

## A Thought Too Far: A Case for a Corpus Approach to Bad Knowledge in Old English Literature

Rían Boyle   
Trinity College Dublin

(Received 27 January 2025; revised 20 June 2025)

This paper explores the results of a pilot study that made use of corpus linguistic and other big data tools to explore the literary and cultural function of knowledge in Old English literature. In particular, it focusses on *Bad Knowledge*, knowledge that lay outside the confines of social acceptability, and that was used to label people, objects or ideas as evil. Knowledge is a complicated idea in the medieval period, and the discourses around the moral qualities of knowledge can be traced from antiquity, through to Ælfric of Eynsham, and beyond. However, there exists no easily discernible set of sources that describe epistemological attitudes in vernacular Early English writing. As such, this paper breaks from traditional close reading practices, and turns to a novel, data-based, computational methodology to examine nearly two hundred sentences from ninety-seven different texts, all of which are related to Bad Knowledge. In doing so, it attempts to piece together a framework for what Bad Knowledge may have looked like in the Early English period, and explore the broader relationship of the connections between knowledge, order, and authority. Additionally, it seeks to demonstrate the relevance of computational methods to Old English, and provide a launchpad for future work.

**Keywords:** Old English; corpora; knowledge; epistemology; Corpus Linguistics; medieval England

### 1. Introduction

Ælfric of Eynsham's text, *Be ðam Halgan Gastes*, is found on folio 141r of Oxford, Bodleian Library, Bodley 343. This is the abbot's translation of the Latin text *De Septiformi Spiritu*, and it describes the sevenfold gifts of the Holy Spirit, a set of virtues possessed by Christ that are distributed amongst the devout (Kleist and Upchurch 2022, 803). The gifts are presented in the form of a list, where they are named first in Latin, and then translated into Old English:

Pa seofonfealdan gifa synd þus gehatene:  
*Sapientia* on Leden, þæt is "wisdom" on Englisc;

*Intellectus* on Leden, þæt is “andgit” on Englisc;  
*Consilium* on Leden, þæt is “ræd” on Englisc;  
*Fortitudo* on Leden and “modes strengð” on Englisc;  
*Scientia* on Leden and “god ingehyd” on Englisc;  
*Pietas* on Leden and “arfæstnyss” on Englisc;  
*Timor Domini* on Leden, “Godes ege” on Englisc.

Those sevenfold gifts are named in this way (Kleist and Upchurch 2022, 808–9):

*Sapientia* [Wisdom] in Latin, which is “wisdom” in English;  
*Intellectus* [Understanding] in Latin, which is “understanding” in English;  
*Consilium* [Counsel] in Latin, which is “counsel” in English;  
*Fortitudo* [Courage] in Latin and “fortitude of spirit” in English;  
*Scientia* [Knowledge] in Latin and “good knowledge” in English;  
*Pietas* [Piety] in Latin and “piety” in English;  
*Timor Domini* [Fear of the Lord] in Latin, “fear of God” in English.<sup>1</sup>

Some of these renderings are more literal than others. *Godes ege*, for example, is a word for word translation of *timor Domini*. Others are more indicative of deliberate interpretation, such as the translation of *fortitudo* as *modes strengð*. However, the translation of the fifth entry in the list, *scientia*, is a curious case of seemingly both literal and interpretative translation. *Scientia* would typically be translated as “knowledge” in modern English, as would the Old English *ingehyd*.<sup>2</sup> But in this instance Ælfric specifies that *scientia* is “good knowledge,” his use of an evaluative qualifier marking a departure from how the word was usually translated. The majority of other instances of *scientia* being translated or glossed into Old English are often rendered just as either *wisdom* or *ingehygd*. For example, see the following glosses:

1. *Et dixerunt quomodo sciuit deus et si est scientia in excelso*  
 & cwædon hu wat god & gif ys wisdom on heanysse  
 “And they said: How did God know? And is there knowledge in the most high?”  
 (Wildhagen 1910, C7.1 [108700 (72.11)])<sup>3</sup>

<sup>1</sup> This translation is taken from Kleist and Upchurch’s edition of Ælfric of Eynsham’s *Be Pam Halgan Gastes*. Unless otherwise specified, all translations are my own.

<sup>2</sup> Latin translations accessed from *Database of Latin Dictionaries* (2024).

<sup>3</sup> The primary material referenced in this paper is taken from electronic corpus resources, namely the files of the *Dictionary of Old English Corpus*, as is discussed later. As such, there are no page numbers for most texts, so the Cameron number and the citation number from the *DOEC* are given instead, which can be searched in the *Dictionary of Old English Web Corpus* to find the exact line and text.

2. *Quod si aliquis ex eis extollitur pro scientia artis*  
*þæt gif bið ænig upahafan for ingehide his cræftes*  
 “That if there be any exaltation for knowledge of his crafts”  
 (Logeman 1973, C4 [50100 (57.94.12)])

Of the approximately 130 glosses to *scientia* in surviving Old English, only six of them render it as *god ingehyd*. One of these is found in the copies of Ælfric’s *Be þam Halgan Gastes*, another is in Wulfstan’s version of the same text, and the remaining four are found in a handful of Psalters.<sup>4</sup> This suggests an intentionality behind Ælfric’s translation and is indicative of how he may have viewed the gift of knowledge. Moreover, this choice to add a single adjective has ramifications on the modern understanding of Early English knowledge that play far outside the confines of this text. The assertion that there is such a thing as good knowledge implies there also exists a bad knowledge—a different and inverted form of *scientia*. But what is bad knowledge, and how did the Early English define it?

Scholarship on medieval knowledge is expansive, and a full account of it cannot succinctly be provided, but an excellent overview can be found in the essays collected in Cesario and Magennis (2018). It demonstrates the range of modern research into medieval knowledge, though much of the focus is on practices of learning, and knowledge transmission between texts. However, in their introduction, Cesario and Magennis (2018, 1–20) point out the presence of a dichotomy between knowledge that was good, useful and edifying, and knowledge that was bad, heathen and misguided.<sup>5</sup> These ideas can be traced from St. Paul and his Letter to the Corinthians, through to writers such as Augustine of Hippo and Cassiodorus (Cesario and Magennis 2018, 3–5). There is some scholarship on what could be considered medieval epistemology, but the focus of this work is centred on Latin texts or on sources from the later medieval period.<sup>6</sup> There is very little, if any, work on expressions of epistemological thought in early, vernacular texts. This is perhaps due to a lack of clear sources for it, yet it seems unlikely that Early English writers were completely disconnected from

<sup>4</sup> These texts were identified by searching for *scientia* in the *Dictionary of Old English Web Corpus*. The four found in different editions of the Canticles of the Psalter come from the Arundel Psalter (Oess 1910), the Stowe Psalter (Rosier 1964), The Lambeth Psalter (Lindelöf 1909), and the Salisbury Psalter (Sisam and Sisam 1959). Based on Sisam and Sisam’s (1959) edition of the Salisbury Psalter, and the close textual matches of the other texts to it, they all seem to be a line from *The Song of Hannah*.

<sup>5</sup> This paper is concerned with the idea of knowledge that is somehow bad or evil. To clarify the difference between this concept and knowledge in general, *Bad Knowledge* will be capitalised.

<sup>6</sup> For an overview of some of the scholarship on the processes of knowledge exchange and transmission in the medieval period, particularly with regards to England, see O’Brien O’Keefe and Orchard (2005), Chardonens and Carella (2012), and Clark, Ericksen, and Godlove (2023). Scholarship on later medieval epistemology and knowledge conceptions tends toward philosophical scholarship, rather than historical or literary, see Broadie (1989), Hall, Klima, and Klein (2020), and Klima, Allhoff and Vaidya (2007).

medieval discourse on knowledge. But as there is no set of Old English vernacular texts that specifically deal with these ideas, it is difficult to discern how and where their positions were represented.

To tackle this issue, this paper proposes that the discourse on knowledge in Old English vernacular texts may be traced, not by applying traditional methodologies, but rather by adopting a big data, computational approach. This is aligned with the “distant reading” of literature, an orientation of literary studies first suggested by Franco Moretti that has since been expanded upon by other scholars.<sup>7</sup> At its core, distant reading suggests that a complete picture of literature can only be achieved through the quantitative study of thousands of texts. As he writes in *The Slaughterhouse of Literature*:

One thing is for sure: it [knowing twenty thousand texts] cannot mean very close reading of a few texts . . . A larger literary history requires other skills: sampling; statistics; work with series, titles, concordances, incipits. (Moretti 2013, 39)

The close reading of a handful of texts is unlikely to reveal any definitive answers regarding the positions of Early English writers on the relationship between morality and knowledge. Additionally, insofar as any one text might be useful, it would provide only a singular perspective. As such, the methodology employed by this paper will be to use electronic corpora and associated digital tools to process the entire Old English corpus. It will attempt to offer a definition of *Bad Knowledge*, locate all instances of its usage in Old English, and study each of those instances from both quantitative and qualitative perspectives.

