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Verb-Object Order in Old English: Variation as Grammatical Competition

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16.1. INTRODUCTION

The relationship between morphological case and constituent order is well known: in general, languages with overt case-marking have freer constituent order than those with little or no overt marking. Partly because of this relationship, changes in constituent order and syntactic structure have frequently been linked to changes in morphological case. This is particularly true for languages where the morphology and the syntax seem to change during the same period of time. In the history of English, for example, the language has changed from the rich case morphology and relatively free constituent order of Old English to the severely impoverished case morphology and relatively fixed constituent order of Modern English.

Traditional grammarians and linguists invoked functional and processing explanations for these changes, suggesting either that the loss of overt morphology resulted in the fixing of constituent order so that subjects and objects could be distinguished (for example, Baugh and Cable [1978] 1993: 162-3, Marchand 1951, Mustanoja 1960: 68, Sapir 1921: 166), or that the fixing of constituent order permitted the gradual loss of overt morphology (for example, Classen 1919: 308-10, Lehnert 1957, Trnka 1928: 142 ff.).¹ Recent work in syntax has taken a more formal approach to the relationship between constituent order and morphology: for example, Roberts (1997) analyzes change in verb-object order in the history of English as a change in the strength of the feature that forces leftward movement

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¹ Traugott (1972) combines both approaches and describes 'a kind of cyclical development with some word-order patterns allowing the partial collapsing of inflectional distinctions, this collapsing itself becoming a condition for further restrictions of word order, and these restrictions in turn allowing for more collapsings of inflections, and so on' (p. 111). See also Samuels (1971: 82-4).

of objects from postverbal position, a change triggered by the loss of overt case morphology. In contrast, in Pintzuk (1997), I analyze the change from OV to VO in the history of English as involving grammatical competition, without invoking morphological facts or explanations at all.

In this chapter I examine the possible effects of case-marking on constituent order in Old English, and I demonstrate that overt morphology plays no role at all in determining verb-object order. The chapter is organized as follows: in Section 16.2, I briefly discuss variation, optionality, and the concept of grammatical competition. In Section 16.3, I describe the case-marking system of Old English, and show that the language exhibits some of the well-known syntactic effects of morphological case. In Section 16.4, I show that neither overt case-marking nor case ambiguity has any effect on verb-object order. In Section 16.5, I demonstrate that an analysis involving feature strength and leftward movement for case-checking, like that of Roberts (1997), is equivalent to grammatical competition, with no relationship to overt morphology. In Section 16.6, I provide distributional evidence for grammatical competition, OV vs. VO, and I show that an analysis of head-initial structure with optional preposing of objects cannot account for the Old English data. And in Section 16.7, I briefly discuss the analysis of *Hróarsdóttir* (1999, 2000) for Icelandic, and show that it cannot hold for the history of English.

Except where otherwise noted, the data used for this study have four sources: first, the data collected for Pintzuk (1999); second, the Brooklyn-Geneva-Amsterdam-Helsinki Parsed Corpus of Old English (Pintzuk, Haeberli, van Kemenade, Koopman, and Beths 2000).² These two corpora together contain data from twenty-seven Old English prose texts written between the last quarter of the ninth century and the end of the eleventh century. I also used data from Hiltunen (1983), a study of separable particles in Old and Middle English, and from Koopman (1994), a study of double-object constructions in Old English. These two scholars provide specific references for their data, and in fact Koopman lists in full all of the double-object clauses that were relevant for Section 16.6.3 of this chapter.

16.2. VARIATION, OPTIONALITY, AND GRAMMATICAL COMPETITION

Many major syntactic changes, like the loss of the verb-second constraint in French and English and the change from OV to VO in English, Icelandic, and Swedish, have been found to involve lengthy periods of structured variation, in which two grammatical options (that is, verb-second clauses and non-verb-second clauses, OV clauses and VO clauses) are used by individual speakers. The language of historical written texts thus shows variation and optionality in the use

² The Brooklyn-Geneva-Amsterdam-Helsinki Parsed Corpus of Old English (the Brooklyn Corpus) is a syntactically and morphologically annotated version of selected texts from the Helsinki Corpus of English Texts. I thank Beth Randall for CorpusSearch, the search engine that facilitates searching annotated corpora like the Brooklyn Corpus.

of word orders and structures that within a Principles and Parameters model of language should be ruled out by economy conditions. There are in principle two ways of analyzing this type of variation: by setting up two or more equally economical derivations, or by establishing competing parameter settings.

The first type of analysis involves optionality in derivations which are equivalent in terms of economy. This view has been put forth, for example, by van der Wurff (1997) for the loss of OV structure in the history of English. According to his analysis, the verb moves overtly to AgrO to check a strong V-feature, and this V movement makes Spec of AgrOP and Spec of VP equidistant, so that overt movement of the object to Spec of AgrOP is optional. If the object moves overtly to Spec of AgrOP, OV order is derived; if the object moves covertly, VO order is derived. Since the derivation with overt object movement requires the same number of operations as the derivation with covert movement, they are equally economical; and therefore both are permitted by the grammar.

In contrast, Kroch (1989, 1994), among others, has interpreted some types of variation in historical data as the reflex of competition between grammars with two different options that are incompatible within a single grammar. The competition occurs within the individual speaker and can be understood in terms of code-switching or register-switching. The way in which the competing options are analyzed and described depends upon the syntactic framework being used. In a Government and Binding framework, options frequently correspond to contradictory parameter settings: for example, head-initial vs. head-final VP structure (that is, a directionality parameter), verb second vs. non-verb second. Within the Minimalist Program, competing options correspond to the presence in the lexicon of items with contradictory features. Thus it is not entire grammars that are in competition, but rather incompatible options within the grammars. The question immediately arises as to the number of different parameters or features that can vary simultaneously. In principle there should be no limit beyond that of learnability. Kroch and Taylor (2000) demonstrate that both IP and VP vary between head-initial and head-final structure during the Early Middle English period, and I have made the same claim for Old English (Pintzuk 1997, 1999).

I will show in this chapter that the variation between OV and VO in Old English is best analyzed as grammatical competition rather than optionality, and I will characterize the competition in terms of variation in headedness in underlying structure.

