

A Quantitative Analysis of the Loss of OV Order in English
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It is well-known that English in its history changed from predominantly object-verb (OV) in Old English to categorically verb-object (VO) in Modern English. It is also well-known (see, for example, Foster and van der Wurff 1995; Kroch and Taylor 2000a; Pintzuk 1996, 2002; van der Wurff 1997, 1999) that this change was gradual. OV and VO order in Old and Middle English are exemplified in (1) and (2).

(1) Verb-object order in Old English

- a. Ac he sceal þa sacfullan **gesibbian**
But he must the quarrelsome reconcile
'But he must reconcile the quarrelsome ...'
(colwstan1,+ALet_2_[Wulfstan_1]:188.256)
- b. Se wolde **gelytlian** þone lyfigendan hælend
He would diminish the living lord
'He would diminish the living lord ...'
(colwstan1,+ALet_2_[Wulfstan_1]:55.98)

(2) Verb-object order in Middle English

- a. ear he hefde his ranceun fülleliche **ipaizet**
before he had his ransom fully paid
'Before he had fully paid his ransom ...'
(CMANCRIW,II.101.1228)
- b. zef þu wult **habben** bricht sichðe wið þine heorte echnen
if you will have bright sight with your heart's eyes
'If you will have bright sight with your heart's eyes ...'
(CMANCRIW,II.73.839)

In this paper, we show that three different types of objects (negative, quantified, and non-quantified, henceforth “positive”) appear in preverbal position at different frequencies, and preverbal position is lost at different rates for the three types. Assuming grammatical competition in the headedness of VPs, we show that the derivation of objects in preverbal and postverbal position is dependent on the underlying structure of the clause (OV or VO) and is further affected by optional processes which are different for the three types. Thus, positive objects may postpose from preverbal position in OV clauses, negative objects may prepose from postverbal position in VO clauses, and quantified objects are subject to both types of movement, postposing in OV clauses and preposing in VO clauses. We use this analysis to estimate first the underlying frequency of OV order for each period and then the rates of pre- and postposing associated with each of the grammars. The results show that the rate of OV order is decreasing over time, and furthermore that the rates of preposing for quantified and negative objects associated

with the VO grammar are also decreasing, although at different rates. The frequency of preverbal position for the three types of objects is therefore the result of a complex interaction of underlying structure and movement, and the eventual loss of OV order is the final outcome of several long-term changes which begin in the Old English period and continue until after the end of the Middle English.

This study is based on almost 10,000 clauses with full NP objects extracted from two syntactically parsed corpora, the Penn-Helsinki Parsed Corpus of Middle English (PPCME2) and the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE), covering the period from Early Old English through Late Middle English.

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