The use of electronic corpora is not unprecedented in Old English studies. Corpus linguistic research in Old English began with the development of the *Helsinki Corpus of English Texts* in the late 1980s and early 1990s.<sup>8</sup> More recently, scholars have explored new applications of Old English corpora, demonstrating its potential as a research tool in the areas of philology and book history. Patterns in concordances or spelling variation are used to inform conclusions on such things as manuscript date, manuscript origin, the proliferation of poetic features, etc.<sup>9</sup> What this paper suggests is that the vast

---

<sup>7</sup> Distant Reading is an orientation of literature studies and set of methodologies. Moretti’s initial explorations of distant reading are described in his book *Distant Reading*. For developments in the field since Moretti, see Underwood (2019) and Jockers (2013).

<sup>8</sup> Corpus linguistics have been used for the linguistic study of historical English throughout the 1990s and 2000s, for example in the extensive work of Matti Rissanen, who primarily made use of the *Helsinki Corpus of English Texts* for his studies across all periods of the English language. More modern, Old English-centric studies can be found in the work of Ondřej Tichý, such as Čermák and Tichý (2008), Tichý and Čermák (2008), and Tichý and Roček (2024).

<sup>9</sup> See Faulkner (2021, 2023a, 2023b). Additionally, see Drout et al. (2011), Battles (2019), and Neidorf et al. (2019).

quantities of data produced by digital corpus investigations can be used to study social, cultural, and literary concepts. Within the last handful of years, some work has been published along these lines, namely that of Minaya Gómez (2022), Díaz-Vera (2021), and Izdebska (2015). The collected history of corpus based research in Old English has informed the framework of this paper, although what has been used here differs in that it is capable of taking much larger datasets into account. Rather than focussing only on smaller subcorpora, all of surviving Old English is the object of study here.<sup>10</sup>

The goal of this paper is twofold. Firstly, it seeks to demonstrate the potential of a methodology that conducts efficient contextual analysis over the entire Old English corpus. To do so, it will focus on the study of words that relate to ideas of Bad Knowledge as a pilot study. Secondly, it intends to offer an initial sketch of Old English ideas on Bad Knowledge. A full analysis of Bad Knowledge would require processing several thousand individual data points, and while this is beyond the scope of this research, it is hoped that the ideas suggested here can lead to a more complete study in the future.

## 2. Methodology

The methodology employed in this paper was developed to allow for the efficient identification of all instances of a given topic across the Old English corpus. This section will provide an overview of how it works and how the data for this paper was gathered, with the intent of providing additional context to the conclusions. The following set of steps were followed, and each will be described in turn: (1) lexical definition, (2) corpus searching and data extraction, (3) application of metadata, and (4) quantitative and qualitative analysis.

(1) Lexical Definition. The first step of the methodology was to determine a list of words that gave definition to Bad Knowledge, such that those words could be searched for in a corpus. To do so, all words semantically related to knowledge were considered. *The Thesaurus of Old English* lists the semantic categories of Old English words, alongside other data such as whether a word is rare, or if it only appears in poetry or as a gloss. Using this resource, a list of words that encompassed a range of knowledge related concepts was compiled, which ultimately totalled 642 individual entries. This was far too many words to search for a pilot study, so to make the list more concise, the 642 entries were each individually validated. Alternate spellings or different endings were removed, as well as words whose existence was uncertain, or that only appeared once. Any words that remained were validated again, re-searching them in the *Thesaurus*

---

<sup>10</sup> Díaz-Vera (2021) and Minaya Gómez (2022) both make use of Ælfrician subcorpora, rather than examining the entire corpus.

to find the other semantic fields they were associated with. The purpose of this second revision was to identify and remove words that operated in a high number of semantic fields unrelated to knowledge, as including words with a high degree of semantic variability would introduce too much noise into the data. One such word was the verb *geseon*, which was originally found in the semantic category *to come to know*. The theoretical applicability of this word to Bad Knowledge is in its ability to describe ideas of not seeing clearly, or in having one's mental vision clouded. However, searching *geseon* in the *Thesaurus* reveals that it functions in fourteen different semantic categories, only two of which have any connection to knowledge, and so it was excluded from the final set of knowledge words. Following this process, the word list totalled 360 words that are definitively used to describe knowledge, and that would not produce too much noise in searching. These 360 words were then grouped together, the results of which are displayed in Table 1.

Table 1. Focal lexemes for the semantic fields of knowledge.

| Word                  | Variant Forms                             | Example Semantic Fields                                                                              | BT Definitions                                | DOE Definitions                                                 |
|-----------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------|
| <i>Andgiet/Ongiet</i> | <i>andgietful / ongietenes / andgitol</i> | Faculty of reason / Intelligible, clear / Understanding, intellect                                   | Understanding / Intellect / Knowledge         | Understanding / Knowledge                                       |
| <i>Cnawan</i>         | <i>oncnawan / ungecnawen / tocnawan</i>   | To know, understand / To know, have knowledge of / To discern/understand the difference between      | To Know                                       | To Recognise / To Perceive, Discern / To be familiar with, know |
| <i>Cræft</i>          | <i>boccræft / cræftig / hygecræft</i>     | An intellectual faculty, talent / Knowledge, learning, erudition / Skilled, learned (in arts/crafts) | Power / A Skill / Knowledge                   | Strength / Skill / Mental Strength or Ability                   |
| <i>Cunnan/Cup</i>     | <i>folccup / uncup / cypnes</i>           | Familiar, known / Known, recognized / Not known                                                      | To Know / Known                               | To Know / To Understand / To Be Known To                        |
| <i>Dysig</i>          | <i>gedysigian / dysigdom / dysgung</i>    | Dullness, folly, stupidity / Foolishly / To be foolish, act foolishly                                | An Error / Ignorance / Folly                  | Foolish, Stupid / Foolishness                                   |
| <i>(Ge)Scead</i>      | <i>tosceadan / gesceadwis</i>             | Reason personified / Rational, based on reason or argument / Faculty of reason                       | Difference / Reason / Power of Distinguishing | -                                                               |

|                               |                                                           |                                                                                                                      |                                        |                                                                 |
|-------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------|
| <i>Gleaw</i>                  | <i>gleawhydig /<br/>gleawscipe /<br/>ungleaw</i>          | Very wise / Wise,<br>clever, sagacious /<br>Prudently, wisely,<br>sagaciously                                        | Clear-Sighted /<br>Wise / Skilful      | Of Clear Vision /<br>Of Keen Intellect<br>/ Wise                |
| <i>Hygd</i>                   | <i>ingehygd /<br/>hygeleas /<br/>hygeþancol</i>           | To become known /<br>Wise, clever, sagacious<br>/ Foolish, unwise                                                    | Thought /<br>Cogitation                | Mind / Thought                                                  |
| <i>Lar/<br/>Læred</i>         | <i>larspell /<br/>lareowdom /<br/>gelæred</i>             | Letters, learning,<br>science / Knowledge,<br>learning, erudition /<br>That which is taught,<br>doctrine or teaching | Lore / Teaching<br>/ Instruction       | Teaching /<br>Advice /<br>Discipline                            |
| <i>Leornian/<br/>Leornung</i> | <i>leornungmann<br/>/ heahleornere<br/>/ stæfleornere</i> | The action of learning<br>/ What is learned or<br>taught / A learned<br>man, scholar                                 | To Learn /<br>Study /<br>Learning      | Learning / Study<br>/ To Acquire<br>Knowledge of or<br>Skill in |
| <i>Nyten</i>                  | <i>nytenlic /<br/>unnytne /<br/>nytende</i>               | Ignorant (of) / Want of<br>particular knowledge /<br>Ignorance                                                       | Ignorant                               | -                                                               |
| <i>Ræd</i>                    | <i>rædfæst /<br/>unræd / rædan</i>                        | Intelligence, prudence<br>/ Ill-advised, unwise,<br>rash / Wise, clever,<br>sagacious                                | Counsel /<br>Advice /<br>Intelligence  | -                                                               |
| <i>Snotor</i>                 | <i>snotorlic /<br/>unsnyttru /<br/>modsnotor</i>          | Wise, clever, sagacious<br>/ Able, intelligent,<br>skilful / Learnedly                                               | Prudent / Wise<br>/ Sagacious          | -                                                               |
| <i>Wis/<br/>Wisdom</i>        | <i>samwis / wislic<br/>/ unwisdom</i>                     | Known, recognized /<br>Knowledge,<br>cognizance, knowing /<br>Able, intelligent, skilful                             | Wise /<br>Judicious /<br>Wisdom        | -                                                               |
| <i>Wit/<br/>Witan</i>         | <i>unwita / witnes<br/>/ runwitaþ</i>                     | Knowledge, learning,<br>erudition / Ignorant,<br>stupid / A philosopher                                              | Right Mind /<br>Wits /<br>Intelligence | -                                                               |
| <i>þanc</i>                   | <i>orþanc /<br/>foreþancol /<br/>þancolmod</i>            | Prudent, full of<br>forethought / Of quick<br>intelligence, clever /<br>With profound<br>learning                    | Thought                                | -                                                               |

