiddish as a mixed OV/VO language), and she suggests that they do not postpose in the structurally INFL-final clauses due to the scopal characteristics of quantified NPs in structurally verb-final languages.

Quantified NPs behave differently from non-quantified NPs with respect to postposition; Table 5 shows that to a close approximation, quantified NPs do not postpose.

Table 5. Effect of quantification on postposition.			
Type of quantification	Postposed	Preverbal	Rate of Postposing
negation	0	86	0%
indefinite	8	301	2.3%
other QP	2	83	2.4%
non-quant.	64	408	13.6%

If we take this to mean that they *cannot* postpose — because of scopal relations, that they cannot undergo QR from the postposed position, or because they postpose out of VP and thus out of the nuclear scope of the quantifier under a Heim-like account — then we can take all tokens with quantified objects out of the data set, as not being candidates for postposition. Many quantified NPs will be new information, so removing them from the dataset in effect increases the rate of postposition of new information.

Table 6 shows the combined effect of removing syntactically long NPs and quantificational NPs from the dataset. The correlation between information status and

postposition is now in the expected order, with evoked/inferrable NPs postposing at an intermediate rate between that of given and new NPs.

Table 6.			
<b>Effect of information status on postposition after removing syntactically long and quantificational NPs.</b>			
Information Status of NP	Postposed	Preverbal	Rate of Postposing
Given	11	192	5.4%
Evoked/Inf.	37	182	16.9%
New	16	34	32%
totals	64	408	13.6%

Finally, thus far we have been basing the rate of postposition on a comparison of postposed objects with all preverbal objects (with the exception of V2 topicalized NPs). This is perhaps not the correct comparison. If movement leftward in the VP, scrambling, has pragmatic consequences, as has been argued in the literature (Lenerz 1977, Höhle 1982), then scrambled NPs would be pragmatically unavailable in the same way that topicalized NPs are unavailable for postposition. The only preverbal NPs that would be compared with postposed NPs, then, are those that remain sisters of  $V^0$ , immediately adjacent to the verb, since the information factors in scrambling are not the same as those involved with postposition.

We are left then with regular length, non-quantificational NPs as the NPs whose postposition needs explanation. They are compared to NPs of the same type that immediately precede the verb, since preverbal NPs that have topicalized or scrambled leftward are not candidates for postposition for pragmatic reasons. Table 7 shows the distribution of these NPs.

Table 7. Effect of information status on postposition of potentially postposed NPs.			
Information Status of NP	Postposed	Preverbal	Rate of Postposing
<i>Given</i>	11	100	10%
<i>Evoked/Inf.</i>	37	81	31.4%
<i>New</i>	16	21	43.2%
<i>totals</i>	64	202	24.1%

With the above restrictions, the result is a monotonic increasing relationship between information status and postposition. Nonetheless, postposition occurs with NPs of all three levels of givenness, not only with new NPs. This pattern goes against the argument in Burridge (1993) for Middle Dutch that only new information postposes.

### 2.3.3. A better pragmatic analysis: Narrow focus

An analysis of NP postposition as movement to force the interpretation of the postposed NP as the information focus explains and predicts the pattern of data in Table 7. The characteristic distinguishing postposed objects from non-postposed objects is proposed to be a distinction between focus on the object itself (narrow) and focus on the entire VP (wide). Object postposition would then be a structural method available to ENHG (but apparently not modern German) to shift focus from the VP to the object. Thus, new information is only more likely to postpose because new information is more likely to be the information focus in a clause. However, because information focus is not



identical to givenness (Vallduvi 1990), NPs of all levels of givenness can potentially postpose and receive narrow focus.

If this is the case, it would be an interesting contrast to the situation in modern Turkish — a structurally verb-final language in which only given NPs may postpose, but crucially they cannot receive focus (B. Hoffman, p.c.). This would suggest that the interaction between syntax and pragmatics cannot be uniform cross-linguistically and may be differently determined for each language, or even for each stage of a language, since it has apparently changed over time for German.

In modern German, as in English, sentences like those in (12) are ambiguous between narrow and wide focus.

- (12) a. Ich habe das Buch gelesen.  
 b. I read the book.

The focus in these sentences could be on *the book* or on *read the book*, depending on context and intonation. Under this analysis, a sentence in ENHG like

- (13) *sunder daz sie auch sehen Lazarum*  
 but that they also see *Lazarus*  
 ‘but that they see Lazarus also’

is unambiguous, with the focus on the object *Lazarum*. Rightward movement would be a syntactic option to indicate narrow focus.

A real problem for analysis is that often there is no clear evidence for whether the focus of a clause is wide or narrow, especially when working with texts, and in many cases it is not possible to determine where the focus is. In examining the discourse contexts of my corpus, I believe the narrow focus hypothesis to hold for the cases in which I can identify the focus, using the presupposition/focus interpretation as in Figure 2 above.

Broadly speaking, the postposed object in ENHG acts as the focus of the clause, in the sense of Vallduvi (1990), in which the focus “constitutes the only informative part of the sentence” (p.54) and invariably has intonational prominence. This matches nicely with the correlation between information status and the rate of postposition. The newer an object, the more likely it is to be postposed, and also the newer an entity, the more likely it is to be the focus. This is not to say that only new entities can be the focus of a clause:

the ‘givenness/newness paradox’ — how can the ‘focus of new information’ be discourse-old? — is avoided by making clear that referential status is a property of discourse entities and the phrases that encode them and information packaging is a relational property that constituents have by virtue of their standing in a particular relationship with the other elements of the sentence. (Vallduvi 1990, p.54)

### **2.3.3.1. Types of narrow focus**

The clauses with postposition where the focus is clear can be divided into four types:

- I. Simple open proposition/focus structures.
- II. Open proposition/focus structures, but with an extension in the open proposition to a parallel but narrower interpretation.
- III. Open proposition/focus structures, but with an extension in the open proposition to something like ‘an instance of.’
- IV. Other possible focus constructions: Double focus, where both the postposed NP and the V are focused; Contrast focus; Focus particles.

The extensions in II and III are necessary because overt occurrences of the simplest open proposition structures (actual direct question-answer pairs or repeated complete sentences with only the focused element changed) are quite rare in naturally occurring data.

Because information structure is nonetheless recoverable from the discourse, we must assume that discourse participants construct similar extensions to determine information focus. Type IV is interesting because it suggests the interaction of prosodic prominence with postposition in ENHG. In modern English, information focus and these other focus constructions have in common the necessity of prosodic prominence for their interpretation as focus (Vallduvi 1990). That they are realized in ENHG as postposition suggests that postposed NPs may also have been prosodically prominent.

Examples of the four types follow. The sentences in examples (14)-(15) are of type I. In (14) there is almost precisely the presupposition structure in Figure 2 (ii). In (15) there is a variation on the Figure 2 (ii) structure; it is not a question, but the proposition is still clearly there.

(14) **Question/Answer:**

'he preached x'  
x = festivus diebus

4. *Ob er auch das wort Gots predig.*

question 4. Whether he [the prior] also the word of God preached

4. *Ja, prior hab predicirt [F festivus diebus.]*

answer 4. Yes, Prior has preached [F festivus diebus ] {mass, festival of the day}

(15) **List of substitutions for the variable in the open proposition:**

'he gave man x'  
 x = breath, warmth, fruit, refreshment

*[sie] hat auch vnß in gelert erkennen von ersten in den vier elementen:*  
 she has also us him taught to-recognize from the beginning in the four elements:

'she also taught us to recognize him from the beginning in the four elements:'

*in dem luft, der gibt dem menschen [F aten ], daß er icht ersticke;*  
 in the air, that gives the man/person breath, that he not suffocates;  
 'in Air, that gives man [F breath ], so that he doesn't suffocate;'

*in dem feur, daß dem menschen gibt [F wirm ], daß er icht erfrieff...*  
 in the fire, that the man/person gives warmth, that he not freezes...  
 'in Fire, that gives man [F warmth ], so that he doesn't freeze...'

*in dem ertrich, das im gibt [F die frucht ];*  
 in the earth, that him gives the fruit;  
 'in Earth, that gives him [F fruit ]:'

*vnd in dem wasser, das im gibt [F erfrischung ]*  
 and in the water, that him gives refreshment  
 'and in Water, that gives him [F refreshment ]'

In (14), the open proposition/ground 'the prior preached x' is overtly given in the form of a question to the speaker, who repeats it as part of his answer, in which the only new information and focus is the postposed NP. In (15), the ground 'that gives him/man x' is repeated in each clause, and the only new material is the postposed NP.

The clause in (16) is an example of type II.

(16) *Liebs lieb, ich han kain gelt uff mügen bringen und han all*  
 Dearest dear, I have no money up could bring (raise) and have all (the)  
 'Dearest dear, I couldn't raise any money, and have'

*welt entricht biß an Cobolt, dem bin ich schuldig 11 guldin,*  
 world paid except for Cobolt, whom am I in-debt 11 guilder,  
 'paid all the world except for Cobolt, whom I owe 11 guilder,'

*dem han ich ingeben [F den schuldbrieff umb myn roß].*  
 whom have I given the debt-letter (promissory note) for my horse.  
 'who I gave [F the promissory note for my horse].'

In this example, the ground shifts from 'paid everyone x' to 'give Cobolt x', which is to say, from a general proposition to a narrowing of that generality, but the focus is still on the NP substituted for x, which is postposed.

The sentence in (17) is an example of type III.

(17) {A snobby monk goes to work as a printer's apprentice to learn about 'letters,' and annoys all of the printers.}

*Also waß auch ein setzer der ein grosser vexator ...*  
Thus was also one printer of-them a great jokester...  
'So one of the printers was a great jokester'

*Alß nun der Sontag kame und sie zu<sup>o</sup> samem sassen/*  
As now the Sunday came and they together sat  
'When Sunday came and they sat together'

*hette sich der Münch mit seiner Bibel/ Testament*  
had self the monk with his Bible, Testament  
'the monk, with his Bible, testament'

*unnd waß er denn vermeint für bu<sup>e</sup>cher im darzu<sup>o</sup>*  
and what he so mistook for books to-him there-to  
'and what he mistook for books that would be'

*dienstlich sein/ versehen/ der setzer alß ein groser*  
useful to-be, not-seen, the printer as a big  
'useful to him, had not noticed that the printer, as a big'

*speyvogel/ hatt im in ein sack gethon*  
joke, had to-him in a sack done/put  
'joke, had put for him in a sack'

[**F** *ettwan auff fünff oder sechs pfundt bu<sup>o</sup>chstaben*]  
something like five or six pounds letters  
'[**F** something like five or six pounds of letters(print)]'

Example (17) is more problematic. Here, the ground is that the printer will do something obnoxious to the monk, and the only obnoxious thing in the clause is the five-or-six-pounds-of-letters. I would argue that in this clause the focus is narrow — on the postposed NP — and not on the VP, even though it might appear to be VP focus, because the rest of the VP is essentially setting the background for the postposed NP, the point of

the joke. If this is indeed an extension of the open proposition structure, it is an instance of the ground being drawn from a higher, meta-level that is much less concretely rooted in the prior discourse.

Finally, (18) and (19) are examples of type IV.

(18) *frag dein mynnend hercz, waz der minne recht sey.*  
ask you dear heart, what the dear right is.  
'Ask your heart, what the right thing is.'