16.3. CASE-MARKING IN OLD ENGLISH AND ITS SYNTACTIC EFFECTS

Old English had four productive cases,³ nominative, accusative, genitive, and dative; and three genders, masculine, neuter, and feminine. Case was marked overt-

³ Adjectives and some pronouns had distinct forms for instrumental case.

ly on nouns, pronouns, determiners, adjectives, and some quantifiers, as well as on some participles. There was, however, a substantial amount of syncretism throughout the Old English period. I give seven sample paradigms below:

PARADIGM 1. Masculine a-stems

Example: *stān* 'stone'

	Singular	Plural
NOM	stān	stānas
ACC	stān	stānas
GEN	stānes	stāna
DAT	stāne	stānum

PARADIGM 2. Neuter a-stems

Example: *scip* 'ship'

	Singular	Plural
NOM	scip	scipu
ACC	scip	scipu
GEN	scipes	scipa
DAT	scipe	scipum

PARADIGM 3. Feminine o-stems

Example: *giefu* 'gift'

	Singular	Plural
NOM	giefu	giefa, -e
ACC	giefe	giefa, -e
GEN	giefe	giefa, -ena
DAT	giefe	giefum

PARADIGM 4. Weak masculine nouns

Example: *nama* 'name'

	Singular	Plural
NOM	nama	naman
ACC	naman	naman
GEN	naman	namena
DAT	naman	namum

PARADIGM 5. Definite determiner/demonstrative pronoun

	Singular			Plural
	MASC	NEUT	FEM	All genders
NOM	sē	þæt	sēo	þā
ACC	þone	þæt	þā	þā
GEN	þæs	þæs	þære	þāra
DAT	þæm	þæm	þære	þæm

PARADIGM 6. Strong adjectives

Example: *til* 'good'

	Singular			Plural		
	MASC	NEUT	FEM	MASC	NEUT	FEM
NOM	til	til	tilu	tile	tilu	tile, -a
ACC	tilne	til	tile	tile	tilu	tile, -a
GEN	tiles	tiles	tilre	tilra	tilra	tilra
DAT	tilum	tilum	tilre	tilum	tilum	tilum

PARADIGM 7. Weak adjectives

	Singular			Plural		
	MASC	NEUT	FEM	All genders		
NOM	tila	tile	tile	tilan		
ACC	tilan	tile	tilan	tilan		
GEN	tilan	tilan	tilan	tilra, -ena		
DAT	tilan	tilan	tilan	tilum		

As Allen (1995: 159) emphasizes, it is important to distinguish here between case-marking categories and the forms that express these categories, that is, between the system itself and the overt morphological forms. Although there was a great deal of syncretism in forms throughout the Old English period, the case-marking system was alive and well until early in Middle English.

Given this syncretism, it is clear that Old English nominal objects could be ambiguous in several ways, depending on the noun type of the head and on the additional content of the object. Examples are given in (1) through (3) of unambiguous case-marking, and in (4) through (6) of ambiguous case-marking.

- (1) *Unambiguous accusative object*
 þu scealt oncnawan þone gesettan dom
 you must suffer the appointed doom
 '... you must suffer the appointed doom'
 (ApT 5.8–9)
- (2) *Unambiguous genitive object*
 þ he his willes gehyran nolde
 that he his will listen.to NEG-would
 '... that he wouldn't listen to his will ...'
 (ApT 4.5–6)
- (3) *Unambiguous dative object*
 þæt þu scealt ðam ylcan wite onfon
 that you must the same punishment receive
 '... that you must receive the same punishment ...'
 (Bede 36.7–8)
- (4) *Ambiguous nominative/accusative object*
 þæt hi mihton heora fynd oferwinnan
 so-that they could their foes overcome
 '... so that they could overcome their foes.'
 (Bede 44.14)
- (5) *Ambiguous accusative/genitive/dative object*
 ac þu hæfst beheafdunge geearnad
 but you have beheading earned
 '... but you have earned beheading.'
 (ApT 5.5–6)
- (6) *Ambiguous nominative/accusative/genitive/dative object*⁴
 þæt ic his sceal her fela oferherbban
 that I (of) it must here much pass-over
 '... that I must pass over much of it here ...' (Or I.8.4)

⁴ The quantifier *fela* 'much, many' is invariant, and frequently takes a genitive DP, like *his* 'of it' in example (6).

Let us consider the possible effects of the morphological case system on the syntax. Weerman (1997) summarizes the relationship between morphological case systems and syntactic phenomena with four generalizations (Weerman 1997: 439, his (33)):

- (7) (a) The order of indirect object and direct object has to remain constant unless there is a morphological case system.
 (b) The order of indirect object and direct object with respect to the verb has to remain constant unless there is a morphological case system.
 (c) The complement of N[oun] is a PP unless there is a morphological case system.
 (d) The complement of A[jective] is a PP unless there is a morphological case system.

Certainly all four of the generalizations in (7) hold for Old English. The order of objects can vary, as shown in (8) and (9) (= Koopman 1990: 177, his (128) and (129)).

- (8) þæt he forgeafe godne willan þam seocan hæðenan
 that he granted good will-ACC the sick heathen-DAT
 '... that he would grant good will to the sick heathen.'
 (ÆCHom ii.2.12.28)
- (9) gif þu geoffrast Gode ænige lac æt his weofode
 if you offer God-DAT any sacrifice-ACC on his altar
 '... if you offer God any sacrifice on his altar ...'
 (ÆHom 16.19)

Nouns and adjectives may take DP complements, as shown in (10) and (11).

- (10) þæt he wæs swa swiðe Drihtnes ege underþeoded
 that he was so severely Lord-GEN fear subjugated
 '... that he was so severely subjugated to fear of the Lord ...'
 (Bede 268.10–11)
- (11) hwaþere ic fara feng feore gedigde, sibes werig
 however I foes' grasp life survived, journey-GEN weary
 'However, I survived the foes' grasp with my life, weary of the journey.'
 (Beo 578–9)

And the order of objects with respect to the verb can vary: in clauses with full DP objects, there are five basic patterns,⁵ all of which occur in both main and subordinate clauses, although their frequency varies by clause type. Examples are given in

⁵ I exclude clauses with topicalized objects. Although many of the examples in this chapter show the subject in clause-initial position, Old English is a verb-second language, which permits topicalization of non-subject constituents. The verb-second status of Old English is irrelevant to the central concerns of this chapter.