However, as the focus of this research was on Bad Knowledge, general knowledge words would not provide a precise enough search. Multiple potential approaches for determining Bad Knowledge words were considered, but what was ultimately decided upon was to take these 16 word groups, and to identify their usage in the semantic fields for moral evil or depravity.<sup>11</sup> This was to ensure that the words

<sup>11</sup> There are several options for gathering the Bad Knowledge terms. All knowledge terms could have been searched, and the occurrences that collocate with negative adjectives could have been

studied would unequivocally express a negative attitude towards their referent, such that the words would be as closely related to Bad Knowledge as possible. Ultimately, therefore, what this paper will refer to as *Bad Knowledge* is knowledge that either causes evil, is the result of evil, or is itself evil. The final word list can be seen in Table 2.

Table 2. Word list and rationale for Bad Knowledge terms.

| Word               | Frequency | Semantic Field(s)                                                                                             | BT Definitions                                        | DOE Definitions                                          |
|--------------------|-----------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| <i>inwit</i>       | 49        | Deceit, evil, wickedness / Guileful, wicked                                                                   | Fraud / guile / deceit / evil / wickedness            | malice / evil / deceit / guile                           |
| <i>forcup</i>      | 47        | Good for nothing, worthless / Infamous, shameful / Close-fisted, parsimonious / (Of animals) defiled, unclean | Perverse / bad / infamous / wicked                    | morally worthless / bad / despicable / depraved / wicked |
| <i>misgehygd</i>   | 1         | Evil thought                                                                                                  | Evil mind or thought                                  | -                                                        |
| <i>misræd</i>      | 6         | Bad rule, misgovernance / Wickedness, misconduct, evil behaviour                                              | Evil advice or direction / misguidance / evil conduct | -                                                        |
| <i>nearoþanc</i>   | 7         | Evil thought                                                                                                  | Illiberal thought, wickedness                         | -                                                        |
| <i>uncræft</i>     | 8         | An evil art, ill practice                                                                                     | An evil art / ill practice                            | -                                                        |
| <i>ungeþanc</i>    | 2         | Evil thought                                                                                                  | Evil thought                                          | -                                                        |
| <i>unlar</i>       | 19        | Evil teaching, incitement to evil                                                                             | Evil teaching / incitement to evil                    | -                                                        |
| <i>unsnotornes</i> | 29        | Dullness, folly, stupidity / Evil, iniquity                                                                   | Folly                                                 | -                                                        |
| <i>unwisnes</i>    | 7         | Ignorance / Wickedness, evil                                                                                  | Ignorance / Wickedness                                | -                                                        |

studied. Alternatively, looking at ignorance or lack of knowledge could have been examined, either with or without taking negative adjectives into account. Ultimately, most other methods for identifying Bad Knowledge terms would have produced far too much data for the scope of this paper and would have necessitated determining criteria for all negative adjectives in Old English and then collecting these into a reference list, which itself would have required a large amount of work.



(2) Corpus Searching. Once the final word list was established, the next step was to identify every time they appeared in Old English texts, through corpus searching. In order to conduct such a search, both a machine readable corpus and corpus software were required. There are a few viable electronic corpora, but the *Dictionary of Old English Corpus* was selected as the corpus of choice.<sup>12</sup> This selection was motivated primarily by its scale, with the *DOEC* containing, according to its own website “at least one copy of each text surviving in Old English,” in which each text is based on a published edition (DiPaolo Healy et al. 2024). This allows for the research conducted in this paper to be as comprehensive as currently possible, and to look at as many sources as are available.<sup>13</sup> Additionally, the *DOEC* is freely accessible and downloadable from *Oxford Text Archive*, and while this version is slightly out of date, it is more practical for large-scale studies.<sup>14</sup> While the recent releases of the *DOEC* have a browser-based search function that enables accurate searching of the corpus, they cannot sufficiently account for spelling variation. A browser search for *ingehyd* would locate every time it appears spelled in exactly that way, but not every time it appears with different vowel, or with an inflected ending. Using these newer versions would require multiple individual searches, going through every possible iteration, just to thoroughly investigate a single word. On the other hand, the older build from the *OTA* can be stored locally and be uploaded into corpus software for more efficient searching.

The corpus software used was AntConc 3.5.9, developed by Dr. Lawrence Anthony which, like the *OTA* release of the *DOEC*, is freely available.<sup>15</sup> AntConc is simple but powerful software for basic concordance searches and has a handful of other tools and search functions. Importantly, it allows for search terms to be expressed as Regular Expression or RegEx strings, which allow for searches to have a degree of flexibility and thereby account for spelling variation. For example, by capturing variables in square brackets (such as [aæ]), the software will search for any spellings that use either <a> or <æ>. Question mark notation is also useful, as it can denote characters as potential but not necessary matches.

---

<sup>12</sup> Other large Old English corpora include the *Helsinki Corpus of English Texts* (a corpus that spans the history of the language with a selection of Old English texts), and the *York-Toronto-Helsinki Corpus of Old English Prose* (includes only Prose texts).

<sup>13</sup> While the *DOEC* is currently the largest Old English corpus, it does not contain a copy of every text, only a copy of an edition of every text. As such, there are some copies with texts with variation in words or passages that are excluded. This is unlikely to impact statistical measurements in a significant way but is worth bearing in mind.

<sup>14</sup> There are three different versions of the *DOEC*, released in 2000, 2009, and 2024 respectively. The 2009 and 2024 versions contain texts that the 2000 version does not, as they were found and added after its publication. However, as there are relatively few new texts, it is unlikely that their presence would impact statistical measurements in a significant way.

<sup>15</sup> Other more powerful corpus software does exist, such as SketchEngine, but AntConc being free to download more easily facilitates the replication of these results by other researchers.

The string *forr?cuu[pð]* would find all spellings of the word *forcub* with either <p> or <ð> as the final character and would include any spellings that had a second <r>, but it would not exclude those that did not. By using RegEx strings, all reasonable spelling variations can be found for a word with just a single search, greatly improving both research time and research accuracy.<sup>16</sup>

Once these strings were written, they were entered into the AntConc software, which then searched for them in the *DOEC*. Every instance of these words was then exported and saved. Each individual result produced by AntConc searches was referred to as an *occurrence*, which was defined as a set of words, typically no shorter than a sentence and no longer than a paragraph, that contains an instance of the searched term and its surrounding context.

(3) Application of Metadata. Metadata was applied to each occurrence, detailing the Cameron number of the manuscript it came from, the text it came from, manuscript dates, textual genres, and region of provenance.<sup>17</sup> The ability to associate each text with this metadata and to rapidly filter by the different categories is one of the key advantages of a computational approach to Old English. It assists greatly in the identification of pattern and trends within the occurrences and enables quantitative analysis. The metadata used was generously provided by Dr. Mark Faulkner.<sup>18</sup>

(4) Quantitative and Qualitative Analysis. A corpus search of the words in Table 1 produced a total of 175 occurrences. These occurrences represent every time a knowledge word was used to express a sense of moral evil or depravity towards something in Old English. Quantitative analysis was relatively simple; the metadata was used to count the frequencies of individual words, their distribution across dates, texts, and textual genres. Questions were asked regarding where the trends in the production of these occurrences, and whether there were any notable outliers.

Qualitative analysis proved a more complex problem. Traditionally, the in-depth close analysis of 175 sentences and the entirety of their surrounding textual context would be a significant task, and so instead each occurrence was sorted into relational categories based on brief translations and readings of the sentence and their immediate surroundings. Sorting the occurrences in this way simplifies the task of studying the hundreds of data points and also allows them to be considered in quantitative terms. Rather than just looking at which occurrences appeared when and in what texts, what those occurrences were discussing could

---

<sup>16</sup> Some spellings are too obscure to be reasonably be accounted for by RegEx strings. For example, it could never be anticipated that a medieval scribe might spell the word *chair* as *keersn*, and as such, it would be missed.

<sup>17</sup> The Cameron (1973) List is a list of Old English texts that associates each text with a unique reference number.

