

Information structure and word order variation in the Old High German Tatian

Svetlana Petrova

1. Introduction

Word order variation in the right periphery of subordinate clauses is one of the most striking properties of Old High German (OHG) syntax. It belongs to the central and most vividly discussed topics in the historical treatment of sentence structure in German, namely to the description of the rules and principles that determine the position of the finite Verb (V_{fin}) in the earlier stages of the German language.

The same issue has been intensively discussed with respect to the remaining early Germanic languages as well. In recent generative work on Old English (OE), two different accounts have been put forward. The first one launched by Kemenade (1987)¹ attributes surface orders with postverbal constituents in clauses with overt complementizers to extraposition from a uniform SOV base. This kind of operation applies in modern SOV languages as well, especially with PPs and CP-complements which are regularly extraposed to the right of the selecting verb. Additionally, some restructuring operations in verb clusters leading to orders with a tensed auxiliary before the untensed main verb in subordinate clauses (verb raising and verb projection raising) were originally analysed as instances of rightward movement of the VP as well (Haegeman and van Riemsdijk 1986). In line with the theoretical discussion on properties of asymmetric SOV languages, structural variation in the right periphery of subordinate clauses in OE was explained as the result of rightward movement while V_{fin} always remains in its basic position in the end of the clause (see also Tomaselli 1995, 350–351).

However, the idea that OE has a uniform SOV structure in the base has been challenged by Pintzuk (1991) who discovered evidence for postverbal phrases, e.g. pronouns and light adverbs, which are excluded from extraposition in modern SOV languages. To explain structural variation in the data, Pintzuk claimed that OE displays variation in the head-complement parameter in both I(nfl)P and VP. In line with this model, non-Vend orders

in OE are explained partly as a result of leftward movement of V_{fin} to a clause-medial I(nfl)P, and partly as instances of VO in the base.

The basic points in the discussion on word order variation in OE have been also applied to the interpretation of the OHG data. Weiß (2006) discusses word order in complement clauses introduced by *dass* 'that' in the so-called 'Minor texts' of the OHG tradition. He is able to derive a great part of the non-Vend orders from a basic SOV order, although he is forced to assume, apart from extraposition of PPs and heavy complements, a series of leftward movement operations according to which V_{fin} targets two different functional projections (TP and vP) below CP. A different approach is pursued by Schallert (2006) who discusses evidence for mixed word OV/VO order in OHG claiming that the early Germanic languages were unspecified with respect to the head-complement parameter in the VP.

The present study addresses this complex discussion from the perspective proposed by Hinterhölzl (2004) who relates word order variation to properties of the information-structural organization of the utterance. A first and by now unique empirical investigation on variation in the right periphery of subordinate clauses in OHG is provided by Schlachter (2004). Her analysis reveals that the different placements of V_{fin} in complement clauses in the OHG Isidor correlates with the iconic separation of the domains of focus and background in the clause. These findings are in line with a long tradition in the descriptive literature which related the principles of verb placement in dependent clauses to stylistic effects and properties of theme-rheme (see the summary in Ebert 1978, 39–43).

The foregoing observations suggest that pragmatic considerations play an important role in the explanation of word order variation in the earlier stages of German. Therefore, the aim of the present paper will be to explore in more detail the extent to which information-structural principles are responsible for the different placements of V_{fin} in subordinate clauses in OHG. Special attention will be placed on the correlation between pragmatic properties of constituents like givenness/novelty, contrast, emphasis and the like, and their positional realization with respect to V_{fin}.

2. Properties of the database

This study analyses data from the OHG Tatian translation, which is the largest prose text of the classical period of OHG. In order to base the observations on genuine OHG structures, we will examine only sentences in which the word order differs from that of the corresponding Latin original.²

Project B4 of SFB 632 “Information Structure” has provided a data collection of all clauses displaying differences in word order between OHG and Latin in the text parts assigned to three different scribes (α , β , and ϵ). For the purpose of the present study, we will analyse the dependent clauses found in this data collection.

First, let us look at the quantitative distribution of Vend vs. non-Vend orders in all conjunctive and relative clauses found in the database. The figures provided in Table 1 clearly show that non-Vend orders are highly frequent in subordinate clauses in OHG. Causal clauses are listed separately because they are ambiguous between coordinate root conjuncts with an extra-clausal connective comparable to modern German *denn* ‘because’ and subordinate clauses with a lexically filled complementizer. This ambiguity may explain the high number of non-Vend orders among the causal clauses. However, the ratio of non-Vend among the unambiguously subordinate clauses is only slightly below 50 per cent. This means that in nearly half of the conjunctive clauses the scribe decided to depart from the structure of the Latin original but ended up in a structure which is not Vend in OHG³:

Table 1. Relative frequency of Vend vs. non-Vend orders in subordinate clauses in the OHG Tatian in the database of the study.

clause type	total	Vend		non-Vend	
conjunctive clauses	364	190	52,2 %	174	47,8 %
relative clauses	196	129	65,8 %	67	34,2 %
causal clauses	79	29	36,7 %	50	63,3 %

There is crucial evidence suggesting that non-Vend is an authentic native pattern in subordinate clauses in OHG. First, we find cases where Vend order is given in the Latin original but suspended in the OHG translation, see (1a). Second, non-Vend is attested in clauses whose Latin equivalent lacks a finite verb, see (1b–c). In such cases, we can assume that the insertion of V_{fin} is ruled by native OHG grammar. As the examples show, the scribes disregard the opportunity to preserve or create Vend patterns in subordinate clauses:

- (1) a. *thaz [...] thie dar gisehent daz sie sin blinte* (T 224, 4–6)
 that [...] those PRT see that they are-SUBJ blind-PL
 ‘[I have come,] so that [...] those who see may be made blind’
 lat. *ut [...] qui uideant caeci fiant*
- b. *salige sint thiethar sint sibbisame* (T 60, 16)
 blessed are who-PRT are peaceful
 ‘Blessed are the peacemakers’
 lat. *Beati pacifici*
- c. *In thie burg/ galileę thero namo ist nazar&h* (T 28, 4–5)
 in that city Galilee whose name is Nazareth
 ‘into that city of Galilee whose name is Nazareth’
 lat. *In ciuitatem/ galileae cui nomen nazar&h*

Moreover, the postverbal domain in OHG hosts types of constituents which do not undergo movement to the right in modern SOV languages, e.g. single (unmodified) NPs (2a), predicative nouns (2b) and adjectives (2c):⁴

- (2) a. *Inti thie thár hab&un diuual* (T 59, 1)
 and who PRT had devil
 ‘and those who were possessed by the devil’
 lat. *& qui demonia habebant*
- b. *thaz sie hiezzin boanerges* (T 59, 22)
 that they were called Boanerges
 ‘that they be called Boanerges’
 lat. *boanerges*
- c. *oba thin ouga uuirdit luttar* (T 69, 22)
 if you eye becomes bright
 ‘if your eye becomes bright’
 lat. *si fuerit oculus tuus simplex*

The number of postverbal single elements after V_{fin} in subordinate clauses is raised by non-finite forms of main verbs in complex predicates, e.g. in constructions with modal verbs (3a–b), or in the combination of *sîn* ‘to be’ and *uuerdhan* ‘to become’ with the past participle (3c), a construction which is formally identical with the passive in modern German:

- (3) a. *thaz sie Inan mohtin ruogen* (T 199, 2)
 that they Him might-SUBJ accuse-INF
 ‘that they had something of which to accuse Him’
 lat. *ut possent accusare eum*
- b. *Inti thiethár uuolle mit thír uuehslon* (T 65, 12)
 and who-PRT want-SUBJ from you-DAT borrow-INF
 ‘and whoever wants to borrow from you’
 lat. *& uolenti mutuare a té*
- c. *nibi ir uuerdet giuuentite/ inti gifremite soso theser luzilo* (T 151, 12)
 NEG-if you become converted-PL and formed-PL like this young
 [boy]
 ‘if you do not convert and become like this young boy’
 lat. *nisi conuersi fueritis/ & efficiamini sicut paruuli*

Orders in which the tensed auxiliary precedes the untensed main verb in subordinate clauses have been related to phenomena like verb raising and verb projection raising typical for verb clusters in modern SOV languages as well (Fuß and Trips 2002). However, the degree of grammaticalization of periphrastic forms is questioned in OHG, especially with respect to the formal equivalent of the modern passive construction. According to the common view, this expression is still undergoing a process of grammaticalization from a copular construction to a periphrastic form (Valentin 1987 among others). The presence of inflectional endings on the participle, which agrees in number, gender and case with the corresponding subject constituent as in (3c), is a strong indication of the copular status of the construction. Copular construction, however, are not among the clusters discussed in relation with verb raising or verb projection raising in the literature (Wurmbrand 2004).

These observations prompt the view that variation in verb placement in subordinate clauses is a genuine syntactic property of OHG which calls for an alternative description. For this reason, a more detailed analysis of the grammatical and pragmatic properties of constituents in different syntactic patterns in subordinate clauses from the OHG period is needed.

The present study is based on the analysis of 100 clauses with Vend order and 100 clauses with non-Vend order which were selected from the main corpus. Representatives of all types of subordinate clauses established above, i.e. conjunctive, relative and causal clauses, are included. For reasons of unambiguous classification, sentences containing only one constituent apart from V_{fin} have been left aside, as a serialisation of the

type Conjunction – XP – V_{fin} may be viewed both as V2 and Vend. Furthermore, the influence of the translation technique known for the OHG Tatian has been also reflected in the selection of the database: as the requirement not to shift material across the lines of the manuscript is the main translation principle stated for this text (Masser 1997), examples where the transposition of constituents appears to be blocked by the line break also remained unconsidered.

3. Analysis

3.1. Clauses with Vend order

3.1.1. The placement of discourse-anaphoric material

Among the total of 100 instances with Vend order, there are 34 cases in which the only syntactic difference in clause structure results from the insertion of the subject pronoun in the translation while the rest of the sentence remains unchanged. See (4a–b) where the subject pronouns *her* ‘he’ and *ír* ‘you-2pl.nom’ have no equivalent in the Latin clause but the order of the PP *mit imo* ‘with him’ and the direct object *zeichan inti uuvntar* ‘signs and miracles’ with respect to V_{fin} is identical in both OHG and Latin:

- (4) a. *thaz her mit imo uuari* (T 88, 26)
 that he with Him was-SUBJ
 ‘that he was with Him’
 lat. *ut cum eo ess&*
- b. *nibi ír zeichan inti uuvntar giseh&* (T 90, 18)
 NEG-if you signs and miracles see
 ‘unless you see signs and miracles’
 lat. *nisi signa & prodigia uideritis*

These examples are revealing as to where subject pronouns are usually placed in OHG. In fact, our group of Vend sentences shows a 100 percent consistency with respect to the placement of subject pronouns, as in all cases investigated here the position chosen for the pronoun in the OHG clause is always the one immediately after the subordinating conjunction, i.e. the so called Wackernagel position (see also Tomaselli 1995, 349).

In 28 additional cases, the same syntactic position is targeted by other pronominal elements in the OHG text, see the direct object *thiu* ‘these

things-3pl.acc.neutr' in (5a), the indirect object *thir* 'you-2sg.dat' in (5b), and the prepositional object in (5c):

- (5) a. *tho siu thiu gisah* (T 28, 12)
 when she this-PL saw
 'as she saw these things'
 lat. *quae cum uidiss&*
- b. *unzan ih thir quede* (T 40, 28)
 until I you-DAT tell
 'until I tell you'
 lat. *usquedum dicam tibi*
- c. *soso zi In gisprochan uuas* (T 37, 5)
 as to them-DAT said was
 'as has been said to them'
 lat. *sicut dictum est ad illum*

It can be also shown that pronominal arguments appear to the left of adverbials which according to the standard syntactic assumptions mark the left edge of the VP, see *thara* and *thar* 'there' in (6a–b):

- (6) a. *Inti thô her thara quam* (T 42, 03)
 and when He there came
 'and when he came there'
 lat. *& ueniens*
- b. *thô sie thar uuarun* (T 35, 22)
 when they there were
 'as they got there'
 lat. *cum essent ibi*

These facts about OHG sentence structure have not passed unnoticed in the literature. According to Behaghel (1932, 4–6, §1426), word order in early Germanic is subject to an intricate interplay of two basic sets of principles, the first one concerning the informational relevance of sentence constituents and the second one concerning their "physical" properties (ibid. 5) in terms of relative length and phonological heaviness. According to the first set of rules, less relevant information tends to precede more relevant one in the clause. Additionally, the principle of growing constituents requires shorter constituents to precede longer ones in the clause. From this perspective, structures like (4)–(6) show a perfect interplay of the mentioned requirements. It is obvious that pronouns representing previously men-

tioned information can be analysed as less relevant than the rest of the utterance conveying the new information in the discourse. Additionally, they represent short items which tend to be de-accented and cliticised to other tonic elements and thus being typical cases of phonologically light elements which tend to be placed before heavy, full lexical material.

This evidence raises the question whether anaphoricity is the factor leading to the identical positional distribution of pronominal arguments in OHG. In order to examine this issue, we will turn our attention to the syntactic realization of full lexical arguments with anaphoric properties in OHG. According to Dittmer and Dittmer (1998, 21), full phrases tend to be less often shifted across V_{fin} in contrast to pronominal elements in the OHG Tatian. However, our data base yields 8 instances in which full constituents with anaphoric properties are shifted from the postverbal position in the Latin sentence to the preverbal domain in OHG. The reverse transposition is not found in the corpus. Consider (7a–b), in which the discourse-given object DP *thén buoh* is shifted across the verb against the Latin original in two subsequent clauses:

- (7) a. *so hér thén buoh int&a* (T 53, 21)
 when He this book opened
 ‘as he opened the book’
 lat. & *ut reuoluit librum*
- b. *inti mit thiu hér thén buoh bit&a* (T 53, 32)
 and when He this book closed
 ‘and as he closed the book’
 lat. & *cum plicuiss& librum*

The fact that, just like pronouns, full lexical DPs are also regularly shifted to the preverbal domain when they are discourse-given, strongly supports Behaghel’s rule of relevance. But what about the principle of growing constituents and the role of phonological heaviness, given the fact that we deal with full lexical categories bearing an overt determiner and therefore comprising several syllables? In a historical corpus, we have no opportunity to judge about the prosodic realization of sentence constituents. However, we can draw parallels to the situation in some contemporary intonational languages. Lakoff (1976, 288) presents some well-known facts for English. He shows that full DP-expressions regularly give up accent to the verb when they refer back to a previously mentioned antecedent, see (8a), Lakoff’s (91). At the same time, main accent on a DP blocks its interpretation as an anaphor to a pre-established referent, see (8b), Lakoff’s (92)⁵:

- (8) a. *When Harry_i entered the room, Mary KISSed the president_i.*
 b. *When Harry_i entered the room, Mary kissed the PREsident/
 PREsident_i.

