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**SPECIAL ISSUE: DIGITAL METHODS FOR STUDYING MEANING IN  
HISTORICAL ENGLISH****INTRODUCTION: ‘DIGITAL METHODS FOR STUDYING MEANING IN  
HISTORICAL ENGLISH’**

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This special issue of the *Transactions of the Philological Society* presents new computationally assisted research into linguistic meaning in historical English texts. The issue is based upon the talks given at a workshop of the International Conference for English Historical Linguistics (2018, University of Edinburgh). The workshop was conceived in the context of the Linguistic DNA research project (AH/M00614X/1), which required new thinking about analytical methods for identifying and examining significant co-occurrence clusters in very large corpora of texts. The Linguistic DNA approach differed significantly from those based on distributional semantics that have at their heart relationships such as synonymy, polysemy, antonymy and so forth.

Contributors presented the ways in which their own approaches—historical semantics, historical pragmatics, historical sociolinguistics, historical lexicography—innovate in the theory and practice of studying meaning in historical language, using digital methods. The resulting papers address problems related to meaning in use; the integrity and availability of historical data; computational methodology; and the relationship between semantic and pragmatic meaning and broader historical contexts.

Robinson and Weeds explore the co-occurrence of concepts, which they ground in thesauri-based units, in the context of cognitive sociolinguistic variation. They apply the automated historical semantic tagger SAMUELS to the Old Bailey Voices Corpus to explore how the usage of concepts, specifically of MAN, WOMAN and CHILD varies according to a speaker's gender and role in the court. Their work seeks to demonstrate how computational semantics can be recruited for investigating the relationships between semantic categories, and between semantic categories and sociolinguistic variables in early modern trials.

Sylvester, Tiddeman and Ingham focus on semantic shift in Middle English, taking as test cases, the lexis associated with the concepts of FARMING and TRADE. They employ the digital semantic ontology of the Historical Thesaurus of English to investigate trends whereby even the most subtle change in usage and register can lead to change in semantics. Their study of these autohyponyms found that they were more likely to be of French than of Old English origin and that pressure to avoid synonymy contributed to semantic shift. They also observe that shifts occur between adjacent conceptual levels, thus appearing to follow a principle of contiguity. The Historical Thesaurus is demonstrated to be vital in providing evidence for the ways in which the English language regulates change as a system.

Schneider employs a range of cutting-edge digital methods drawn from text mining, computational linguistics, machine learning, and digital humanities to uncover semantic patterns in large text collections such as the Corpus of Late Modern English Texts (CLMET).

He demonstrates the use of bottom-up analyses to link lexical items and concepts via collocations, topic modelling and distributional semantics. He illustrates his approaches via two case studies. The first explores how the associations and connotations of poverty change over time. The second focuses on Charles Dickens' novels, demonstrating how effectively topic models and distributional semantics illuminate the style of his social criticism.

Mehl presents linguistic concept modelling, a new method for computational analysis of semantics and pragmatics in very large text collections, which harnesses high-performance computing to analyse richer co-text data more transparently than previous methods. He presents examples from Early Modern English text collections to highlight how linguistic concept modelling overcomes the limitations of approaches such as distributional semantics and topic modelling to deliver the methodological benefits of reduced analytical opacity, for close manual linguistic analysis.

Finally, Fitzmaurice attends to the output of the linguistic concept modelling tool described by Mehl in order to interpret the constellations of associated lexical items as concepts in discourse. She adopts a method grounded in relevance theoretical pragmatic analysis to demonstrate how to map discursive meaning on to some highly frequently occurring constellations. This discursive concept analysis illuminates the conceptual structure of Early Modern English discourse.

Taken together, these papers demonstrate the utility of computational tools and bottom-up analytical methods for the investigation of meaning in historical English discourse.

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