<sup>18</sup> For further details on how this data was originally gathered, see Faulkner (2021, 98).

also be quantified. The categories were called *relational categories* because this described the process by which they were created. Rather than using pre-established categories, as occurrences were read, they were labelled according to the function of the Bad Knowledge term in the sentence. Similar functions would be placed in the same categories, and previously unseen functions would create new categories. As more occurrences were read, the name and nature of previous categories would change. For example, the category *Magic and Devil Worship* became *Influence of Sorcery* and *Influence of Satan/Devils* as more and more occurrences appeared that referenced only one, not both. Each occurrence was associated with only a single category for ease of computation, although instances in which an occurrence clearly operated within multiple categories simultaneously were taken note of.

### 3. Analysis

Figure 1 and Table 3 below visualise some of the early results taken from quantitative studies conducted on the gathered Bad Knowledge terms. Figure 1 displays their distribution across manuscript dates, measured against the general distribution of manuscript dates across the entire *DOEC*. Bad Knowledge terms seem to be concentrated in books from the late tenth century to the early eleventh century, but this is to be expected. The *DOEC* shares a similar concentration, meaning that the majority of surviving of Old English texts can be dated to this period, and so the Bad Knowledge distribution is completely within the bounds of the ordinary. Indeed, almost all the peaks in the distribution of Bad Knowledge terms matches up with the peaks of the *DOEC* distribution, suggesting that there is little anomalous about the usage of Bad Knowledge terms by date. While this reveals nothing unexpected, this should be taken as exemplary of how considering the usage of various words across time could be useful in other studies.

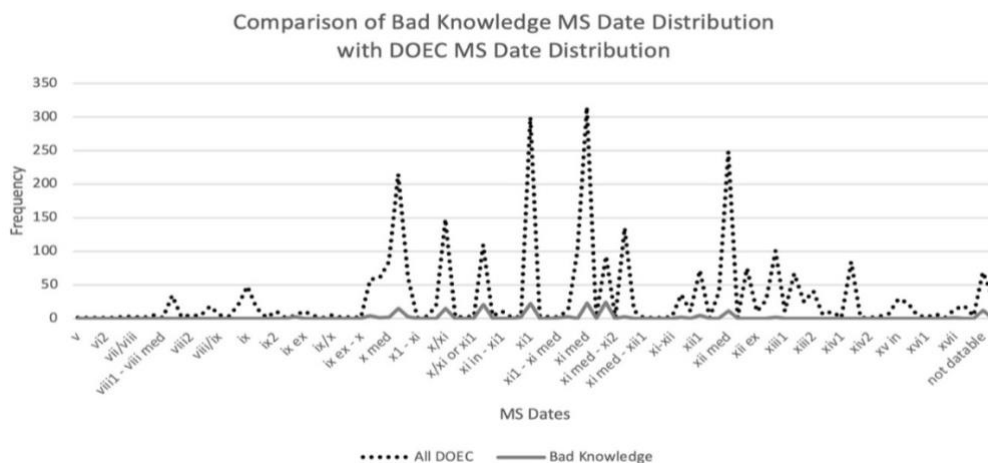


Figure 2. Distribution of Bad Knowledge terms across manuscript dates.

Table 3 displays the five Old English texts most concerned with ideas of Bad Knowledge. With a little over three million words in the *DOEC*, 175 of which are Bad Knowledge terms as defined by this paper, the percentage chance of randomly selecting one of those terms is approximately 0.005%. Some texts, such as the Old English gloss of the *Liber Scintillarum*, reflect this number, as they almost the exact same percentage frequency.<sup>19</sup> However, Wulfstan's *Gifts of the Holy Spirit* and the other texts found in Table 3 all have a far higher percentage frequency than the average, and can therefore be described as more interested in these words and their associated meanings. To clarify, where there is a 1 in 20,000 chance to select a Bad Knowledge term at random from the *DOEC* or from the *Liber Scintillarum*, there is about a 1 in 500 chance to select a Bad Knowledge term at random from *Gifts of the Holy Spirit*. These texts are among the most concerned in all of Old English with discussing Bad Knowledge in these specific ways, and moreover, reveal that Wulfstan of York might be a writer of particular interest in future studies of Bad Knowledge. Additionally, with all of the top five texts being homiletic texts, it suggests that Bad Knowledge terms might be more frequently employed in exegesis or in offering instruction.

Table 3. Texts with the highest percentage frequency of Bad Knowledge terms.

| Text                     | OE Word Count | Frequency | Percentage Frequency | Textual Genre      |
|--------------------------|---------------|-----------|----------------------|--------------------|
| Gifts of the Holy Spirit | 1348          | 3         | 0.222552             | Wulfstan, Homilies |
| In Letania Maiore        | 980           | 2         | 0.204082             | Anonymous Homilies |
| The Last Days            | 1152          | 2         | 0.173611             | Wulfstan, Homilies |
| Baptism                  | 1827          | 3         | 0.164204             | Wulfstan, Homilies |
| Scragg 1992, no. 22      | 2622          | 3         | 0.114416             | Anonymous Homilies |

Given the amount of data considered in this study, these results can only be indicative. In order to draw conclusive results, significantly more sources would need to be consulted. The research presented here is a pilot study—demonstrative of how quantitative resources might be applied in studying Old English cultural concepts, and how they can offer insights that would be otherwise almost impossible for a single researcher to find.

As such, it is necessary to rely on the qualitative analysis of the occurrences. In Table 4 below, the context categories, their frequencies, and the percentage of the occurrences they are associated with, are displayed. While these 175 sentences

<sup>19</sup> The edition of the Old English gloss of Defensor's *Liber Scintillarum*, compiled from two different editions, has 34840 words, 2 of which are amongst the considered Bad Knowledge terms, hence a percentage frequency of terms of 0.005% (Getty 1969; Rochais 1957).

come from 97 different texts, and operate in 18 distinct ways, there is a sense of commonality between them that this section attempts to tease out.

Table 4. List of Context Categories with Associated Frequency Scores.

| Context Category              | Frequency | Percent |
|-------------------------------|-----------|---------|
| Degradation                   | 29        | 16.57%  |
| Influence of Satan/Devils     | 27        | 15.43%  |
| Poor Leadership or Guidance   | 23        | 13.14%  |
| Maintenance of Order          | 19        | 10.86%  |
| Blindness to God              | 17        | 9.71%   |
| False Speech                  | 13        | 7.43%   |
| Gloss                         | 12        | 6.86%   |
| Relating to the Crucifixion   | 10        | 5.71%   |
| Creation of Evil              | 5         | 2.86%   |
| Abandonment of Reason         | 4         | 2.29%   |
| Prevented through Blessing    | 4         | 2.29%   |
| Influence of Sorcery          | 3         | 1.71%   |
| Avarice                       | 2         | 1.14%   |
| Equating the Wise and Foolish | 2         | 1.14%   |
| Sodomites                     | 2         | 1.14%   |
| Unjust Violence               | 2         | 1.14%   |
| Other                         | 1         | 0.57%   |

Degradation. Occurrences found in the *Degradation* category primarily describe movement between positive and negative states. There is typically, implicitly, an assertion that association with the positive state is somehow desirable, that it is how or where one should be. The negative state is the opposite, implicitly undesirable and something to be avoided. The Bad Knowledge terms in these occurrences work as the facilitators of movement from one of these states to the other, suggesting that a connection to Bad Knowledge is the driving force behind coming into a less desirable state. These occurrences describe a sense of worsening, of degrading oneself through Bad Knowledge, which gives the context category its name. It is typified by the following examples:

3. *Sum stan is þe adamans hatte, nele hine isern ne style ne awiht heardes gretan, ac ælc bið þe forcuðra þe hine greted.*  
 “A certain stone is called diamond, neither iron nor steel nor anything hard may cut it, but each are *forcuðra* for touching it.”  
 (Evans and Serjeantson 1933, B22.3 [001300 (16)])
4. *Rotodon wyrsondon dolhswaþo mine fram ansyne unwisnesse mire.*

“Rotted [and] worsened are my sores, from the presence of my *unwisnesse*.”  
(Sisam and Sisam 1959 C7.13 [054900 (37.6)])

5. *Wacað se ealda, dweleð ond drefeð dæges ond nihtes miltse mid mane, mægene getryweð, ehteð æfestræ, inwit saweð, nið mid geneahe.*  
“The elder weakens, day and night mistaking and confusing wickedness with kindness, trusting his strength, persecuting the pious man, sowing *inwit*, malice with abundance.”  
(Krapp 1932, A2.4 [001000 (32)])
6. *Huru þæt <onhohsnode> <Hemminges> mæg; ealodrincende oðer sædan, þæt hio leodbealewa læs gefremede, inwitniða, <syððan> ærest wearð gyfen goldhroden geongum cempa, æðelum diore, syððan hio Offan flet ofer fealone flod be fæder lare siðe gesohte.*  
“But Hemming’s kinsman put a stop to this; the ale-drinkers also told of how she committed less harm to people, less *inwitniða*, since she was first given, gold-adorned, to the young soldier of noble birth, since she sought her journey over the dusky waves to Offa’s hall, by her father’s teaching.”  
(Dobbie 1953, A4.1 [054500 (1944)])

