

Focus movement and focus interpretation in Old English

Abstract

Addressing the current debate on the mapping between focus marking and focus interpretation, the paper presents evidence suggesting that different types of focus correlate with different types of movement of DP-objects in Old English. The analysis of the contexts in which these movement operations occur reveals that if we assume a double base scenario allowing for both movement to the left and to the right of the IP, we obtain orders in which the objects firmly correlate with a particular information-structural property. While movement to the left takes place in those cases in which the referent of the object is in a contrastive relation to another entity in the context, rightward movement clearly relates to novelty in the discourse.

Keywords: focus, contrast, new information, Old English, Old High German

1. Introduction

The distinction between focus as expressing new information in the discourse, and focus that involves a contrastive relation between different entities in the context, is a long-established view in the research on information structure (cf. Dik, 1989, 282 among others). However, if we consider the question whether focus interpretation correlates with particular strategies to encode it, we observe a typological split among the languages investigated in the literature. On the one hand, it has been claimed that in languages like Hungarian (Kiss, 1998) and Finnish (Vallduví and Vilkuna, 1998), focus realization via syntactic movement associates with additional effects like contrast and exhaustivity, while *in-situ* focus is neutral in this respect. On the other hand, contexts triggering exhaustivity and contrast do not impose a special marking in other languages, giving rise to the assumption that the above mentioned mapping between focus interpretation and focus realization is no universal linguistic phenomenon but a property restricted to individual languages.

Recent work on the role of information structure in word order variation in early Germanic has argued that Old High German (OHG) is one of the languages that exploit different means of marking focus, depending on its semantic interpretation (cf. Petrova, 2009; Petrova and Hinterhölzl, t.a.). It was shown that in embedded clauses, constituents that are narrowly (contrastively) focused are realized left-adjacent to the finite verb (Vf) as shown for

mannon ‘to men’ in (1), while constituents that are part of the domain of new information are realized postverbally, as the object *boanerges* in (2).

- (1) [thane 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 (Tatian 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
- (2) [then scuóf hér namon = ‘he gave them names’]
thaz sie hiezzin *boanerges* (Tatian 59, 22)
that they were called-SUBJ Boanerges
‘that they were called B.’
lat. quibus imposuit nomina / boanerges

For Old English (OE), a close sister language of OHG, focusing and defocusing have also been addressed as factors triggering word order variation in the surface. Kemenade and Los (2006) and Kemenade (2009) observe that discourse-linked material regularly appears in a special syntactic domain situated between the subordinating conjunction and an adverbial (most often *þa* ‘then’) which functions as a discourse partitioner in the clause. In contrast, the expression of focus on a DP-object has been related to postverbal placement in various studies, e.g. Pintzuk and Kroch (1989), Roberts (1997), next to similar interpretations put forward in the non-generative discourse-related literature on OE word order, e.g. Bech (1998).

Accounts like these give reason to assume that OE is discourse-configurational to quite the same extent like OHG. However, no asymmetry in the syntactic realisation of contrast vs. new information has been considered in the literature. The aim of the present paper is to present results of a large empirical investigation into the way in which information structural categories are realized in OE. In particular, we want to examine the question whether there are distinguished syntactic positions in the surface order of the clause which are targeted by phrases with a particular information-structural content. Additionally, we aim at examining potential differences in encoding new information vs. contrast, as has been observed to be the case in OHG.

2. Motivation, data and method

2.1. Current interest in the corpus-based research on information structure and word order in OE

In the past few years, information structure as a factor leading to word order variation and change has received growing attention in the diachronic generative research. Following seminal work by Hróarsóttir (2000) on Icelandic and Hinterhölzl (2004a) on OE and OHG, project B4 of Collaborative Research Center on Information Structure¹, established at Humboldt University Berlin in 2003, has launched a large-scale empirical investigation into the correlation between word order and information structure in early Germanic (cf. Hinterhölzl and Petrova, eds., 2009). A central issue in the research programme of the project is the systematic comparison between OHG and OE (Hinterhölzl and Donhauser, 2007). First results of the information structural analysis of DP-objects in different datasets retrieved from the York-Helsinki Parsed Corpus of Old English Prose (YCOE, Taylor et al., 2003) are reported in Hinterhölzl and Petrova (2009) and Petrova and Speyer (2009).

Parallel investigations on the correlation between information structure and object placement are carried out on the basis of corpus data by Taylor and Pintzuk at the University of York and have been also presented at different occasions (cf. Taylor and Pintzuk, 2008, 2009, 2010). The results of the York group, documented in much unpublished work and kindly provided to us by the authors, are considered and referred to throughout the paper. Given the size of the OE corpus and the fact that tagging of information structural features may follow different category schemes chosen by the individual investigator, it is certainly no disadvantage but rather a benefit for the current research situation to have parallel looks at the issue from different perspectives. As will become clear below, the texts selected for detailed analysis by the two research groups also differ from each other thus providing the opportunity to compare and supplement observations in this especially difficult and time consuming task.

