Abstract
This is a first attempt at describing word order variation in the early Germanic languages in a dynamic model of discourse relations as outlined in the Segmented Discourse Relation Theory SDRT by Asher and Lascarides (2003). The study aims at investigating the interrelation between information structure and discourse organisation in the text of the Old High German Tatian translation (9th century). The analysis of the data shows that verb-initial vs. verb-second placement regularly correlates with types of discourse relations attributed to the broad distinction between coordinating vs. subordinating linking. This in turn gives rise to the conclusion that the position of the finite verb in the sentence functions as a device in marking the type of discourse relations in this text of the Old High German corpus.

1 Introduction
In investigating the role of information structure for the development of the word order regularities in the Germanic languages, Hinterhölzl et al. (to appear) pursue an approach to the syntax of Old High German that especially concentrates on the relationship between the informational status of discourse referents and the placement of the finite verb form in the sentence.

The notion of ‘discourse referents’ applied in this study goes back to Karttunen’s (1976) definition of this term and covers individuals that can be referred back to in a coherent discourse by coreferential definite expressions, i.e. pronouns or full noun phrases. The identification of the informational status of discourse referents is based on taxonomies proposed in earlier works by Prince (1981) and Dik (1997).

The investigation is based on the text of the Old High German Tatian Translation (Cod. Sangalensis 56), a bilingually attested gospel harmony dated back to the 9th century and composed in the scriptorium of Fulda by at least 6 scribes. This text has been deliberately chosen as a starting point of the investigation. It is important to account for the relative high value of this text for any investigation on Old High German syntax. Though having been considered for a long time a slavish word-for-word translation of the Latin original and therefore unsuitable for any account on syntax, this text has been rediscovered as a basis for research in recent years. This is due to novel insights into the main principle of translation applied in this text which have now been reflected in a new edition made available by Masser (1994). It is now well known that each line in the Old High German text translates exactly the same material found in the corresponding Latin line. Departures from this basic principle are extremely rare within the whole text, cf. Dittmer and Dittmer (1998). This technique of translation certainly imposes restrictions on the
possibility to render a genuine word order pattern to the structures found in the original, cf. Masser (1997 a and b). But at the same time, deviations from the syntax of the Latin text within a line may be valued as evidence of genuine syntax and thus be made an object of separate investigation. Under these conditions, the text of the Old High German Tatian may be considered as one of the most abundant data collections for research on Old High German syntax.

The observations on possible correlations between verb placement and discourse status of constituents in instances of the Old High German Tatian translation reveal two striking tendencies. On the one hand, there is a regular preference for verb-initial structures in sentences establishing new discourse referents, ex. in text-initial sentences, presentational contexts etc. as given in (1)–(3):

(1) & erat anna proph&issa
   uuas thô thár anna uuızzaga (T 38, 22)
   ‘was then there A. the prophetess’

(2) Et pastores erant In regione eadem
   uuarun thô hirta In therö lantskeffi (T 35, 29)
   ‘were then shepherds in the same region’

(3) Vidua autem quaedam erat/ In ciuitate il-la
   uuas thar ouh sum uuıtua/ In therö burgi (T 201, 2)
   ‘was there a widow too in that city’

On the other hand, sentences maintaining an already introduced discourse referent as in (4) or involving a referent considered accessible via a bridging relation to an already established entity as in (5) show a regular tendency for verb-second placement against the underlying word order of the Latin original. In other words, verb-second seems to be bound to referents that are salient in discourse:

(4) ego sum pastor bonus. bonus pastor/ animam suam dat pro ouibus suis
    ih bin guot hirti. guot hirti/ tuot sina sela furi siniu scaph. (T 225, 16-17)
    ‘I am a good shepherd. [The] good shepherd gives his soul for his sheep’

(5) & nomen eius elis&h
    Inti ira namo uuas elis&h (T 26, 2)
    ‘and her name was E.’