Due in part to its simplicity, Example 3 offers one of the most concise descriptions of movement between positive and negative state, and while it has little explicitly to do with Bad Knowledge, it is included as an example of the variability of contexts in which *Degradation* occurrences are found. As the steel and iron come into contact with the diamond, they are physically worsened. There is an implication that the materials ought to be sharp, and as they become less sharp and less in touch with the natural state they ought to occupy, they are labelled with a Bad Knowledge term. Example 4 offers a similarly physical case of degradation, as the speaker’s maladies worsen and become more putrid due to their possession of Bad Knowledge. Example 5, on the other hand, is far more obviously related to the apparatus of the mind. As the elders, the assumed leaders of a community, trust in their own strength and beliefs, their minds become altered and they begin to worsen. They become the purveyors of Bad Knowledge and malice, which like the metals of Example 3, is a deviance from their intended role. The degradation of the elders is not exclusively the result of Bad Knowledge, but Bad Knowledge is constituent of the how the sentence communicates the elder’s movement toward undesirability. Example 6 is an occurrence taken from *Beowulf*, and rather than describing the movement from a positive state to a negative one, it describes the opposite. It is taken from the brief digression on the Queens Modthryth and Hygd where, Modthryth, having previously not acted as she was expected to act, begins to return to a positive state by distancing herself from *inwitniða*. The particulars of why Modthryth is thus condemned have typically been related her abuses of power and her associated crossing of

gendered boundaries. However, Sebo and Schilling make the convincing argument that rather than disrupting patriarchal norms, Modthryth's crime is in defying her social role and not satisfying the political and customary expectations of the title of queen (Sebo and Schilling 2021, 644–45). This defiance is due in part to a proximity to Bad Knowledge, but through her marriage with Offa and her reintegration into her expected position, she demonstrates that the movement enabled through association with Bad Knowledge is bidirectional. Rather than presenting a simple pipeline, that a relationship with Bad Knowledge necessitates a inescapable descent into undesirable states, Example 6 posits that it is one's relative proximity to Bad Knowledge terms that dictates the relative desirability of an object. Bad Knowledge is the axle around which things move in these occurrences; as things have a greater connection with Bad Knowledge terms, they become worse, and as their connection decreases, they improve.

Examples 3–6 all come from the same category, but the Bad Knowledge terms refer to a variety of different kinds of worsening. Some are physical worsenings, others more mental or spiritual, which speaks to the range of applications of these words in this context. *Degradation* is a category that is defined by a sense of both range and scale, as it is also one of the more permeable categories. That is to say, a number of occurrences that were ultimately sorted into other categories displayed similar traits to the occurrences found in *Degradation*. A sense of worsening, regardless of what type of worsening, is a common function of Bad Knowledge terms, even if it is not always their primary function, and as these other occurrences appear they will be discussed. *Degradation* is also the most common category by a small number, making up 16% of all occurrences of Bad Knowledge terms. This, considered alongside how elements of *Degradation* are often found in other categories, places this context category as one the most important to understanding Old English Bad Knowledge in general.

Influence of Satan/Devils. *Influence of Satan/Devils* is the second most common context category for Bad Knowledge terms, making up 15% of all occurrences of the topic. This would imply that it is a relatively important category, like *Degradation*, but it faces a critical issue. Namely, seventeen of the twenty-seven occurrences are all attributed to a single writer: Archbishop Wulfstan of York. Wulfstan's dominant presence in the category makes it harder to determine the extent to which the influence of demonic forces on Bad Knowledge was a concern for Old English writers at large, or whether this was predominantly an issue for Wulfstan. Additionally, Wulfstan is also known to reuse the same lines across his homilies and his law codes to express similar

ideas, which further inflates the number of *Influence of Satan* occurrences.<sup>20</sup> Compounding on this issue is the inclusion of multiple versions of Wulfstan's work in the *DOEC*, such as Example 7, which appears in two different copies of his homily on baptism.<sup>21</sup> Example 7 also illustrates the main way in which Wulfstan employs Bad Knowledge terms, in that he often exhorts his audiences to obey God's commands and to withstand the teaching of the Devil, which are generally described by the term *unlar*.

7. *Se gehealt his cristendom rihtlice se ðe Criste mid rihte gehyrð; þæt bið se ðe his bebodu gehealdeð & <deofles> unlarum wiðstandeð.*  
 “He holds his Christianity rightly, he who rightly hears Christ; that is that he holds his commands and withstands the *unlarum* of the Devil.”  
 (Betherum 1957, B2.2.1 [002600 (72)])

This exact exhortation or very slight variations upon it are found eleven times in *Influence of Satan/Devils*, almost all of which are directly attributed to Wulfstan. Some amount of bias like this is to be anticipated, given the general bias of the Old English corpus towards religious material and the lack of sources from earlier material. Assumedly most texts that were written by the Early English have since been lost, and what remains is unlikely to be representative of what was Old English literature. This is not to suggest that Wulfstan's impact can be handwaved, the data derived from this set of occurrences is certainly skewed, but it is not entirely invalid either. Wulfstan is interested in ideas of the Devil offering bad instruction, but the muddiness of the waters makes it difficult to clearly ascertain just how interested he was, and how greatly these concerns were shared by the rest of the Old English writing community. The occurrences of this category are still relevant, but must be taken with a pinch of salt, as must be any conclusions drawn from them.

To exemplify the *Influence of Satan/Devils* category outside of Wulfstan's calls for the Devil to be withstood, consider the following examples.

8. *Se wisdom is, swa we ær cwædon, þæt halgan gastes gifu, & deofol sæwð þærtogeanes unwisdom & swicdom & gedeð swa þurh þæt þæt unsælig man wisdomes ne gymeð ne wislice his lif ne fadað, & gyt eac gedeð þæt forcuðre is*  
 “Wisdom is, as we have said before, the gift of the Holy Spirit, and in return the Devil sows *unwisdom* and treachery, and does so through that miserable man

<sup>20</sup> It has been argued that Wulfstan's repetitious writing is a central element of his rhetorical style, the details of which are covered by Dance (2004). Additionally, the confluence of Wulfstan's law codes and his homilies is illustrated in Rabin and Adair (2023, 7).

<sup>21</sup> One is contained in the shorter copy in Cambridge, Corpus Christi College, 302, while the other longer version is in Oxford, Bodleian Library, Hatton 113.



who pays no heed to wisdom and that does not order his life wisely, and moreover each who does that is *forcuðre*.”

(Betherum 1957, B2.2.6)

9. *Fram Adame menn wunedon on flæsclicum lustum, and sume on hæþenscipe unsnoterlice gelyfdon and mid deofles biggencgum higsylfe fordydon and þone scyppend forsawon, þe hig gesceop to mannum þurh þæs deofles lare, þe Adam forlærde.*

“From Adam men dwelt in fleshly lusts, and some lived *unsnotorlice* in heathenism and destroyed themselves with the Devil’s practice, and held the Creator, who created them as men, in contempt, through the Devil’s teaching, which led Adam astray.”

(Fehr 2017, B1.8.2 [001200 (9)])

Example 8 is one of the few instances in which Wulfstan does not repeat the refrain of Example 7. The sentiment is still broadly similar, in that the divine and the demonic are positioned against one another, and it demonstrates how Bad Knowledge is solidly the result of the latter. Those who abandon order and reason are doing the work of the Devil; they are distancing themselves from God and embracing the opposite, and they are consequentially brought into proximity with Bad Knowledge. Example 9 comes from a letter from Ælfric to Wulfstan, and functions in much the same way. An opposition between good and evil is established, between the devout and the heathen, and a Bad Knowledge term describing the heathen’s life is given as the driving force behind their disconnect from God. Both examples here echo the sentiment of the *Degradation* category; they offer desirable and undesirable states, with the relationship to these being defined by Bad Knowledge. The critical difference, however, is that the occurrences of this category offer a more consistent explanation of the two opposing states they describe. In *Influence of Satan/Devils* occurrences, God’s commands and teachings are desirable, the Devil’s are undesirable, and it is through listening and engaging with the Devil’s teaching that one moves from one to the other.

