Contribution ID: **75** Type: **not specified**

Counting the Bees: A Data-Driven Investigation into Early Modern British Thought (1605-1776)

Thursday 18 September 2025 11:40 (20 minutes)

Histories of science frequently suggest that the advent of British experimentalism marked a fundamental shift away from the traditional axiomatic ideal of science (Shapin & Schaffer 1985; Dear 1995; Pasnau 2019). While partially accurate, such narratives remain incomplete due to their reliance on a limited evidence base and their emphasis on discontinuity over potential continuity.

This study addresses both issues using a data-driven approach to systematically retrieve and analyze evidence on the axiomatic ideal from a newly constructed corpus. Its starting point is BOOKSHELPhS, a digital bibliographical knowledge graph of logic, philosophy, and science books published in Britain (1605–1776). BOOKSHELPhS, currently containing metadata on 2,123 editions of 1,272 works, serves as the foundation for a structured, machine-readable text corpus.

The corpus enables large-scale retrieval of passages discussing the axiomatic ideal, using an extensive mapping of concepts from the Classical Model of Science (CMS) (de Jong & Betti 2010) to historical actor's terms. Retrieved passages are close-read, annotated, and linked to bibliographic metadata, allowing unprecedented analysis of concept drift, geospatial, temporal, and publishing trends. While the project's resources were built to investigate axiomatic science in Britain, the paper demonstrates its wide reuse potential in the historiography of Early Modern British science.

Short Biography

My name is Thijs Ossenkoppele, and I am a first year PhD student at the University of Amsterdam. I have a BA degree in Philosophy and a rMA degree in the History and Philosophy of Science. I work in the Concepts in Motion group at the Institute for Logic, Language, and Computation. Our group investigates the history of scientific ideas using a methodology that combines data-driven aspects with qualitative investigation, with a special focus on the axiomatic-deductive model of science. I have published on the data-driven aspects of our methodology in computer science proceedings, and am currently working on two history of science and philosophy papers: one examining Newton's mathematical versus experimental approaches to science, and the other inquiring into the Baconianism of the Royal Society Fellows. Both are intended for submission to leading history of science and philosophy journals. I have presented my work (both qualitative and computational) at several conferences.

My PhD project inquires into the axiomatic ideal of science in Early Modern British science and philosophy from Bacon to Hume, and the relationship between this ideal with the development of experimental science. The paper I am proposing contains the findings from my first year as a PhD student, and covers both the electronic bibliography as well as its link with the upcoming stages of my project that will consist of corpus building, conceptual modeling, and close reading and annotating retrieved textual fragments from the corpus.

Keywords

Axiomatic science, mixed methodology, early modern Britain

E-mail

t.ossenkoppele@uva.nl

Affiliation

University of Amsterdam

Position

PhD student

Primary author: Thijs Ossenkoppele (University of Amsterdam)

Presenter: Thijs Ossenkoppele (University of Amsterdam)

Session Classification: S.3.2. Intellectual Lineages and Methodological Innovations in Early Modern Studies

Track Classification: Individual papers