(12) through (16), where O=object, Aux=finite auxiliary verb, V=non-finite main verb. It is clear that DP objects can appear either before, after, or in the middle of the auxiliary + main verb sequence, and either before or after the main verb + auxiliary cluster.⁶

(12) Aux-O-V

(a) he ne mæg his agene aberan
he NEG can his own support
'He cannot support his own.'
(CP 52.2)

(b) þæt hi mihton heora fynd oferwinnan
so that they could their foes overcome
'... so that they could overcome their foes.'
(Bede 44.14)

(13) Aux-V-O

(a) þu hafast gecoren þone wer
you have chosen the man
'You have chosen the man.'
(ApT 23.1)

(b) þæt he mot ehtan godra manna
that he might persecute good men
'... that he might persecute good men ...'
(WHom 130.37-8)

(14) O-V-Aux

(a) him þær se gionga cyning þæs oferfæreldeð forwiernan mehte
him there the young king the crossing prevent could
'... the young king could prevent him from crossing there'
(Or 44.19-20)

(b) hu he his agene undeawas ongietan will
how he his own faults perceive will
'... how he will perceive his own faults'
(CP 22.21-2)

(15) O-Aux-V

(a) Ne God þonne ane hwile his mihta ne his wundra sylf
Nor God then a while his powers nor his wonders self
nele cyððan
NEG-would reveal
'Nor would God himself then reveal his powers or his wonders for a while ...' (WHom 138.64-5)

⁶ It is extremely rare that any constituent, either argument or adjunct, appears between the non-finite main verb and the finite auxiliary. I have found only one such example, in the poetic text *Beowulf*, lines 1696a-1698a. See also note 12.

(b) swa hwider swa se cining Oswi his rice mihte þennan
as far as the king Oswy his kingdom could stretch
'... as far as the king Oswy could stretch his kingdom'
(Chad 44)

(16) V-Aux-O

(a) he þæs habban sceal ece edlean on Godes rice
he therefore have must eternal reward in God's kingdom
'... he therefore must have eternal reward in God's kingdom'
(WHom 164.164-5)

(b) þæt ænig mon atellan mæge ealne þone demm
that any man relate can all the misery
'... that any man can relate all the misery ...'
(Or 52.6-7)

In this chapter I leave aside the implications of (7a), (7c), and (7d), and focus on the order of verbs and their DP objects as illustrated in (12) through (16). I have shown in previous work (Pintzuk 1997, 1999) that one way of analyzing these data is in terms of grammatical competition in underlying structure: in both IP and VP, head-initial structure competes with head-final structure during the Old English period, and finally replaces it completely sometime during the Middle English period. In Pintzuk (1997), I examined the effect of various factors on the position of DP and PP complements, and demonstrated that the heaviness of the complement, the clause type, and the clause structure had significant effects. In the next section, I examine the effect of overt case on the position of objects in clauses like those above, to determine whether the case-marking system imposes any additional constraints on constituent order.

16.4. THE EFFECT OF CASE-MARKING ON THE POSITION OF DP OBJECTS

Let us consider how the case-marking system of Old English might affect the behavior of DP objects. One simple and straightforward possibility is that DPs with structural case may behave differently from DPs with inherent Case,⁷ if case-checking is done differently: perhaps inherent Case is checked within the VP, while structural case is checked in Spec of AgrOP. In this situation, other things being equal, we might expect a difference in their surface position, preverbal vs. postverbal. Another possibility is that DPs with unambiguous case-marking, like those in (1) through (3) above, might behave differently from DPs with ambiguous case-marking, like those in (4) through (6). This difference would presumably have a functional basis: since the grammatical function of the unambiguous DPs

⁷ It is generally accepted that Old English had both structural and inherent Case; see, for example, van Kemenade (1987).

TABLE 16.1. The effect of case-marking on the position of DP objects in clauses with auxiliary verbs

Case-marking	Preverbal	Postverbal	TOTAL	% postverbal
Unambiguous				
Accusative	113	57	170	33.5%
Genitive	35	21	56	37.5%
Dative	76	47	123	38.2%
Total unambiguous	224	125	349	35.8%
Ambiguous	366	216	582	37.1%
TOTAL	590	341	931	36.6%

is obvious from their morphology, clauses with unambiguously case-marked DPs may exhibit freer constituent order than clauses with ambiguously case-marked DPs. With respect to the order of non-finite main verbs and their DP objects, this would mean that the frequency of postverbal DPs would show significant differences for unambiguous vs. ambiguous case-marking.

The results of testing the above hypotheses are shown in Table 16.1. It is clear that distinctions in case-marking have no effect at all: not only is the frequency of postverbal DPs about the same for unambiguously and ambiguously case-marked DPs (35.8% vs. 37.1%), but it is also the same regardless of whether the unambiguous case-marking is structural (accusative) or inherent (genitive/dative) (33.5% vs. 38.0%). It should be noted that the effects of the other factors influencing the position of the object (heaviness, clause type, clause structure) are the same in clauses containing unambiguously case-marked DPs as in clauses containing ambiguously case-marked DPs; in other words, there is no difference in the behavior of the two groups of DPs. In addition, the early texts show the same lack of effect of case-marking on the position of DPs as the later texts.

In summary, the data presented in this section demonstrate that during the Old English period, overt case-marking had no effect on the position of the object with respect to the main verb: DPs that are ambiguously case-marked behave the same as DPs for which the case and therefore the grammatical function are unambiguous,⁸ and DPs with structural case behave the same as DPs with inherent Case. Let us be very clear on the conclusions that can be drawn from these data. I have shown that there is no link during the Old English period between case ambiguity and word order. But I have not shown that there is no link between the loss of the case system and the fixation of word order: this is impossible to demonstrate on the

⁸ As pointed out by an anonymous referee, DPs that are ambiguously case-marked in isolation are frequently not ambiguous in context, due to other morphological, semantic, and pragmatic cues. This further weakens support for a functional explanation of the change from OV to VO. See Pintzuk (2000) for discussion.

basis of Old English data, since during that period the case system was operative despite some syncretism of forms. However, as I will show in Section 16.5 (see Table 16.2), the fixation of word order is beginning even in the Old English period, with the frequency of VO order increasing during the period. I conclude that a simple link between the loss of the case system and the loss of OV word order cannot be maintained for the history of English, since the latter started well before the former.