So anaphoric reading correlates with de-accentuation, and vice versa. From this we can assume that in OHG too, full DPs were de-accented when used in anaphoric relation to an antecedent in the previous context. Consequently, they do not count as heavy constituents but share the prosodic behaviour of pronouns and light adverbs. Again, Behaghel's principles co-occur: anaphoric, i.e. informationally less relevant material, as well as phonologically de-accented, i.e. light material, appears early in the clause.

3.1.2. Non-anaphoric information

The observations made on the positional realization of discourse-given material are confirmed by the fact that Vend order is found in clauses containing familiar information only, e.g. resuming a pre-established fact or conveying an expected, inferable event. In (9), the entire information in the purpose clause, namely that the first-born son shall be presented to God, is inferrable from the common knowledge of the customs of the Jewish people explicitly referred to in the context (*after moyseses euuu* 'according to the Law of Moses'):

- (9) *Inti after thiu gifulta uuarun taga / [...] brahtun sie Inan thô In*
 and after filled were [the] days/ [...] brought they Him-ACC then to
hierusalem/ thaz sie Inan gote giantuuvrtitin (T 37, 11–14)
 Jerusalem/ that they Him-ACC God-DAT presented-SUBJ
 'after the days of her purification they brought Him to Jerusalem to
 present Him to the Lord'
 lat. *& postquam Impeti sunt dies/ [...] tullerunt illum In herusalem/
 ut sisterent eum domino*

However, unlike the examples discussed so far, there are subordinate clauses with Vend order in which the preverbal domain does not convey anaphoric or inferable information. Instead, the expressions preceding Vfin can be seen to achieve special prominence over the rest of the utterance for different pragmatic or contextual reasons. Mainly two types of preverbal phrases can be distinguished here: parts of idioms and narrowly focused expressions.

In the first group, the preverbal constituent forms a complex semantic unit with *V_{fin}* which immediately follows it, i.e. the pre-verbal phrase forms a kind of an idiom with the following verb. Consider *thurft sîn* ‘to need’ in (10a) as well as *heim uuverban* ‘to return home’ in (10b) in which the non-finite part provides the semantic core of the complex predicate:

- (10) a. *uueiz íuuar fater/ uues íu thurft ist* (T 67, 29)
 knows your Father/ what-GEN you-DAT need is
 ‘your Father knows the things you have need of’
 lat. *scit enim pater uester/ quibus opus sit uobis*
 b. *mit thiu sie heim uuvrbun* (T 42, 17)
 when they home returend
 ‘when they returned home’
 lat. *cum redirent*

Non-verbal elements of complex semantic units cannot be pronominalized or referred back to by any means of anaphoric reference. In other words, parts of idioms fail to display properties which according to Karttunen (1976) are distinctive for referential expressions, i.e. they lack referential status and are not subject to the given/new-distinction.

In modern German, non-verbal parts of complex predicates, like e.g. the NPs in *Ball spielen* ‘to play ball’, *Schlange stehen* ‘to stand in line’ etc., are known to stay in a close relation to the verbal head not only with respect to semantics but to syntax as well. So in basic order, the nominal part has to be left adjacent to the verb: it is not subject to scrambling and does not allow insertion of adverbials or negation elements between itself and its verbal head (Pittner 1998), see (11a–b):

- (11) a. **dass die Kinder Ball oft/ nicht spielen*
 that the children ball often/ NEG play
 b. *dass die Kinder oft/ nicht Ball spielen*
 that the children often/ NEG Ball play

By contrast, ordinary arguments of verbs show no restrictions in this respect, see (12a–b):

- (12) a. *dass die Kinder das Geld oft/ nicht ausgeben*
 that the children the money often/ NEG spend
 b. *dass die Kinder oft/ nicht das Geld ausgeben*
 that the children often / NEG the money spend

The incorporation of non-verbal parts of idioms to form a unitary whole with the verbal head is best represented in the case of separable verb prefixes which historically go back to directional or locative adverbials closely related with the verb (Di Meola 2000, 129).

In the second group, the position before V_{fin} is occupied by material revealing properties of narrow, e.g. contrastive or operator-bound focus, though the focus operator is phonologically empty in most of the cases. Consider (13) in which the preverbal position in the embedded question hosts the DP *thin zesuua* ‘your right hand’ as an alternative to the DP *thin uuinistra* ‘your left hand’ mentioned in the preceding main clause:

- (13) *niuuizze iz thin uuinistra/ uuaz thin zesuua tuo* (T 67, 4–5)
 NEG-know-SUBJ it your left hand what your right hand does
 ‘your left hand should not know what your right hand is doing’
 lat. *nesciat sinistra tua/ quid faciat dextra tua*

Furthermore, we find examples in which the preverbal phrase bears properties of exhaustiveness similar to those described for preverbal focus in Hungarian (Kiss 1998). The only contextually adequate reading of (14) is that Jesus spoke about no one else than about the Pharisees. As we can see, the constituent conveying exhaustiveness occupies the preverbal position, all remaining background material precedes:

- (14) *Inti pharisei [...]/ furstuontun thaz her Iz fon In quad* (T 204, 22)
 and the Pharisees [...]/ understood that He it about them said
 ‘and the Pharisees realized that he spoke of them [and of no one else]’
 lat. *& phairsei [...]/ cognouerunt quod de ipsis dicer&*

Similar effects are given in the relative clauses in (15a–b) which are uttered to exclude any alternative to the divine origin of Jesus. The ability to hear or speak the words of God is restricted to a referent with a special property only, namely to the one sent by God. In this interpretation, the pre-verbal phases *fon gote* ‘from God’ and *got* ‘God’ act as focus expressions bound by a phonologically empty focus operator triggering an exhaustive effect. In both cases, the focus expressions are shifted from the postverbal domain in the Latin text to the position immediately before the verb in the OHG translation:

- (15) a. *ther fon gote ist ther horit gotes uúort* (T 219, 1)
 who from God-DAT is DEM hears God-GEN words
 ‘who came from God can hear God’s words’
 lat. *qui est ex deo uerba die audit*
- b. *then got santa ther sprihhit gotes uúort* (T 57, 26)
 who-ACC God sent DEM speaks God-GEN words
 ‘who was sent by God may speak God’s words’
 lat. *quem enim missit deus uerba dei loquitur*

There are also examples in which exhaustive interpretation applies to adjuncts or modifiers, see *êrist* ‘as the first one’ in (16):

- (16) *íogiuuelih gommanbarn/ thaz uuamba êrist Intuot* (T 37, 16–17)
 every male child who womb first opens
 ‘every male who opens the womb [shall be called holy to the Lord]’
 lat. *omne masculum/ adaperiens uuluam*

The constituent *êrist* reveals exactly that part of the clause which is crucial to the proper understanding of the utterance: the presentation of a newborn child in the temple according to the Law of Moses applies to the first-born son only, not to the others. Remarkably, *êrist* has no proper lexical equivalent in the Latin original but is included in the semantics of the present participle *adaperiens* ‘opening’. In the OHG sentence, the participle construction is transformed into a relative clause, and the semantics of the Latin participle is split into the focused modifier *êrist* and a finite verb *Intuot* ‘open-3sg.pres.ind’. The focus phrase is placed immediately before the finite verb while the object DP *uuamba* ‘the womb’, which is inferable in this context, is shifted to the position immediately after the conjunction.