*gedenck, waz davon kumet, der seinen guten freund*  
think, what there-from comes, who his good friend  
'Think what becomes of those who too long'

*ze lang reiczet. tu<sup>o</sup> uff [F die tür, ]*  
too long upsets. open the door,  
'upset their good friends. Open [F the door],'

*schlauß uff [F dein hercz], laß ein [F den gemynten ],*  
unlock your heart, let in the loved-one  
'Unlock [F your heart], let in [F the loved-one],'

*ergecz dich mit im in ewiclicher, herczlicher mynn*  
fill yourself with him in eternal, hearty love  
'Fill yourself with him in eternal love'

*dez langen zeit, dez du verseumet hast!*  
of the long time, that you missed have!  
'for the long time that you have missed!'

In this example, in all three pairs, both the verb and the postposed object are focused, in a kind of parallel focus of V and NP, rather than VP focus. This could be analogous to sentences like (15), or it might simply be that lists in parallel like both (15) and (18) can indicate that special treatment is in order.

Example (19) is discussed above in section 1.1 as example (6). While it is possible to construct a plausible open proposition from the discourse, the narrow focus of this example is indicated most clearly by the focus particle *auch* and the contrast between *Ihesus* and *Lazarum*.

(19) *Vnd do sie horten zu Ierusalem, daz Ihesuß wider waz komen gen Wethania,*  
and since they heard in Jerusalem, that Jesus again was come to Wethania,  
'And since they heard in Jerusalem that Jesus had come again to Wethania,'

*do gieng ein grosse menig des volcks hin auß nit allein von Ihesus wegen,*  
there went a big many of-the folk there out not alone for Jesus's sake,  
'a crowd of people went there not only for Jesus's sake,'

*sunder daz sie auch sehen [F Lazarum ]...*  
but that they also see Lazarus...  
'but that they see [F Lazarus ] also...'

In the cases where I could identify the focus structure, the overwhelming majority (46 out of 50) have focus of one of these types associated with the postposed NP. This holds across the discourse status spectrum — given objects can be focused as well as new, which is expected if they are to appear in this kind of construction, although not surprisingly there are only relatively few given NPs postposed. One such can be seen in (20).

(20) **Focused given object:**

'give 125 guilder to x'  
x = son-in-law

*Nun wyst, liebe fraw, als ich euch zw trewer hanndt hab zw pehalltn geben  
an zwen=funffzig gulden...*  
Now know, dear lady, that I you to trusted hand have to hold given  
125? guilder...  
'Now remember, dear lady, that I gave you 125 guilder to keep in trust...'

*Nun pitt Ich euch dy an zwey=funffzig reinisch gulden zw geben  
[F meinem ayden ]*  
Now ask I you the 125{or about 25?} Rhein guilder to give to-my son-in-  
law{nickname}  
'Now I ask that you give the 125 Rhein guilder to [F my son-in-law ]'

In this example it is clear that *meinem ayden* is both informationally given (or else the writer could not have referred to him in such a familiar and unelaborated way) and also the focus in a structure where the entire VP is known — the money and the amount were just mentioned, and the situation is surely well-known to the addressee (who clearly is

familiar with taking in and giving out money). Thus, the only possible “focus of new information” is the postposed *given* NP.

### 2.3.3.2. Non-postposed wide (and narrow) focus

The question then is whether there is a clear difference in focus between the postposed NPs and the preverbal NPs. Out of the 123 clauses with potentially postposable preverbal objects where the focus is unambiguous, 104 are cases of VP focus. An example is given in (21), where the presupposition is that Brother H. does something — and what he does is preach Lenten masses, with wide focus.

(21) **Wide VP focus (surface OV):**

{near the beginning of a letter about Lent, etc., from a monk to friend who is a prioress}

*wissent, das bruder H. wol mag und wol tut*  
 know, that brother H. well wants and well does  
 ‘Know that Brother H. means well and does well’

*und [F fast meße spricht ]*  
 and Lenten masses speaks  
 ‘and [F preaches Lenten masses ]’

However, there are a few examples where the focus is narrow on the non-postposed NP (19 of the potentially postposable preverbal NPs). In addition, quantified NPs can easily have narrow focus. Since they do not postpose as a rule (see section 2.3.2 and Table 5), any quantified NPs with narrow focus will be preverbal, as in (22). This is evidence that there is not a categorical pragmatic distinction — in particular that it is not the case that all surface verb-last clauses have wide focus interpretation, and all surface VO clauses the narrow focus interpretation. This is also evidence against the argument in Burridge (1993) that the postposition of all new and comment information led to the rise of V2.



(22) **Narrow NP focus (surface OV):**

'he punished x'  
 x = no one

6. *Ob er auch die, so wider das wort Gottes handeln,...strafe.*  
 6. Whether he also those, who against the word of-God acted,...punished.  
 'Q: Whether he also punished those who acted against the word of God...'
6. *Hab [F nymant ] gestraft, sy haben deshalb ein gueten vater an ime gehapt.*  
 6. has no one punished, they have therefore a good father in him had.  
 'A: He punished [F no one ]; they therefore had a good father in him.'

**2.3.3.3. A comparison of the focus data**

The difference in focus between postposed and preverbal NPs is striking, particularly in view of the difficult nature of the coding. Table 8 includes only clauses where the information focus can be unambiguously determined. It seems likely that prosodic information could help to disambiguate many of the ambiguous cases, much as it can resolve many ambiguities in spoken vs. written English. However, lacking prosodic information for historical data, we must make do with what we can glean from the text.

Table 8. <b>Narrow vs. wide focus of postposed and potentially postposable preverbal NPs.</b> (Ns for clauses with unambiguous focus)			
NP position	NP focus	VP focus	Percent narrow focus
preverbal	19	123	13.4%
postposed	46	4	92%

It appears that the clearest way to indicate narrow focus in ENHG was to postpone the NP object. That being the case, it is not surprising that there are few tokens with narrow focus on the preverbal object.

#### **2.4. Evidence from Modern Yiddish**

The analysis of object postposition in ENHG as a movement that forces a narrow focus interpretation on the object also fits nicely with an example of object postposition in modern Yiddish (from E. Prince, p.c.).

Modern Yiddish developed from a dialect of ENHG (Santorini 1989), and it presumably had a similar postposition process available originally. Since Yiddish is now structurally verb-medial, NP postposition cannot be seen as movement to a position after the verb. Postposition of the object in (23) is to a position after the postposed subject (an independent process that developed in the course of Yiddish), which marks the clause boundary.

(23) **Object Postposition in modern Yiddish:**

'a quart of booze costs x'  
x = 25 kopeks

*eyner a yid hot amol gefregt zaynem a khaver:*  
one guy once asked a friend of his:

*“her zikh ayn:*  
“listen:

*far vos iz bronfn azoy tayer un zalts azoy volvl?”*  
why is booze so expensive and salt so cheap?”

*makht yener:*  
so the other one goes:

*“frier hot a kvort bronfn gekost zibn kopikes,*  
“earlier a quart of booze cost seven kopeks,  
[nothing postposed]

*dernokh hot men ayngefirt an aktsiz oyf bronfn,*  
afterwards they introduced a tax on booze,

*un es hot ongehoyn kostn a kvort bronfn [F finfuntsvantsik kopikes ].”*  
and a quart of booze began to cost [F 25 kopeks.]”  
[subject AND direct object postposed]

This example parallels the ENHG examples of type I in (14)-(15) quite closely.

Everything in the VP is given in the recent discourse, and that forms an open proposition that the postposed object completes as its focus.

Notably, Yiddish changed from being structurally verb-final to being structurally verb-medial. In spite of this significant syntactic change, it appears that the optional rule of object postposition with the pragmatic consequence of narrow focus interpretation remains intact.

## 2.5. Conclusion

It seems, then, that NP postposition may in fact be independent of the verb-final nature of ENHG. At the very least, a similar process of postposition survived in a language that no longer has structurally verb-final syntax. This suggests that it is the *movement* of the NP for focus, or the movement to beyond the clause boundary, not the actual surface VO word order, that is significant for the interpretation of focus as wide or narrow.

I have argued that if the environment is properly constrained so as not to include either those long NPs that may postpose for other (perhaps processing) reasons or those quantificational NPs that cannot postpose, a reasonably clear pattern of NP postposition in ENHG emerges. Postposition of an object NP forces narrow focus on that NP and precludes wide focus on the VP. Because of the general association of focus with newer information, there is a higher rate of postposition among newer NPs. However, because the association is not absolute, given NPs do postpose under the discourse conditions where they meet the focus requirements — filling the focus variable of an open proposition.

The use of rightward movement as a focus movement demonstrates an interaction between pragmatic and syntactic structure in ENHG. The evidence from Yiddish further suggests that the interaction of pragmatic and syntactic effects may be independent of certain diachronic changes in underlying word order.

### 3. Verb Raising

The preponderance of surface AUX+V word order in the subordinate clauses of ENHG and other historical Germanic languages has led several historical linguists (Ebert 1981, 1992; Burridge 1993; Gerritsen 1980) to analyze these languages as showing verb-medial tendencies which gave way over time to consistent verb-final structure. The construction they describe, however, has received a great deal of attention in the literature on the syntax of modern Germanic languages under the names verb raising (VR) and verb projection raising (VPR) (Evers 1975, den Besten and Edmondson 1983, den Besten and Rutten 1989, Haegeman 1988, Haegeman and van Riemsdijk 1986, Kroch and Santorini 1991, Louden 1990, Zaenen 1979). ENHG V(P)R is much like the verb raising discussed in the literature on Flemish (24) and Swiss German (25),<sup>16</sup> for example.

(24) Belgian Dutch (West-Flemish) a. VR and b. VPR

- a. *da Jan een hus wilt kopen*  
that Jan a house wants buy  
'that Jan wants to buy a house'
- b. *da Jan wilt een hus kopen*  
that Jan wants a house buy  
'that Jan wants to buy a house'

(25) Swiss German (Züritüütsch) a. VR and b. VPR

- a. *das de Hans es huus wil chaufe*  
that the Hans a house wants buy  
'that Hans wants to buy a house'
- b. *das de Hans wil es huus chaufe*  
that the Hans wants a house buy  
'that Hans wants to buy a house'

The various theoretical accounts of modern verb raising all share the analysis of the construction as a syntactic operation on a structurally verb-final and INFL-final clause.

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<sup>16</sup> Example sentences in (24) and (25) taken from Haegeman and van Riemsdijk (1986).

The existence of surface AUX+V word order in ENHG, then, is not in itself evidence for INFL-medial syntax as Ebert (1981, 1992) and Burridge (1993) claim, since it can be accounted for as a construction common to structurally INFL-final languages. We have seen in section 1 that there is good reason to believe that ENHG was underlyingly verb-final throughout this period. Thus, no change over time is necessary to reach verb-finalness, and I will analyze surface variation in the relative order of verb forms as verb raising. In addition, verb raising in ENHG shows social and stylistic variation similar to that found in the history of Dutch by Hoeksema (1992), which is indicative of classic patterns for the imposition of a prescriptive standard.

### **3.1. The syntax of verb raising**

The fact that the surface AUX+V word order of verb raising is standardly analyzed in a way that is consistent with structurally INFL-final syntax is more important for present purposes than the details of any particular theoretical account. I will use the analysis in den Besten and Edmondson (1983) as one of the standard accounts.

