

Theoretical Methods in Historical Semantics: A Corpus-Driven Comparative Analysis of Specialized Lexis

Alessandra Petrocchi
Leverhulme Trust Research Associate
Faculty of Linguistics, Philology, and Phonetics
University of Oxford

Which mechanisms are involved in lexical and semantic change and what language-internal and language-external factors govern them? This paper tries to approach these long-standing and central questions in historical semantics by employing, and placing them within specific theoretical frameworks, different analytical techniques to the study of early historical data. I first discuss some theoretical perspectives that currently inform work across the discipline of historical semantics and then apply three different linguistic frameworks (cognitive, sociolinguistic, and pragmatic respectively) to the analysis of the history of mathematical lexis in Sanskrit, medieval Latin, and Italo-Romance dialects. The register used in mathematical texts in the premodern period provides a fertile ground for examining the semantic mechanisms that contributed to creating a set of lexemes in a specialist technical register. The lexis for mathematics will be shown mostly to rely on a process of meaning-specialization and semantic narrowing via intra-language and cross-register lexical borrowing.

The Sanskrit mathematical lexis is analysed within the cognitive semantic tradition, which has become arguably the most popular framework for the study of lexical meaning in contemporary linguistics; I focus on the categories of metonymy, metaphor, polysemy/homonymy, synonyms, and near-synonyms (see the verb *han-* “to kill” to mean “to multiply” and *viśudh-* “to purify” to denote “to subtract”). I employ a macrolinguistic perspective to the study of the medieval Latin mathematical lexis. I explain some lexical innovations (*zero*, *cifra*, *algebra*) as well as the multiple meanings associated with selected terms (*digitus*, *articulus*) by approaching language from an interdisciplinary perspective; I draw on sociolinguistics and refer to the concepts of “discourse communities”, and language contact. For the analysis of the mathematical lexicon in Italo-Romance dialects, I join a growing body of work that recognises the lack of a clear boundary between semantics and pragmatics; I analyse text-marking devices, cohesion and transition markers, and anaphoric and cataphoric references.

This comparative research presents a snapshot of my current work on mathematical corpora (ca. 1200-1500 CE) from the perspective of historical semantics; by methods of empirical enquiry I aim to refine some general theories which, I argue, are not always able to explain semantic/lexical change in historical data. The present paper also considers the extent to which historical semantics draws and can learn from other disciplines within linguistics; this kind of interdisciplinary approach demonstrates the way in which semantics can be informed by approaches and analytical tools that have not often been associated with the study of lexical meaning.

Keywords: Historical Semantics, Specialised Lexis, Cognitive Linguistics, Historical Sociolinguistics, Historical Pragmatics

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