16.5. SYNTACTIC EXPLANATIONS OF THE EFFECT OF CASE-MARKING ON THE POSITION OF DP OBJECTS

In this section I discuss the analysis of Roberts (1997), in which the position of the object is in part determined by the strength of the feature that checks morphological case. Roberts's analysis has been chosen because as far as I am aware, no one else has made explicit the relationship between morphology and verb-object order in Old English, and no one else has analyzed Old English as a head-initial language in such detail. I will simplify Roberts's analysis considerably, and focus mainly on those derivations that affect the position of DPs in one particular clause type: clauses with the finite verb in medial position and the object either between the finite and non-finite verbs, as shown in (17a), or else after the non-finite verb, as shown in (17b).

- (17) (a) þæt hi milton heora fynd oferwinnan
 so-that they could their foes overcome
 'so that they could overcome their foes'
 (Bede 44.14)
- (b) þæt he mot chtan godra manna
 that he might persecute good men
 'that he might persecute good men'
 (WHom 130.37-8)

In accordance with the antisymmetry hypothesis of Kayne (1994), Roberts proposes that Old English structure is uniformly head-initial, with complements to the left of heads derived by movement. Overt movement is triggered by strong features on functional heads. Finite verbs in Old English, for example, move overtly to AgrO, and may move higher in verb-second clauses. AgrO has a strong N feature, which attracts DPs to Spec of AgrOP to check case, as shown in (18). Not only case-marked DPs, but also small-clause predicates (including particles), non-finite complement clauses, and some PPs are subject to the same checking requirement that is satisfied by movement to Spec of AgrOP. Thus, as Roberts (1997: 415) states, his notion of case is somewhat abstract. But the loss of overt case morphology in Early Middle English plays a role in Roberts's explanation of the loss of OV order, as will be discussed below.

- (18) þæt hi mihton [_{AGR^{OP}} [heora fynd]_i [_{AGR^{O'}} AgrO
so that they could their foes
[_{VP} oferwinnan t_i]]
overcome
'... so that they could overcome their foes.'
(Bede 44.14)

From Spec of AgrOP, DPs may scramble higher to Spec of AgrSP or Spec of TP (that is, before the finite auxiliary verb in subordinate clauses), as shown in (19).

- (19) þæt he þæt godes hus wolde mid fyre forbærnan
so that he the God's house would with fire burn
'... so that he would burn the house of God with fire'
(ÆLS 25.613-14)

DPs can escape case-checking, and therefore overt leftward movement, by being focused. In clauses with focused DPs, there is no overt movement out of the lowest VP, as shown in (20). If focus can be linked with heaviness, this analysis has the advantage of explaining the correlation between length of DP and position described in Pintzuk (1997): the heavier the DP, the more likely it is to appear in postverbal position.

- (20) þæt he mot [_{AGR^{OP}} [_{AGR^{O'}} AgrO [_{VP} ehtan godra manna]]
that he might persecute good men
'... that he might persecute good men ...'
(WHom 130.37-8)

In case the link between focus and position is not supported by empirical evidence, Roberts offers an alternate analysis for such clauses: a head-initial variant of West Germanic verb-raising, with the non-finite verb moving leftward and attaching to the finite verb. As shown in (21), the object moves to the lower Spec of AgrOP, and the non-finite verb moves beyond it to adjoin to the finite verb in the higher VP, which in turn excorporates and moves leftward, at least to the higher AgrO.⁹

- (21) þæt he mot_i [_{VP} ehtan_j+t_k ... [_{AGR^{OP}} [godra manna]_i
that he might persecute good men
[_{AGR^{O'}} AgrO [_{VP} t_j t_k]]
'... that he might persecute good men ...'
(WHom 130.37-8)

Roberts analyzes the change from OV to VO in Early Middle English as a change in the strength of the N feature of AgrO from strong to weak, eliminating

⁹ Roberts (1997: 417) states that the two verbs must be adjacent in clauses like (21), but this is clearly not true: Koopman (1994) found 127 clauses with double objects where both objects follow the finite auxiliary + non-finite main verb, but also forty clauses with double objects with one object in preverbal position and one object in postverbal position.

overt movement to Spec of AgrOP. To explain how language learners acquire strong or weak features and how the strength of a feature can change over time, he presents the following criteria for acquisition (=Roberts 1997: 420, his (35)):

- (22) (a) Morphological trigger: if a head H has the relevant L-morphology, then H has strong L-features.
(b) Syntactic trigger: if a well-formed representation can be assigned to a given string by assuming that H has strong L-features, then H has strong L-features.
(c) In general, weak features are the default value. These are assumed in the absence of clear evidence to the contrary of the type in (a) or (b).

During the Old English period, the trigger for the acquisition of a strong AgrO feature was both morphological (the overt case-marking on DPs) and syntactic (the numerous instances of OV order). In Early Middle English, however, the morphological case system broke down, which resulted in the loss of the morphological trigger for acquisition of the strong feature on AgrO; in addition, the VO orders that existed in the primary linguistic data weakened the syntactic trigger. Since the weak feature is the default, and was also confirmed by some of the data, the strong feature on AgrO was lost, which resulted in the loss of OV order.

Roberts's analysis thus links the position of the object in Old English to case-marking requirements and to focus, and explains the change from OV to VO by the effect on language acquisition of the collapse of the case system in Middle English. If movement to Spec of AgrOP is a prerequisite for scrambling to higher positions, and if scrambling is a prerequisite for cliticization of pronominal objects, then his analysis also explains the simultaneous loss of scrambling and cliticization in early Middle English (Roberts 1997: 419). But Roberts's analysis claims that verb-object order in Old English clauses like those in (17) is determined exclusively by focus;¹⁰ and one clear prediction is that the order of verbs and their objects should vary but not show any particular chronological trend during the Old English period. It is during the Early Middle English period that word order should change dramatically, with the loss of overt case morphology. But this prediction is not correct: as shown in Table 16.2, the frequency of postverbal DPs increases

TABLE 16.2. The effect of date of composition on the position of DP objects in clauses with auxiliary verbs

Date	Preverbal	Postverbal	TOTAL	% postverbal
Before 950	380	144	524	27.5%
After 950	210	197	407	48.4%
TOTAL	590	341	931	36.6%

¹⁰ If instead we accept the verb-raising analysis of clauses with VF-Vnf-O orders, as in (21), then the position of DP objects is determined by whatever constrains this process.

from the early texts to the later ones, independent of the other factors influencing the position of DPs. An analysis that ties the position of objects only to (abstract or concrete) case-checking and focus cannot describe or explain this increase.