In the den Besten and Edmondson (1983) account, verb raising and verb projection raising are variants of the same operation, the extraposition of  $V^n$ . Simplifying somewhat, verb raising is the extraposition of  $V^0$  (only the verb itself), and verb projection raising is the extraposition of  $V'$  (the verb and complement(s)) or VP (adjuncts as well). Thus, verb (projection) raising may be viewed as rightward movement in a structurally verb-final language, moving non-finite verb form(s) to the right of inflected forms and creating the surface AUX+V word order Ebert (1981, 1992) and Burridge (1993) discuss. Neither verb raising nor verb projection raising is grammatical in modern standard German, with a few particular exceptions, but both appear in many

other modern Germanic languages and dialects (as in examples (24) and (25) above).

Examples (26) and (27) demonstrate the difference in surface word order in ENHG between a clause with VR and a clause without VR.

(26) ENHG: Verb raising:

*das ych euer lyebe yn hundert garen nyt t<sub>finf</sub>. hab [VR gesechen ]*  
 that I your dear in hundred years not have seen  
 ‘that I have not seen you in a hundred years’

(27) ENHG: No verb raising, modern standard order:

*daz ich als lang niht von eu gehoret han*  
 that I so long not from you heard have  
 ‘that I have not heard from you in so long’

An ambiguity that arises with V(P)R (i.e., verb raising and/or verb projection raising) is the ambiguity between structurally INFL-final and structurally INFL-medial (or verb-second) word order. Note that all raised orders can put the verb forms in the surface INFL-medial/V2 relative order. This ambiguity takes several forms:

1. Simple verb raising, with no complements or adjuncts. This is

indistinguishable from surface V2 or INFL-medial structure (28a) because additional constituents are necessary to determine whether there is VR or not, as in (28b).

(28) a. *daz ich han [VR gehört ]*  
 that I have heard  
 ‘that I have heard’

b. *das ych euer lyebe yn hundert garen nyt hab [VR gesechen ]*  
 that I your dear in hundred years not have seen  
 ‘that I have not seen you in a hundred years’

2. Verb projection raising. If all VP constituents are included in the projection (i.e., the projection that raises is the highest VP), the surface order is indistinguishable from V2.

- (29) *das ich hab [VPR den manterl gestoll ]*  
 that I have the coat stolen  
 'that I stole the coat'

3. Postposition. This can be ambiguous between VR and VPR. This may also be indistinguishable from INFL-medial/V2 word order with postposition, as in (30b).

- (30) a. *das ir mit mir seyt gangen an den hewmargk...*  
 that you with me are gone to the haymarket  
 'that you went with me to the haymarket'
- b. *daz er mocht gesehen den herren*  
 that he could see the lord  
 'so that he could see the lord'

Of course, these three cases are not always ambiguous. For example, they are unambiguous (as structurally verb-final) when there are additional constituents in the VP, as in (28b). However, the potential for ambiguity leads Burridge (1993) and Ebert (1981, 1992), among others, to argue extensively for the position that surface VR word order in particular (not even considering VPR or postposition, in most cases) either caused or was indicative of a change in the grammar to underlying SVO order or that the grammar was not yet underlyingly SOV. Burridge writes that "nothing can detract from the obvious fact that Dutch, and indeed German ... both seemed to be well on the way to losing the brace during the 14th and 15th centuries"(p.115).

Pintzuk (1991) finds such an ambiguity between verb raising and underlying INFL-medial grammar in Old English. She finds independent structural evidence that INFL-final and INFL-medial grammars were in competition in Old English. In order to calculate the rate of INFL-medial syntax, she corrects the measured frequency of ambiguous (INFL-medial or verb raising) clauses by subtracting the estimated frequency



of V(P)R for each text and each auxiliary.<sup>17</sup> However, since there is no reason to believe that there are competing INFL-final and INFL-medial grammars in ENHG (see section 1), no such adjustment is necessary here, and all clauses that on the surface are ambiguous between verb raising and INFL-medial structure are assumed to be instances of V(P)R.

I will argue that in fact there is no evidence that ENHG was ever anything but structurally INFL-final, based both on my data and on taking a second look at Ebert's data as well. The AUX+V word order that Ebert and Burridge analyze as INFL-medial is easily accounted for as verb (projection) raising in an underlyingly verb-final grammar. In addition, I will show that the social effects both Ebert and Burridge argue for can be accounted for more simply and in a way more in line with current sociolinguistic literature by adopting the position in Hoeksema (1992), namely that the V(P)R construction is always available in the structurally verb-final grammar but is used at socially conditioned varying rates.

## **3.2. Background for social and stylistic variation**

### **3.2.1. Stylistic variation**

Hoeksema (1992) offers an analysis that accounts for variation in the V(P)R data without positing a competing INFL-medial grammar and is also consistent with a lack of uniformity across datasets. He argues that

the underlying grammatical system is quite stable, while the production component which employs this system (and exploits it for stylistic purposes) is subject to more considerable variation. ...a word-order pattern in the verbal cluster which is now considered typical for the Flemish and Swiss-German

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<sup>17</sup> She estimates the frequency of V(P)R using only clauses with two or more heavy constituents before both verb and counts as ambiguous any clause with fewer than two heavy constituents before both verbs.

dialects of continental westgermanic and seems conspicuously absent from the standard Dutch and German dialects never truly disappeared, but was gradually suppressed in the standard dialects, thereby becoming gradually less frequent in polished speech. If this claim is correct, then the variation among the westgermanic dialects regarding the order and makeup of the verb cluster is not due to parametric variation in the grammars of the various dialects, but the result of differential use by speakers of the same general set of options offered by the grammar. (p. 1)

He argues that the VPR orders were options available in Germanic (specifically Dutch) grammar throughout its history, but that stylistic and social factors increasingly reduced the use of VPR in recent centuries in the standard dialects, although it remains in use today in less standard dialects. Using data from Middle through modern Dutch, he shows that the verb raising construction is available and produced at all stages of the language, but is always used much less than the non-raised order. Widely varying rates in different sources, styles, and social groups are accounted for as differing rates of *production* of the V(P)R variant based on stylistic and social factors rather than as *parametric* variation.

The pattern of V(P)R in ENHG resembles this closely. The construction remains possible in modern dialects of German outside of prescriptive Standard German. It occurred at varying rates (although never higher than the unraised variant) across linguistic environments, dialects, styles, social classes and time periods in my ENHG corpus without showing any of the classic patterns of parametric competition. The sociolinguistic variation in the use of V(P)R in ENHG does, however, have the classic patterns of change from above (see section 3.2.2 below). Perhaps the very lack of consistent patterns of variation between my ENHG corpus and Ebert's data (see section 3.3 below) offers support for the analysis of this variation as variation in production rather than grammatical competition. If we accept the view that variation in the production of the V(P)R construction is the cause of the observed variation, then it is clear that the language possessed a quite stable structurally verb-final and INFL-final grammar throughout its history.

### 3.2.2. Change from above

The variation in the use of V(P)R in ENHG and its decrease over time has the sociolinguistic pattern associated with change from above (Labov 1966, 1970, 1972, 1990). Change from above is a change in the linguistic system, generally the introduction or spread of a prestige form, that involves the adoption of a norm that is external to the speech community. The change occurs at the level of social consciousness, and the new prestige form appears at a higher rate in more formal monitored styles. With the spread of the prestige form, stigmatized forms are eliminated “under the vigilant stewardship of the publicly recognized dominant groups” (Labov 1990, p. 213). Sociolinguistic standards and the social attitudes connected with them are acquired by adolescents or adults long after the basic linguistic system has been acquired. As a result, the change is less complete and less stable than a change from below. Labov (1970) writes that “it is an important sociolinguistic principle that the most consistent and regular linguistic system of a speech community is that of the basic vernacular learned before puberty” (p. 35) and that “in general, we find that norms acquired late in life, especially after puberty, never achieve the automatic regularity” (p. 35) of the vernacular system. In addition, women tend to lead in the use of incoming, nonstandard forms in change from below, but not necessarily in change from above.

The decline in V(P)R use in the history of German (and also Dutch) can be analyzed as the result of the imposition of a standard surface template in which the finite verb is string-last in a subordinate clause. All of the classic characteristics of normative change from above are present. The vernacular linguistic system in ENHG (and also modern German) includes the V(P)R operation, and yet it occurs at a much lower rate in formal styles than in unmonitored styles (and not at all in standard modern German). The

complete elimination of the VR variant would be expected if the variation were due the “winner-takes-all” competition of incompatible grammatical options in a change of the underlying grammar from below (Kroch 1994). However, if the variation is due to pressure from above, we would expect the VR variant to remain in nonstandard dialects, which it does.

The sociolinguistic patterns of change from above are also present. Ebert (1981) finds that merchants and chancery administrators, arguably a publicly recognized dominant group, are the least likely to use VR. The fact that the decrease in V(P)R seems to have been led by men relatively high on the social scale rather than women in the middle class is another indication that this is not a typical change from within the system. It is striking that the adolescents studied in Ebert (1992) use VR when they leave home, and so obviously have it as part of their vernacular system, but that their usage rapidly declines as they are exposed to the prestige form in their training as merchants and administrators. The avoidance of VR is predictably inconsistent, since the stigmatization of the construction is learned after the vernacular system is fully developed. The unstable nature of the variation is evident in the inconsistencies across corpora (see section 3.3.2 below).

### **3.3. V(P)R patterns of variation**

Overall rates in the ENHG corpus are in Table 9 for each possible verb-raising variant: simple verb raising ( $V^0$  raised), verb projection raising ( $V'$  or VP raised) and verb-raising with postposition (ambiguous between VR and VPR).

Table 9. Portion of possible V(P)R for VR, VPR, and ambiguous VR or VPR.		
Type of raising	Ns	Portion of total possible V(P)R
VR	174	18.9%
VPR	24	2.6%
ambiguous VR or VPR	53	5.8%
no V(P)R	668	72.7%
total V(P)R	251/919	100%

The ambiguous cases are those with both V(P)R and some form of postposition.

### 3.3.1. The corpus

The roughly 5000 clauses of my corpus fall to a total of 919 clauses when restricted to *possible V(P)R environments*. Being a possible V(P)R environment means that a clause (i) has an auxiliary verb, limited to modals, causative, *haben*, *sein*, and *werden* (i.e., only auxiliaries/inflected verbs that subcategorize for a main verb without an intervening *zu*), and (ii) is either a subordinate clause, and thus has both the main verb and the auxiliary at the end of the VP, or a V2 clause with three or more verbs, and so also has at least two verbs at the end of the VP. Out of this total of 919, 251 clauses (or 27.3%) are cases of verb raising or verb projection raising.

The syntactic factors coded for are a) type of tensed auxiliary (*haben*, *sein*, *werden*, modal) and b) type of main verb (passive or active). Social factors coded for are (i) date (in 50-year periods), (ii) social class (difficult to know accurately, but a nobility

vs. merchant class distinction is possible), (iii) dialect area (also difficult to determine accurately, but in general northern, southern, and central are used), and (iv) formality level (based on the type of text — personal letter, business letter, formal essay, or “spoken” from the court testimony).