Poor Leadership and Maintenance of Order. The next most frequent categories, *Poor Leadership or Guidance* and *Maintenance of Order*, can be examined together given their similarities. They describe two sides of the same coin: the former describes the character of those who dispense authority and guidance, while the latter are direct expressions of the necessity of following authority and guidance. *Poor Leadership or Guidance* occurrences feature community leaders, often a king, bishop, or metaphorical shepherd, being ill-suited to their role on account of dispensing Bad Knowledge, which they themselves also possess. *Maintenance of Order* occurrences do not feature a character and sometimes speak directly to their reader, with the intent of

preventing people from coming into Bad Knowledge. While there are clear differences between these two types of occurrences, they meet in their shared belief in the importance of authority.

10. *ac se lyðra hyrde læt hi to gymeleaste and uncarfullice him forcuðe bysnað. and for his gymeleaste he forlyst þa untruman. & mid yfelre gebysnunge he ofslyhð þa strangan gif hi swa unware beoð þæt hi him geefenlæcað.*

“But the evil shepherd will lead them to negligence and with carelessness set a *forcuðe* example, and for his negligence he will lose the sick, and with evil example he will kill the strong if he be unaware that they imitate him.”

(Clemoes 1997, B1.1.19.4 [002300 (537.66)])

11. *Þurh unwisne cyning folc wyrð geyrmed for oft, næs æne, for his misræde.*

“Through an unwise king his people are made miserable often, not once, for his *misræde*.”

(Jost 1959, B13.2.1.1 [001500 (13)])

12. *And utan word & weorc rihtlice fadian & ure ingeþanc clænsian georne & að & wedd wærlice healdan & sume getreowða habban us betweonan butan uncræftan.*

“And let us everywhere rightly arrange words and works, and eagerly cleanse our thoughts, and wisely hold an oath and pledge, and have some truth between us without *uncræftan*.”

(Betherum 1957, B2.4.2.A [003700 (123)])

13. *Witodlice, þeah hwylc leornincniht his ealdres gebodu mid weorce gefremme, gif he hit mid muðe beceorað oppe mid mode besargað, ne bið hit þeah Gode andfenge, þe ælces mannes heortan þurhsyhð, ac for swylcere dæde he nane mede æt Gode ne onfehð, ac gyt ma on ecum wite mid þam murcnerum, þe Gode mishyrdon, bið geset, butan he mid fulre dædbote his ungeþanc gebete.*

“Indeed, though some pupil may accomplish his elder’s commands with works, if he laments them with his mouth or complains about them with his mind, those works are not acceptable to God, who sees through the hearts of all people, but for those same deeds he will receive no rewards from God, but indeed it is set that the one who murmurs, who disobeys God, will go to eternal punishment, unless he mend his *ungeþanc* with penitence.”

(Schröer 1885, B10.3.1.1 [018500 (5.20.25)])

These four examples each exemplify their category and express the necessity of authority to either individual or group cohesion. In Example 10, the shepherd leads his metaphorical flock to ruin on account of his own Bad Knowledge. He is careless and sets a bad example, which is directly connected to being unaware that he is to set an example at all. He does not know that he is followed by a flock, and so he is unable to fulfil the responsibilities that come with that. Instead, he

acts in a matter entirely unbefitting of a leader. The examples he sets and the authority he exerts are both derived from Bad Knowledge, and so he fails his followers. These same ideas are expressed more succinctly in Example 11, in which a king induces misery in his people through his Bad Knowledge. The roles and actions described in both Examples 10 and 11 are functionally the same; an authority figure sends others down a misguided path due to their own proximity to Bad Knowledge, ultimately resulting in a negative outcome for their charges. By displaying the consequences of the degradation of authority, they and the other *Poor Leadership or Guidance* occurrences support the need for resolute and well-informed dispensing of guidance. The *Maintenance of Order* occurrences focus on the need for authority to be obeyed. This is highlighted in both Examples 12 and 13, in which the former calls for the bonds that uphold social fabric to be maintained in a time in which they are fraying, while the latter describes how a student's Bad Knowledge must be corrected through penance. In both cases, Bad Knowledge terms are fundamentally related to the disruption of order and authority but also agnostic towards scale. The relative importance of the broken order is not what matters; it is that any order has been disrupted at all, whether that be the order of a nation or a classroom.

Rebellion Against the Divine. A handful of different context categories all refer in some way to the authority derived specifically from God or other divine sources. While it is possible to read the *Influence of Satan/Devils* category as being relevant to ideas of divine order, the primary focus here is on the categories *Blindness to God*, *Relating to the Crucifixion*, and *Sodomites*. *Blindness to God* is a context category found primarily in the Old English translations of biblical psalms and contains literal representations of Bad Knowledge impeding people's ability to understand, and defer to, divine authorities. *Relating to the Crucifixion* and *Sodomites* are similar, but rather than depicting people who cannot understand God, they depict those in active defiance against the divine.

14. *And ða synd unclæne þe heora cudu ne ceowað, forðan þe hi getacniað þa ðe tela nellað, ne nellað leornian hwæt Gode leof sy, ne on heora mode wealcan þæs Hælendes beboda, and syndon forðy unclæne swa swa ða forcuðan nytenu.*  
 “And those are unclean that do not chew their cud, because they represent those who do not desire rightly, they will not learn what is beloved to God, nor turn in their mind the Lord's commands, and they are therefore unclean just as the forcuðan beasts.”  
 (Skeat 1885, B, B1.3.25 [001000 (50)])
15. *Ne seondon heo hwæðre for þisse wiisan to biscergenne gemænsumnisse Cristes lichoman & blodes, þy læs on him gesegen sy þa ðing onwrecen beon, in þæm heo þurh unwisnesse gesyngodon ær fulwihtes bæðe.*

“They are not for this way to be deprived of the communion of the body and blood of Christ, lest they be seen to be punished for those things which they did for *unwisnesse* before they had been baptised.”

(Miller 1890–98, B9.6.3 [029700 (16.70.30)])

16. *We wyllað nu sæcgan be þam ungesæligum Cristes cwellerum, hu forcuðe hi ðohton, þa ða hi feoh sealdon.*

“We will now speak of those evil killers of Christ, how *forcuðe* they thought, that they sold him for a sum of money.”

(Assmann 1889, B1.5.5 [003300 (149)])

17. *Ic wille fandigan nu, mago Ebrea, hwæt þa men don, gif hie swa swiðe synna fremmað þeawum and gebancum, swa hie on þweorh sprecað facen and inwit; þæt sceal <fyr> wrecan, swefyl and sweart lig sare and grimme, hat and hæste hæðnum folce.*

“I will find out now, people of the Hebrews, what these men will do, if they perform sins so greatly in their customs and their thoughts, as they so perversely speak deceit and *inwit*; Fire shall destroy that, sulfur and dark flame, sore and grim, hot and fierce, and fall upon that heathen folk.”

(Krapp 1931, A1.1 [074700 (2412)])

Examples 14–17 all describe the different ways in which Bad Knowledge is the result of, or intercedes in, having a good and direct relationship to the divine. In Example 14, those who do not pay heed to God’s commands are likened to unclean beasts, and labelled with the Bad Knowledge term *forcuðan*. The same root word, *forcuð*, is used in Example 16, in which the thoughts of Christ’s killers are labelled in the same way, suggesting that the thoughts that caused them to turn against the divine were connected to Bad Knowledge. The possession of Bad Knowledge is also counted amongst the sins of the Sodomites in Example 17, which alongside their abandonment of God’s laws is sufficient justification for God to bring a brutal and fiery punishment upon them. This relationship between heathenism, Bad Knowledge, and punishment suggest by Example 17 is somewhat complicated by Example 15. Like many of *Blindness to God* occurrences, Example 15 is describing a disconnect between people and God, as their Bad Knowledge is the result of them not being baptised. While the Sodomites were punished for similar reasons, Example 15 suggests that the unbaptised ought to be given the opportunity to be saved from punishment. Heathens are given a path back toward the divine, and therefore away from Bad Knowledge, through reception of the Eucharist. The potential of embracing God in this way, of intentionally distancing oneself from Bad Knowledge, enables the possibility of clemency.

While the overall dataset is relatively small, and does not provide a full overview of the discourse around Bad Knowledge, some trends can still be

visualised. Consider, for example, the following graph (Figure 2) and table (Table 6) that trace the distribution of each term by manuscript date.