We could modify Roberts's analysis so that the strong feature forcing the leftward movement of objects is not related to morphology at all; rather, it is a syntactic feature which varies between weak and strong and which has a syntactic trigger for acquisition. Within a framework where parametric variation is expressed in terms of feature strength rather than directionality, this characterization of the variation is equivalent to grammatical competition and does not involve case morphology, as Roberts himself states (1997: 416). The modified Roberts's analysis of Old English thus differs from the analysis of Pintzuk (1997) mainly in terms of the framework being used, and may indeed have some advantages as far as explaining the other changes in Early Middle English.¹¹ But I will show in the next section that even this modification is not sufficient, and that most DPs in preverbal position cannot be derived from underlying VO structure.

16.6. DISTRIBUTIONAL EVIDENCE FOR VARIATION IN UNDERLYING STRUCTURE

I turn now to evidence for underlying structure: I will demonstrate that a Kaynean framework with uniform head-initial structure cannot explain the distribution of DP objects. It has been shown in previous studies (for example, Haerberli 1999a, van Kemenade 1987, Pintzuk 1999) that Old English appears to allow both leftward and rightward movement of various types, as illustrated in the examples below. (23a) (= Haerberli 1999a: 356, his (39c)) shows leftward scrambling, with the object before a VP-adjoined adverb; (23b) shows postposition, with the object after an otherwise clause-final auxiliary.

- (23) (a) & æghwæper oþerne oftrædlice utdræfde
and each other frequently out-drove
'and each of them frequently drove the other away'
(ChronA 80.887.10)
- (b) þæt ænig mon atellan mæge ealne þone demm
that any man relate can all the misery
'that any man can relate all the misery'
(Or 52.6-7)

For purposes of exposition, I will make the following three assumptions in discussing the distribution of DP objects. First, I will assume the phrase structure of Chomsky (1986a), with only two functional projections, CP and IP, as shown in (24):

- (24) $[_{CP} (XP) [_{C'} C [_{IP} XP [_{I'} I [_{VP} DP [_{V'} V (XP)]]]]]]]$

¹¹ But see van der Wurff (1997, 1999) for a different picture of the loss of OV in the history of English.

Second, I will assume that IPs and VPs can vary in headedness, head-initial vs. head-final.¹² In other words, I am adopting neither the exploded Infl hypothesis of Pollock (1989) nor the antisymmetry hypothesis of Kayne (1994). Third, I will assume that the finite verb in subordinate clauses and in normal declarative main clauses is in I rather than in C, regardless of the underlying position of I; in other words, that verb-seconding in Old English is to a position lower than C (see Haerberli, this volume, Pintzuk 1999, among others).

Since finite main verbs categorically move to I, their surface position can tell us nothing about the order of verbs and their complements: in I-initial clauses, the finite main verb will frequently precede its complements; in I-final clauses, the finite main verb will frequently follow its complements. Therefore, the data for this section will be limited to clauses that contain both a finite auxiliary (Vf) and a non-finite main verb (Vnf), and I will assume that the non-finite verb remains in its underlying position within the VP. I will concentrate on the positions before and after the non-finite main verb in I-initial and I-final clauses, as shown in (25). In I-initial clauses, preverbal position is between the finite auxiliary and the non-finite main verb, and postverbal position is after the non-finite main verb. In I-final clauses, preverbal position is between the first heavy constituent and the verb cluster, and postverbal position is after the verb cluster:

- (25) (a) I-initial: . . . [_I Vf] . . . preverbal position . . . Vnf . . . postverbal position . . .
- (b) I-final: XP . . . preverbal position . . . Vnf [_I Vf] . . . postverbal position . . .

In the remainder of this section, I will look at the distribution of DP objects in terms of their possible derivations from uniform head-initial structure and uniform head-final structure, and I will show that both structures are needed to account for the data—in other words, that Old English exhibits grammatical competition in underlying structure, head-initial vs. head-final.

16.6.1. Verb-object adjacency and underlying structure

One type of distribution that we could examine to determine underlying structure is verb-object adjacency. If, for example, the language is uniformly VO, with preverbal objects derived by scrambling, we might expect preverbal objects to appear before left-periphery VP adverbs and other adjuncts, with postverbal objects adjacent to the non-finite main verb. However, the data do not support that prediction. We can see from (26) and (27) that in clauses with preverbal objects, the object may either precede or follow an adjunct, including adverbs that are assumed to be on the left periphery of the VP.

¹² The fact that head-initial VPs cannot occur with head-final IPs is unexplained under these assumptions, as Nunes (this volume) and Wim van der Wurff (personal communication), among others, have pointed out. See also note 6.

- (26) þæt we woldan a God lufian
so-that we would always God love
'so that we would always love God'
(WULF₃ 226.17.16)
- (27) æfter þæm þe Læcedemonie hæfdon *Perse* of
after Lacedaemonians had Persians frequently
oferwunnen
overcome
'after the Lacedaemonians had frequently overcome the Persians'
(Or 94.22)

Similarly, in clauses with postverbal objects, the object may either precede or follow an adjunct, as shown in (28) and (29).

- (28) Cristene men sculon secan *cyrican gelome*
Christian men must seek churches often
'Christian men must often seek churches'
(AELET₄ 24.105.147)
- (29) He sceal habban *eac mæssereaf*
He must have also mass-vestments
'He must also have vestments for the mass'
(AELET₄ 14.55.74)

The distributions are given in Table 16.3, the data for which consist of I-initial clauses with a full DP object plus an adjunct either before or after the main verb in clauses with auxiliary verbs, like those in (26) through (29).

Thus even in clauses like (29) with postverbal constituents, there must be some sort of movement affecting the position of the object. An analysis in which postverbal constituents are derived by a combination of base generation and postposition can account for these data. But if underlying structure is uniform and rightward movement is not permitted, their derivation is not as clear.

16.6.2. Evidence for VO structure

As was shown in Table 16.2, there is a considerable amount of surface VO order in Old English texts. If we assume a head-final analysis (for example, van Kemenade

TABLE 16.3. The order of full DP objects and adjuncts in Old English I-initial clauses with auxiliary verbs

Position of object and adjunct	Object + adjunct order	Adjunct + object order	TOTAL	% adjunct
Preverbal	61	77	138	55.8%
Postverbal	54	33	87	62.1%

1987), much of the surface VO order could be derived from head-final structure by postposition. However, there are instances of surface VO where postposition is grammatically excluded, so they can be regarded as underlyingly VO. In general, prosodically light elements do not move rightward in West Germanic languages; and in clauses with auxiliaries, light elements to the right of the non-finite main verb are diagnostics for VO structure. To demonstrate this, I look at the distribution of three types of light elements: pronouns, particles, and stranded prepositions.