But note that the approaches pursued by the two research groups also vary in some basic points. The Berlin group has been aiming at a philologically reflected discussion of the data, showing how difficult it is to obtain a clear picture of the positional behaviour of objects sharing the same information structural features in OE, unless a precise methodology for data selection is adopted. Addressing a wide readership interested in the role of information

¹ For detailed information, including the research programme of project B4, visit <http://www2.hu-berlin.de/sprachgeschichte/forschung/informationsstruktur/index.php>; <http://www.sfb632.uni-potsdam.de>.

structure in language variation and change but not necessarily familiar with the structural ambiguities that pervade the syntax of OE, we deliberately explain in detail the problems related with the interpretation of examples from different datasets and motivate successive refinements in order to arrive at unambiguous orders, e.g. the S V Aux O order similarly investigated by Taylor and Pintzuk (2009), but without the constraints on constituent length introduced by us (Section 4), as well as the O S V Aux order not considered elsewhere in the literature.

2.2. Terminological and methodological notes

If it is true that word order variation, e.g. in OE, is due to the expression of information-structural categories, then we should be able to identify certain pragmatic features that correlate with a particular surface order in the clause. In order to find an answer to such a question, we queried the York-Helsinki Parsed Corpus of Old English Prose (YCOE, Taylor et al., 2003) for different OV/VO orders and then determined the information-structural properties of the objects by analysing the contexts in which they appear. For more transparency concerning the syntactic interpretation of the examples, we concentrate on subordinate clauses with an overtly filled C-domain, i.e. on complement, relative and adverbial clauses, in which topicalization of arguments and movement of the inflected verb to C^0 can be safely excluded.

We distinguished 3 different datasets with the following properties: *Dataset 1* comprising subordinate clauses with a single lexical verb, *Dataset 2* involving clauses with a finite auxiliary (Aux) and a non-finite main verb (V), and *Dataset 3* including orders in which the position of the object under investigation is necessarily derived by syntactic movement. The properties of these datasets and the disadvantages connected with *Datasets 1* and *2* will be outlined in the respective sections; the motivation for distinguishing these different datasets was driven by the need to limit step by step the amount of structural ambiguities present in the clauses under consideration.

Given the size of the corpus, we decided to concentrate on original texts, i.e. texts that are not translations from Latin. This means that there is a strong bias in favour of homilies, augmented by the material of the Chronicles and other narrative texts such as Ælfric's writings. In the case of very frequent word orders, we confined ourselves in the statistics to texts which yield a considerable number of hits. In the case of infrequent word orders, however, we decided to allow also examples from translation texts. We felt justified in doing

so since English translators freed themselves to a considerable extent from the interlinear translation principle (Allen, 1980, 34-36).

With respect to the determination of information structural categories, we decided to examine the informational status of object expressions, i.e. their properties with respect to the given/new distinction. We are aware that in the current literature, givenness is no longer regarded a dichotomy but rather a scale involving various degrees of accessibility, with the categories *given* and *new* representing the two end poles of this scale (Prince, 1981; Gundel et al., 1993). We nevertheless decided to keep the number of categories small, counting as *given* those objects which have a co-referring antecedent in the immediately preceding context, while the lack of an activated antecedent motivated the determination of the expression as *new*.

We also considered the well-known observation in the literature that informational status can be properly applied only to referential expressions. Following the seminal definition of Karttunen (1976), referential properties are ascribed to those expressions that convey individuals, properties, events or facts which are presupposed to exist in the linguistic context and which can therefore be picked up by a co-referential anaphor in the following discourse. Quantified and negative expressions, predicative nouns selected by verbs like 'be called/named' etc, reflexive pronouns and other types of non-referring pronouns were left aside in our analysis, as they have no referring potential on their own and are therefore not properly analysable with respect to informational status.

Informational status is only one of at least three layers of information structure that interrelate with each other, the remaining two being topic vs. comment and focus vs. background (Krifka 2007, among others). Novelty of an object indicates that it is part of the new-information focus domain, while givenness correlates with background. In addition to that, contrast is an independent category applied to a heterogeneous class of phenomena, e.g. to the presence of alternatives in the linguistic or extra-linguistic context (Rooths, 1992; 1996), to effects of exhaustivity (Kiss, 1998) or to emphasis on subjective grounds (Zimmermann, 2007). In view of that, contrast is aside the given/new-distinction and forms a semantic type of focus that may refer both to given and new information.

3. The analysis of *Dataset 1*: clauses with single lexical verbs

In a first step, we conducted a corpus search for DP-objects in pre- and postverbal position in subordinate clauses containing a main inflected verb. Our analysis revealed that it is hardly

possible to discern a particular information structural feature that correlates with any particular position of DP-objects relative to Vf. First, consider that both the preverbal DP-object in (3a) as well as the postverbal object in (3b) refer to an antecedent that is activated in the immediately preceding context. Therefore, both objects are best classified as *given*:

- (3) a. Hit is an biscop se dyde mare yfel þonne god; he onfieng for worlde mycelne
it is a bishop REL did more evil than good; he obtained for world-DAT great
noman_i, and þæt eal forheold, and his Scyppend þe him *þone noman_i* forgeaf
name-ACC, and that all disregarded and his Creator REL him this name gave
(coblick,HomS_14_[BIHom_4]:43.91.565)
‘This is a bishop who did more evil than good. Before the world he had a great
name, but he disregarded it all and his Creator, who had given him this name’
- b. sona swa he acenned wæs and geboren, he þam fæder_i þa stefne
as soon as he conceived was and born, he DET father-DAT DET voice-ACC
ageaf and þa tungan onlyfde, þa se heahengel
restored and DET tongue-ACC unloosened, when the archangel
mid þære swigunge fæstnunga geband *þone fæder_i*, forþon þe he
with DET silence-GEN bond-DAT bound DET father-ACC, because PRT he
his wordum ne gelyfde
his words-DAT NEG believed
(coblick,LS_12_[NatJnBapt[BIHom_14]]:167.112.2120)
‘as soon as he [John the Baptist] was conceived and born, he restored voice to
his father and unloosed his tongue, after the archangel had bound the father
with the bound of silence because he did not believe his words’