Since greater restriction of the data appears to have little effect, only the least restrictive version of my data will be compared to the data available in Ebert (1981) and (1992).<sup>18</sup> Thus, my V(P)R database consists of clauses selected from the entire corpus using the following criteria:

1. Subordinate clauses containing both a finite and at least one non-finite verb form.
2. Clauses with more than one verb at the end of the clause, although other postposed elements could appear after the structurally final verb (i.e., subordinate clauses for the most part; V2 matrix clauses are included only if there are three or more verb forms).
3. No third construction (*zu*-infinitives).

### **3.3.2. The data**

The picture of V(P)R that emerges is of synchronic variation with a strong monitoring effect. Contrary to Ebert’s conclusions, there is no strong linguistic or social stratification evidence found for a competition between INFL-final and INFL-medial grammars. My ENHG data does not suggest that a change in the underlying grammar is

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<sup>18</sup> See Appendix C for a complete comparison of my data with the numbers available in Ebert (1981) and (1992). I use only the least restrictive set here because there is no significant difference between this and the more restrictive versions (or indeed Ebert’s data) until the numbers get to be too small to be worth comparing.

in progress. However, it does suggest that a change from above (Labov 1966) is underway. Some of the effects Ebert (1981, 1992) found in his data are also found in my corpus, but many of them are not. The lack of agreement across corpora is more suggestive of widespread synchronic variation and the normative pressure of a change from above than of consistent grammar competition.

### 3.3.2.1. Time

A breakdown of the V(P)R data by time period in Table 10 shows a decrease over time in the use of V(P)R, which both Hoeksema (1992) and Ebert also found in their data. If the VPR orders indeed remain available at all times, as Hoeksema suggests, subject only to stylistic variation, it should not be surprising to find V(P)R in all periods. The decrease from 1335-1560 is significant ( $p < .01$ ). It is also approximately the same kind of decrease in AUX+V order that Ebert (1981) found (33.4% down to 22.5%).<sup>19</sup>

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<sup>19</sup> Converted from ratios in Ebert (1981), into percentages, so that they can be easily compared to my data and also be easily read by a linguistic audience.

Table 10.			
<b>Rate of VPR or VR across time periods.</b>			
Time period	Clauses with V(P)R	Clauses with no V(P)R	Rate of V(P)R
1300-1350	52	92	36.1%
1351-1400	20	77	20.6%
1401-1450	33	139	19.2%
1451-1500	77	144	34.8%
1501-1560	69	216	24.2%
totals	251	668	27.3%

The rate of V(P)R falls and rises, falls and rises, but overall there is only a small (though significant) change from 1300 to 1560. The lowest rate is 19.2% in 1401-1450. This differs from the rate in 1300-1350 significantly at  $p < .001$ . Notably, this does not fit well with Ebert's report of a decline of V+AUX in 15th century (which would mean a high V(P)R rate, but the lowest rate in Table 10 is in this period). There is not a steady decline in V(P)R here, nor is there in Ebert's (1981) data, as seen in Table 11.



Table 11. <b>Rate of verb raising in Ebert (1981) by time.<sup>20</sup></b>		
Time period	S-internal	S-final
1300-1400	33.4%	27.9%
1400-1500	27.1%	23.2%
1500-1550	31.2%	33.4%
1551-1600	22.5%	24.6%

Note that in neither my ENHG corpus nor Ebert's (1981) data is there a steady trend in the rate of verb raising in either direction. In both sets of data, the overall rate of verb raising is lower in the last period than in the first,<sup>21</sup> but there is so much reversing in the rates across time that they could be higher again in the post-1600 period.

This lack of a steady trend could possibly be due to the mixture of styles of the sources, so Table 12 shows data from my ENHG corpus for a single style only, personal letters, in which we might expect the most unguarded language and thus the most natural linguistic trends.

<sup>20</sup> Converted from ratios in Ebert (1981), into percentages, so that they can be easily compared to my data and also easily be read by a linguistic audience. Formula:  $VR\% = 1/(\text{Ebert's ratio} + 1)$ . No Ns are available here, so only percentages are given and significance cannot be checked.

<sup>21</sup> Significantly so in the ENHG corpus. Ebert (1981) provides only probabilities here without Ns, so the significance of the rates cannot be checked.

Table 12. Rate of VPR or VR across time periods in personal letters only.			
Time period	Clauses with V(P)R	Clauses with no V(P)R	Rate of V(P)R
1300-1350	45	84	34.9%
1351-1400	17	73	18.9%
1401-1450	25	103	19.5%
1451-1500	56	119	32%
1501-1560	25	106	18.9%
totals	168	485	25.7%

Although the rates change somewhat, there is still a rise to 32% in the second half of the fifteenth century (a level which is insignificantly different from that in the first time period, at  $p < .98$ ). There is not any clearer indication of a steady trend in this data than when a variety of styles are included in the database.

This sort of fluctuating decrease of a variant over time is not an unexpected pattern if the language change is the imposition of a surface standard from above. Over time, use of the non-standard variants will decrease overall, but they will continue to be used in each period and the decrease will not be constant.

### 3.3.2.2. Style

Style is a factor that both Ebert and Hoeksema find has an effect on the rate of verb raising. Ebert finds that formal styles favor V+AUX surface word order, with the

hierarchy formal > informal > literary (which would have the reverse order for greater V(P)R). Table 13 shows the effect of style in my corpus.

Table 13. Effect of style on the rate of verb raising.			
Style	Clauses with V(P)R	Clauses with no V(P)R	Rate of V(P)R
personal letter	169	484	25.9%
business letter	7	17	29.2%
expository essay	11	54	16.9%
story, other literature	37	48	43.5%
trial testimony	19	35	35.2%
government writings	8	30	21.1%
<b>totals</b>	<b>251</b>	<b>668</b>	<b>27.3%</b>

The hierarchy in order of rate of V(P)R is story > trial > business letter > personal letter > government literature > essay. However, since there is no significant difference between the rates of V(P)R for personal and business letters ( $p < .8$ ), or for story and trial ( $p < .5$ ), or for essay and government ( $p < .7$ ), we can collapse the hierarchy. These are sensible groupings of the sources, and the pattern looks much like Ebert's:

- fictional writing and speech (40.3%)  $\approx$  literary
- personal and business letters (26%)  $\approx$  informal
- essays and government writings (18.4%)  $\approx$  formal.

Thus it would seem that more formal styles have a lower rate of V(P)R and less monitored styles have a higher rate. However, it turns out that there is no significant difference between letters and essays/government ( $p < .1$ ), although there is a significant

difference between literature/speech and both other styles ( $p < .001$ ). In fact, speech differs significantly only from essays and government writings (i.e., also not from letters), and literature differs significantly from personal letters, essays and government writings (i.e., not from business letters). However, if we allow sensible groupings, we do find a monitoring effect. If V(P)R is a stigmatized form, we would expect to find less of it in monitored language. Certainly expository essays and government writings are heavily monitored language (note, however, that there is still verb raising at a rate of roughly 20%). Letters may well count as monitored language, being written language. That the highest rate of V(P)R appears in fictional writings may be the result of some sort of reverse monitoring, in which fiction writers attempting to imitate non-standard language might have used an unusually high rate of the non-standard V(P)R. The trial testimony, the source closest to speech, is certainly the best candidate for unmonitored or less monitored language in this corpus, and it shows a high rate of V(P)R, as expected both in a change from above and under Hoeksema's monitoring account.

### **3.3.2.3. Social class**

Ebert finds a social class effect of lower VR word order with modals (and *werden* + infinitive) only and for nobles only. The ENHG corpus shows the same basic rates and significance comparisons for modals/*werden* and all syntagms (Table 14 therefore includes all tokens).

Table 14. Effect of class on the rate of verb raising.			
Class	Clauses with V(P)R	Clauses with no V(P)R	Rate of V(P)R
cleric	138	240	36.5%
merchant	61	209	22.6%
noble	52	219	19.2%
totals	251	668	27.3%

Merchants and nobles are insignificantly different with respect to rates of V(P)R usage. Clerics are significantly different from both merchants and nobles. Oddly enough, though, the clerics have a significantly higher rate of V(P)R. Since both Ebert and Burridge come out more or less in favor of the view that the influence of structurally verb-final Latin was important in keeping ENHG from moving to an structurally INFL-medial system, it is perhaps surprising that clerics, who, one might suppose, would have more daily contact with Latin at this time than the average person, use significantly more V(P)R. In addition, this is not an anomaly due to heavy weighting of the trial testimony speech data overpowering letters written by archbishops: cleric use of V(P)R in non-trial sources is even higher than that in the trial source (significantly so: 53% V(P)R, 42/79,  $p < .05$ ).

The fact that merchants and nobles use insignificantly different rates of V(P)R suggests that there is not a strong class effect on the rate of V(P)R use. However, the lower and lower middle classes which are usually found to show the greatest class effect (Labov 1966, 1972) are not represented here due to the difficulty of collecting data from

those groups. Nonetheless, the strong monitoring effect provides support for the analysis of the variation in V(P)R use as a change from above.

#### **3.3.2.4. Inconclusive linguistic factors**

Linguistic factors aside from auxiliary type are not found to have a significant effect on the rate of V(P)R in my corpus. However, Ebert (1981, 1992) finds the following linguistic factors to affect the rate of V+AUX (modern standard, not verb raising) surface word order: (i) type of syntagm, (ii) stress, and (iii) the position of the verbal complex within the clause.

First, we turn in Table 15 to the effect of the type of syntagm and the ordering that Ebert found to be influential for the rate of verb raising.

Table 15. Effect of type of syntagm on rate of verb raising for my V(P)R database and Ebert's (1992) data. <sup>22</sup>			
Type of syntagm	My V(P)R database	Ebert's (1992) data	Significance of difference
<i>haben</i>	23.5% 82/349	23.2% 305/1313	p < .95
<i>sein</i> (overall)	21.2% 29/137	55.2% 405/734	p < .001
1. <i>sein</i> (passive)	9.4% 3/32	13% 10/76	p < .7
2. <i>sein</i> (active)	24.8% 26/105	60% 395/658	p < .001
modals	34.6% 117/338	57.8% 670/1160	p < .001
<i>werden</i> (overall)	19.7% 14/71	41.4% 179/432	p < .001
1. <i>werden</i> +Past Ptc.	17.3% 9/52	5.2% 6/117	p < .02
2. <i>werden</i> + infinitive	26.3% 5/19	54.9% 173/315	p < .02

The order in my database from the highest to the lowest rate of V(P)R is *werden* + past participle > *haben* > *sein*(active) > *werden* +infinitive > modals. This differs from Ebert's order (*werden* + past participle > *sein* (passive) > *haben* > *werden* + infinitive > modals > *sein* (active)) only in the order of the last three syntagms, whose rates of V(P)R and relative ordering are not significantly different from each other in either the ENHG corpus or Ebert's data. However, several of the syntagms have rates of verb raising that are significantly different between the ENHG corpus and Ebert's data. It is puzzling that there should be such a large and also significant difference in rates of verb raising between the ENHG corpus and Ebert's data for only some of the syntagms. However, it is frequently noted in the literature (Pintzuk 1991 and den Besten and Edmondson 1983,

<sup>22</sup> Data taken from Ebert (1992), p.5. These Ns are not available in Ebert (1981).

among others) that verb raising is lexically governed by auxiliary type in those languages that exhibit the phenomenon.