The distribution of pronominal objects is shown in Table 16.4: pronouns appear both preverbally and postverbally in I-initial clauses, but never postverbally in I-final clauses;¹³ examples are given in (30). The distribution supports the assumption that pronouns do not move rightward, and that they therefore can be used as diagnostics for VO structure when they are found in postverbal position.

TABLE 16.4. The position of pronominal objects in Old English clauses with auxiliary verbs

Clause type	Preverbal	Postverbal	TOTAL	% postverbal
I-initial	129	10	139	7.2%
I-final	32	0	32	0.0%

- (30) (a) We ne magan *eow neadian*
we NEG can you constrain
'We cannot constrain you'
(AELET₃, 104.85.140)
- (b) ac nan ne mot swaþeah *syllan him* bletsunge
but no-one NEG may however give them consecration
'But no one may give them consecration however'
(AELET₃, 124.156.236)
- (c) swa Datianus *him gediht* hæfde
as Datian them directed had
'as Datian had directed them'
(AELIVE I 316.158.122)

The second diagnostic for VO structure is the position of particles. The distribution of particles is shown in Table 16.5: particles, like pronouns, appear both preverbally and postverbally in I-initial clauses, but never postverbally in I-final clauses; examples are given in (31). Again, the distribution supports the use of postverbal particles as diagnostics for VO structure.¹⁴

¹³ There are many more I-final clauses in the database with pronominal objects in preverbal position than are shown in Table 16.4, but in these clauses the pronominal object is either first in the clause or else occurs immediately after a pronominal subject. In both cases, the pronoun may have been fronted.

¹⁴ Particles have frequently been analyzed as predicates of small clauses (for example, Hróarsdóttir 2000 for Icelandic, Roberts 1997 for Old English). An analysis of this type does not preclude their use

TABLE 16.5. The position of particles in Old English clauses with auxiliary verbs

Clause type	Preverbal	Postverbal	TOTAL	% postverbal
I-initial	123	9	132	6.8%
I-final	35	0	35	0.0%

- (31) (a) & woldon hig *utdragan*
and (they) would them out drag
'and they would drag them out.'
(ChronE 215.6 (1083))
- (b) he wolde *adraefan ut* anne æþeling
he would drive out a prince
'he would drive out a prince'
(ChronB (T) 82.18-19 (755))
- (c) þa he ða eft þonan *ufaran* wolde
when he then again thence out-go would
'when he would go out from there then again'
(CHROA2 94.905.8)

The third diagnostic for VO structure is the position of stranded prepositions. In Old English, prepositions can be stranded either in *wh*-clauses, as shown in (32a), or else by the leftward movement of pronominal objects of prepositions, as shown in (32b).

- (32) (a) buton þam anum poste þe þæt halige dust on anhangen wæs
except the one post that the holy dust on hung was
'except the one post on which the holy dust was hung'
(ÆLIVE III 140.232)
- (b) þe him heora yfel rihtlice on gewrecen wære
when them their evil rightly on avenged was
'when their evil was rightly avenged on them'
(BOETH 120.31)

TABLE 16.6. The position of stranded prepositions in Old English clauses with auxiliary verbs

Clause type	Preverbal	Postverbal	TOTAL	% postverbal
I-initial	10	1	11	9.1%
I-final	24	0	24	0.0%

as a diagnostic for the headedness of the VP, since particles can appear either together with or separate from the small-clause subject; see (31a-b) and (37b).

Stranded prepositions are governed by the main verb of their clause, and the direction of government is the normal one for the language (Kayne 1984). In Old English, therefore, the position of stranded prepositions reflects the underlying order. The data in Table 16.6 demonstrate that stranded prepositions appear preverbally and, in one instance, postverbally in I-initial clauses, but never postverbally in I-final clauses. Again, the distribution supports the use of postverbal stranded prepositions as diagnostics for VO structure.

Although the numbers in Tables 16.4, 16.5, and 16.6 are small, they all show the same distributional pattern: no postverbal light elements in I-final clauses, and a low frequency of VO structure in I-initial clauses.

16.6.3. Evidence for and constraints on scrambling

Although the postverbal position of pronouns, particles, and stranded prepositions is diagnostic of VO structure, the preverbal position of these elements cannot be used as evidence for OV structure: light elements do not extrapose to the right, but they may move leftward in Germanic languages. We know that there was leftward movement in Old English, both of pronouns and of full DPs, as demonstrated by clauses with these constituents before the finite auxiliary:

- (33) (a) þin agen geleafa þe hæfþ gehældne
your own faith you has healed
'Your own faith has healed you.'
(BIHom 15.24-5)
- (b) þæt he þæt godes hus wolde mid fyre forbærnan
so-that he the God's house would with fire burn
'so that he would burn the house of God with fire'
(ÆLS 25.613-14)

In addition, as discussed above, we can find constituents, again both pronominal and nominal, to the left of VP-adjoined adverbs, as shown in (34).

- (34) (a) Ac ic wolde þe nu ascian
but I would you now ask
'But I would ask you now . . .'
(BOETH 86.22.252)
- (b) æfter þæm þe Læcedæmonie hæfdon *Perse oft* oferwunnen
after Lacedaemonians had Persians often overcome
'After the Lacedaemonians had often overcome the Persians . . .'
(Or 53.10-11)

The distributional evidence that I have presented so far is consistent with a uniform VO grammar and optional leftward scrambling to preverbal position. Indeed, Roberts's analysis can be described in these terms; and van der Wurff (1997) presents such an analysis for Middle English, and suggests that it can also account for the Old English data. As discussed in Section 16.2, van der Wurff incorporates

optionality into the grammar by showing that if the non-finite verb moves to AgrO, derivations in which objects move overtly to Spec of AgrOP are as economical as derivations in which objects remain within the VP. To determine whether such an analysis is possible for Old English, it is necessary to investigate the extent to which leftward movement from postverbal position can account for objects in preverbal position.