To sum up, the preverbal parts in the two kinds of patterns considered in (10)–(16), i.e. parts of idioms and narrowly focussed phrases share some important common features with respect to Behaghel’s classification. First, they both represent relevant information, the one with respect to the overall semantics of the complex predicate, and the other with respect to the context. According to this, both types of preverbal phrases can be assumed to carry main stress and consequently to meet the condition of prosodic heaviness. Main stress on the preverbal constituents in (11)–(16) is evident from their focal status. As far as non-finite parts of idioms are concerned, their prosodic behaviour in modern German is rather suggestive. As they carry word stress in the complex unit, they also take the functions of the focus exponent in the clause if there is no other argument suitable to carry

main stress, e.g. because it is de-accented in anaphoric use. Exactly this condition applies in the sentences quoted above, where all the rest of the information in the sentences is anaphoric, i.e. de-accented. Therefore, informational relevance and accentuation are two features which link together narrow focus and nominal parts of idioms placed before V_{fin}.

3.1.3. Interim conclusion

Taken together, the clauses with Vend order analysed above prompt the assumption that the domain between CP and V_{fin} in OHG is organized according to information-structural principles. First, two basic information-structural domains can be identified here, one preserved for background material, and another one fixed for lexically or contextually relevant, i.e. focused material in the clause. Second, it is obvious that preverbal focus is subject to a further specification. From the examples viewed above, it is clear that it involves single phrases with a contrastive or operator-bound reading, and does not include wide focus or cases of focus projection.

Furthermore, there is strong evidence that there are firm principles governing the serialisation of these information-structural domains in the clause: elements belonging to the background are associated with the position immediately following the subordinating conjunction or the relative pronoun while focused XPs has to be left-adjacent to V_{fin}. In the entire sample of clauses with Vend order, this principle is violated only once:

- (17) *trisiuuet íu treso in himile/ thar noh rost noh miliuua iz nifurmelit*
(T 69, 15–16)
deposit you-DAT treasure in Heaven where neither rust nor moth it
NEG-destroys
'But lay up for yourselves treasures in heaven, where neither rust nor
moth destroys them'
lat. *Thesaurizate autem uobis/ thesaurus in cello/ ubi neque erugo*
neque tinea demolitur

In (17), the constituent placed left-adjacent to V_{fin} against the Latin original is the object pronoun *iz* 'it-3sg.acc.neutr'. It takes up the previously mentioned antecedent *treso* 'treasure' and therefore represents given information, and the relevant context does not provide any indications leading to the contrastive interpretation of this pronoun. However, this remains

a single occurrence which cannot be taken as representative for the OHG situation in general.⁶

The results concerning the distribution of the information-structural domains in OHG gained from the analysis of clauses with Vend order may be therefore summarized as follows:

(18) CP – [XP....]_{BGR} ... – [XP]_{FOC} – V_{fin}

Two relevant questions with respect to the analysis of clauses with non-Vend order arise from these observations. First, do sentences displaying non-Vend order also show the same distribution of information-structural categories in the preverbal domain, and second, which positional distribution may be provided for wide, e.g. VP-focus in the OHG Tatian.

3.2. Clauses with non-Vend order

3.2.1. The placement of anaphoric material

Within the group of non-Vend subordinate clauses, the proportion of cases deviating from the Latin only with respect to the transposition or insertion of the subject pronoun is higher than within the group of Vend clauses. Here, it applies to 52 of all 100 cases; a typical example is given in (19) where the subject pronoun is inserted in the OHG clause but the order of the remaining constituents adheres to that in the original:

(19) *thaz sie gihórtin gotes uuort* (T 55, 2)
 that they heard-SUBJ God-GEN words
 ‘in order to hear God’s words’
 lat. *ut audierent uerbum dei*

The tendency to place pronominal elements in the domain immediately after the conjunction is confirmed by the syntactic behaviour of non-subjects in further 19 cases, see the indirect object *imo* ‘him-3sg.dat.masc’ for lat. *ei* in (20):

(20) *só imo gibot truhtines engil* (T 35, 2)
 as him-DAT commanded Lord-GEN angle
 ‘as the angel of the Lord commanded him’
 lat. *sicut precepit ei angelus domini*

There are only 5 cases in which a pronominal argument remains in post-verbal position, each time in accordance with the Latin structure, see e.g. *inan* ‘him-3sg.masc.acc’ for lat. *eum* in (21):⁷

- (21) *thaz sie fiengin inan* (T 119, 9)
 that they arrest-SUBJ Him
 ‘in order to arrest Him’
 lat. *ut raperent eum*

This evidence confirms the view that background elements have their usual position immediately below C° . However, the DP *truhtines engil* ‘God’s angel’ in (20), which is discourse-anaphoric as well, is not preposed into this domain. But in the group of non-Vend clauses, we nevertheless find 6 instances in which a full anaphoric DP is shifted from a postverbal position in the Latin to a preverbal position in OHG; the reverse transposition, i.e. to shift anaphoric material after the verb against the Latin original, does not occur. See (22) where the entity *uueralt* ‘the world’ established in the governing root clause is resumed in the following embedded clauses and placed both times before V_{fin} against the Latin order:⁸

- (22) *nisanta got sínan sun/ In uueralt thaz her uueralt tuome/*
 NEG-sent God His son/ to world that He world condemned-SUBJ
uzouh thaz uuerolt si giheilil thuruh inan (T 197, 30–32)
 but that world is-SUBJ healed though Him
 ‘God didn’t send his son into the world to condemn the world, but
 that the world might be saved through Him’
 lat. *non enim missit deus filium suum/ In mundum ut l[sic!]udic&*
mundum/ sed ut salute&ur mundus per ipsum

In the database, we find examples which provide an interesting minimal pair given with respect to the placement of given vs. new material in OHG. In (23), the DP *thin elimosina* ‘your charity’ which is mentioned for the first time in the discourse is retained in postverbal position in accord with the original. But in (24), where it represents given material, the same phrase is shifted to the preverbal domain:

- (23) *thanne thú tuos elimosinam* (T 66, 29)
 then you do charity
 ‘when you give charity’
 lat. *Cum ergo facies elimosinam*

- (24) *thaz thin elimosina sí in tougalnesse* (T 67, 6)
 that you charity is-SUBJ in secret
 ‘in order that your charity be done in secret’
 lat. *ut sit elimosina tua in abscondito*

Thus, we can conclude that anaphoric material, be it light or heavy lexical material, is placed as a rule adjacent to C°, while material that represents new information is placed after Vfin. The question is whether this is an accidental distribution resulting from the shift of anaphoric material before the verb, or part of a regular tendency applying in OHG independently of the Latin. In order to check this, we shall turn to the analysis of examples in which the OHG sentence contains postverbal material in contrast to the Latin original.