Second, we turn in Table 16 to the effect of the stress of the preceding word (since this is the effect that Ebert claims in the end to be operating with both his grammatical category of preceding word and rhythmical pattern). He finds a higher rate of VR when the verb cluster occurs after nouns than after pronouns.

Table 16. The effect of stress on the rate of verb raising for my V(P)R database and Ebert's (1992) data. <sup>23</sup>				
Preceding word stress	My V(P)R database	Ebert's (1992) data	Significance of Ebert vs. my corpus difference	Significance of stressed vs. clitic difference
Stressed word	28.4% 161/566	45.6% 892/1956	p < .001	database p < .3
Clitic	24.8% 81/327	24.9% 169/678	p < .98	Ebert '92 p < .001

I counted as stressed words noun phrases (including subject NPs), subject pronouns, PP + NP, heavy adverbs and adjectives. I counted as clitics non-subject pronouns, PP + pronoun, light adverbs, particles, *dar*-PPs, *nicht* and variants.<sup>24</sup> There is a significant difference between the ENHG corpus and Ebert's data for stressed words preceding but not for clitics preceding. In addition, there is a significant difference between stressed words and clitics in Ebert's data but not in the ENHG corpus. However, the fact that clauses with preceding stressed words in Ebert's (1992) have a VR rate so much higher

<sup>23</sup> Calculated by adding the numbers in Ebert (1992) Table 3 for all syntagms, but only for the categories of stressed/unstressed words I counted.

<sup>24</sup> Not counted in these numbers were infinitives and other clauses.



than any other cell while the VR rates for preceding clitics are so similar suggests that the difference may be due to a comparison of unlike objects across corpora in this case.

Third, Ebert found a lower rate of verb raising when the verb cluster is in the surface clause-final position (i.e., nothing is postposed) than when elements are postposed. Table 17 shows the numbers for this effect in my corpus. There is no significant difference here between the V(P)R rates for the total surface clause-final and surface non-clause-final verb clusters ( $p < .5$ ). Ebert's claim does not hold for this data, which shows no effect of postposition on the rate of V(P)R. The only individual rates in Table 17 that are strikingly different from the rates for the overall totals are those for which the Ns are too small to be seriously considered.

Table 17. Effect of the position of the verb cluster in the clause on the rate of verb raising.			
Position	Clauses with V(P)R	Clauses with no V(P)R	Rate of V(P)R
clause-final	195	535	26.7%
postposed clause	2	5	28.6%
postposed NP	13	22	37.1%
postposed PP	35	85	29.2%
postposed adverb	2	6	25%
postposed adjective	0	1	0%
postposed <i>dar</i> - PP	1	0	100%
multiple postposings	2	0	100%
non-constituent postposed	1	14	6.7%
total not clause- final	56	133	29.6%
totals	251	668	27.3%

In summary, the ENHG corpus shows an overall lower rate of V(P)R than Ebert's data (27.3% vs. 36% and 42.9%). Both the ENHG corpus and Ebert's data show the same basic hierarchy of syntagms, although at different rates. There is no common trend shown for the effect of the stress of the preceding word on the rate of VR. The ENHG corpus shows no effect on the rate of V(P)R for the position of the verbal cluster in the clause, although Ebert's data shows a lower rate of VR when the cluster is clause-final. The inconclusive effects of linguistic factors and the differences between the corpora on these points are indicative of the unstable nature of the variation that results from the normative pressure of a change from above.

### **3.4. Conclusion**

We have seen that the surface AUX+V word order found in ENHG by Ebert and Burridge can be accounted for structurally as verb raising, the extraposition of verbal projections in verb-final and INFL-final clauses. Furthermore, the sociolinguistic and stylistic patterns of variation with V(P)R can be accounted for as the result of a change from above with the imposition of a standard surface word order template — verb last.

#### 4. PP Postposition

The postposition of prepositional phrases is a major source of the impression that the verb does not tend to come string-last in ENHG clauses. Roughly 30% of clauses with PPs have PP postposition, and it does not seem to matter if the PP is an argument or an adjunct of the verb, as seen in Table 18.

Table 18.			
<b>Effect of adverbial function on the postposition of PPs.</b>			
Function	Postverbal	Preverbal	Rate of Postposition
locative	14	35	28.6%
directional	13	45	22.4%
temporal	6	21	22.2%
reason	7	16	30.4%
benefactive	3	1	75%
manner	19	53	26.4%
instrumental	2	8	20%
complement of verb	21	31	40.4%
totals	85	210	28.8%

The numbers are so small for benefactive PPs, which have by far the highest rate of postposition in the above table, that they likely are not reliable. The next highest rate of postposition is for PP arguments of the verb. However, this rate differs significantly only from the directional PPs ( $p < .05$ ). There seems to be a fairly constant rate of postposition of PPs of all types, and it is not clear what if any motivation underlies the postposition of PPs.

PP postposition still exists today in many varieties of German, although not prescriptively in Standard High German, as in (31):

- (31) *(dass) Hans sorgfältig schreibt wegen des Tadels*<sup>25</sup>  
 (that) John carefully writes because of the reprimand  
 ‘that John writes carefully because of the reprimand’

It shows up occasionally in email messages, for example, as in (32):

- (32) *Beitraege sollen 10 Seiten nicht ueberschreiten und muessen in fuenf Exemplaren eingereicht werden beim Tagungsleiter*<sup>26</sup>  
 entries should 10 pages not exceed and must in five copies submitted be to-  
 the moderator  
 ‘Entries should not exceed 10 pages and five copies must be submitted to  
 the moderator’

Lambert (1976) also reports on PP postposition in her study of postposition (“unbracketing”) in modern Standard German. She investigates a large corpus (29,941 sentences with 17,958 verb-final clauses) and finds an overall postposition rate of 26.5% of possible cases.<sup>27</sup> She includes the postposition of clauses in this calculation, and the rate of non-clausal postposition is lower at 12.5%. Most of the non-clausal postposition is PP and adverb postposition.<sup>28</sup> As she points out, this is a quite noticeable rate of occurrence for a construction that is prescriptively incorrect. She concludes that “unbracketing occurs with both dependent and independent clauses and after all types of verbal frame” (p.193). She also notes that “the practice is so widespread that it does not seem to have the effect of emphasizing the unbracketed construction merely by virtue of its being different from the norm” (p.195).

If Lambert is correct that there is no focus effect with postposition in modern German, it suggests a possible explanation for the difference in PP postposition rates

<sup>25</sup> From Koster (1975), who notes that “the following sentence is quite acceptable” (p.135).

<sup>26</sup> From an email announcement for KOVENS 94 (thanks to Owen Rambow for providing this example).

<sup>27</sup> Interestingly enough, this overall rate does not disguise a sharp difference between written and spoken language. Her overall rate of postposition for written language is 24.1%; for spoken language 29.8%.

<sup>28</sup> Lambert finds very small numbers of NPs postposed, and almost all of them are heavy (i.e., modified by PPs or relative clauses).

between ENHG and modern German (28.8% vs. 12.5%, if we assume that this can be taken as approximating her rate of PP postposition). It is possible that some PPs in ENHG postposed under the same focus proposition structure as postposed NPs. If so, the postposition of PPs for information focus would be expected to decline or disappear when it ceases to be an option for plain NPs. However, the simple production variation (following Hoeksema's (1992) model for V(P)R) would be expected to continue. Thus we would expect an overall lower rate of PP postposition in modern German with one fewer postposition process available, and possibly a higher rate for argument PPs in ENHG (perhaps explaining the high rate of postposition of argument PPs in Table 16).

At any rate, the fact that PP postposition is alive and well in modern German means that it cannot count as evidence for ENHG being structurally verb-medial if we accept modern German as unequivocally structurally verb/INFL-final. The simplest hypothesis is that some process allowing PP postposition to occur in ENHG survives more or less unchanged in modern German (along with clausal postposition), while whatever process allowed NP (focus) postposition in ENHG has been lost by modern German, probably sometime in the 17th century. It seems not unreasonable to hypothesize multiple postposition processes; at the very least, there must be some difference between the obligatory postposition of certain clausal complements (Koster 1975) and the optional postposition of NPs and PPs.

## 5. Conclusion

I conclude that there is no strong evidence for grammatical competition in ENHG between INFL-final and INFL-medial phrase structure. Data on the V(P)R construction and variation in its usage address this issue. NP postposition and PP postposition bring into question the relative order of the matrix verb and its complements and modifiers, i.e., the question of whether or not the language is structurally verb-final. Since PP postposition continues in German today, it cannot be taken as a serious indication of underlying verb-medial word order in ENHG. NP postposition is shown to have a particular discourse function: forcing the postposed NP to be interpreted with narrow focus.

Four optional postposition rules were discussed:

1. Heavy constituents (clauses, NPs modified by PPs or clauses) can be postposed, perhaps for processing reasons, in ENHG. In modern German, PPs and clauses can be postposed, but NPs cannot. Interestingly enough, though, the postmodifying PPs and clauses of syntactically long NPs can be postposed in modern German. Thus, the syntactic length of NPs may still have an effect on postposition in German, even if the NP itself can no longer postpose.

2. Full NPs can be postposed to indicate information focus (possibly available for PPs as well), in ENHG only, not in modern German.

3. Clauses and PPs can be postposed, simply taking advantage of a variant existing in the grammar, in ENHG and in modern German.

4. Some clausal complements are obligatorily postposed; therefore postposition has a syntactic realization independent of pragmatic function in both ENHG and modern German.

Three syntactic constructions were discussed:

1. NP postposition for narrow information focus, which has disappeared by the time of modern German.

2. V(P)R, which declined over time for societal prescriptive reasons, although it remains underlyingly a part of the grammar and is an active variant in nonstandard modern varieties of German.

3. PP postposition, which remains in modern German, although at a lower rate than in ENHG.

In the absence of evidence for competing grammars, the observed variation in string verb-last word order in ENHG should be understood as syntactic variation in an underlyingly structurally verb-final language. The decline of these three unrelated syntactic constructions between ENHG and modern German may be due to the imposition of a standard surface verb-last template from above. Such a change from above forces unrelated structures, such as NP focus postposition, V(P)R and PP postposition, to change in the same direction, in this case toward surface verb-last word order.



## Appendix A: Bibliography of Early New High German data sources

Excerpts from the following published works were used as data for this project. Letters were used in their entirety. Data collection took place as part of NSF Grant BNS 89-19701 (Anthony Kroch, Principal Investigator).

Eis, Gerhard, ed. (1944). *Gotfrieds Pelzbuch (die aelteste handschrift — Admont, 1350-1375)*. München: Georg D.W. Callwey (1350).

Hilg, Hardo, ed. (1981). *Das >Marienleben< des Heinrich von St. Gallen: Text und Untersuchung*. München: Artemis Verlag (1469).

Koller, Heinrich, ed. (1964). *Reformation Kaiser Siegmunds* (N — Weimar, Landesbib MsFol73, 15Jh). Stuttgart: Anton Hiersemann (1439).

Pfeiffer, G., ed. (1968). “Verhör der Kartäuser [1525 nach Januar 27, vor Februar 7].” In *Quellen zur Nürnberger Reformationsgeschichte*, pages 329-340 (1525).

von Soden, F. and J.K.F. Knaake, eds. (1867, 1872). *Christoph Scheurl's Briefbuch, ein Beitrag zur Geschichte der Reformation und ihrer Zeit*, vols 1 and 2, Potsdam (letters 237, 239, 280, 282, early 16th century).