The text also provides numerous examples of ‘minimal pairs’ as in (6) where the initial placement of the verb in the first sentence introducing new discourse referents is immediately suspended for a verb-second order in the following sentence making a statement on the referents just established:

(6) Fuit in diebus herodis regis/[…]quidam sacerdos/[…]& uxor illi/[…]/ erant autem iusti ambo ante deum
   uuas In tagun herodes thes cuninges/[…]sumer biscof […]/Inti quen junof […]/ siu uuarun rehtiu beida fora gotte (T 26, 3)
   ‘was in the days of Herod the king […] a certain priest […] and his wife […] they were both righteous before God’

This evidence gives reason to conclude that there is indeed a relevant interplay between information structure and verb placement in this particular text of the Old High German period. Verb-second is found in categorical sentences containing referents that are salient in discourse and are therefore suitable for topics fully in line with both the familiarity and the aboutness concept (cf. Frey 2000, 137f.) whereas verb-initial placement appears in typical thetic or all-focus sentences that are viewed to contain no explicit topic constituent (cf. Lamprecht 1994, 137-146) or rather no topic-comment structure at all (cf. Drubig 1992, 146). Nevertheless, in both verb-initial and verb-second structures the finite verb occurs at the beginning of the domain of new-information focus.

These observations can be summarized for both verb-initial and verb-second sentences as done in (7):

(7a) verb-initial
    [Vfin….DRnew….]FOCUS

(7b) verb-second
    [DRgiv/acc]TOP [Vfin.…….]COMMENT/FOCUS

The overall conclusion is that the position of the finite verb serves to distinguish the information-structural domains of Topic and Focus in sentences of the Old High German period.

2 The Problem

The findings represented above are not surprising as they fit well into the overall view that given material as in topics tends to be presented early in the sentence while new information as in broad focus usually is supplied later, mainly following other given material in the sentence.
Nevertheless, a problem arises concerning the evidence of verb-initial sentences containing expressions for discourse referents suitable for topics as in (8)–(9). Although involving discourse referents already introduced in previous discourse and meeting such crucial pragmatic criteria for topicality as givenness, definiteness and referentiality, these sentences fail to establish the structure summarized in (7b):

(8) & reuersus est centurio in domum suam uuarb tho ther centenari in sin his (T 84, 8)
   ‘returned then the centurion to his home’

(9) Dicebat autem & ad Inuitatos/ parabolam Quad her tho zi then giladoten/ ratissa (T 180, 9)
   ‘told he then to the invited [people] a parable’

Quite opposed to the position of the given material in instances like (4)–(5), the definite expressions ther centenari ‘the centurion’ as well as the personal pronoun her ‘he’ in (8)–(9), that refer to entities already established in previous discourse, are nevertheless placed after the finite verb which itself opens the sentences.

3 The Proposal

3.1 The Hypothesis

The contradiction revealed in section 2 may be dissolved if one succeeds in finding a common basis which is able to account for the properties of the sentences in (8)–(9) and the verb-initial all-focus sentences presented in (1)–(3) alike. In our opinion, such a common basis can be provided if one broadens the account on the informational status of sentence constituents and takes into consideration the discourse-functional role of these sentences as a whole within the narrative structure of the text.

Analysing the features of the examples in (8)–(9), one can observe that although involving discourse referents that are suitable topic candidates, these sentences do not serve to provide more information on those discourse referents proper but rather aim at moving forward the general course of the story. Therefore, the conclusion may be drawn that these sentences function to establish new situations enabling the continuation of the main story line. In this sense, verb-initial sentences containing given discourse referents as in (8)–(9) appear to have the same discourse functions as the all-new sentences given in (1)–(3) above.

From the point of view of rhetorical structure, it can be argued that the difference in verb placement in the Old High German text shows striking parallels to the type of discourse relations established by the sentences within the text as a whole. Cases of verb-initial vs. verb-second placements appear to correlate not so closely with the information-structural status of the discourse referents but rather with the types of discourse relations subdivided into coordination and subordination by Asher and Lascarides (2003).

The analysis of verb-second instances as shown in (4)–(5) makes clear that such sentences serve to provide more information on a discourse referent already established in the previous discourse. In terms of the discourse theory of Asher and Lascarides (2003), the text function of verb-second instances fits into the rhetorical relation of Elaboration viewed as the prototype of subordinating linkage of discourse segments. The previous observation that the finite verb in such sentences serves to separate a referential topic constituent from the rest of the utterance as reflected in (7b) may now be re-interpreted as a consequence of functional differentiations on the level of discourse relations.