3.2.2. Properties of postverbal constituents in OHG

The following examples contain postverbal material only in the OHG version of the text. First, we shall look at instances in which preverbal material of the Latin structure is realized postverbally in OHG. In our data base, this occurs 7 times. In 3 of the examples, the shifted material is a predicative adjective or participle in a copular construction; see (25a)⁹. In the remaining 4 cases, the shifted constituent is the direct object of the finite verb, see (25b)¹⁰. In all cases, the postverbal information is new and therefore part of the domain of new-information (i.e. presentational) focus:

- (25) a. *giueh& uúarlihho/ thaz úuere namon sint giscribane/ in himile*
 (T 103, 26–28)
 be happy PRT/ that your names are written-PL in Heaven
 ‘Be happy that your names are written in heaven’
 lat. *gaud&e autem/ quod nomina uestra scripta sunt/ in caelis*
- b. *thaz in mir habet sibba* (T 290, 8)
 that in Me have peace
 ‘that in Me you may have peace’
 lat. *ut In me pacem habeatis*

Furthermore, there is a group of sentences which are formed independently of the original to translate a nominal group or a participial construction of the Latin text. As the placement of the verb relative to the remaining con-

stituents is not influenced by the original, we can assume that the linear order attested here obeys the principles of native OHG syntax. Among these rather valuable sentences, we find 7 instances displaying postverbal material only in the OHG text. Two of them are given in (26):¹¹

- (26) a. *soso thie lihhazara sint gitruobte* (T 68, 23)
 as the hypocrites are sad-PL
 ‘like the hypocrites are with a sad countenance’
 lat. *sicut hypocrite tristes*
- b. *thes namo uuas giheizzan simeon* (T 37, 24)
 whose name was called Simeon
 ‘whose name was called Simeon’
 lat. *cui nomen simeon*

All cases involve copular constructions in which the finite copula (*sîn* ‘be’, *heizzan* ‘be called’) precedes the nominal part of the predicate. However, exactly the latter carries the new or relevant lexical information in the particular context while the copula is semantically empty and only represents grammatical features like tense and agreement. Quite interestingly, ‘to be’ and ‘to call’ make up the majority of the cases in the group of examples in (25). Following this, we can assume that predicative adjectives and nouns as parts of copular constructions form a stable class of constituents being generally realized in the postverbal domain in OHG in evident contrast to the Latin structure. This is further supported by the fact that the postverbal realization of the predicative part of copular constructions is also typical for Old English (27) as well as for late-OHG texts, see (28) from the *Physiologus* (mid-11th century). At the same time, postverbal placement of nominal parts of predicates is ungrammatical in modern German subordinate structures of any kind:

- (27) *On hiera dagum Hengest ⁊ Horsa [...] gesohton Bretene on þam*
 in their days Henges and Horsa [...] sought Britain on that
stape þe is genemned Ypwinesfleot (ASChr 449)
 shore that is called Ebbsfleet
- ‘In their days [in the days of the reign of Mauritius and Valentinus] Hengest and Horsa arrived in Britain on the shore which is called Ebbsfleet’

- (28) *dinen schephare, der dir ist ganemmet oriens* (Ph 142)¹²
 ‘your creator who is called Oriens’

These observations prompt the assumption that at the right periphery of the sentence in early Germanic, next to the very well known position of extraposed heavy constituents (PPs, heavy NPs and CP-complements), there was also a position occupied by close arguments of the verb providing new information in the discourse. This assumption shall be elaborated further in two more steps. First, constituents maintained in the postverbal position already given in the Latin structure shall be examined with respect to novelty and focus, and then, postverbal focus shall be compared with preverbal focus argued for in section 3.1.2 above.

3.2.3. *The nature of postverbal focus*

We shall look back at the examples in which apart from the placement of background material, no further syntactic differences between the Latin and OHG structure occur. The task will be to find clues for the retention of postverbal material related to novelty or focus on the constituents. Quite certainly, this cannot be assumed for all examples of the kind. See e.g. the PP in (29) which clearly provides given information, as at that particular point in the story, it is known that Zacharias is still in the temple. However, the postverbal PP in (30) conveys a new direction and thus is associated with new-information focus:

- (29) *Inti uuvntorotun thaz her lazz&a in templo* (T 27, 23)
 and marveled that he stayed in [the] temple
 ‘and marveled that he lingered so long in the temple’
 lat. *& mirabantur quod tardar& ipse in templo*
- (30) *mitthiu her quam ubar thén giozon / in lantscaf gerasenorum*
 (T 86, 31-32)
 when he came over the river to [the] country Gergesenes
 ‘when he had come over the river, to the country of the Gergesenes’
 lat. *Et cum ueniss& trans fr&um/ In regione geraseorum*

While examples of the type in (29) will not be interpreted further but left aside as equivalents of today’s cases of PP-extrapolation, those like in (30) may be associated with focus in OHG. Among the non-Vend sentences,

there are 32 cases in which the phrase retained in postverbal position represents new information. As the examples show, there is no restriction as to the grammatical type of the postverbal phrase: it can be a participle (31a), a PP (31b) as well as an object (31c):

- (31) a. *Quamun thô thie firnfolon man/ thaz sie uuvrdin gitoufit*
(T 46, 24-25)
came PRT the sinful men/ that they became-SUBJ baptized
'The sinful men also came in order to be baptized'
lat. *Uenerunt autem & publicani/ ut baptizarentur*
- b. *mit thiu her tho arsteig in skef* (T 88, 23)
when He PRT went into [a] boat
'when He got into a boat'
lat. *Cumque ascender& nauem*
- c. *thaz her giuente herzun fatero In kind* (T 27, 23)
that He turned-SUBJ [the] hearts of fathers towards [the] children
'that He turned the hearts of the fathers towards their children'
lat. *ut conuertat corda partium In filios*

Looking at these examples more carefully, we discover that the new information is not only provided by the postverbal constituents alone but rather comprises the entire VP. In (31a), it covers not only the participle but also the finite verb used to translate the Latin synthetic passive. In (31b), the focus domain includes the verb as referring to a new action together with the discourse-new directional phrase *in skef* 'into a boat'. The same applies to the VP in (31c) which assigns new information to the discourse-given referent John the Baptist.