At the same time, object expressions that introduce a new individual to the context can be identified both in preverbal as well as in postverbal position. Consider (4a–b):

- (4) a. Þæt gelamp sume siþe þær he *sum deofolgild* bræc and fylde,
there happened INDEF time when he INDEF idol broke and cast
þæt þær gebrægd þara hæpenra manna sum his seaxe
that there drew DET heathen men-GEN one-INDEF his sword
(coblick,LS_17.1_[MartinMor[BIHom_17]]:223.214.2856)

‘It happened once, when he was breaking and casting an idol, that one of the heathen men drew his sword’

- b. Hwæt tacnaþ heo buton þa halgan cyricean, þæt synd geleaffulle menn
what signifies she but DET holy church, these are believing men
þa gearwiaþ *clæne wununga* on heora heortum Criste sylfum?
REL prepare clean habitation in their hearts-DAT Christ-DAT REFL-DAT
(coblick,HomS_21_[BIHom_6]:73.123.913
‘What does she [Martha] signify but the holy church, that is, believing men
who prepare in their hearts a clean habitation for Christ himself’

Finally, objects in both positions can be assigned a narrow, e.g. contrastive, focus interpretation alike, cf. (5 a–b):

- (5) a. Þonne is nu to geþencenne on þas halgan tid, nu we *urne lichoman* clænsiaþ
then is now to consider on DET holy time-ACC, when we our body cleanse
mid fæstenum and mid gebedum, þæt we eac *ure mod* geclænsian
with fasting-DAT and prayers-DAT, that we also our mind cleanse
from yfelum wordum
from evil words-DAT
(coblick,HomS_10_[BIHom_3]:39.211.502
‘Now we must consider at this holy time when we cleanse our bodies with
fasting and with prayers, that we also cleanse our mind from evil words’
- b. Eac we magon geþencean [...] ,þæt man mid mandædum and
also we might consider [...], that INDEF with bad deeds-DAT and
mid synnum him sylfum geearnige *edwit*, þonne mon mid godum and
with sins-DAT him REFL-DAT earn disgrace, while INDEF with good and
soþfæstum dædum geearnige him *þa ecean ræste æfter þisse worlde*
just deeds-DAT earn him DET eternal rest after DET world-DAT
(coblick,HomU_19_[BIHom_8]:101.85.1303)
‘We should also consider [...] that by means of bad deeds and sins, a man can
earn for himself disgrace, while by means of good and just deeds, he may
obtain the eternal rest after this world’

We provided statistics to see whether the quantitative distribution of the different information structural categories varies significantly with respect to the position of the object. As the number of hits for Vf–O and O–Vf orders is extremely high in the entire corpus but the determination of the categories proceeds slowly, involving manual tagging after checking the context of the corresponding example in the text edition, we decided to restrict full statistics to the counts for accusative objects in one text yielding a representative set of clauses, namely for Blickling Homilies, cf. Table 1.

insert table 1

The numbers show that the text has a strong OV bias, with preverbal objects rendering very frequent with all classes of objects in general. If we test statistical significance, it turns out that the distribution of the classes of *given* vs. *new* is highly significant with respect to the preverbal and postverbal position in the clause, with novel object tending to appear postverbally more often than preverbally. This confirms the results gained in the study of Taylor and Pintzuk (2008) dealing with the same dataset in three different OE texts (*Matryrology*, *Apollonius* and *Heptateuch*). But if we test the significance including non-referents as well, the situation does not change in the sense that we get high statistical significance again. This implies that information structure cannot be safely identified as a factor governing the placement of objects at this stage of the analysis.

In our view, this result is expectable, if we take into consideration some well-known facts about OE syntax. Recalling what we know on word order variation in OE from the literature, we can distinguish two basic factors that lead to the heterogeneity observed in the data. The first one is structural ambiguity. Note that the orders attested in this type of data are structurally ambiguous both in the light of approaches assuming a universal head-initial base (UBH, cf. e.g. Hinterhölzl, 2004a)² as well as in terms of a double-base grammar (DBH, cf. Pintzuk, 1991; 1999).

Let us consider the possible derivations in line with the UBH first. According to Hinterhölzl (2004a:143), the surface orders attested in OE are derivable from a underlying VO order by application of the following movement operations: i) obligatory leftward movement of the object to SpecAgrOP where it checks case features results in OV in the surface (6a); ii) remnant movement of the VP (VP-intrapolation) across the object in SpecAgrOP yields VO in the surface (6b). Note, however, that VO surface orders also arise if VP-intrapolation applies across an object that has been scrambled prior to remnant movement (Hinterhölzl, 2004a:147) (6c).