Steinhausen, Georg, ed. (1894). “Sechzehn deutsche Frauenbriefe aus dem endenden Mittelalter.” In *Zeitschrift fuer Kulturgeschichte*, Vierte Folge 1: 93-111.

1. Birgitta Holzsucherin (in Pilmreut) an Michel Peham. vor 1496.
2. Prigitta Holzschucherin an Lienhart Pehamin. vor oder um 1496.
3. Swester Dorothea Holzsucherin an Michel Peham. 1496.
4. S. Birgitta Holzschucherin (in Pilmreut) an Michel Peham. nach 1496.
5. S. Caritas an Michel Beham. ohne datum.
6. Anna Sluschelfelderin (in Pilmreut) an Michel Peham. 1504.
7. S. Barbra Holzschucherin (in Pilmreut) an Michel Beheim. 1505.
8. S. Birgitta Holzschucherin (in Pilmreut) an Michel Beham. 1509.
9. Angneß Jorg Schurschabin an Lienhart Peheim. 1461.
10. Margret Pehaimyn an Lienhart Pehaim. 1466.
11. Katherina Hyrschin (zw Wienn) an Linhartt Pehamin. 1488.
12. Margreta Semanin an Leinhart Pechham. ohne datum.
13. Angnes Jorg Schurschabin (zu Oberndorf) an Lienhart Peheim. ohne datum.
14. Sus. M. W. an Michel Bemin. ohne datum.
15. Susanna Marttin Winterin an Michelbemin. no date.
16. Eonümia Mielich (Eusemia Müllich) an Michl Beihms. ohne datum.

Steinhausen, Georg, ed. (1896). "Vier Frauenbriefe aus dem endenden Mittelalter." In *Zeitschrift fuer Kulturgeschichte*, Vierte Folge 3: 213-216.

17. Priorin zu S. Kathr. an Linhart Peheym. ohne datum.
18. Angneß Jorg Schurschabin an Lienhart Peheim. ohne datum.
19. Katerina Hirßin an Linhartt Peheimin. 1488.
20. "Von mir An Pröllin" an Micheln Peham. ohne datum.

Steinhausen, Georg, ed. (1899). *Deutsche Privatbriefe des Mittelalters*. Berlin: R. Gaertners Verlagsbuchhandlung, Herman Heyfelder.

- vol. 2, letter 1. 1335. Heinrich Seuse, Dominikaner an Elisabeth Stigel, Klosterfrau.
- vol. 2, letter 2. 1335?8. Heinrich Seuse, Dominikaner an eine geistliche Tochter.
- vol. 2, letter 3. 1335?8. Heinrich Seuse, Dominikaner an eine geistliche Tochter.
- vol. 2, letter 8. 1346. Margaretha Ebner, Klosterfrau in Medingen an Meister Heinrich von Nördingen.
- vol. 2, letter 9. 1346. Joh. Tauler, Dominikaner an Elisabeth Schepach, Priorin, und Margaretha Ebner, Klosterfrau.
- vol. 2, letter 10. 1347-49. Margaretha zum goldenen Ring an Margaretha Ebner, Klosterfrau.
- vol. 1, letter 12. post-1372. Jan Walmaer an Mechthild von Geldern, Gräfin von Blois.
- vol. 1, letter 17. 1375. Kaplan Rommond an Mechthild von Geldern, Gräfin von Blois.
- vol. 3, letter 1. 1380-1404. Stephan Unger, Bortenmacher in Paris, an Wilhelm von Bumbel, Köln.
- vol. 1, letter 515. 1396. Georg der Nerrenbeck an seinen Vetter Ekkehard von Liebenberg.
- vol. 3, letter 6. 1405. Matthias, Kgl. Protonotar an Heinrich von Gelnhausen.
- vol. 1, letter 517. 1407. Lienhard Specht an Ekkehard von Liebenberg.
- vol. 1, letter 511. 1410. Grete Melius an Grafen Anna von Katzenellenbogen.
- vol. 3, letter 9. 1420. Hans Girdan an seinen Schwager Balthasar Ungerathen.
- vol. 3, letter 10. 1430. Hans Pellifez und Bernhard Berwolf an Nikolaus und Margaretha Henlein.

- vol. 3, letter 11. 1431. Hans Klunder an Johann Brakel.
- vol. 3, letter 12. 1433. Gerlach Witte an Johann.
- vol. 3, letter 19. 1440. Hermann Hilge an Gerlach Witte und Albert Rumor.
- vol. 3, letter 20. 1440. Peter Grundherr an Weigend Vogt.
- vol. 3, letter 21. 1441. Gerd Anebat an seine Tochter Grete Vische.
- vol. 3, letter 26. 1450. Michael Crüger an Heinrich Kerchow und Matthäus Gerdemann.
- vol. 3, letter 29. 1452. Albrecht Scheurl's Ehefrau an Albrecht Scheurl.
- vol. 1, letter 543. 1455. Der Jude Leo an Bilgrin von Reischach.
- vol. 3, letter 33. 1457. Andreas Benzstorp an seinen Schwager Gebhard Clot.
- vol. 1, letter 547. 1460. Ulrich Bredel an Melchior Ungerathen.
- vol. 3, letter 41. 1461. Agnes Schürstab an ihren Bruder Liebhart Behaim in Nürnberg.
- vol. 1, letter 105. 1467. Michael Danbach, Golschmidt, and Gräfin Margarete von Württemberg.
- vol. 3, letter 44. 1468. Henning Vogelsack und Peter Halewech an Hans Loburg, Stadtknecht.
- vol. 3, letter 50. 1470. Agnes Gelber an Nikolaus Titze in Breslau.
- vol. 3, letter 56. 1472. Hans Wirtenberg an Ulrich Sydenneer in Augsburg.
- vol. 3, letter 59. 1474. Paul Gercke an Hans Pape in Brandenburg.
- vol. 1, letter 304. 1479. Meister Thomas Rüz an Gräfin Margarete von Württemberg.
- vol. 2, letter 68. 1482. Jodocus Wind, Guardian, an die Klosterschwester von Alhart in Söflingen.
- vol. 2, letter 100. 1477-92. Elisabeth Blomendal, dienerin der Klosterschwester in Schüttorf, an Maria Huchtebrock, Äbtissin zu Langenhorst.
- vol. 1, letter 396. 1485. Hans Langenmantel an Markgraf Friedrich von Brandenburg.
- vol. 1, letter 583. 1490. Christoph Schoff an die Ratmänner von Breslau.
- vol. 2, letter 111. 1492. Apotheker Konrad an den Amtmann von Langenhorst.

- vol. 2, letter 97. 1492. Dirk Staël zu Sutthausen an Maria Huchtebrock, Äbtissin zu Langenhorst.
- vol. 2, letter 120. 1495. Georg Werbick, Domherr in Magdeburg, and Benedikt Jungermann in Zerbst.
- vol. 1, letter 513. 1305. Elisabeth von Baierbrunn an die Kastnerin Diemut, Klosterfrau in Munich.
- vol. 2, letter 4. 1332-8. Meister Heinrich von Nördlingen, Weltpriester, an Margarete Ebner, Klosterfrau in Medlingen.
- vol. 2, letter 5. 1335. Meister Heinrich von Nördlingen, Weltpriester, an Margarete Ebner, Klosterfrau in Medlingen.
- vol. 2, letter 6. 1339. Meister Heinrich von Nördlingen, Weltpriester, an Margarete Ebner, Klosterfrau in Medlingen.
- vol. 2, letter 7. 1345. Meister Heinrich von Nördlingen an Elsbeth Schepach, Priorin zu Medingen.
- vol. 2, letter 11. 1349-50. Ulrich III, Abt zu Kaisheim, an Margarete Ebner, Klosterfrau in Medingen.
- vol. 1, letter 2. 1367. Gräfin Margarete von Nassau an ihre Tante Mechthild von Geldern, Gräfin von Cleve.
- vol. 1, letter 3. 1367?8. Gräfin Margarete von Nassau an ihre Tante Mechthild von Geldern, Gräfin von Cleve.
- vol. 1, letter 4. 1368. Gräfin Margarete von Nassau an ihre Tante Mechthild von Geldern, Gräfin von Cleve.
- vol. 1, letter 7. 1371. Herzogin Johanna von Luxemburg an ihre Nichte Mechthild von Geldern, Gräfin von Cleve.
- vol. 1, letter 13. 1372. Elisabeth von Langherer an Mechthild von Geldern, Gräfin von Blois.
- vol. 1, letter 16. 1373. Johann von der Lecke an Mechthild von Geldern, Gräfin von Blois.
- vol. 1, letter 514. 1380. Giselbrecht von Stralen an Wilhelm von Stralen.
- vol. 3, letter 2. 1389. Johann und Else von Treisbach an ihren Schwager Konrad von Lynne.
- vol. 1, letter 19. 1391. Erzherzogin Beatrix von Österreich an Landgraf Balthasar von Thüringen.
- vol. 1, letter 516. 1396. Hermann von Liebenberg an seinen Vetter Ekkehard von Liebenberg.

- vol. 1, letter 20. 1400. Herzogin Margarete von Braunschweig an ihren Vater,  
Herzog Wilhelm von Berg.
- vol. 3, letter 5. 1400?5. Else von der Heyde an Meister Dietrich in Köln.
- vol. 1, letter 26. 1405. Graf Adolf von Waldeck an Graf Gerhard von  
Blankenheim.
- vol. 1, letter 23. pre-1408. Herzog Wilhelm von Berg an seinen Sohn Gerhard,  
Domprobst zu Köln.
- vol. 1, letter 510. 1410. Gräfin Anna von Katzenellenbogen an Grete Melius in  
Frankfurt.
- vol. 1, letter 520. 1413-14. Michael vom Schmollen, Hauptmann, an Opitz...
- vol. 1, letter 28. post-1417. Herzogin Maria von Cleve an Herzog Adolf von  
Berg.
- vol. 1, letter 29. 1423. Pfalzgraf Ruprecht an Herzog Adolf von Berg.
- vol. 1, letter 32. 1427. Graf Hermann von Cilli an Herzog Ernst von Bayern.
- vol. 1, letter 34. 1428. Markgraf Johann von Brandenburg an seine  
Schwiegermutter, Kurfürstin Barbara von Sachsen.
- vol. 1, letter 35. 1430. Herzogin Margarete von Braunschweig an ihren Bruder,  
Herzog Adolf von Jülich und Berg.
- vol. 1, letter 40. 1432. Herzog Ernst von Bayern an seinen Schwiegersohn,  
Herzog Adolf von Jülich und Berg.
- vol. 1, letter 47. 1435. Herzog Ernst von Bayern an seinen Sohn Herzog  
Albrecht.
- vol. 3, letter 18. 1437. Hermann von Hagen (Protonotar in Lübeck) an Magister  
Johann Hersse (z.Z. in London).
- vol. 1, letter 52. 1440. Graf Johann von Schaunberg an den Burggrafen Mathes  
Wischny.
- vol. 1, letter 55. 1442. Herzog Albrecht von Bayern an Herzog Ludwig den  
Höckrigen.
- vol. 1, letter 531. 1444. Arnold von Niederthor an seinen Schwager Oswald den  
älteren von Wolkenstein.
- vol. 1, letter 532. 1445. Margarete von Wolkenstein an ihren Gemahel Oswald  
den älteren von W.
- vol. 1, letter 62. 1447. Herzog Ludwig von Bayern an Markgraf Albrecht von  
Brandenburg.