On the contrary, verb-initial sequences appear in contexts establishing a new situation as a basis for further Elaboration in subsequent utterances. Such structures providing the continuation of the story give reasons to be related to the discourse function of Narration as attributed to the coordinating type of linkage.

In this view, the text of the Old High German Tatian allows for a dynamic model of discourse structuring where verb placement serves as a major device in distinguishing the type of discourse relations. From the observations made above, it may be concluded that verb-initial structures establish coordinative discourse relations whereas verb-second clauses signal subordinating linkage to the previous discourse part. In this sense, a verb-initial occurrence within the text, even involving an already established discourse referent, may be perceived as a signal that the utterance quits a previous passage of subordination and returns to the main line of the discourse.
In terms of the tests for discourse relations developed in Asher and Vieu (2005), verb-initial sentences with given discourse referents \(S_{n+1}\) do not provide a continuation of a sequence of subordinated utterances \(S'_n, S''_n, \ldots\) to an introductory sentence \(S_n\) but rather attach to \(S_n\) at the same level of dependency, which is higher than that of \(S'_n, S''_n, \ldots\).

This situation is represented in Figure (1):

![Figure 1: Verb placement in relations of subordination and coordination in Old High German](image)

We formulate our **hypothesis** on the interrelation between rhetorical structure and verb placement in Old High German as follows:

- verb-second order appears in structures with given/salient discourse referents as topics to establish a subordinating relation to the previous discourse unit as well as to mark a sequence of subordinated units within one and the same level of dependency (**Continuation**)
- verb-initial order signals coordination at the main level of discourse as well as a shift from **Continuation** at a lower level of subordination to a higher level of hierarchy.

These observations can be further specified in the light of the differentiation of two types of topics as proposed in literature, cf. ex. Grabski (2000). Here, on the one hand, sentence topic is defined as a part of the predication structure, i.e. that part of the proposition on which a comment is supplied. On the other hand, a discourse topic (D-Topic) reflects a discourse referent that is active throughout a larger part of discourse. In this connection, we can say that verb-second typically preserves a sentence topic in subordination (**Elaboration, Explanation and Continuation**) whereas verb-initial in coordination (**Narration**) preserves a discourse topic as proposed by Asher and Lascarides (2003).

### 3.2 Some more empirical data

Here are some more examples supporting the hypothesis made above.

Starting with the subordinating type of discourse relations, we can extend the analysis of cases like those in (4)–(5) to further sentences involving **Elaboration** (10)–(11) and **Explanation** (12):

10. *ecce defunctus/ efferebatur. filius unicus/ matris suae, & haec uidua erat. senu arstorbaner/ uías gitragan einag sun/ sinero muoter Inti thiu uuas uuituuua* (T 84, 22-24)

   ‘behold, a dead man was being carried out, the only son of his mother and she was a widow’


   ‘in M.’s seat sit [the] scribes and [the] Pharisees. They say and they do not do, they bind heavy burdens, they make their phylacteries broad, they love the best places at feasts

12. *& non erat illis filius eo quod/ ess& elisab&k stetilis Inti ni uuard In sun. bithiu uuanta/ elisab&k uuas uuberenti* (T 26, 6-7)

   ‘and they has no sun because E. was barren’

In (10), the second sentence gives more information concerning the discourse referent ‘his mother’ introduced by the previous one (**Elaboration**). Similarly, in (11), a series of subsequent sentences serves to assign properties to the discourse referent ‘the Pharisees’ established by the first sentence (**Continuation**). Finally, in (12), the second sentence gives the reason for the situation denoted in the first one as explicitly denoted by the causal connective *bithiu uuanta ‘because’ (Explanation).

As a matter of fact, the serialization of constituents in sentences inducing the relation of subordination appears to be the same in the Old High German text, though quite different in the Latin
original. Therefore, we may conclude that in clauses serving to provide more detail on a discourse referent previously established, the word order of the Latin original is systematically transformed to a verb-second pattern with a referential topic constituent in front of the finite verb; i.e. we encounter the structure described in (7b) above. These data support the observation that in the earliest stages of the Old High German period verb-second is a word-order pattern that is regularly associated with the salience of discourse referents.