- (6) a. [AgrOP XP_i] [VP [V t_i]]
 b. [VP [V t_i]] [AgrOP XP_i] t_{VP}
 c. [VP [V t_i]] XP_i t_{VP}

Following these assumptions, we must expect that preverbal objects can be both *given* and *new* as movement to SpecAgrOP is said to apply obligatorily thus independently of the information-structural value of the object. Moreover, in line with (6b–c), objects surfacing in postverbal position can also be of two different kinds. If we assume that VP-intrapolation in (6b) applies as a part of a strategy to mark a focus on the object (Roberts, 1997³), the result would be a novel, thus focussed object in postverbal position. If, however, VP is moved across an object that has been scrambled because it represents background information, then the result will be a given object in postverbal position.

In line with the DBH, clauses with main inflected verbs are ambiguous with respect to the assumed underlying position of the object and verb. So, for instance, the example in (7) can i) reflect an underlying VO order without any movement operations (7a), or ii) we have an underlying OV structure in which either the verb is moved leftwards (7b) or the object is extraposed to the right (7c).

- (7) be ðære he getrynde Enoch
 by REL he sired Enoch
 ‘by whom he sired Enoch’ (cootest, Gen:4.17.205 in Taylor and Pintzuk, t.a., 3)
- a. [VP V [DP]]
 b. [IP V_i [VP [DP] t_i]]
 c. [VP t_i V] [DP]_i⁴

Under these conditions, we expect two types of objects to surface postverbally: i) *in situ* phrases which occupy this position independently of the information-structural properties of the referent they denote (7a, b), or ii) objects extraposed to the right of V, probably to satisfy some information-structural constraints (7c).

² For a critical account on the different approaches at deriving word order in OE from a universal head-initial base, (cf. Pintzuk, 2005).

³ Actually, Roberts (1997) assumes optional movement of objects to SpecAgrOP. Objects remain *in situ* if they are focused. In this case, again, postverbal objects can be both given, resulting from remnant movement over a scrambled object, and focused, *in situ* objects.

⁴ For simplicity's sake, we ignored IP in (7a, c).

Following these considerations, an important step towards determining the role of information structure in word order variation will consist in dissolving structural ambiguities in the dataset considered in the investigation.

The second factor responsible for the heterogeneity in the data at this step of the analysis is syntactic weight, i.e. the length of objects involved. It is well-known that the syntactic weight of an object constituent influences its positional realization in the clause, independently of information-structural considerations. Take, e.g., modern German which has canonical OV order in the VP but regularly extraposes CP-complements and heavy arguments which can build an intonational phrase on their own.

From the previous literature, we know that heavy DP-shift is also present in OE, cf. e.g. Pintzuk and Kroch (1989). In order to capture the effect of constituent length on word order variation in the dataset at this stage of the investigation, we studied in detail the correlation between the positional realization of the object expressions and their syntactic weight, counted in number of words per constituent. The results for referring ACC-objects in Blickling Hom are given in Table 2.

insert table 2

What can be read off these numbers is that syntactic weight is indeed a basic factor influencing object placement. This can be seen from the fact that the percentage of postverbal objects (rightmost column) grows continuously with the number of words per constituent. Again, this is in line with the results of Taylor and Pintzuk (2008), who also discover the same effect of syntactic weight on object placement, thus providing independent evidence for the conclusion prompted here. This means that if information structure were a potential factor for verb-object order, then it is overridden by the length of the constituent.

4. Methodological refinements: The analysis of Dataset 2

For the reasons described in section 3, we decided to refine our approach in two respects. First, we looked for ways of minimizing structural ambiguities in the data. We decided to apply the double base approach⁵ and to test whether the meanwhile classical methodological consideration to base the analysis solely on clauses with periphrastic verb forms will result in a clearer picture. The reason for this restriction has been well established in work by Pintzuk

⁵ We treat the double base hypothesis here mainly as a descriptive means; we do not yet commit ourselves to an answer to the question whether the variation in the headedness-parameter is really base generated or is in itself the product of a ‚transformation‘ of an even more basic uniform word order.

(1991; 1999), among others. It rests on the assumption that in periphrastic verb forms, the main selecting verb is immobile, while the finite auxiliary obligatorily moves to I⁰. This means that we can exclude movement of V in the orders we find in the surface.

Second, we introduced constraints on the syntactic weight of the objects. We differentiated between DPs consisting of one word and DPs containing two words. Larger DPs were ignored because, as we saw in section 3, they can influence the placement of the object independently of its information-structural value.

Under these conditions, we conducted a search for the examples with preverbal and postverbal DPs and determined the category type and the information-structural properties of the objects in each case. However, it turned out, again, that we were faced with a rather heterogeneous class of phrases. Both the preverbal object in (8a) as well as the postverbal one in (8b) refer to a previously mentioned antecedent, whereas in (9a–b) both object convey information that is not activated in the discourse:

- (8) a. and næs na þæt an þæt þæt leoht_i þa dune ane oferscineþ,
 and NEG-is NEG DET only that DET light DET hill overshines,
 þe seo cirice on getimbred is, ac eac swylce Gerusalem þa burh,
 REL DET church on built is, but also Jerusalem DET city
 seo is west þonon from þære stowe on anre mile,
 REL is westward from its place one mile
 þæt mon æghwylce niht mæg of æghwylcum dæle þære burge
 that INDEF each night may from each part DET city-GEN
 þæt leoht_i geseon scinan of þære halgan stowe
 DET light-ACC see shine from DET holy place-DAT
 (coblick, HomS_46_[BIHom_11]:129.221.1587)
 ‘and this light shines not only over the hill, where the church is built, but also
 to the city of Jerusalem, which is a mile westward from that place, so that from
 any part of the city, people can see this light shining every night from this holy
 place’
- b. Ic do á þine gife_i, min Druhten, & ic þe bidde for þinum naman þæt þu
 I do always your favour, my Lord, and I you beg for your name that you
 gehwyrfe on me ealle eaþmodnesse þinra beboda,
 turn on me all humility your commands-GEN
 forþon þe ic mæg don þine gife_i

in order that I may do your favour

(coblick,LS_20_[AssumptMor[BiHom_13]]:147.159.1810)

‘my Lord, I ever dispense thy favour, and I beseech thee for thy name that thou devolve upon me submission to thy commands so that I may dispense thy favour’

- (9) a. þæt hie sceolan æfter þæm wlencum *ece edwit* þrowian
that they should after DET riches-DAT everlasting torment-ACC suffer
(coblick,HomU_19_[BiHom_8]:101[sic! 99].62.1294)
‘that they should suffer everlasting torments after these riches’
- b. We witon ful geara þæt we sceolan on þisse sceortan tide geearnian *ece ræste*
we know pretty well that we should in DET short time-DAT earn eternal rest
(coblick,HomS_21_[BiHom_6]:83.292.1030)
‘We know pretty well that in this short time we must earn eternal rest’

Additionally, both preverbal and postverbal objects can be assigned narrow, contrastive interpretation; note that *heora fex* ‘their hair’ is in the scope of a focus sensitive operator *furðon* ‘even’ in (10a):

- (10) a. ac him sona cydde God hwylcne geleafan hi hæfdon,
but them soon showed God which faith they had
þa ða se lig ne moste furðon *heora fex* forswælan on þam ade
when PRT DET flame NEG could even their hair burn on DET pyre
(coelive,+ALS_[Memory_of_Saints]:71.3370)
‘but God soon showed them what faith they had when the flame could not even burn their hair in that pyre’
- b. gif he þonne ne mage macian *þe oþer*, unc bam mæg helpa to hæbbenne *ðis an*
if he then NEG may make DET other, us-DUAL may help to have-GERUND
DET one
(coelive,+ALS_[Thomas]:179.7655)
‘if, however, he cannot make the other one [house], it may serve us both to possess this one’

Our suggestion is that the method applied to the dataset is still too permissive with respect to structural ambiguities. We have to assume that among the examples analysed in this data set, we find an unknown number of orders, in which the objects stay *in situ* and therefore display all different information structural categories, plus an unknown number of derived orders in which the objects are moved, probably to satisfy certain information structural conditions. In order to get a clearer picture, we decided to refine once more the method of the search and increase the level of derivation in order to exclude ambiguities in the data.

5. Dissolving ambiguities

5.1 Analysis in line with a universal head-initial base order in OE

Let us first apply the approach proposed to derive word order variation in OE within a uniform base grammar including data for complex verb forms, as presented in Roberts (1997) and Nunes (2002), among others. Here, the finite auxiliary is merged in a functional projection, say Aux° , followed by a cascade of functional projections whose specifiers are needed as targets for different kinds of leftward movement of objects and (remnant) VPs. The different object-verb orders attested in OE can be derived in the following ways: i) $Aux\ V\ O$ order is a base head initial order provided that object movement for the reasons of case checking is optional, rather than obligatory (11a); ii) $Aux\ O\ V$ is derived via XP movement to a case checking position, here to SpecYP (which is identical to SpecAgrOP assumed in (6) above) (11b); iii) $O\ V\ Aux$ is derived by remnant movement of YP (including the VP) to SpecAuxP (11c); iv) $V\ Aux\ O$ is derived if the object is scrambled to ZP prior to remnant movement of YP to SpecAuxP (11d).

- (11) a. $[_{AuxP}\ Aux\ [_{ZP}\ [_{YP}\ [_{VP}\ V\ XP\]]]]$
 b. $[_{AuxP}\ Aux\ [_{ZP}\ [_{YP}\ XP_i\ [_{VP}\ V\ t_i\]]]]$
 c. $[_{AuxP}\ [_{YP}\ XP_i\ [_{VP}\ V\ t_i\]]\ Aux\ t_{YP}]$
 d. $[_{AuxP}\ [_{YP}\ t_i\ [_{VP}\ V\ t_i\]]]\ Aux\ [_{ZP}\ XP_i\ t_{YP}]$

We may expect that the objects in (11a) will behave differently with respect to information structure because they are in their base position. The same can be assumed for the objects in (11b). We cannot think of any relation between movement for case checking purposes and information structure; at least it is unclear why case checking might apply to objects with a particular information structural value only. Similarly, it is unclear when the object is moved together with V to SpecAuxP in (11c) or not. In sum, we do not expect the objects in those

three cases to correlate with any particular information-structural feature. By contrast, take (11d), where we can expect that the objects show an overall tendency to be *given*, as *givenness* is assumed to be a trigger of scrambling (Hinterhölzl, 2004b). However, this prediction is not borne out by the data. We queried the entire YCOE for the order V Aux O given in (11d) and determined the information-structural value of the objects involved. It turned out that the objects overwhelmingly convey novel information in this case⁶, a fact that will become particularly important in section 5.2 below. Consider the examples in (12a–b). Note that the objects *spicc* ‘bacon’ and *earmum mannum* ‘poor men’ are not activated by the preceding context.