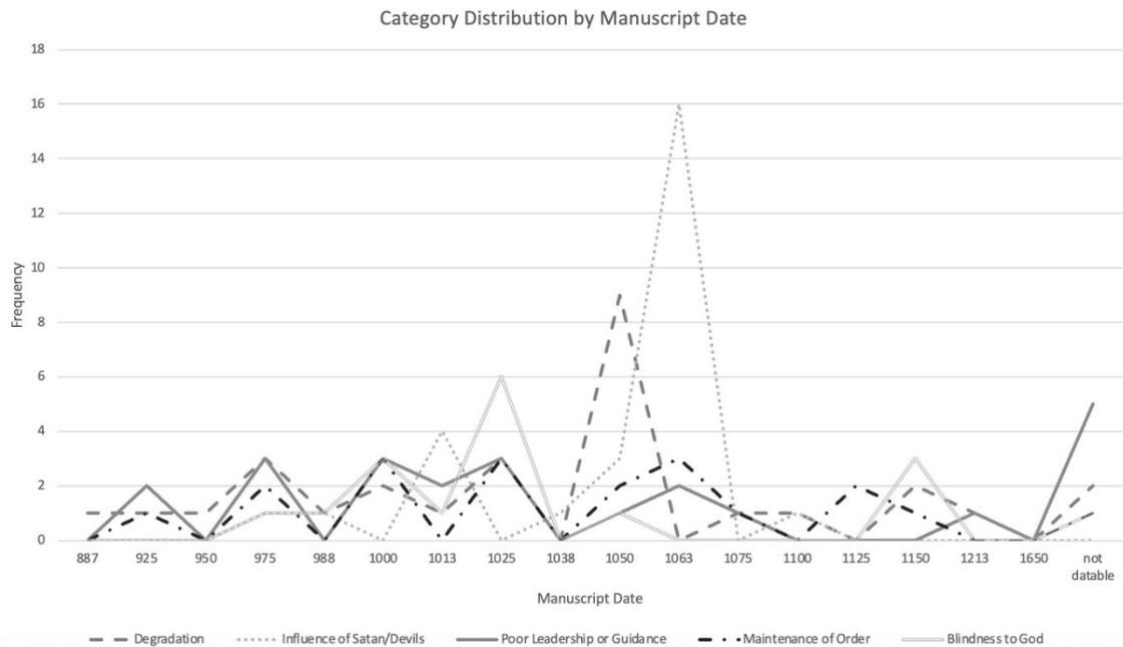


Figure 2. Graph of distribution of categories by manuscript date.

Table 5. Tabular data for distribution of categories by manuscript dates.

| Date | Degradation | Influence of Satan/Devils | Poor Leadership or Guidance | Maintenance of Order | Blindness to God |
|------|-------------|---------------------------|-----------------------------|----------------------|------------------|
| 887  | 1           | 0                         | 0                           | 0                    | 0                |
| 925  | 1           | 0                         | 2                           | 1                    | 0                |
| 950  | 1           | 0                         | 0                           | 0                    | 0                |
| 975  | 3           | 1                         | 3                           | 2                    | 1                |
| 988  | 1           | 1                         | 0                           | 0                    | 1                |
| 1000 | 2           | 0                         | 3                           | 3                    | 3                |
| 1013 | 1           | 4                         | 2                           | 0                    | 1                |
| 1025 | 3           | 0                         | 3                           | 3                    | 6                |
| 1038 | 0           | 1                         | 0                           | 0                    | 0                |
| 1050 | 9           | 3                         | 1                           | 2                    | 1                |
| 1063 | 0           | 16                        | 2                           | 3                    | 0                |
| 1075 | 1           | 0                         | 1                           | 1                    | 0                |
| 1100 | 1           | 1                         | 0                           | 0                    | 0                |
| 1125 | 0           | 0                         | 0                           | 2                    | 0                |
| 1150 | 2           | 0                         | 0                           | 1                    | 3                |
| 1213 | 1           | 0                         | 1                           | 0                    | 0                |
| 1650 | 0           | 0                         | 0                           | 0                    | 0                |

---

|                    |   |    |   |   |    |
|--------------------|---|----|---|---|----|
| <b>Not datable</b> | 2 | 0  | 5 | 1 | 1  |
| <b>Total zeros</b> | 4 | 11 | 8 | 8 | 10 |

Some conclusions based on the number of zeroes can be drawn: *Degradation* appears consistently in most date ranges that feature Bad Knowledge terms, whereas *Influence of Satan/Devils* is far less consistent and draws the bulk of its sources from a spike in the mid-eleventh century. However there are hundreds if not thousands of other knowledge-centric sentences in Old English, beyond the 175 considered here, that could make graphs such as Figure 2 far more accurate and revealing of actual trends. Given the intended scale and scope of this paper, only a limited number of possible words could be considered, and an even more limited number again could be presented as examples, but hopefully an approximate sense of the capabilities and potential of big data based approaches for Old English studies has been conveyed.

#### 4. Conclusion

Given the documented division of knowledge in the Medieval period, and Ælfric's invocation of the idea in his text *Be þam Halgan Gastes*, it seems likely that Old English writers recognised an inherent difference between Good Knowledge and Bad Knowledge. Despite this, there exists no easily discernible single source that offers a succinct example of the epistemological beliefs of Early English people. As such, in order to explore representations of Bad Knowledge in the Old English vernacular, it was necessary to deviate from standard practices of literary analysis and to try and construct a framework of how Bad Knowledge might have been conceived of based on patterns in the data.

This paper has suggested a potential methodology to approach the creation of such a framework, employing both quantitative and qualitative analysis. While the amount of data ultimately generated was insufficient to draw out any firm conclusions, it offered some potential insights into Bad Knowledge, and serves as an example for how future research might be conducted. By expanding the range of what constitutes a Bad Knowledge term, more data could be gathered, and more detailed inferences drawn regarding the date distribution, the most critical texts and genres, and other metatextual elements besides.

Similarly, any qualitative analysis of the patterns within Bad Knowledge terms is affected by the number of occurrences analysed. Extra data would more than likely produce more accurate results, but based on the close reading of the 175 available occurrences and their subsequent categorisation, some trends do seem to emerge. Namely, there is an apparent connection between Bad Knowledge and the rejection of authority and order. Authority comes in a number of forms,

including the divine authority of God, the secular authority of kings, and the authority of the master over the pupil, amongst others. Authority shares a connection with both order and knowledge, with order being borne of authority, and knowledge being instrumental to facilitating the promulgation of the two. In some occurrences, there is an expression of a strong sense of social order, of there being specific roles that ought to be fulfilled, such as with many of the *Poor Leadership and Guidance Examples*, with Modthryth in Example 7, and the steel and iron of Example 4. Bad Knowledge disrupts this, it disrupts the sense of how things are supposed to be, and the proximity of a person or thing to it is presented as being directly related directly related to what extent they are influenced by authority or aligned with order. If one possesses Bad Knowledge, this directly results in them moving farther the ideal, desirable, prescribed state, and becoming worse.

While this does not answer every question regarding the evaluative qualities of knowledge in Old English literature, it provides an initial sketch of what Bad Knowledge might be, and presents potential lines for further inquiry. The methodology used in this paper is capable of outputting tremendous amounts of data, and can make apparent information that researchers would otherwise struggle to notice. As such, by following similar steps but simply expanding the scope of the terms searched, far more conclusive results could be arrived at. Furthermore, the same processes as described here can be used to study any concept across the entire Old English corpus, not just those related to Bad Knowledge.

## References

- Adair, Anya, and Andrew Rabin, eds. 2023. *Law, Literature, and Social Regulation in Early Medieval England*. Woodbridge: Boydell.
- Anthony, Laurence. 2020. AntConc 3.5.9. Tokyo: Waseda University. <https://www.laurenceanthony.net/software/antconc/>.
- Assmann, Bruno. 1889. *Angelsächsische Homilien und Heiligenleben*. Kassel: G.H. Wigand.
- Battles, Paul. 2019. "Using n-Gram Analysis to Map Intertextual Networks in Old English Verse." *Digital Philology* 8: 155–91.
- Bethurum, Dorothy, ed. 1957. *The Homilies of Wulfstan*. Oxford: Clarendon Press.
- Bosworth, Joseph. 2014. *An Anglo-Saxon Dictionary Online*. Edited by Thomas Northcote Toller, Christ Sean, and Ondřej Tichý. Prague: Charles University. <https://bosworthtoller.com/>.