In a further group of examples, wide VP-focus spreads over the V_{fin} and an argument that is being re-activated at that particular point in the discourse. In (32a), a previous event, namely the birth of Christ, is now being related to the king, therefore, the new information is that King Herod also heard about the birth of Christ. In (32b), respectively, the previous action, namely the unexpected catch of fish, is now presented from the point to view of one participant of a group of referents established before. What is achieved here is a kind of change of perspective, or a topic shift with respect to the continuation of the narration. So in these cases, the verb provides together with the postverbal constituent the new-information focus domain, while background information, e.g. the preceding action resumed in the anaphor *thaz* 'this' is placed preverbally:

- (32) a. *thô thaz gihorta herodes ther cuning* (T 39, 17)
 when that heard Herod the kind
 ‘when Herod the king heard this’
 lat. *audiens autem herodes rex*
- b. *mit thiü thaz tho gisah simon petrus* (T 55, 29)
 when this PRT saw Simon Peter
 ‘when Simon Peter saw this’
 lat. *Quod cum uider& simon petrus*

These examples confirm the view that apart from cases of PP-extraposition (see (29) above), which is common in modern German as well, the post-verbal field in OHG can also host constituents carrying new information, or more precisely, being part of a wide new-information focus domain opened by the finite verb. Therefore, the right periphery of such clauses is structured according to the following scheme:

- (33) CP – [XP...]BGR ... – VP[Vfin...]FOC

But how does this statement relate to the existence of a preverbal focus position claimed above? The intuitive answer to this question relates to the idea that wide, i.e. new-information focus, and narrow, operator-bound focus, are realized in two distinct syntactic positions distinguished by the placement of the finite verb in the clause. The following section shall provide more empirical support in favour of this view.

3.2.4. Multiple foci in OHG

Crucial evidence supporting the existence of two distinct positions for focus material in OHG comes from sentences with multiple foci. Consider (34)–(35) which contain both a discourse-given but contrastively focussed constituent and additional new information after the verb:

- (34) [*b&onte nicur& filu sprehan/ sósó thie heidanon mán* = ‘And when you pray, do not use vain repetitions as the heathen do’]
sie uanen thaz sie in iro filusprahhi / sín gihórte (T 67, 23–26)
 they think that they in their many words/ are-SUBJ heard
 ‘They think that they will be heard for their many words’
 lat. *orantes autem. nolite multum loqui/ sicut &hnicí./ putant enim quia in multiloquio/ exaudiantur*

- (35) [*thanne thu fastes/ salbo thin houbit/ Inti thin annuzi thuah* = ‘when you fast, anoint your head and wash your face’]

thaz thu mannon nisís gisehan/ fastenti. úzouh thinemo fater (T 68, 29–32)

that you men-DAT NEG-are-SUBJ seen/ fasting but your-DAT father‘

‘so that you do not appear to men to be fasting but to your Father’

lat. *tu autem cum ieiunas/ unge caput tuum/ & faciem tuam laua/ ne uideatis hominibus/ ieiunans. sed patri tuo*

Let us now look at the positional distribution of the different focus types in these examples. Narrow focus on constituents left adjacent to V_{fin} is evident in both cases. In (34), the PP *in iro filusprahhi* ‘for their many words’ acts as a focus exponent bound by an empty focus operator yielding the interpretation that only many words guarantee the fulfilment of the prayers. In (35), narrow focus on *mannon* ‘men-dat.pl’ results from the fact that it forms a contrastive pair with the explicitly mentioned constituent *thinemo fater* ‘your father’. In both cases, the structures may be viewed to be chosen deliberately by the scribe. So in (34), the equivalent of the Latin synthetic passive could also be constructed in the order ‘participle – V_{fin}’. Instead, the scribe opted for the reverse order, namely ‘V_{fin} – participle’, which allows to retain the narrowly focused material before V_{fin} and to place the new information after it. Similarly, the deponens lat. *uideatis* is dissolved into a periphrastic construction involving the order ‘V_{fin} – participle’, while the narrow focus is shifted across V_{fin} against its original position in the Latin sentence.

The sentence in (35) is notable in one more respect. According to the standard view, full PPs like *in iro filusprahhi* are a typical candidate for extraposition in modern German. It is striking, however, that exactly when pragmatic conditions apply yielding a narrow focus on the PP, it is put in preverbal position like any other type of phrase acting as operator-bound focus in the utterance.

It is interesting what causes this particular distribution of focus material in OHG. In order to arrive at a plausible explanation to this question, we shall consider two more examples from the OHG Tatian:

- (36) *nimág ther man Iouuiht intphahén/ noba imo íz gigeban uuerde fon himile* (T 57, 6–7)

NEG-can the man anything receive/ NEG-if him-DAT it given became-SUBJ from Heaven

‘a man can receive nothing unless it has been given to him from Heaven’

lat. *Non potest homo quicquam accipere/ nisi ei fuerit datum a caelo*

- (37) [*thisu sprahih íu* = ‘these things I have spoken to you’]

thaz in mir habet sibba/ In theru uueralti habet ir thrucnessi (T 290, 7–9)

that in Me-DAT have peace/ in the world have you tribulation

‘that in Me you may have peace; in the world, you will have tribulation.’

lat. *Haec locutus sum uobis/ ut in me pacem habeatis/ In mundo presuram habebitis*

In each of these sentences, two different constituents receive focus interpretation. One of them is set in an explicit contrastive relation to another entity in the utterance. In (36) this is the participle *gigeban* ‘given’ which refers to the only way to obtain spiritual power, namely by being given it, not by acquiring it oneself. In (37) the PP *in me* ‘in me’ is set into contrast to the expression *In theru uueralti* ‘in this world’. Additionally, there is also material supplying new information to the context. In (36) this is the source of the spiritual power, namely Heaven, and in (37) it is the direct objects *sibba* ‘peace’ which is also contrasted to the expression *thrucnessi* ‘pressure’ in the following conjunct. In the Latin version, in both cases the different types of foci are placed on the same side of the verb, after the verb in (36) and before the verb in (37). In the OHG text, however, these two types of foci are spaced in such a way that the contrastive or narrowly focused information is immediately before V_{fin} while the new one follows it. This invites the assumption that V_{fin} in OHG is used to avoid the stacking of two different types of focus in one and the same structural domain in the sentence.¹³ This enables the distinction of the focus types and the disambiguation of focus interpretations in the sentence.

4. Results: different positional distribution of focus types in OHG

The present paper investigated the role of pragmatic factors for the explanation of syntactic variation in the right periphery of subordinate clauses in OHG. It started with the claim that the standard account on word order in subordinate clauses in the early Germanic languages cannot be maintained without any modifications for a number of reasons. If in accord with the previous literature, we assume that OHG displays a basic SOV order maintained in clauses introduced by an overt complementizer, while exceptions to V_{end} are due to the extraposition of PPs, heavy NPs or CP-complements as well as to verb raising and verb projection raising in verb clusters, we are in need for an explanation of postverbal material like single NP or nominal parts of copular constructions. Therefore, we approached variation in the right periphery from a different perspective which subscribes to the view that verb placement in early Germanic is a grammatical correlate of pragmatic, discourse-based principles. More precisely, our analysis shows that in early Germanic, there is a tight correlation between the information-structural properties of sentence constituents and their realization with respect to V_{fin}.