- (12) a. þæt hi etan sceoldon, ongean Godes æ, *spicc*
 that they eat should, against God’s law, bacon
 (coalive,+ALS_[Maccabees]:108.4882)
 ‘that they should eat bacon against God’s law’
- b. Gif we þonne bliþe and rummodlice hi dælan willaþ *earmum mannum*
 if we then joyfully and freely them share want poor men-DAT
 (coblick,HomS_14_[BIHom_4]:51.213.628)
 ‘If, however, we would joyfully and freely share them with poor men’

A refinement of the universal-base approach to word order variation in OE is proposed by Biberauer and Roberts (2005). This approach dismisses the idea of XP movement for reasons of case checking but proposes obligatory movement of V to the head of the next higher functional projection vP. Additionally, vP moves to SpecTP to derive orders in which V precedes Aux (in T°) in the surface. The crucial novelty is the idea of optional pied-piping of the object when the VP is attracted by SpecvP. If the complete vP moves to SpecTP, the order is XP V Aux. Because, however, pied-piping is optional, the object can remain *in situ* yielding V Aux O in the surface. Biberauer and Roberts (2005) provide a reason why an object might be left behind when vP moves to SpecTP. In their opinion, the optionality of pied-piping is part of a strategy to assign focus to an object, the opposite of what we gained with respect to (11d) above.

⁶ In this respect, it is possible to adopt Zwart’s (2005:167) approach to heavy NP-shift to explain novel objects in post-verbal position in early English. He assumes that “the heavy noun phrase moves individually to some VP-external focus position” prior to remnant movement of the VP. As it is still unclear where this focus position is settled, we will not consider this approach at this stage.

This conclusion definitely fits better to the results of the information-structural analysis of the data, as shown by us above. Taylor and Pintzuk (2009), however, point at a crucial problem connected with this approach. According to Biberauer and Roberts (2005), all patterns in which the object surfaces in postverbal position are instances of *in situ* objects, stranded for the reason of focus assignment, no matter what the order of V and Aux is. But Taylor and Pintzuk (2009) study the information-structural properties of objects in Aux V O and V Aux O constructions and discover a major discrepancy in the behaviour of the postverbal objects in these two types of data. While novelty is systematically borne out for the objects in V Aux O orders, objects in Aux V O constructions appear to be both given and new. According to Taylor and Pintzuk (2009), this is explainable in a framework allowing for a variable base plus rightward movement of objects. V Aux O orders are necessarily derived by rightward movement of the object in a head-final VP, which, given the frequency of novel objects, is obviously licensed by focus (13a). In contrast, Aux V O can represent either the base order in a head-initial IP and VP hosting given objects (13b) or be derived by focus movement of the object from a head-final VP (13c).

- (13) a. [IP [VP t_i V] Aux] XP_i
 b. [IP Aux [VP [V XP]]]
 c. [IP Aux [VP t_i V]] XP_i

Petrova and Speyer (2009) independently adopt the same method for identifying orders with unambiguously moved objects on a larger scale, including data for leftward movement as well. They show that applying this method to the data yields datasets in which the objects are strikingly uniform with respect to their information-structural properties. The results will be discussed in detail in the next section.

5.2 A double-base scenario

Adopting a double base scenario plus optional movement of objects, Petrova and Speyer (2009) concentrate on word orders of which we can be sure that they are derived, not base-generated. We know that, under the double base hypothesis plus obligatory raising of the finite part of the verb form to I⁰. (e.g. Kroch, 1989; Pintzuk, 1999), the following base-generated word orders are possible (14):

- (14) a. S – O – V – Aux [IP NP [VP NP V⁰] I⁰]

- | | | |
|----|-----------------|---|
| b. | S – Aux – O – V | $[\text{IP NP } \bar{I}^0 [\text{VP NP } V^0]]$ |
| c. | S – V – O – Aux | $[\text{IP NP } [\text{VP } V^0 \text{ NP}] \bar{I}^0]$ |
| d. | S – Aux – V – O | $[\text{IP NP } \bar{I}^0 [\text{VP } V^0 \text{ NP}]]$ |

In the OE texts, we actually find only the word orders a, b and d; c seems to be excluded on theoretical grounds (Pintzuk, 1999). Note that there are some word orders that cannot be derived by the double base hypothesis, even though it is very permissive, cf. (16). If we find examples of these types, we can be sure that they must be derived from one of the base-generated word orders in (14). (15a) can be derived from (14a), (15b) from (14b, d), (15c) can be derived from (14a).