- vol. 1, letter 537. 1450. Bertha von Liechtenstein an ihren Bruder Heinrich von Rosenberg.
- vol. 1, letter 540. 1452. Ulrich von Rosenberg an seinen Schwiegersohn Hans von Liechtenstein.
- vol. 1, letter 74. 1455. Graf Ulrich von Württemberg an Markgraf Albrecht von Brandenburg.
- vol. 1, letter 545. 1457. Hans von Klingenberg an Bilgrin von Reischach.
- vol. 1, letter 81. 1461. Graf Ulrich von Württemberg an Markgraf Albrecht von Brandenburg.
- vol. 1, letter 84. 1463. Markgräfin Anna von Brandenburg an ihren Gemahl, Markgraf Albrechtvß.
- vol. 1, letter 548. 1465. Eberhart von Klingenberg an Claus Hafner.
- vol. 1, letter 109. 1467. Herzogin Ursula von Münsterberg an ihre Stiefmutter, Markgräfin Anna von Brandenburg.
- vol. 1, letter 126. 1470. Markgraf Albrecht von Brandenburg an Herzog Wilhelm von Sachsen.
- vol. 1, letter 141. 1472. Heinrich von Rechberg an Kurfürst Ernst von Sachsen.
- vol. 1, letter 164. 1474. Kurfürst Albrecht von Brandenburg an Herzogin Anna von Braunschweig.
- vol. 1, letter 182. 1475. Kurfürst Albrecht von Brandenburg an seine Gemahlin Kurfürstin Anna von Brandenburg.
- vol. 1, letter 250. 1477. Herzog Wilhelm von Sachsen an Kurfürst Ernst und Herzog Albrecht von Sachsen.
- vol. 1, letter 310. 1480. Pfalzgräfin Amalie von Veldenz an ihren Vater, Kurfürst Albrecht von Brandenburg.
- vol. 1, letter 360. 1482. Herzogin Sophie von Pommern an ihren Schwiegersohn, Herzog Magnus von Mecklenberg.
- vol. 1, letter 387. 1485. Gräfin Elisabeth von Württemberg an ihren Vater, Kurfürst Albrecht von Brandenburg.
- vol. 1, letter 408. 1488. Markgräfin Margarete von Brandenburg, Äbtissin, an ihren Stiefbruder, Markgraf Friedrich von Brandenburg.
- vol. 1, letter 418. 1490. Herzogin Elisabeth von Mecklenburg, Klosterfrau, an die Herzöge Magnus und Balthasar von Mecklenburg.

vol. 1, letter 459. 1495. Markgräfin Margarete von Baden, Äbtissin, an ihren Bruder, Markgraf Christoph von Baden.

vol. 1, letter 509. pre-1500. Herzogin Sibylla von Jülich an ihren Bruder, Markgraf Friedrich von Brandenburg.

vol. 1, letter 1. 1340. Schwester Gibel Sanct Claren Ordens zu Nürnberg an den Markgrafen von Meiszen.

Ulmschneider, Helgard, ed. (1981). *Götz von Berlichingen, Mein Fehd und Handlungen*. Sigmaringen: Jan Thorbecke Verlag (1560s).

Wickram, Georg. *Das Rollwagenbüchlein*. In Hans-Gert Roloff, ed. *Sämtliche Werke*, 7. Band, 1973. New York (Berlin): Walter De Gruyter (1510/1555).

## Appendix B: Coding system for Early New High German

1. Clause type
  - c complement clause with main clause word order
  - d *denn* clause (also causal *wann*-clause)
  - m unambiguous main clause
  - r ambiguous between main and relative clause
  - s unambiguous subordinate clause
  - C c, second conjunct
  - D d, second conjunct
  - M m, second conjunct
  - R r, second conjunct
  - S s, second conjunct
  
2. Number of constituents before the main verb
  - 0 none
  - 1 one, etc.
  
3. Subject
  - d demonstrative pronoun subject
  - i empty subject of imperative
  - n noun phrase subject
  - p pronoun subject
  - P thematic pro subject (as in telegraphic style)
  - r wh-moved subject (mostly in relative clauses)
  - z empty expletive subject
  - & empty subject as a result of conjunction
  
4. Auxiliary verb
  - a auxiliary missing where it is expected  
(type: *kaum dass sie ihn gesehen* \_\_, *entbrannte ihr herz in liebe*)
  - b auxiliary be
  - c causative verb (includes verbs of perception, causative *tun*, *lassen*, find, help  
and learn when they take bare infinitive complements)
  - h auxiliary have
  - i no auxiliary, but non-finite main verb (infinitive or participle)
  - m modal verb
  - t auxiliary *tun*
  - w auxiliary *werden*
  - / no auxiliary verb at all
  
5. Main verb
  - b main verb be
  - c causative verb (see FG 4 for definition)
  - h main verb have
  - m modal verb as main verb
  - o other main verb
  - p particle verb



w main verb *werden*

6. Accusative object — type
  - d demonstrative pronoun (including relative pronouns)
  - n noun phrase
  - p pronoun
  - / no accusative object
7. Accusative object — position
  - s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
8. Dative object — type
  - d demonstrative pronoun
  - n noun phrase
  - p pronoun
  - / no dative object
9. Dative object — position
  - s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
10. Genitive object — type
  - d demonstrative pronoun
  - n noun phrase
  - p pronoun
  - / no genitive object
11. Genitive object — position
  - s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
12. Prepositional complement 1 — type (determine 1 on basis of surface order)
  - d demonstrative pronoun object of preposition, including *da-*
  - n noun phrase object of preposition
  - p pronoun object of preposition
  - / no object of preposition
13. Prepositional complement 1 — position
  - s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
14. Prepositional complement 2 — type (determine 2 on basis of surface order)
  - d demonstrative pronoun object of preposition, including *da-*

- n noun phrase object of preposition
  - p pronoun object of preposition
  - / no object of preposition
15. Prepositional complement 2 — position
- s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
16. Noun phrase adjunct — type
- d demonstrative pronoun
  - n noun phrase
  - p pronoun
  - / no noun phrase adjunct
17. Noun phrase adjunct — position
- s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
18. Predicate nominal — type
- j adjective or adjective phrase
  - n noun or noun phrase
19. Predicate nominal — position
- s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
20. (Subject of) small clause — type
- d demonstrative pronoun
  - n noun phrase
  - p pronoun
  - s entire small clause
  - / no noun phrase adjunct
21. (Subject of) small clause — position
- s scrambled out of its clause
  - b before main verb
  - f before aux verb
  - a after main verb
22. Definiteness of the postposed NP
- d definite
  - i indefinite
  - ? can't tell
  - / no postposed NP
23. Informational status of the postposed NP (within its discourse segment)

- n new
  - g given
  - c culturally evoked, inferrable
  - ? can't tell
  - / no postposed NP
24. Case of the postposed NP
- a accusative
  - d dative
  - g genitive
  - n nominative
25. Definiteness of the preverbal NP (NP immediately before the verb)
- d definite
  - i indefinite
  - ? can't tell
  - / no preverbal NP
26. Informational status of the preverbal NP (within its discourse segment)
- n new
  - g given
  - c culturally evoked, inferrable
  - ? can't tell
  - / no preverbal NP
27. Case of the preverbal NP
- a accusative (object)
  - d dative (object)
  - g genitive (object)
  - n nominative (subject)
28. Heaviness of postposed material: number of postverbal words
- 1 one or two
  - 3 three or four
  - 5 five or more
29. Heaviness of postposed material: syllables
- 1 one or two
  - 3 three or four
  - 5 five or more
30. Heaviness of postposed material: phrases
- 1 one or two
  - 3 three or four
  - 5 five or more
31. Type of PP 1
- l locative
  - d directional
  - t temporal
  - r reason
  - b benefactive

- m manner
32. same as 31., but for second PP in clause
33. Informational status of PP 1
- n new — new in the discourse, and new information
  - c culturally evoked, inferrable — evoked information, but new in the discourse
  - g given — given in the discourse, and old information  
(includes single first and second person references)
34. same as 33., but for second PP in clause
35. Is there verb raising in the clause?
- / none
  - r verb raising
  - p verb projection raising
  - (t “third construction”)
36. Is verb cluster clause-final?
- y nothing postposed
  - c clause postposed
  - n NP postposed
  - p PP postposed
  - r pronoun postposed
  - v adverb postposed
  - m multiple things postposed
  - N negative, *nit*, *nicht*, *in* intervenes
  - o other (non-constituent)
  - a adjective
  - d *da*-PP
37. Are the verbs in the cluster all adjacent?
- y nothing intervenes
  - n NP intervenes
  - p PP intervenes
  - r pronoun intervenes
  - v adverb intervenes
  - m multiple things intervene
  - c conjunction intervenes
  - N negative, *nit*, *nicht*, *in* intervenes
  - d *da*-PP intervenes
  - a adjective intervenes
  - V stressed adverb intervenes
  - C clause intervenes
38. Constituent immediately preceding verb cluster
- n NP
  - s subject NP
  - S subject pronoun
  - p PP
  - P PP with pronoun complement
  - d *dar*-PP

- r pronoun
- t particle (only if particle is only thing before, or between V2 finite verb and main verb, usually redundant with p in column 5)
- v unstressed adverb
- V stressed adverb
- a adjective
- N *nit, nicht, in*, etc.
- c conjunction
- C clause

39. How many verbs are there in the cluster?
- 1 main verb inflected
  - 2 main verb and one auxiliary
  - 3 main verb, auxiliary, inflected modal
  - 4 main verb, multiple auxiliaries, modal
40. Possible V2 clause?
- y could be V2, inflected verb V2
  - n no, clear subordinate, all verbs final
41. Date of source
- 1 1300-1350
  - 2 1351-1400
  - 3 1401-1450
  - 4 1451-1500
  - 5 1501-1550
  - 6 1551-1600
42. Style of text
- c chancery
  - p personal letter
  - b business letter
  - e essay
  - l story, literature
  - t trial testimony
  - g government literature
43. Sex of writer
- m male
  - f female
  - ? don't know
44. Class of writer
- c cleric
  - m merchant
  - n noble
45. Approximate dialect area
- n northern
  - s southern
  - m middle

46. Kind of subordinate clause  
 r relative clause  
 c other complementizer  
 / other, no complementizer
47. Kind of *werden/sein* main verb  
 p passive  
 f not passive: future infinitive with *werden*, participle with *sein*  
 ? not sure  
 / not *werden* or *sein*
48. What kind of object is the postposable NP?  
 l coordinated, list  
 r postmodified by a relative clause  
 o otherwise very long (mostly postmodified by a PP)  
 n regular length NP
49. What immediately precedes the postposable NP (or the verb if the NP is postposed — i.e., what precedes the NP trace)?  
 s subject pronoun  
 o other pronoun  
 a short adverb (like *very*)  
 l long adverb (like *happily*)  
 j short predicate adjective  
 J long predicate adjective  
 v auxiliary verb  
 V the finite verb (if the only verb in the clause is a particle verb)  
 n negation (*nicht*, etc.)  
 p preposition  
 d *dar*-PP  
 c complementizer  
 A conjunction  
 C clause  
 N another NP (object or subject, not a proper noun)  
 P another NP (proper noun)  
 z anything else
50. What immediately precedes the element in 49? (same factors as in 49)
51. Is anything else postposed in addition to the postposed NP?  
 p PP  
 n another NP  
 r a partial constituent (PP complement or modifier of an NP, relative clause, conjunct, etc.)  
 o some other constituent
52. Is the potentially postposable NP preverbal or postverbal?  
 o postposed  
 r preverbal
53. Is the potentially postposable NP accented in the sentence?  
 a definitely accented