It first should be noted that there is evidence for the leftward scrambling of pronominal objects from postverbal position in Old English: we find clauses with pronominal objects both before and after the non-finite main verb, as in (35) (=Koopman 1994: 77, his (34)). The postverbal pronoun is diagnostic of VO structure, and therefore the preverbal pronoun must have moved leftward from postverbal position. These clauses are not very frequent (Koopman 1994 found three of them out of thirty-four clauses with two pronominal objects and the finite auxiliary before the non-finite main verb); their low frequency is only to be expected, since the number of clauses with postverbal pronominal objects is quite small, as was shown above in Table 16.4.

- (35) hwi noldest ðu hyt secgan me
 why NEG-would you it say me
 'Why wouldn't you say it to me?'
 (Gen 31.27)

Scrambling is sometimes assumed to be limited to West Germanic languages that are OV. However, it is productive in Modern Yiddish (a VO language) for both pronouns and full DPs (Beatrice Santorini, personal communication, cited in Kroch and Taylor 2000). In Modern Icelandic, another VO language, leftward scrambling is productive for negative and quantified DPs (Rögnvaldsson 1987, van der Wurff 1999, Svenonius 2000), but not for other full DP objects. One might ask whether the scrambling of full DPs in the history of English is more like Yiddish or Icelandic. Kroch and Taylor (2000) argue that quantified DPs (including negatively quantified DPs) in Early Middle English may scramble leftward from postverbal

TABLE 16.7. The distribution of DP objects in clauses with auxiliary verbs in Early Middle English

	Preverbal	Postverbal	TOTAL	% preverbal
<i>Clauses with postverbal pronouns</i>				
Non-quantified DPs	1	19	20	5.0%
Quantified DPs	4	9	13	30.8%
<i>Clauses without postverbal pronouns</i>				
Non-quantified DPs	244	565	809	30.2%
Quantified DPs	60	85	145	41.4%

Source: Kroch and Taylor 2000

TABLE 16.8. The distribution of DP objects in clauses with auxiliary verbs in Old English

	Preverbal	Postverbal	TOTAL	% preverbal
<i>Clauses with postverbal diagnostic elements</i>				
Non-quantified DPs	1	32	33	3.0%
Quantified DPs	2	2	4	50.0%
<i>Clauses without postverbal diagnostic elements</i>				
Non-quantified DPs	487	314	801	60.8%
Quantified DPs	104	31	135	77%

position, but that the scrambling of non-quantified DPs from postverbal position is quite limited, perhaps non-existent. They show that with a single exception in their Early Middle English data, non-quantified DPs do not scramble leftward in clauses with postverbal pronominal objects, that is, in those clauses which are necessarily VO in underlying structure. Their data are shown in Table 16.7; notice that of the twenty clauses with non-quantified DP objects and postverbal pronouns, those that are unambiguously VO, only one clause has a preverbal DP, while the other nineteen are all postverbal. The rate of leftward scrambling of non-quantified DPs from postverbal position is therefore at most 5%. But in clauses without a diagnostic postverbal pronoun, the frequency of preverbal non-quantified DP objects is 30.2%. Kroch and Taylor conclude that the number of non-quantified DPs in preverbal position is too high to be accounted for by scrambling from VO structure, but must instead be derived from OV structure. This means that Middle English is more like Modern Icelandic in the constraints on scrambling: scrambling from postverbal position is (almost entirely) limited to negative and quantified DPs.

Let us now consider the distribution of DP objects in Old English. There are indications that Old English is much like Early Middle English with respect to the distribution of objects and the constraints on leftward movement. The data are shown in Table 16.8. I follow Kroch and Taylor in grouping negative DPs with quantified DPs, although it should be noted that negative DPs appear preverbally more frequently than quantified DPs in Old English. I have included in Table 16.8 clauses with a postverbal diagnostic element and with the finite auxiliary in C. These clauses were not included in Tables 16.4 through 16.6, since the underlying position of I is impossible to determine if the finite verb is in C.

First notice that in Old English, as in Middle English, the frequency of quantified DPs in preverbal position is higher than that of non-quantified DPs, regardless of whether the clause has a postverbal diagnostic element.

Second, of the thirty-three clauses with a non-quantified DP object and postverbal diagnostic elements (pronouns, particles, and stranded prepositions), those that are necessarily VO in underlying structure, only one has the object in preverbal

position;¹⁵ the other thirty-two clauses have the non-quantified object in postverbal position. In contrast, two of the four clauses with postverbal diagnostic elements have quantified objects in preverbal position. In the examples below, the clause in (36) has a postverbal diagnostic element (the pronominal indirect object) and a postverbal non-quantified DP (the direct object), and the clause in (37) has a postverbal diagnostic element (the particle)¹⁶ and a preverbal negative DP.

- (36) ac nan ne mot swaþeah syllan him *blætsunge*
 but no one NEG may nevertheless give him benediction
 'But no one, nevertheless, may give him benediction'
 (AELET3 124.156.236)

- (37) þæt þu ne mihtst *nænne weg* findan *ofer*
 that you NEG can no way find across
 'that you cannot find a way across'
 (BOETH 85.22.229)

In clauses without postverbal diagnostic elements, 60.8% of the non-quantified DP objects appear preverbally. This is the same pattern as in the Early Middle English data: the frequency of preverbal non-quantified DP objects is too high to be attributed to leftward scrambling from postverbal position. In Old English, however, the difference is even more dramatic, since the frequency of preverbal objects is so much higher in Old English than in Early Middle English.

While the relevant Old English data are limited in number, it is clear that they show the same patterns and distribution as the Early Middle English data. Kroch and Taylor (2000) have demonstrated that there is more continuity between Old and Middle English than is generally assumed, and this is additional evidence that the two stages of the language are alike in many ways. The results presented here

¹⁵ It should be noted that the one clause in Table 16.8, given in (i) (=Koopman 1994: 77, his (31)), with a postverbal diagnostic element and a preverbal non-quantified object is open to a different interpretation.

- (i) þæt þu wylt þe *sylfne* geswuteligan us næs middanearde
 that you will you self reveal us not at all mankind
 'that you will reveal yourself to us, not to mankind'
 (Jn(WScP) 14.22)

The postverbal elements in (i) can be interpreted as a single constituent, and the manuscripts of the West Saxon Gospels differ on this clause: (i) is from MS Cambridge, Corpus Christi College 140, while MS Oxford, Bodleian Library Hatton 38 has the clause as shown in (ii).