Quite different is the situation in sentences inducing discourse relations of coordination. Here, next to a strong tendency to preserve the verb-initial structure of the original, we encounter evidence of systematic shift to verb-initial instances against the original as well.

On closer inspection, the cases of verb-initial sentences with post-verbal candidates for topic allow for a classification into several groups due to discourse-functional properties as well as due to the lexical class of the main verbs involved. Here, we will provide some of the main groups of occurrences:

i) sentences opening a new narrative sequence

These are sentences at the beginning of a new passage in the text structure. They regularly occur when narration proceeds to another biblical event, but are also found within one and the same gospel story involving the same discourse referents as in the preceding narration. Surely the most numerous examples in this group are provided by the introductory formula uuard thô for lat. factum est ‘it happened that’. In the following example, both the original and the translation involve the construction ‘Auxiliary + Past Participle’. However, the scribe of the Old High German text opted for a verb-initial translation of the sentence contrary to the word order of the original.

(13) Factum est autem In diebus illis
uuard thô gitân In then tagon (T 35, 7)
‘[It] happened in those days’

Verb-initial sentences opening a new text sequence are not only restricted to the impersonal verb construction given in (13) but also occur with other main verb predicates:

(14) Phariseus autem coepit intra se/ reputans dicere
bigonda ther phariseus innanimo/ ahtontiquedan (T 126, 5-6)
‘began this Pharisee by himself thinking to speak’

ii) sentences with verbs of motion

This is also a large group of sentences denoting the appearance or withdrawal of discourse referents, thus establishing a change in the overall ‘setting’ of the narrative situation:

(15) & ecce angelus domini
quam thara gotes engil (T 35, 32)
‘came there God’s angel’

(16) & discessit/ ab illa angelus
Inti arfuor tho/ fon lru ther engil (T 29, 6-7)
‘and flew away then from her the angel’

Furthermore, verb-initial placement occurs with verbs of motion used with inanimate subjects as in (17). The textual function of these examples also implies a change in the overall situation of the narration. Often such sentences are found at the beginning of a new narrative sequence as well, thus accounting for features already described for i) above:

(17) & exit hic sermo
Inti úzieng tház uúort (T 85, 7)
‘and went out (=spread around) this news’

(18) & exituit fama haec
Inti argieng thó/ íz thu liumunt (T 97, 5)
‘and went around (=spread around) this fame’

iii) sentences denoting a change into a new cognitive or physical state of a given discourse referent

There are regular occurrences of verb-initial placement in contexts when a previously given discourse referent enters into a new state of mental or physical condition, cf. (19)–(21). Quite often, this appears with verbs of mental or sensual perception (‘realize’ as well as ‘hear’, ‘see’) as well:

(19) & contristatus est rex
Inti uuard gitroubit ther kuning (T 116, 21)
‘and became troubled the king’

(20) & sensit corpore/ quod sanata ess& a plaga
furstuont siu thô in ira lihhamen/ thaz siu heil uuas fon theru suhti (T 95, 14-15)
‘felt she then in her body that she recovered was from this plague’

(21) & sanatus est puer in illa hora
uuard tho gihelit ther kneht in theru ziti
(T 84, 7)
‘became then healthy this boy within that time’

iv) verba dicendi

This is also a very large group of instances indicating a change of the speaker in dialogue sequences:

(22) & respondens angelus/ dixit ei. 

*antlingota* tho ther engil/ *quad Iru.* (T 28, 26-27)

‘responded then the angel [and] said to her’

There are also cases of verb-initial sentences introducing a new discourse referent as shown in (1)–(3) but also sharing some of the properties outlined in i) to iv). The case in (23) is such an instance of a verb-initial sentence appearing at the beginning of a new narrative sequence and at the same time establishing a change in the overall situation of the narrative by adding a new discourse referent.

