


CORPUS-BASED ANALYSIS OF HISTORICAL ENGLISH CHANGE

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Abstract: This article presents a comprehensive corpus-based study of language change in English from the Old English period through Modern English. Using historical corpora (e.g. the Helsinki Corpus, Penn Parsed Corpora, and the Corpus of Historical American English), we trace diachronic patterns in morphology, syntax, and vocabulary. We outline the gradual loss of inflectional morphology (e.g. case and gender) after the Norman Conquest, and the rise of fixed SVO word order in Early Modern English (EModE). Vocabulary analysis reveals waves of borrowing (e.g. French and Latin in Middle English) and ongoing lexical innovation. The study employs frequency analysis and syntactic querying on corpora to quantify changes (e.g. tracking the increase of do-support and passive constructions). We summarize key findings in a comparative table of linguistic changes over time. The results support classical historical linguistics claims with quantitative evidence. We conclude that large diachronic corpora enable precise measurement of long-term trends while noting the need to account for genre and text-type shifts. This research bridges theoretical accounts of English grammar change with empirical corpus data, highlighting trends documented in recent studies and offering a model for corpus-driven historical linguistics.

Keywords: Corpus linguistics, English language history, lexical change, morphological change, syntactic change

Purpose: The purpose of this article is to explain the concept of learner corpora and their role in SLA research and analyze how corpus-based methods contribute to understanding inter language development.




Methodology: We extract data from publicly available English corpora (e.g. Helsinki Corpus, Penn Parsed Corpora of ME and EModE, and the Corpus of Historical American English) using concordance and frequency tools. We identify grammatical markers (case endings, auxiliary verbs, modal verbs, etc.) and compute their relative frequencies in texts from different eras. For syntax, we analyze clause constructions to quantify the prevalence of SVO word order by century. The chart in Figure 1 (below) is based on such corpus queries. By comparing frequencies across periods, we identify clear trends (e.g. decline of inflectional markers, rise of periphrastic forms). We also review recent literature on historical corpus findings to contextualize our results

1. Introduction

Language change in English has been documented qualitatively for centuries. In recent decades, however, corpus linguistics has provided new tools to measure historical change quantitatively. Massive, carefully-compiled diachronic corpora (such as the Helsinki Corpus of English Texts) allow researchers to apply frequency and distributional analysis across periods. These corpora, designed with comparable genres and genres across centuries, are essential for distinguishing genuine language change from sampling differences. Our study leverages English historical corpora to trace how grammatical structures and vocabulary have shifted from Old English (OE, ca. 600–1100) through Middle English (ME, 1100–1500) and Early Modern English (EModE, 1500–1800) into Modern English (ModE, 1800–present).

Historical background of English

Old English was a highly inflected language with noun cases (nominative, accusative, genitive, dative) and verb conjugations (strong/weak verbs) that allowed flexible word order. After 1066, Middle English saw rapid grammatical simplification: many inflectional endings eroded or dropped, and case distinctions largely disappeared. By Early Modern English, inflection was mostly gone, and



English became highly analytic (e.g. using prepositions rather than case endings). Syntactically, Old and early Middle English permitted SOV or V2 orders in subordinate clauses, but by Early Modern English word order had become almost exclusively SVO. Vocabulary also evolved: Old English's Germanic core expanded with Old Norse influence; Middle English saw extensive borrowing from Norman French and Latin; Early Modern English incorporated Classical and technical loans; Modern English continued global loanword uptake. This background sets the stage for our corpus analysis of these diachronic changes.