This approach was applied to a sample of 100 V_{end} and 100 non-V_{end} sentences from the OHG Tatian which deviate from the structure of their Latin counterparts. First, it was shown that background material regularly appears in the domain immediately below C°, while focus material is found in two different structural positions adjacent to V_{fin} in the clause. Second, it was possible to account for principles governing this kind of distribution of focus material in the clause. On the one hand, narrowly focused information, e.g. contrastive focus on a single XP as well as operator-bound focus, tends to be placed left adjacent to V_{fin}. On the other hand, the domain of wide, new-information focus is opened by V_{fin} while the remaining elements of the focus projection follow it. The different positional distribution of focus types gained crucial support by the realization of multiple foci in OHG which occupy distinct syntactic positions with respect to V_{fin}.

The picture derived for OHG evokes clear parallels to the situation in Yiddish as described by Diesing (1997, 390-396). According to her, the different syntactic realization of object NPs with respect to the selecting main verb triggers three different types of semantic interpretation. As Hinterhölzl (2004, 154) observes, these interpretations correspond to different categories of information structure. Leftward movement of an NP outside the VP associates with definiteness and specificity, i.e. with background, while postverbal (*in-situ*) placement yields an existential reading

of discourse-new indefinite NPs as instances of new-information (presentational) focus. Additionally, both definite and indefinite objects in the position left-adjacent to the verb gain a special, marked status only possible when contrastive or corrective emphasis is put on them, i.e. when they are contrastively focussed. From this Hinterhölzl (2004) concludes that OHG, similarly to Yiddish, establishes two different syntactic positions for contrastive vs. non-contrastive, i.e. presentational focus. One significant difference to the situation described for OHG, however, remains: the position of narrow (contrastive and operator-bound) focus is left adjacent not to the main selecting verb but to *Vfin* in the clause. This, in turn, fits with the observations of Sapp (2006) on verbal clusters in Early New High German. He reports that contrastive interpretation on the immediately preceding XP is among the most influential factors leading to orders in which the *Vfin* is placed before all non-finite verbs in verb clusters.

The question is why these two focus positions were distinguished in the system of OHG. Two hypotheses can be put forward to explaining this issue. The first one relates to aspects of the prosodic realization of focus especially in cases of multiple foci: as focus is prototypically associated with main stress, the placement of the finite verb between two different types of focus was a means of avoiding a clash of two heavily stressed phrases in one and the same structural domain of the clause. This scenario, however, does not account for the regular association of narrow vs. wide focus with a special position in the clause. This feature is reflected in the second hypothesis claiming that the different positional realization of focus types allows the unambiguous interpretation of the pragmatic value of the constituents involved. It guarantees that preverbal focus is interpreted as narrow XP-focus only, excluding the option of focus projection. In this way, OHG avoids a phenomenon known as ‘focus ambiguities’ in modern German (as well as in a number of other non-related languages). It is well-known that in modern German, main accent on the rightmost XP in basic order yields both VP- or XP-focus while in scrambled order, the rightmost surface constituent receives an unambiguous contrastive interpretation (Abraham 1992). By contrast, in the system reconstructed for OHG, phrases belonging to the domains of new-information focus surface in postverbal position while preverbal focus only triggers the option of XP-focus with additional effects of contrast, emphasis, and exclusion of alternatives.

Notes

1. Kemenade (1987) proposes a model according to which OE displays properties of an asymmetric SOV language like modern German or Dutch. She assumes a base-generated SOV order maintained in subordinate clauses introduced by an overt complementizer in the head of a functional projection CP. In root clauses, the empty position of the complementizer is filled by V_{fin} while an optional movement of another constituent to SpecCP yields V2 in the surface. A similar approach has been proposed by Lenerz (1984) for OHG as well. Some basic differences between OE and OHG consist in the obligatoriness of V-to-C movement in main clauses. For Old English (OE), residual V2 in clauses with syntactic operators in SpecCP (wh- and negation words, sentence adverbials like *þa/þonne*, or a silent imperative-mood operator) is assumed, while in all other contexts V_{fin} targets another projection below CP (van Kemenade 1987 and 1997, Eythórsson 1996). By contrast, fronting of V_{fin} to C in cases with non-operators in SpecC is said to apply regularly in OHG (Axel 2007 and in this volume).
2. Basic methodological considerations in favour of this view were put forward by Dittmer and Dittmer (1998).
3. Schlachter's statistics (in this volume) comprising all *dhazs*-sentences counting as unambiguous cases of subordination in the OHG Isidor confirms this picture. As Schlachter also shows, Latin influence has to be definitely excluded as a factor leading to this situation in the OHG Isidor.
4. Pronouns are also excluded from extraposition in modern SOV languages. However, all instances involving a postverbal pronoun in our database may be explained as imitations of the original, which also involves a postverbal pronominal object, see (i):
 - (i) *thaz sie úz uuvrphin sie* (T 76, 2)
 that they PRT threw-SUBJ them
 'that they threw them away'
 lat. *ut eicerent eos*
 Additional instances with postverbal pronouns are found in T 50, 21, T 119, 9, T 122, 15 and T 220, 10. But note that Dittmer and Dittmer (1998) provide examples in which pronouns are placed after V_{fin} against the Latin original, see (ii):
 - (ii) *thiedar giotmotigot sih* (T 195, 19)
 who-PRT humiliates ReflPr
 'who humiliates himself'
 lat. *qui se humiliat* (Dittmer and Dittmer 1998, 148).
5. Uhlmann (1991, 200 and 217) provides similar facts for modern German, too.
6. In 2 additional cases involving narrow focus on a single phrase, the pattern Background–XP–Focus–V_{fin} is obviously blocked by the line break. Consider (i) and (ii) where the phrases *thin zesuuua ouga* 'your right eye' and *thin ze-*

suuúa hant ‘your right hand’ represent a pair of alternatives and therefore receive an interpretation as narrow, contrastive focus:

- (i) *oba thih zesuuua ouga / thih bisuihhe* (T 63, 24–25)
if your right eye/ you-ACC troubles
‘if your right eye causes you to sin’
lat. *quodsi oculus tuus dexter/ scandalizet te*
- (ii) *Inti oba thih zesuuúa hant / thih bisuihhe* (T 63, 31–32)
and if your right hand/ you-ACC troubles
‘and if your right hand causes you to sin’
lat. *& si dextra manus tua / scandalizat té*

Here, the pronoun *thih* ‘you-2sg.acc’ belonging to the background intervenes between the focus phrase and V_{fin}. However, it is clear that placing the pronoun in the Wackernagel position and above the focus phrase would violate the line principle.

7. But see Note 4 above.
8. The remaining instances are: T 30, 19–20, T 69, 22–24 and T 84, 10–11.
9. The remaining instances are: T 151, 12, T 224, 4–6.
10. The remaining instances are: T 46, 2–4, T 59, 1, T 89, 26–28.
11. The remaining instances are: T 35, 14–16, T 59, 22, T 60, 3, T 60, 12, T 60, 14, T 60, 16.
12. I owe this example to Richard Schrodtr (University of Vienna) who discussed evidence for non-Vend orders in late OHG in a talk “An den Rändern des Satzes. Kommunikative Dynamik im Althochdeutschen” on 17th Feb 2006 at Humboldt University Berlin.
13. In a similar way, Speyer (2008) argues that focus spacing in double-focus constructions is responsible for topicalisation in Old and Middle English.

