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The (Protestant) Bible, the (printed) sermon, and the word(s): The semantic structure of the Conformist and Dissenting Bible, 1660–1780 ☆

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Highlights

- We reveal the semantic structure of the Protestant Bible, identifying topics.

- We show the organization of the Bible in both the New and Old Testaments.

- We locate Biblical verses in sermons printed in England from 1660 to 1780.

- We show members of different confessions discussed distinct verses and themes.

- We map Dissenter and Conformist uses of the Bible onto its semantic structure.

Abstract

Using co-occurrence methods for identifying semantic structure in texts, we first describe the structure of the Protestant Bible, focusing on the ways in which contents of the Bible are organized in both the New and Old Testaments. We introduce a strategy for capturing the co-occurrence of nouns and verbs in windows defined by verses that progressively move across the text, from start to finish in a manner similar to reading. We then consider how Dissenters and Conformists used the Bible by locating Biblical verse in sermons printed in England during the period from 1660 to 1780. We describe how chapters are linked by themes over time, by dissenting and conformist religious communities, and map Dissenter and Conformist uses of the Bible onto its semantic structure. We show that it is possible to induce a semantic network image of the Bible, that this structure serves as a skeletal frame for interpretation, thereby highlighting different contents as central to denominations' religious inspirations and concerns.

Introduction

Critical commentary on the Bible has led to widely differing religious, social, and political movements. Analyses of Biblical verses have energized competing intellectual traditions. And translations of the original Hebrew, Greek, and Aramaic have shaped various vernacular interpretations. Heterodox readings or interpretations of the otherwise shared Old and New Testaments have also led to lengthy and bitter disputes, separations (or migrations), and imprisonment and slaughter of those found to interpret Biblical meaning different from that accepted by the majority or by those in power.

Yet most studies of disputed Biblical commentary focus on this or that interpretation—how do groups differ on the *adiaphora* (things indifferent to salvation), the proper meaning of the rite of communion or order of the Mass, the larger implications of terms such as *ecclesia* (church, congregation) or *presbyteros* (elder, minister) in the original Greek. To our knowledge, no one has tackled the Bible's semantic structure as a whole. This is due in part to the complexity of the task (although there are certainly numerous works which provide a book-by-book guide to the Bible). As a result, commentators are unable to reveal, in any systematic manner, how the semantic structure of the Bible links to the structure and content of theological dispute.

This article offers a method to identify the semantic structure of the Bible. It considers how concepts, for example vices and virtues, are linked. It maps out the interwoven structure of the Old and New Testaments. It then considers how the various nouns and verbs in the Bible are related to one another *as it was used*. To do this, we consider the Bible as expounded in sermons printed in English, specifically by comparing those delivered by Protestant preachers identifiable as Anglican or Nonconformist (Dissenters) between 1660 and 1780, that is over the course of the long eighteenth century from the Restoration of Charles II to the eve of both American independence and an industrial revolution based on cotton, coal and iron.

The meaning of the Bible has been a serious business conducted by serious people with serious stakes in the outcome. Uncovering the semantic structure of the Bible is a very different project than the religious project of revealing the Bible's ultimate meaning. The distinction between ultimate meaning and the structure of conversation is not trivial. The fact that countless numbers of people have been killed, had their careers cut short, their opportunities blocked, their properties seized, and their children murdered in the name of the truths believed revealed within the Bible is perhaps sufficient reason to insist that we are not trying to ascertain ultimate meaning. We are instead first interested in structure, and secondly in how actors navigate the structure of texts to communicate and contest critical issues of identity and belief. In this regard, then, structure, as we will show, is the skeleton on which are hung a wide variety of answers to questions of meaning and action.

We first discuss the historical context in which the sermons we rely on were written and delivered. We then discuss our data and methods. We then identify the semantic structure of the Bible, inducing a partition that neatly disentangles (in a semantic network perspective) the Old and New Testament. We then identify the communities of this semantic structure, focusing explicitly on the cluster of concepts we associate with sins and virtues. We refer to these communities as topics. This viewpoint provides one kind of mapping of the Bible, a mapping based entirely on the pattern of co-occurrence of nouns and verbs found across a moving window of verses in the Bible, from Genesis to Revelation, much as someone reads. We then turn to the Bible in action. By drawing on the explicit linkage between verse and sermon theme for over 20,000 sermons delivered in England (by Dissenters and Conformists) from 1660 to 1780, we induce a dual mapping of Biblical chapters tied by shared themes, and themes tied by Biblical chapters. We then embed the theme structures we observe into the semantic space defined by our first analysis, first for Conformists and then for Dissenters. This enables us to observe Dissenting and Conformist semantic network positions, and sheds light on the critical religious issues that distinguished each party.