Corpus resources and literature review

In recent decades, a variety of English historical corpora have been developed. These are large, annotated text collections covering different periods. The Helsinki Corpus of English Texts (HC) is one of the earliest diachronic corpora (compiled 1980–1990) and contains samples from Old English, Middle English, and Early Modern English (with uniform genre sampling). The Penn Historical Corpora include the Penn-Helsinki Parsed Corpus of Middle English (PPCME2) and of Early Modern English (PPCEME), providing syntactically annotated texts from roughly 1150–1710. For later periods, the Corpus of Historical American English (COHA) spans 1810–2009 and large British corpora (e.g. Early Modern letters) are available. These corpora allow automated searches across centuries. Previous work (Nevalainen et al., 2012;) emphasizes that while corpora strive for diachronic comparability, genre changes (new literary forms, newspapers, etc.) must be considered.

Major Corpora of English

Helsinki Corpus (HC): 1.5 million words, covering OE, Early/Late ME, EModE (up to 1710). It is genre-balanced.

Penn Parsed Corpora: PPCME2 (Middle English, 1150–1500) and PPCEME (Early Modern, 1500–1710). These offer POS tags and syntactic parses.

Corpus of Historical American English (COHA): 400 million words from 1810 to 2009 , balanced across decades, useful for Modern English trends.

Other corpora include the York-Toronto-Helsinki Old English Corpus (annotated OE) and specialized corpora (e.g. letters, legal texts).


Each corpus has been used in scholarly studies of historical change. For example, corpora have traced the rise of auxiliaries and do-support (Davies 2009), shifts in pronoun use (Nevalainen & Tieken-Boon van Ostade 2006), and stability of function words (Baker 2011).

Review of corpus findings

Key findings from post-2000 research (see [21], [6], [31], [35]) include: Morphology: Old English had rich inflection (e.g. strong verb classes, noun cases). From OE to ME, inflectional endings were gradually lost due to phonological reduction and analogy. The Cambridge English Language & Linguistics (2019) study confirms that nominal inflections simplified sharply by c. 1200. In consequence, English became largely analytic by Early Modern times. Syntax: By Early Modern English, word order was essentially fixed SVO. Karlsson (2001) found that in a sample of clauses, SVO order reaches ~98% by EModE . Earlier, Old English clauses allowed SOV or V2 orders in subordinate clauses, but these patterns vanish by EModE. Vocabulary: Corpus studies (e.g. Baker 2011;) note that content words shift dramatically while function words remain stable. Core function words (e.g. be, have, can, who) show little change, whereas some modals (like may, must) decline. Middle English saw a flood of French and Latin borrowings (especially after 1066), EModE brought many Classical and global loanwords, and Modern English continues rapid lexical expansion.

The table below summarizes these changes in broad categories across periods.

Tab. 1: Linguistic changes across English periods



Feature	Old English(c.600-1100)	Middle English(1100-1500)	Early modern(1500-1800)	Modern English(1800-present)
Morphology	Rich inflection(nouns with 4cases, grammatical gender, strong/weak verbs)	Inflectional endings erode(many case/gender markings lost, more uniform verb classes)	Near-complete loss of case/gender; emergence of periphrastic constructions(e.g. do+ -ing common)	Minimal inflection(plural –s, tense –ed, –ing); grammar largely syntactic
Syntax	Relatively free order: V2 in main clauses, some SOV in subordinate, word order flexible	Verb-second (V2) becomes more stable, some subordinate SVO appears	Almost exclusively SVO order; auxiliaries fixed(do support for negation/question); phrasal syntax like be+ -ing common	Strict SVO in all contexts; subject-auxiliary inversion in questions; passive voice common; fixed auxiliary system
Vocabulary	Primarily Germanic stock, occasional Norse loans, limited Latin	Massive French (Norman) and Latin borrowings in law, religion, administration,	Renaissance borrowings(Latin/Greek), emerging technical terms; would	Industrial/technology neologisms; global loanwords(e.g. from colonial contacts); rapid

	from Christianity	semantic shifts in core words	exploration yields some new nouns	growth in academic/techni cal lexicon
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Source: Adapted from Baechler (2020); Karlsson (2001); Lijffijt, Säily & Nevalainen (2019).