- (ii) þæt þu wylt þe *sylfne* geswuteligan us and na middanearde
 that you will you self reveal us and not mankind

In (ii), clearly, the postverbal constituent consists of a pronoun conjoined with a DP: the pronoun cannot be used as a diagnostic element, and this clause is therefore not unambiguously VO in underlying structure. The same is plausibly true of (i). Thanks to Willem Koopman (personal communication) for help with this example.

¹⁶ Note that this clause is not a relative clause with a stranded preposition, but an adverbial clause with a postverbal particle *ofer* 'across'.

show that a uniform head-initial analysis such as Roberts (1997), with optional leftward movement of DP objects, cannot be correct for Old English, and strongly suggest that preverbal non-quantified DP objects are base-generated in that position. From there they can of course scramble leftward, as in (34b) above. In other words, I have shown that the grammatical competition cannot take the form of variation in the strength of a case feature (either concrete or abstract) triggering leftward movement from uniform head-initial structure, but instead is better represented by variation in the headedness of VPs. As was stated in Section 16.2, the way that competing options are described depends upon the syntactic framework being used, and other analyses of the grammatical competition are possible: we could, for example, analyze Old English transitive clauses as having a uniformly head-initial VP dominated by vP, with obligatory movement of the verb (finite or non-finite) to v. In that case, the variation in headedness would be located in vP rather than VP, with preverbal objects in head-final vPs and postverbal objects in head-initial vPs.

16.7. GRAMMATICAL COMPETITION AS PREDP FRONTING

There is one other analysis of the change from OV to VO that involves grammatical competition, but of a different type than variation in underlying structure. This is the analysis that has been proposed by Hróarsdóttir (1999, 2000) for Icelandic, which showed a similar gradual replacement of OV by VO in the course of its history. Hróarsdóttir demonstrates that while a uniform head-initial analysis with optional leftward movement adequately describes synchronic variation in the position of complements in Older Icelandic, it cannot explain the fact that the frequencies of preverbal DPs, PPs, and non-finite main verbs all decline at similar rates over time and are lost at about the same time. Older Icelandic examples are given in (38) (= Hróarsdóttir 2000, her (1a), (1b), (1g)):

- (38) (a) so Þorsteinn skyldi *lífinu* tapa
 so Þorsteinn should life-the lose
 'so that Þorsteinn should die'
 (b) að þú mættir *hjá mér* vera nokkra daga
 that you could with me stay few days
 'that you could stay with me for a few days'
 (c) Þú munt *frétt* hafa, að . . .
 you will heard have, that . . .
 'you will have heard, that . . .'

Hróarsdóttir instead proposes an analysis in which the leftward movement of DPs to Spec of AgrOP is obligatory, VO order results from the obligatory fronting of a remnant VP, and both OV order and main verb-auxiliary verb order are derived by optional PredP fronting. All of the head-initial/head-final surface variation is a direct result of the optionality of PredP fronting. As PredP fronting is gradually lost, there is a decline and simultaneous loss of all three head-final orders. In pre-

vious work (for example, Hróarsdóttir 1996), she has characterized this type of optionality as grammatical competition.

Space constraints prevent a full discussion of the application of Hróarsdóttir's analysis to Old English data. Suffice it to say that while her analysis works quite elegantly for the Older Icelandic data, it cannot be used for the history of English, for two reasons. First, it cannot explain the data in Tables 16.4 through 16.6 and 16.8: because the variation in the order of verbs and their complements is due to PredP fronting, different types of complements and predicates cannot behave differently, and their position cannot be affected by the position of the finite verb. Second, her analysis predicts that during the Middle English period, when there is still surface OV order,¹⁷ there should also be instances of the word order in (38c), with the non-finite main verb preceding the non-finite auxiliary. A search of the prose texts of the second edition of the Penn–Helsinki Parsed Corpus of Middle English (Kroch and Taylor 1999) shows that out of 2380 clauses with a non-finite auxiliary and a non-finite main verb, only one clause has the main verb preceding the auxiliary. This clause, shown in (39), is from *The Polychronicon*, a late fourteenth-century text.

- (39) and wolde i-cristned be
and would christened be
'and would be christened'
(CMPOLYCH VI 227.1636)

Even in the Early Middle English texts analyzed by Kroch and Taylor (2000), where about one-third of the clauses have OV order, there are no examples of the type in (39). I conclude, therefore, that Hróarsdóttir's analysis cannot be used for the change from OV to VO in the history of English, since the predictions that it makes are contradicted by the data.

16.8. SUMMARY AND CONCLUSIONS

This chapter has two major results. First, I have shown that overt morphological case in Old English had no effect on the position of DP objects with respect to the non-finite main verb. In particular, the relationship between morphological case and syntactic structure and constituent order does not explain or even describe the variation between OV and VO surface orders and the increase in the frequency of VO during the Old English period.¹⁸ This should not be a surprising result. Even though changes in both the syntax and the morphology occurred during approximately the same period in the history of English, we know that these two types of

changes are not necessarily connected. Icelandic, for example, changed from OV to VO with no corresponding change in overt morphological case-marking; and in Dutch, the case system outside pronouns was lost entirely without a corresponding change from OV to VO.

Second, I have shown that the distribution of DPs in preverbal and postverbal position cannot be explained by an analysis based on leftward movement of DP objects from postverbal position in uniform head-initial structure, either triggered by a strong feature (Roberts 1997) or optional (van der Wurff 1997). Instead, I have shown that the distribution is better accounted for by positing grammatical competition in the headedness of underlying structure, head-initial vs. head-final. This is not to say that in principle, a head-initial analysis could not be proposed for Old English: Nunes (this volume), for example, sketches a Minimalist account in which objects optionally scramble to positions outside the vP, with pronouns moving further than full DPs. Scrambled pronouns, via relativized minimality, prevent the long distance movement of remnant vPs and non-quantified objects, thus blocking the derivation of many of the unattested orders. This analysis does, however, require some stipulations: it is not clear why scrambled pronouns do not similarly block the long distance movement of subjects and of quantified objects, nor why scrambled pronouns must move first to block the subsequent movement of remnant vPs and non-quantified objects. These and similar questions are left to future research, both my own and that of others.

¹⁷ See Foster and van der Wurff (1995, 1997), van der Wurff (1997, 1999) for evidence that OV order persisted throughout the Middle English period.

¹⁸ The relationship between case and syntactic change during the Middle English period may be an entirely different story; see, for example, Allen (1995).