

Optimization in English Diachronic Syntax: A Minimalist Third-Factor Approach

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This paper investigates whether major developments in English diachronic syntax are better explained by Chomsky's Third-Factor principles than by parameter resetting or grammaticalization alone. Within the Minimalist Program, it focuses on two principal case studies: the decline of Verb-Second (V2) and the transition from mixed OV/VO patterns to stable VO/SVO order. The historical development of auxiliary selection and negation serves as independent corroborating evidence for the same optimization process.

The analysis draws on historical corpus data from the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE), the Penn-Helsinki Parsed Corpus of Middle English (PPCME2), and representative texts including Ælfric's Catholic Homilies, Chaucer's Canterbury Tales, and Wycliffe's Bible. Quantitative corpus evidence reveals consistent directional tendencies. In Ælfric, 48 of 53 main clauses exhibit V2 order, whereas 67 of 111 subordinate clauses retain verb-final order, demonstrating the coexistence of configurational V2 syntax and inherited OV structure in late Old English. A representative V2 example is *þa cwæð se Hælend...* ('Then said the Lord...'), in which the finite verb occupies the second position following a clause-initial adverbial. During Middle English, optional V2 declines and rigid Subject-Verb-Object order becomes increasingly dominant. Likewise, Chaucer's Canterbury Tales show a strong preference for HAVE perfects (38 tokens) over BE perfects (4 tokens), while Wycliffe's Gospel contains 29 instances of *do*-negation and 103 instances of *V-not* negation, representing a transitional stage before obligatory *do*-support.

The analysis combines quantitative corpus frequencies with qualitative Minimalist derivational analyses to evaluate four explicit hypotheses derived from the Third-Factor approach:

H1: Morphological erosion predicts a statistically significant decline in optional V2

together with the stabilization of rigid SVO order, reflecting fewer movement operations.

H2: Morphological erosion predicts the replacement of mixed OV/VO systems by predominantly VO order, reflecting greater reliance on transparent configurational structure.

H3: Computational simplification predicts the generalization of HAVE at the expense of BE as the perfect auxiliary, reducing uninterpretable feature-checking operations.

H4: Computational simplification predicts the grammaticalization of obligatory *do*-support, yielding less complex derivations through simplified feature interactions.

Each hypothesis is evaluated by combining quantitative corpus frequencies with qualitative Minimalist derivational analyses, allowing independently motivated historical developments to be tested against the computational predictions of the Third-Factor approach. Rather than treating these developments as isolated historical innovations, the study asks whether they constitute converging evidence for a unified process of grammatical optimization.

The findings are consistent with all four hypotheses. The decline of optional V2, the stabilization of VO/SVO order, the replacement of BE by HAVE, and the emergence of *do*-support exhibit parallel trajectories toward simpler derivations, reduced formal complexity, and greater configurational transparency. Unlike parameter-based approaches, which primarily characterize changes in grammatical settings, or grammaticalization accounts, which emphasize lexical and functional sources of change, the Third-Factor approach predicts the common direction of these developments by relating them to general computational principles. English diachronic syntax therefore provides empirical evidence that historical change is not a collection of unrelated innovations but a process of constrained grammatical optimization within the architecture of Universal Grammar.

Keywords: Minimalism; Third Factors; English historical syntax; Universal Grammar; syntactic optimization; historical corpora.

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