We thus make two independent contributions. First, we induce a semantic structure for the Bible. Second, we show how this structure provides a skeleton for revealing religious movements in action. The latter is a historical contribution – providing a new strategy for thinking about what mattered to Dissenters and Conformists. The former is a structural contribution – showing how the analysis of structure can reveal new meaning in arguably one of the most studied texts in the world – the Protestant Bible. Linking these two foci is the idea that how things are used reveals both their content and their structure, and provides a mapping for understanding contestation amongst real groups of people (Bearman, 1997; Bearman, Faris, & Moody 2009; Sewell, 1989).

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Section snippets

Historical context for preaching in the long eighteenth century

England and Wales saw the Restoration of both Church and State. Monarchy was restored through the accession of Charles II, whose father Charles I had been executed in 1649 during what is sometimes termed the Puritan Revolution of the 1640s and 1650s. The Anglican Church of England, which had basically ceased to exist when the bishops had been abolished in the 1640s, returned from 1660 onwards. Soon bishops were in each diocese, and Anglicans sought ways to eject Presbyterian, Independent…

Data and methods

Our sermon data arise from the John Gordon Spaulding's modernized and digitized version of *The Preacher's Assistant*, an index of all sermons published from the Restoration (1660) to 1782, originally constructed by Sampson Letsome up to 1753, later extended to 1782 by John Cooke and enhanced by Spaulding (Spaulding & Cooke, 1988). *The Preacher's Assistant* (Hereafter, PA) was designed, as the title suggests, to help preachers craft sermons. Fig. 2 provides an example of how the index was intended …

The semantic structure of the Bible

Clusters – or communities of words are identified in a semantic mapping that is characterized by a large partition separating two distinct regions composed of relatively tightly and therefore overlapping clusters as shown in Fig. 4. The major partition runs down what might be conceptualized as a main diagonal, from the top left to the bottom right.

Colors are associated with unique communities. The small green cluster on the far left of the graph identified "Female Servants and Animals" provides …

The Old and the New Testament

Where are these clusters arising from? To see how the New and Old Testament differ, in Fig. 5 we project a heat map that captures the distribution of words in the Old and New Testament across the skeletal semantic mapping. To do so, we simply measure a score for each term that measures the extent to which it is specifically attached to the New Testament. In doing so, we are able to compare the observed number of occurrences of a word in the New Testament relative to the sheer number of…

Competing uses of the Bible

The semantic heat map is just that; a mapping of the people and places and concepts that make up the Bible. It is a skeletal structure: an opportunity for interpretation. We now turn to how the Bible was used. The context we explore is the long 18th century, from 1660 to 1780 in England. We exploit data arising from the Preachers' Assistant, which is transformed into a tri-partite edge list linking people, themes, and Biblical verses.

Each theme is employed in some number of conformist sermons…

The conforming and dissenting sermon heat map

We now link methodologically and conceptually the global semantic map of the Bible with the conformist and dissenter uses of the Bible. To do so, we follow the same methodology as the Old/New Testament heat map except we replace the frequency of words in each part of the Bible, with the cumulated number of times a word appears in a chapter cited either by a dissenter or conformist sermon. We again measure a score for each term of the extent to which it is specifically attached to Conformists or …

Discussion

For two millennium scholars have interpreted the Bible. Such interpretation often seeks understanding by locating text in context – where context is defined by the situation in which it was written. What could be meant by a phrase for the people who first penned it? For those who first heard it? Read it? For some scholars, the relevant context is characterized by competing religious visions circulating when texts were written, heard, and read. This is not the strategy we invoke in this article. …

Mark Anthony Hoffman is a PhD candidate in Sociology at Columbia University. He is interested in the relationship between culture and social structure. His dissertation analyzes the reading habits of New York and American elites after the Constitutional Convention to reveal the concerns and interests of elite factions as they vied for political and economic power.…

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2020, Hoffman et al., 2018). Sociologists have also started using neural word embeddings (Kozlowski, Taddy & Evans, 2019).…

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Mark Anthony Hoffman is a PhD candidate in Sociology at Columbia University. He is interested in the relationship between culture and social structure. His dissertation analyzes the reading habits of New York and American elites after the Constitutional Convention to reveal the concerns and interests of elite factions as they vied for political and economic power.

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corpora analysis, knowledge diffusion, opinion dynamics, knowledge network morphogenesis, and network mapping.

Philipp Brandt is a postdoctoral researcher at the University of Mannheim. His research analyzes the emergence of the data science profession, using both computational methods and qualitative field observations, to understand how expert roles are collectively constructed.

Newton Key is a Professor of History at Eastern Illinois University. He is currently at work on various aspects of an Association Crisis in late-Stuart London: mapping feasts, plotters, and the rhetorical construction of conspiracy in political sermons and addresses.

Peter Bearman is the Cole Professor of the Social Sciences at Columbia University. He is currently working on the seam of social science and cognitive social neuroscience, qualitative research designs, and a book on America in the 20th century. He is the author, with Adam Reich, of Working for Respect: Community and Conflict at Walmart.

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