- d definitely deaccented
  - ? don't know
  - e could be either
54. Does the main verb form an idiom pair with the potentially postposable NP?
- i idiom pair
  - o other very common NP-V pair
  - ? don't know
55. Is there negation in the clause?
- k negation within the potentially postposable NP
  - n sentence negation with NP scope
  - N sentence negation, not NP scope
  - v negative verb (like *deny*)
  - / no negation
56. Quantification of the potentially postposable NP
- i indefinite
  - q other quantifier
  - d definite
57. Lexical type of main verb
- g *geben*
  - h *haben* (possession)
  - d other double object verb
  - / any other verb
58. What is the information focus of the clause?
- n narrow focus on the potentially postposable NP
  - v wide focus on the VP
  - o narrow focus on some other constituent
  - p narrow focus on the postposed PP
  - ? can't tell where the focus is

### Appendix C: Comparison of V(P)R data with Ebert's data

Obviously one can only look at verb raising in the tokens with the proper environment, so as only to look at possible tokens of VR. A problem arises in deciding which environments exactly are the relevant ones in which VR is a possible structure. As a result, four different databases were made from my ENHG corpus, and each smaller data set is a subset of the next larger one.

**Level 1.** The least restrictive set is *possiblevpr*, which consists of clauses selected from the entire corpus using the following criteria:

- (i) clauses containing both a finite and at least one non-finite verb form;
- (ii) clauses with more than one verb at the end of the clause, though other postposed constituents could appear after the final verb (i.e., subordinate clauses for the most part; V2 matrix clauses only if there were three or more verb forms);
- (iii) no third construction (*zu*-infinitives).

There are 919 total clauses in the data set. Of them, 251 are cases of VR or VPR and 668 are cases of the modern standard word order (finite verb following non-finite verb), for an overall rate of 27.3% V(P)R.

**Level 2.** The next smaller data set is *ebertfit*, a subset of *possiblevpr* restricted in the following ways, following the restrictions used in Ebert (1981, 1992):

- (i) only clauses with two verbs, one finite and one non-finite;
- (ii) only clauses in which those two verbs are contiguous;



(iii) only forms of the following finite verbs: *sein* (active), *haben*, *werden* (passive), and the modals *dürfen*, *können*, *mögen*, *müssen*, *sollen*, *wollen*, *werden* (+infinitive);

(iv) only clauses with overt subordinators or relative pronouns (with a few cases of null subordinators).

This excludes all unambiguous VPR, all matrix clauses and V2 subordinate clauses, all clauses with more than one non-finite verb form, all clauses where the finite verb is causative, and all second conjunct subordinate clauses. There are 654 total clauses in this data set, of which 151 are cases of VR, an overall rate of 23.1%.

**Level 3.** The next smaller data set is *ebertsouth*, which consists of those clauses from *ebertfit* taken from texts written in a southern dialect (loosely defined largely by geographic location of the writer and spellings taken to represent southern phonological features). There are 347 total clauses in this data set, of which 73 are cases of VR, an overall rate of 21%.

**Level 4.** The smallest data set is *ebertpeople*, which consists only of clauses taken from texts written by the same individuals Ebert used, or their family members. There are 87 total clauses in this data set, of which 5 are cases of VR, an overall rate of 5.7%. This turns out to be too small to show significant patterns in the data for the most part, although it does bring out a few interesting points.

Each successive restriction was in an attempt to more closely match Ebert's data, as each larger set failed to do so. In order to show when and if the different restrictions on the data have an effect, the comparison will be made for all data sets in the sections below. Actual Ns are available in Ebert (1981, 1992) only for the data on type of syntagm and stress, and these are compared to my data in the following sections.

**Type of syntagm**

Ebert's effect for V+AUX rate: *werden* + past participle > *haben* > modals (and *werden* + infinitive) (>) *sein*.

The p values shown represent whether the difference between each cell and the corresponding cell of Ebert's data is significant.

Table C1. The effect of the type of syntagm on the rate of verb raising for Levels 1-4 and Ebert's 1992 <sup>29</sup> data.					
type of syntagm	Level 1	Level 2	Level 3	Level 4	Ebert's 1992 data
<i>haben</i>	23.5% 82/349 p<.95	19.6% 53/270 p<.2	19.9% 29/146 p<.5	6.5% 3/46 p<.01	23.2% 305/1313
<i>sein</i> (overall)	21.2% 29/137 p<.001	21.4% 22/103 p<.001	25.4% 15/59 p<.001	6.3% 1/16 p<.001	55.2% 405/734
<i>sein</i> (passive)	9.4% 3/32 p</7	4.2% 1/24 p<.3	6.3% 1/16 p<.5	0% 0/2	13% 10/76
<i>sein</i> (active)	24.8% 26/105 p<.001	26.6% 21/79 p<.001	32.6% 14/43 p<.001	7.1% 1/14 p<.001	60% 395/658
modals	34.6% 117/338 p<.001	29.3% 66/225 p<.001	22.9% 25/109 p<.001	4.3% 1/23	57.8% 670/1160
<i>werden</i> (overall)	19.7% 14/71 p<.001	17.9% 10/56 p<.001	12.1% 4/33 p<.001	0% 0/2	41.4% 179/432
<i>werden</i> + Past Participle	17.3% 9/52 p<.02	11.9% 5/42 p<.2	8% 2/25 p<.7	0% 0/2	5.2% 6/117
<i>werden</i> + infinitive	26.3% 5/19 p<.02	35.7% 5/14 p<.2	25% 2/8 p<.1	0	54.9% 173/315

The ordering of V+AUX rates in each dataset follows:

Level 1: *werden* + past ptc. > *haben* > *sein*(active) > *werden* +inf. > modals.

Level 2: *werden* + past ptc. > *haben* > *sein*(active) > modals > *werden* + inf.

Level 3: *werden* + past ptc. > *haben* > modals > *werden* + inf. > *sein*(active).

<sup>29</sup> Ns are not available for type of syntagm in Ebert (1981).

Level 4: *werden*+ past ptc. > modals > *haben* > *sein* (active)

(no *werden* + inf. in the data).

Ebert: *werden* + past participle > *sein* (passive) > *haben* > *werden* + infinitive > modals > *sein* (active).

Overall, *werden* + past ptc. > *haben* is the same relative order and roughly the same rates in all sets. But *werden* + inf., *haben*, and *sein* (active) are c. 30+% higher (V+AUX rates) across my corpus/sets than across Ebert's. For example, the relative ordering of *haben* and modals is significant for Levels 1 and 2 ( $p < .01$  and  $.001$  respectively), but not for Levels 3 and 4 ( $p < .70$  and  $.80$  respectively). However, the relative orderings of other syntagms are not all significant in Ebert's data. For example, the difference between *sein* (active) and modals is not significant in any dataset: Ebert's ( $p < .50$ ), Level 1 ( $p < .10$ ), Level 2 ( $p < .70$ ), Level 3 ( $p < .30$ ), Level 4 ( $p < .80$ ).

### **Grammatical category of the preceding word — stress**

Ebert's effect for stress is a lower rate of V+AUX after nouns than after pronouns.

Table C2. The effect of stress on the rate of verb raising for Levels 1-4 and Ebert's 1992 <sup>30</sup> data.					
Stress	Level 1	Level 2	Level 3	Level 4	Ebert's 1992 data
Stressed word	28.4% 161/566 p<.001	25.4% 102/401 p<.001	21.7% 48/221 p<.001	4.8% 3/62 p<.001	45.6% 892/1956
Clitic	24.8% 81/327 p<.98	18.7% 46/246 p<.05	18.3% 22/120 p<.2	9.1% 2/22 p<.1	24.9% 169/678

I counted as clitics: non-subject pronouns, PP + pronoun, light adverbs, particles, *dar-* PPs, *nicht* and variants. I counted as stressed words: noun phrases (including subject NPs), subject pronouns, PP + NP, heavy adverbs and adjectives. I did not include infinitives or other clauses in the stress effect. The numbers for Ebert in Table C2 were calculated by adding the numbers in Ebert's Table 3 for all syntagms, but using only the categories I counted in my data.

Table C2 does not show much difference between Ebert's data and my data. The only possibly significant difference is with Level 2. The significance of the difference between each level and Ebert's data between a stressed word preceding and an unstressed word or clitic preceding is listed here:

Level 1 p < .3

Level 2 p < .05

Level 3 p < .50

Level 4 p < .50

<sup>30</sup> Ns are not available for the effect of stress in Ebert (1981).

My data does not seem to show the same pattern or effect that Ebert's does. In fact, I find essentially no effect of the stress of preceding words on the rate of verb raising.

The only real trend (not shown separately in Table C2) seems to be lower V+AUX rates for preceding subject pronouns. It is not clear why this should be the case. Subject pronouns should pattern with other pronouns, NPs, or subject NPs. There may be some other effect in the clauses with subject pronouns preceding. They are overwhelmingly *COMP subj.pn. V/AUX* with the occasional PP and even rarer additional NP in the clause. Perhaps they somehow favor V2. If so, those cases would not really be instances of verb raising. It is interesting to note a general trend of a greater rate of V+AUX in the following hierarchy: Level 1 < Level 2 < Level 3 < Level 4 (correspondingly, the reverse order for lower rates of verb raising). This is a general trend across the divisions and restrictions of the data.

Because the more restricted datasets do not give noticeably better results, I have chosen to use only the dataset with the largest number of tokens, Level 1, in the discussion in section 3 above.

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**Index**

- change from above 2, 45, 46, 50
- clitics 12, 59, 100
- competition of grammars 43
- corpus 17, 48, 68, 95
- Dutch 11, 45
  - Middle Dutch 16, 18, 27, 43
- Early New High German 1
- Flemish 40
- heavy NP shift 22, 23
- historical syntax and pragmatics 5
- information focus 16, 27, 37
- Lazarus 1, 6, 7, 14, 19, 28, 33
- M. E. Carter 33, 40
- Modern German 1, 2, 4, 11, 14, 27, 41, 64, 66
- Old English 13, 43
- Penn Treebank Project 5
- performance error 5, 13
- postposition
  - clauses 1
  - noun phrases 1, 14
  - prepositional phrases 1, 63
  - syntax 15
- pragmatic factors 19
- quantified NPs 25
- scrambling 26

sociolinguistic variation 2, 44, 45, 50

string order 10

structurally verb-final 10

stylistic variation 44

Swiss German 40

syntactic change 2, 3, 4, 28, 38, 43, 50, 62

verb (projection) raising 1, 41, 95

verb second 1, 2, 9, 18, 35, 42, 43, 48, 49, 89, 95, 96, 101

verb-final diagnostics 11

verb-final syntax 2, 10, 15

Yiddish 11, 13, 37, 39