- | | | | |
|------|----|-----------------|--|
| (15) | a. | O – S – V – Aux | $[\text{IP } \mathbf{NP}_i [\text{IP NP } [\text{VP } \mathbf{t}_i V^0] \bar{I}^0]]$ |
| | b. | O – S – Aux – V | $[\text{IP } \mathbf{NP}_i [\text{IP NP } \bar{I}^0 [\text{VP } \mathbf{t}_i V^0]]]$
$[\text{IP } \mathbf{NP}_i [\text{IP NP } \bar{I}^0 [\text{VP } V^0 \mathbf{t}_i]]]$ |
| | c. | S – V – Aux – O | $[\text{IP } [\text{IP NP } [\text{VP } \mathbf{t}_i V^0] \bar{I}^0] \mathbf{NP}_i]$ |

Indeed it is possible to find several examples of both word orders (15). (15a–b) is scrambling of the direct object over the subject, (15c) is rightward extraposition of the object. Both movement processes are regarded as instances of \bar{A} -movement (e.g. Müller and Sternefeld, 1993). In the case of (15b) the search was confined to clauses in which the direct object contained less than three words, in order to exclude cases of heavy DP-shift (Pintzuk and Kroch, 1989). Note that both word orders used to be thought of as non-existent; by using a digital parsed corpus one can find several examples, however.

The relevant point is this: If these orders are derived, then we are on the right track to search for a proper motivation underlying this movement. In other words, we know that movement operations are not done without any motivation, but they are licit only in order to saturate certain features (e.g. Chomsky, 1995). In the case of \bar{A} -movement these features have an information structural content (Rizzi, 1997). If we find cases where obviously movement has occurred, we have to ask first of all, what caused this movement, i.e. what is the information structural property that the moved constituent possesses and that is responsible for the movement.

Let us begin with the pattern in (15a–b). As the object appears to the left of the subject of the clause, it has to be moved to this position. In (15b), we cannot determine whether it was base-generated to the right or to the left of the main verb, but this is irrelevant. As we

expected, in the majority of the cases, the object was a pronoun. As the subjects in these cases are lexical DPs, we can assume that the movement of the object pronoun to the left of the subject is a Wackernagel phenomenon. Note however, that there is a certain number of cases involving lexical objects in a position above the subject. Consider the data in (16a–d):

- (16) a. Nis me nænig leoht ne nænigo byldo on minum mode
 NEG-is me NEG-INDEF light NEG NEG-INDEF baldness in my mind
 for ðan *þas witu* ic ærest aberan ne mæg
 because DET torment I before that bear NEG may
 (coverhom,HomU_7_[ScraggVerc_22]:62.2867)
 ‘I have no light and no baldness in my mind, because I cannot stand such a torment before’
- b. forðon þe *twam gemetum* þæs mannes lif is gesæd,
 because PRT two kinds-DAT DET man-GEN live is said
 eac twam gemetum se deað sceal beon ongyten
 also two kinds-DAT the dead should be distinguished
 (cogregdC,GDPref_and_4_[C]:47.336.32.5066)
 ‘Because it is said that man’s life is of a twofold nature, two kinds of death should be distinguished’
- c. Ðætte ða *untruman mod* mon ne scyle eallinga to helice læran
 that PRT the weak mind INDEF NEG should at all to higher learn
 (cocura,CPHead:23.63.65)
 ‘About the issue that a weak mind should not be turned to higher values’
- d. ac ic cwæðe þæt þu miht þa cucan adydan, and *þam deadan* þu ne miht
 and I sad that you can the living-ACC kill and the dead-DAT you NEG can
 eft lif forgifan
 again life give
 (coalive,+ALS_[Cecilia]:327.7304)
 ‘and I said that you can kill the living, but you cannot give life back to the dead’

This kind of evidence has not found sufficient attention in the literature so far, but it is exactly this data that is relevant for our purposes. As we deal with lexical objects, and not with pronominal objects, we can exclude the option that the objects surface in the respective

position because of purely prosodically driven cliticization processes. So the motivation is likely to be information-structurally driven. And indeed, we discover a strong preference for a certain type of expressions to appear in this environment, namely for those bearing features of emphasis or contrast to other entities mentioned in the immediate context. (16a–b) are clear cases of emphasis on the object moved to the left of the subject. (16a) emphasises the intensity of torments described in the previous discourse, while in (16b), the twofold nature of life and death is highlighted. In (16c–d), the objects form a contrastive pair to another entity mentioned in the immediate context. In (16c) the weak mind is contrasted with the superiority of high virtues, and in (16d) the expression *þam deadan* forms a contrastive pair with *þa cūcan* from the first conjunct of the *þæt*-clause⁷. We work with the idea of contrast as a separate information structural category in the tradition of e.g. Vallduví and Vilkkuna (1998). Note that this notion of contrast does not necessarily entail focus, although in the examples which we found it is very likely that we have focus on the contrastive elements, too.⁸

The ratio of contrastive phrases in such positions is given in Table 4. The examples fall in three categories: contrastive object NPs, anaphoric, but emphatic object NPs and some adverbial NPs which the search produced but which can be left out of the calculation as they are irrelevant for the case at hand. Note that the emphatic elements share with the contrastive elements that they are focussed, so it is possible to assign a unitary function, focus, to all examples.

insert table 4

Let us now turn to the pattern as in (15c). In these cases, the object-DP has to be extraposed to the right of the selecting verb, as pointed out above. In Table 5 we see that 90 per cent of the cases display the novelty of the referent as a common feature. Non-referential and adverbial NPs are excluded from the calculation. So we can conclude that rightward movement of constituents is associated with new information in the discourse. Take (17), for instance. Here the referent of *haligne mannan* has not been introduced to the discourse so far.

(17) Ac se þe herian wille *haligne mannan*. herige hine na on ðisum life

⁷ We consider the clause at hand a subordinate clause selected by the matrix predicate *cwæðe* ‘[I] said’.