(23) *Adducunt autem scribae/ & pharisei. mulierem In adulterio/ deprehensam leittun tho thie buochara/ Inti pharisei uuîb In ubarhiuui/ bifangan* (T 198, 24-26)

‘brought then the scribes and Pharisees a woman in adultery caught’

These instances show that verb-initial placement is a widespread syntactic pattern in early German. Under the perspective we pursue, there is a common basis to unify those occurrences within the functional domain of coordinating discourse relations on the level of discourse structure. Thus, the structure of verb-initial sentences introducing new discourse referents in presentational contexts given in (7a) above can be extended to contexts with given discourse referents in post-verbal position as in (7’a):

(7’a) verb-initial

[Vfin….DR<sub>new/giv</sub>…]COMMENT/FOCUS

3.3 Implications for diachronic syntax

We shall finally turn to the implications of the interrelation between verb placement and discourse structure for the development of German syntax. If the complementary distribution of cases of verb-initial vs. verb-second in the text of the Old High German Tatian connected to different types of discourse relations be a realistic picture of the situation in early Germanic, then the question arises how and why German lost this functional opposition and developed to a language with a generalized verb-second pattern.

The answer is provided by the fact that already within the system of the Old High German Tatian we encounter cases of variation in one functional domain of this opposition, namely in the domain of the coordinative type of discourse relations. Here, next to the already presented regular types of verb-initial sentences as given in (1)–(3), (8)–(9) as well as (13) through (23), structures with a sentence initial frame adverbial, mainly *thô* ‘then’ as a connective marking the coordinative relation, and a subsequent verb-second order, co-occur:

(24) & ecce homo *erat* in hierusalem. 

*senonu tho uuas man* in hierusalem. (T 37, 23)

‘behold, then was a man in Jerusalem’

(25) & repl&i *sunt* omnes/ in sinagoga ira 

*thô uuvdun sie gifulte alle/ in theru sa manungu gibuluhti* (T 115, 7)

‘then became all in the Synagogue full of anger’

(26) *interrogabat eum p&rus* 

*thô fragata inan petrus* (T 128, 18)

‘then asked him P.’

This means that we encounter variation to the structure of verb-initial sentences marking coordinative discourse relations as given in (7’a) above against structures to be represented as in (27):

(27) *thô+verb-second* 

[Vfin….DR<sub>new/giv</sub>…]COMMENT/FOCUS

That we really face optionality between these two structures can also be inferred from the fact, that in numerous of the verb-initial sentences given above, the adverbial *thô* is added independently from the original after the verb or is deliberately shifted to this position as in (1), (2), (8), (16), (18), and (20)–(22). In other cases as in (9), (13), and (23), post-verbal *thô* is the correspondence to lat. *autem* ‘but’.

It is a matter of further research to investigate whether there are significant preferences for verb-initial vs. *thô+verb-second* order in contexts of coordination among the different scribes of the Old High German Tatian. Nevertheless, the fact that we encounter variation within one and the same functional domain evokes clear parallels to well-established models of language change as outlined
in recent works on diachronic syntax. In the frame of Lightfoot (1998), language change is viewed as a new kind of parameter setting in the internal grammar of young generations of speakers resulting from a shift in the frequency relation of competing structures in the data input during language acquisition.

In this sense, the existence of competing structures in the domain of sentences attributing to the coordinative type of discourse relations can be viewed as a pre-condition and indication of language change fully in line with the theory of Lightfoot (1998).

4 Conclusion

The empirical investigation of the syntax of the Old High German Tatian gives reason to relate the variation of verb placement to the discourse properties of the sentences involved. The analysis reveals that the function of verb-initial vs. verb-second placement may be bound to the separation of types of discourse relations attributed to the overall distinction between coordinating and of subordinating linking of text segments. Thus, the implications of this study are twofold. For language theory, it sheds more light on the interaction between information structure at the sentence level and rhetorical relations at the text level. For historical linguistics, it constitutes a new approach to the research on the development of word order variation in the Germanic languages that has not been pursued in the past.

Acknowledgments

This paper presents results of research in progress on the interdependence between syntax and information structure in the early Germanic languages completed by Project Group B4 as part of the Collaborative Research Center SFB 632 “Information Structure” at the University of Potsdam and Humboldt-University Berlin. The project is financed by the German Research Foundation (DFG). We would like to thank our project supervisor Karin Donhauser as well as our co-researchers Jürg Fleischer, Eva Schlachter and Michael Solf for discussions on the subject matter of this paper. The comments given by our reviewers helped to improve our paper a lot.

Historical Text Sources


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