Primary texts

- [ASChr] The Anglo-Saxon Chronicle. A collaborative edition. Volume 3. MS A. ed. Janet M. Bately, 1986. A semi-diplomatic edition with introduction and indices. Cambridge: D.S. Brewer.
- [T] Die lateinisch-althochdeutsche Tatianbilingue Stiftsbibliothek St. Gallen Cod. 56. hg. Masser, Achim. 1994. Göttingen: Vandenhoeck & Ruprecht.

References

- Abraham, Werner
 1992 Clausal focus versus discourse rhema in German: a programmatic view. In *Language and cognition 2*, ed. Dicky Gilbers and Sietze Looyenga, 1–18. Groningen: Universiteitsdrukkerij.
- Axel, Katrin
 2007 *Studies in Old High German Syntax: left sentence periphery, verb placement and verb second*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
 this vol. The verb-second property in Old High German: different ways of filling the prefield. In *New Approaches to Word Order Variation and Change in the Germanic Languages*, eds. Roland Hinterhölzl and Svetlana Petrova. Berlin: Mouton de Gruyter.
- Behaghel, Otto
 1932 *Deutsche Syntax. Eine geschichtliche Darstellung*. Band IV. Wortstellung. Periodenbau. Heidelberg: Carl Winter.
- Diesing, Molly
 1997 Yiddish VP order and the typology of object movement in Germanic. *Natural Language and Linguistic Theory* 15.2: 369–427.
- Di Meola, Claudio
 2000 *Die Grammatikalisierung der deutschen Präpositionen*. Tübingen: Stauffenburg Verlag.
- Dittmer, Arne and Dittmer, Ernst
 1998 *Studien zur Wortstellung - Satzgliedstellung in der althochdeutschen Tatianübersetzung*. Göttingen: Vandenhoeck & Ruprecht.
- Ebert, Robert Peter
Historische Syntax des Deutschen. Stuttgart: J. B. Metzlersche Verlagsbuchhandlung.
- Eythórsson, Thórhallur
 1996 Functional Categories, Cliticization, and Verb Movement in the Early Germanic Languages. In *Studies in Comparative Germanic Syntax*, eds. Höskuldur Thráinsson, Samuel David Epstein and Steve Peter, 109–139. Dordrecht/Boston/London: Kluwer Academic Publishers.
- Fuß, Eric and Trips, Carola
 2002 Variation and change in Old and Middle English – on the validity of the Double Base Hypothesis. *Journal of Comparative Germanic Linguistics* 4: 171–224.
- Haegeman, Liliane, and Riemsdijk, Henk van
 1986 Verb Projection Raising, Scope and the Typology of Rules Affecting Verbs. *Linguistic Inquiry* 17: 417–466.

Hinterhölzl, Roland

- 2004 Language Change versus Grammar Change: What diachronic data reveal about the distinction between core grammar and periphery. In *Diachronic Clues to Synchronic Grammar*, eds. Carola Trips and Eric Fuß, 131–160. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Karttunen, Lauri

- 1976 Discourse Referents. In *Syntax and Semantics 7: Notes from the Linguistic Underground*, ed. James McCawley, 363–385. New York/San Francisco/London: Academic Press.

Kemenade, Ans van

- 1987 *Syntactic Case and Morphological Case in the History of English*. Dordrecht: Foris.
- 1997 V2 and embedded topicalization in Old and Middle English. In *Parameters of morpho-syntactic change*, eds. Ans van Kemenade and Nigel Vincent, 326–352. Cambridge: Cambridge University Press.

Kiss, Katalin. E.

- 1998 Identificational focus versus information focus. *Language. Journal of the Linguistic Society of America* 74: 245–273.

Lakoff, George

- 1976 Pronouns and Reference. In *Syntax and Semantics 7: Notes from the Linguistic Underground*, ed. James McCawley, 275–335. New York/San Francisco/London: Academic Press.

Lenerz, Jürgen

- 1984 *Syntaktischer Wandel und Grammatiktheorie. Eine Untersuchung an Beispielen aus der Sprachgeschichte des Deutschen*. Tübingen: Max Niemeyer.

Masser, Achim

- 1997 Syntaxprobleme im althochdeutschen Tatian. In: *Semantik der syntaktischen Beziehungen. Akten des Pariser Kolloquiums zur Erforschung des Althochdeutschen 1994*, ed. Yvon Desportes, 123–140. Heidelberg: Carl Winter.

Pintzuk, Susan

- 1991 *Phrase structures in competition: variation and change in Old English word order*. Doctoral dissertation, University of Pennsylvania.

Pittner, Karin

- 1998 *Radfahren vs. mit dem Rad fahren: Trennbare Verben und parallele syntaktische Strukturen* In *Zwischen Grammatik und Lexik*, eds. Irmhild Barz und Günther Öhlschläger, 103–112. Tübingen: Max Niemeyer.

Sapp, Christopher D.

- 2006 Verb Order in Subordinate Clauses. From Early New High German to Modern German. Doctoral Dissertation, Indiana University.

- Schallert, Oliver
2006 Hybride OV / VO-Systeme und syntaktischer Wandel zu OV und VO in den germanischen Sprachen. Diplomarbeit, Universität Salzburg.
- Schlachter, Eva
2004 Satzstruktur im Althochdeutschen. Eine Skizze zur Position des Verbs im Isidor-Traktat des 8. Jahrhunderts. In *Beiträge zu Sprache & Sprachen 4. Vorträge der Bochumer Linguistik-Tage*, eds. Karin Pittner et al. 179–188. München: LINCOM.
this vol. Word Order Variation and Information Structure in Old High German. An Analysis of Subordinate *dhazs*-Clauses in Isidor. In *New Approaches to Word Order Variation and Change in the Germanic Languages*, eds. Roland Hinterhölzl and Svetlana Petrova. Berlin: Mouton de Gruyter.
- Speyer, Augustin
2008 Topicalization and Clash Avoidance. On the interaction of Prosody and Syntax in the History of English with a Few Glimpses at German. PhD Thesis, University of Pennsylvania.
- Tomaselli, Alessandra
1995 Cases of Verb Third in Old High German. In *Clause Structure and Language Change*, eds. Adrian Battye and Ian Roberts, 345–369. New York/Oxford: Oxford University Press.
- Uhmann, Susanne
1991 *Fokusphonologie: eine Analyse deutscher Intonationskonturen im Rahmen der nicht-linearen Phonologie*. Tübingen: Max Niemeyer.
- Valentin, Paul
1987 Zur Geschichte des deutschen Passivs. In *Das Passiv im Deutschen*, ed. Centre de Recherche en Linguistique Germanique (Nice), 3–15. Tübingen: Max Niemeyer.
- Weiß, Helmut
2006 Die rechte Peripherie im Althochdeutschen: Zur Verbstellung in dass-Sätzen. Ms.
- Wurmbrand, Susi
2004 West Germanic Verb Clusters: The Empirical Domain. In *Verb Clusters: A Study of Hungarian, German and Dutch*, eds. Kathalin É. Kiss and Henk van Riemsdijk, 43–85. Amsterdam/Philadelphia: John Benjamins Publishing Company.