⁸ It is a moot point whether one can determine a prosodic phenomenon like focus on a written, let alone historical text (see Speyer, 2010 for discussion). The best we can do is to test whether we would put focal emphasis on the sentence in the given context if it was a sentence of Modern English and we were to pronounce it. This was the case with all examples which we found. We can infer that focus was associated with similar types of expressions from the fact that it is the same types of expressions that are focussed in Modern English and Modern German; this indicates that both languages continue the focus assignment guidelines which their ultimate parent language, Proto-West-Germanic, followed; from that follows that if focus was assigned similarly in Proto-West-Germanic, Modern English and Modern German, it was assigned that way also in all intermediate stages.

and DET REL rob want holy man-ACC rob him-ACC NEG in DET life
(cocathom2...43:325.219.7317)

‘And he who wants to rob a saintly man, may not do so in this life’

insert table 5

To conclude, in addressing a dataset involving objects that are found in a position necessarily derived by syntactic movement, we are finally able to identify pragmatic features that firmly correlates with the syntactic position of the object in the clause. While objects moved to the left, above subjects, appear to be emphasized or involved in a contrastive relation to another entity in the context, objects moved to the right of the VP/IP display discourse novelty as their basic pragmatic property.

6. Comparison with OHG

In view of the results of the information-structural analysis presented in the last section, OE provides empirical evidence suggesting that there is a connection between the formal realization of focus and its semantic interpretation in the context. As addressed in Section 1, the same correlation between focus marking and focus interpretation has been claimed to hold for OHG as well. In this section, we want to compare the results gained for the two languages in terms of a unified syntactic representation.

Note that in order to account for the distribution of information-structural categories in OHG, Petrova and Hinterhölzl (t.a.) assume overt movement of Vf to the head of a functional projection FocP situated between CP and VP of the clause, cf. (18). While novel information remains in the postverbal domain, in the scope of FocP, contrastive information moves to the specifier of FocP, which explains the adjacency observed between contrastive elements and Vf in the data. Background material, in turn is moved out of the scope of the focus phrase and appears to the left of FocP, immediately below C, cf. the subject pronouns *thu* ‘you’ in (1) and *sie* ‘they’ in (2), repeated as (19) and (20):

(18) [C Background [_{FocP} Contrast Vf [_{AgrP} New Information Focus [_{VP} tVf]]]]

(19) thaz thu *mannon nisis* 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. ne uideatis hominibus/ ieunans. sed patri tuo

- (20) thaz sie hiezzin *boanerges* (T 59, 22)
 that they were called-SUBJ Boanerges
 ‚that they were called B.‘
 lat. quibus imposuit nomina / boanerges

If we assume that in OE contrast is realized via movement to an information-structurally designated projection, say FocP, we immediately observe a crucial difference between OHG and OE. In view of data like (16), repeated in (21), contrast is realized further left in OE, above the domain of background information. Consider that the contrastive phrase *þam deadan* ‘the dead people’ is above the subject pronoun in *þu* ‘you’ in the OE example in (21).

- (21) ac ic cwæðe þæt þu miht þa cūcan adydan, and *þam deadan* þu ne miht
 and I sad that you can the living-ACC kill and the dead-DAT you NEG can
 eft lif forgifan
 again life give
 (coalive,+ALS_[Cecilia]:327.7304)
 ‘and I said that you can kill the living, but you cannot give life back to the dead’

In order to account for the difference between OE and OHG, we apply Rizzi’s (1997) cartographic approach to the structure of the left sentence periphery, which hosts a cascade of functional projections designated for information-structural categories. Additionally, these categories may be recursive, in that in Rizzi’s original model, there are two Topic projections, one above and one below the Focus phrase, cf. (22).

- (22) ForceP TopP FocP TopP FinP

We apply this model to explaining the distributional facts observed in early Germanic and assume that contrast is equally represented in FocP in OE and OHG while background information targets one of the two different Topic phrases, namely the higher one in OHG but the lower one in OE. In this way, the parametric variation with respect to the serialization of background and contrast in OE and OHG can be derived within one and the same model of syntactic representation.

7. Summary

Addressing the prominent debate on superficial variation between OV and VO order in early Germanic, we investigated the question whether variation in word order in OE can be explained as the result of information-structurally motivated syntactic movement. We analysed datasets with pre- and postverbal objects in subordinate clauses involving a main inflected verb and explained why structural ambiguities as well as phonologically-driven operations like heavy NP-shift prevent us from being able to identify any correlation between the information-structural properties of the object-DP and its position relative to the verb. Looking for a method of dissolving ambiguities and of excluding the impact of purely phonologically driven processes, we designed a dataset of patterns in which DP-objects containing up to two words are found in a position unambiguously derived by syntactic movement. We analysed the contexts in which these movement operations occur and discovered that if we assume a double base scenario allowing for both movement to the left and to the right of the IP, we obtain orders in which the object firmly correlates with a particular information-structural property. While movement to the left takes place in those cases in which the referent of the DP-object is in a contrastive relation to another entity in the context, rightward movement clearly relates to novelty in the discourse.

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Appendix Primary texts

[T] Die lateinisch-althochdeutsche Tatianbilingue Stiftsbibliothek St. Gallen Cod. 56, hg. von Achim Masser, Studien zum Althochdeutschen 25, Vandenhoeck & Ruprecht, Göttingen, 1994.

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