- Broadie, Alexander. 1989. *Notion and Object: Aspects of Late Medieval Epistemology*. Oxford: Clarendon Press.
- Cameron, Angus, Ashely Crandell Amos, Antonette DiPaolo Healy, Roy Liuzza, Haruko Momma, Robert Getz, and Stephen Pelle, eds. 2024. *Dictionary of Old English: A to L Online*. Dictionary of Old English Project. <https://tapor-library-utoronto-ca.elib.tcd.ie/doe/>.
- Cameron, Angus. 1973. "A List of Old English Texts." In *A Plan for the Dictionary of Old English*, edited by Roberta Frank and Angus Cameron, 25–306. Toronto: University of Toronto Press.
- Čermák, Jan, and Ondřej Tichý. 2008. "An Anglo Saxon Dictionary and a Morphological Analyzer of Old English." In *Proceedings of the XIII Euralex International Congress*, edited by Elisenda Bernal and Janet DeCesaris, 483–88. Barcelona: Institut Universitari de Lingüística Aplicada.
- Cesario, Marelina, and Hugh Magennis, eds. 2018. *Aspects of Knowledge: Preserving and Reinventing Traditions of Learning in the Middle Ages*. Manchester: Manchester University Press.
- Chardonnens, László Sándor, and Bryan Carella, eds. 2012. *Secular Learning in Anglo-Saxon England*. Leiden: Brill.
- Clark, Stephanie, Janet Ericksen, and Shannon Godlove, eds. 2023. *Sources of Knowledge in Old English and Anglo-Latin Literature: Studies in Honour of Charles D. Wright*. Turnhout: Brepols.
- Clemoes, Peter A. M., ed. 1997. *Ælfric's Catholic Homilies: The First Series*. Early English Text Society Supplementary Series 17. Oxford: Oxford University Press.
- Dance, Richard. 2004. "Sound, Fury, and Signifiers: or Wulfstan's Language." In *Wulfstan, Archbishop of York: The Proceedings of the Second Alcuin Conference*, edited by Matthew Townend, 29–62. Turnhout: Brepols.
- Díaz-Vera, Javier E. 2021. "Ælfric's Expressions for Shame and Guilt: A Study in Intra-Writer Conceptual Variation." *Studia Anglica Posnaniensia* 56 (1): 39–53.
- diPaolo Healey, Antonette, John P. Wilkin, and Xin Xiang, eds. 2009. *Dictionary of Old English Web Corpus*. Dictionary of Old English Project. <http://tapor.library.utoronto.ca/doecorpus/>.
- Dobbie, Elliott Van Kirk. 1953. *Beowulf and Judith*. London: Routledge.
- Drout, Michael D. C., Michael J. Kahn, Mark D. LeBlanc, and Christina Nelson. 2011. "Of Dendrogrammatology: Lexomic Methods for Analyzing the Relationships among Old English Poems." *Journal of English and Germanic Philology* 110: 301–36.
- Evans, Joan, and Mary S. Serjeantson, eds. 1933. *English Mediaeval Lapidaries*. Early English Text Society Original Series 190. London: Oxford University Press.



- Faulkner, Mark. 2023a. "Corpus Philology: Using the Dictionary of Old English to Get Bigger Data for Old English Spelling Variation." *Digital Scholarship in the Humanities* 38 (4): 1508–21.
- Faulkner, Mark. 2023b. "Corpus Philology, Big Dating and Bottom-Up Periodisation." In *Dark Archives I: Voyages into the Medieval Unread and Unreadable 2019–2021*, edited by Stephen A. Pink and Anthony Lappin, 285–313. Oxford: Medium Ævum Monographs.
- Faulkner, Mark. 2021. "Habemus Corpora: Reapproaching Philological Problems in the Age of "Big" Data." *Anglia* 139 (1): 94–127.
- Fehr, Bernhard. 2017. *Die Hirtenbriefe Aelfrics: In Altenglischer Und Lateinischer Fassung*. Montana: Kessinger Publishing.
- Getty, Sarah S. 1969. "An Edition with Commentary of the Latin/Anglo-Saxon Liber scintillarum". PhD diss., University of Pennsylvania, 1969.
- Hall, Alex, Gyula Klima, and Martin Klein, eds. 2020. *Medieval and Early Modern Epistemology: After Certainty*. Newcastle: Cambridge Scholars Publishing.
- Izdebska, Daria. 2015. "The Curious Case of TORN: The Importance of Lexical-Semantic Approaches to the Study of Emotions in Old English." In *Anglo-Saxon Emotions: Reading the Heart in Old English Language, Literature, and Culture*, edited by Alice Jorgensen, Frances McCormack, and Jonathan Wilcox, 53–74. London: Routledge.
- Jockers, Matthew L. 2013. *Macroanalysis: Digital Methods and Literary History*. Illinois: University of Illinois Press.
- Jost, Karl, ed. 1959. *Die "Institutes of Polity, Civil and Ecclesiastical."* Tübingen: Narr Francke Attempto.
- Kleist, Robert K., and Aaron J. Upchurch. 2022. *Ælfrician Homilies and Varia: Editions, Commentary, and Translations*. Cambridge: D.S. Brewer.
- Klima, Gyula, Fritz Allhoff, and Anand Jayprakash Vaidya, eds. 2007. *Medieval Philosophy: Essential Readings with Commentary*. Oxford: Blackwell.
- Krapp, George Philip, ed. 1931. *The Junius Manuscript*. Vol. 1, *The Anglo-Saxon Poetic Records: A Collective Edition*. New York: Columbia University Press.
- Krapp, George Philip, ed. 1932. *The Vercelli Book*. Vol. 2, *The Anglo-Saxon Poetic Records: A Collective Edition*. New York: Columbia University Press.
- Lindelöf, Uno Lorenz. 1909. "Der Lambeth-Psalter." *Acta Societatis Scientiarum Fennicae* 35.
- Logeman, Henri. 1888. *The Rule of St. Benet*. Early English Text Society Original Series 90. London: Oxford University Press.
- Miller, Thomas, ed. 1890–98. *The Old English Version of Bede's Ecclesiastical History of the English People*. Early English Text Society Original Series 95, 96, 110, 111. London: Oxford University Press.

- Minaya Gómez, Francisco. 2022. *Emotions of Amazement in Old English Hagiography: Ælfric's Approach to Wonder, Awe, and the Sublime*. Lausanne: Peter Lang.
- Moretti, Franco. 2013. *Distant Reading*. London: Verso.
- Neidorf Leonard, Madison Krieger, Michelle Yakubek, Pramit Chaudhuri, and Joseph P. Dexter. 2019. "Large-Scale Quantitative Profiling of the Old English Verse Tradition." *Nature: Human Behaviour* 3: 560–67.
- O'Brien O'Keefe, K. Katherine, and Andy Orchard, eds. 2005. *Latin Learning and English Lore: Studies in Anglo-Saxon Literature for Michael Lapidge*. 2 vols. Toronto: University of Toronto Press.
- Oess, Guido. 1910. *Der altenglische Arundel-Psalter*. Anglistische Forschungen 30. Heidelberg: Carl Winter.
- Oxford Text Archive. *Boolean Libraries*. University of Oxford. <https://ota.bodleian.ox.ac.uk/repository/xmlui/>.
- Roberts, Jane, Christian Kay, and Lynne Grundy. 2017. *A Thesaurus of Old English*. Glasgow: University of Glasgow. <http://oldenglishthesaurus.arts.gla.ac.uk/>.
- Rosier, James L. 1964. "The Stowe Canticles." *Anglia* 82: 397–432.
- Schröer, Arnold. 1888. *Die angelsächsischen Prosabearbeitungen der Benediktinerregel*. Kassel: G. H. Wigand.
- Scragg, Donald G. 1998. *The Vercelli Homilies and Related Texts*. Early English Text Society Original Series 300. Oxford: Oxford University Press.
- Sebo, Erin, and Cassandra Schilling. 2021. "Modthryth and the Problem of Peace-Weavers: Women and Political Power in Early Medieval England." *English Studies* 102 (6): 637–50.
- Sedgefield, Walter John. 1899. *King Alfred's Old English Version of Boethius' De Consolatione Philosophiae*. Oxford: Clarendon Press.
- Sisam, Celia, and Kenneth Sisam. 1959. *The Salisbury Psalter, Edited from Salisbury Cathedral MS. 150*. Early English Text Society Original Series 242. London: Oxford University Press.
- Skeat, Walter W. 1885. *Ælfric's Lives of Saints*, vol. 2. Early English Text Society Original Series 82. London: Oxford University Press.
- Tichý, Ondřej, and Jan Čermák. 2017. "Consonant Cluster Reduction and Change of Language Type: Structural Observations on Phonotactic Modification from Old to Middle English." In *Current Developments English Historical Linguistics. Studies in Honour of Rafał Molencki*, edited by Artur Kijak, Andrzej M. Łęcki, and Jerzy Nykiel, 307–26. Katowice: Wydawnictwo Uniwersytetu Śląskiego.
- Tichý, Ondřej, and Martin Roček. 2024. "Bosworth-Toller's *Anglo-Saxon Dictionary* Online." In *Structuring Lexical Data and Digitising Dictionaries*,

edited by Javier Martín Arista and Ana Elvira Ojanguren López, 184–207.  
Berlin: De Gruyter Brill.

Underwood, Ted. 2019. *Distant Horizons: Digital Evidence and Literary Change*. Chicago: University of Chicago Press.

Wildhagen, Karl. 1910. *Der Cambridger Psalter*. Hamburg: H. Grand.