Corpus analysis and discussion

Morphological change

Corpus data confirm the loss of traditional inflections. For example, noun plural and genitive endings become invariant by the 15th c., and verb strong vs weak distinctions blur. By Early Modern English, the gender system (masc./fem./neuter) is vestigial and case-marking is nearly gone. Corpora show surviving archaic forms (e.g. -eth in 3rd-person verbs) disappear: he loveth → he loves. Analytic constructions replace synthetic forms (e.g. he has loved vs OE he lufode). These trends emerge most sharply between 1200–1500. The corpus frequencies of original inflectional suffixes (tracked in e.g. HC data) drop to near zero by EModE. As Baechler (2020) notes, the old morphology is “gradually lost” after OE, though new inflectional patterns (e.g. periphrastic have-perfect) arise.

Syntactic Trends

Historical corpora reveal a clear shift toward fixed word order. In OE texts, corpus searches often find verb-final (SOV) subordinate clauses and V2 main clauses; by ME these diminish. Analysis of clause structures from the Penn corpora shows SVO order was always the most common pattern, but only in the 16th century does SVO become nearly exclusive. Figure 1 illustrates this trend: it plots the proportion of main clauses exhibiting canonical SVO order in each period. In Early Modern English, nearly all clauses conform to SVO (≈98%), indicating the end of variable order. The rise of periphrastic do-support (completely replacing older V-initial negatives) also reflects this. Thus, corpora quantify the traditional claim that EModE “fixes” English word order.

Lexical Change

Vocabulary analyses show dynamic change over time. Wordlists from corpora illustrate the influx of loanwords and semantic shifts. For example, Middle English corpora have many French-origin nouns (castle, justice, peace), whereas Old English texts do not. By EModE, Latin-derived scientific terms appear. Corpus frequency studies (e.g. CEEC letters) suggest core function-word frequencies remain stable, whereas content-word frequencies shift with cultural change. Baker (2011) found “lockwords” (stable words) were overwhelmingly function words (e.g. be, can, who) and that several modal auxiliaries (like may, must) significantly decline. Pronoun frequencies also shift: the informal thou/thee drops out by late Early Modern times, replaced by you. Modern corpora show explosive growth in technical vocabulary and global borrowings (e.g. computer, democracy). Overall, our corpus searches confirm that lexical turnover is highest in content words, aligning with findings that stable vocabulary accounts for continuity while new cultural terms drive change.

Implications

This corpus-based analysis corroborates established accounts of English historical change with quantitative precision. The table of changes and the figure of SVO frequency make explicit trends that were previously described qualitatively. Importantly, the study demonstrates the value of diachronic corpora: by systematically counting forms, we avoid reliance on anecdotal examples. At the same time, corpora reflect genre bias and uneven textual preservation; as Lijffijt et al. (2019) point out, even the Helsinki Corpus cannot fully eliminate such biases. Researchers must therefore interpret frequencies with caution (e.g. editorial genres vs informal letters).

Conclusion

English has moved from a synthetic, relatively free-word-order system to an analytic, fixed-word-order system over the last millennium. Morphological simplification and syntactic stabilization (as shown in Fig. 1) coincide with massive

lexical change driven by sociohistorical factors. Our findings, drawn from corpus evidence, align with and extend recent scholarship on historical syntax and lexicon. Future work can exploit even larger corpora (e.g. the recently compiled OED-citation corpus) to refine these timelines.

Acknowledgment

This paper is an output of the scientific research activity conducted within the framework of ongoing academic studies in linguistics. The author acknowledges the support provided by the institution's scientific environment, which enabled access to essential corpus resources, including the Helsinki Corpus, the Penn-Helsinki Parsed Corpora, and the Corpus of Historical American English. The author also expresses gratitude to academic supervisors and colleagues whose constructive feedback contributed to the development and refinement of this research. For now, this study provides a detailed empirical baseline of what changes have occurred, confirming that corpus linguistics is indispensable for reconstructing the evolution of English.

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