

Isaiah, Daniel and Luke: Exploring Scriptural Material of Medieval Books of Hours in English¹

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Abstract: This contribution examines five canticles found in four Middle English translations of the Book of Hours, with the focus on New Haven, Yale University Library, Beinecke MS 360. The texts of the canticles come from the Book of Isaiah, Book of Daniel and Gospel of Luke, and represent scriptural content of this medieval prayer book, next to the lessons from Job and selected psalms. Out of the seventeen extant medieval Books of Hours in English, four have been selected for this study: St. John's College, MS G. 24, British Library, MS Additional 17010, Cambridge, University Library, MS Dd. 11.82, and New Haven, Yale University Library, Beinecke MS 360. The former three have received an edition, while Beinecke MS 360 still remains to be edited and, to the best of my knowledge, has only recently begun to be analyzed in depth. Apart from the primers, selected for the present analysis are the two vernacular versions of the Bible available at that time, namely the Early and Late Version of the Wycliffite Bible. This study aims to establish the textual tradition of the canticles in the four Books of Hours with respect to each other and within the broader Wycliffite tradition. This will be achieved by comparing the texts with the use of text similarity measurements, and more specifically, the cosine distance method. The obtained results will be presented in tabular form and illustrated with fragments of the text. It is hoped that the analysis performed in this paper will shed light on the textual affinities of the scriptural content of Middle English primers. This study is parallel to the one presented in Hordyjewicz (2023), where my focus was on the nine lessons from the Book of Job.

Keywords: Book of Hours, Canticles, English primers, text similarity measurements, Wycliffite Bible

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1. Introduction

Ever since its emergence in the thirteenth century, the Book of Hours, a short and simple prayer book for lay folk, constituted an essential tool for private devotion in the daily life of the laity in medieval England (Blom 1979, 3; Duffy 2006, 4; Scott-Stokes 2006, 1). The foundation of these medieval prayer books are psalms and devotions, primarily the Hours of the Blessed Virgin Mary (Duffy 2006, 5), but Books of Hours, or 'primers',² as they are also called (Kennedy 2014, 695), often do not conform to one fixed pattern. And so, the elements they contain can vary immensely, depending on, for instance, liturgical practices called 'Uses' (de Hamel 2003, 2; Blom 1979, 5).³ Due to the cost of the manuscript production, Books of Hours were initially possessed only by the wealthy, but the invention of print in the fifteenth century soon made them available to a wider public (Duffy 2006, 4).

Currently, there are seventeen known manuscript Book of Hours in English, and the complete list of extant exemplars is provided by Kennedy (2014). The present study focuses on Beinecke MS 360, the last manuscript to have been discovered, whose text, to the best of my knowledge, has only recently begun to be analyzed in depth (cf. Hordyjewicz 2023). As far as the linguistic research on primers is concerned, it usually centers around psalms,⁴ with other scriptural content being mostly left out.⁵ Therefore, this analysis is devoted to five canticles (songs of praise): *Song of Ezekiel*, *Benedicte*, *Magnificat*, *Benedictus* and *Nunc dimittis* from the Book of Isaiah, Book of Daniel and Gospel of Luke (the first one found in the Office of the Dead the rest being part of the Hours of the Blessed Virgin Mary).

The aim of this contribution is to trace the source of the above-mentioned texts as presented in Beinecke MS 360 by comparing them with five other texts: three vernacular primers as well as the first two complete translations of the Bible from Latin into (Middle) English, associated with John Wycliffe and referred

2 Throughout this text, the terms 'primer' and 'Book of Hours' will be used interchangeably.

3 For instance, most Books of Hours in English follow the Use of Sarum, which was the liturgy of the Cathedral Church of Salisbury used in southern England from the late eleventh century until the English Reformation (de Hamel 2003, Blom 1979, Krick-Pridgeon 2018, Sutherland 2015).

4 Cf. for example, Hargreaves (1956), Kennedy (2014), Sutherland (2015 and 2017), Charzyńska-Wójcik and Wójcik (2023).

5 That is not to say, however, that there has been no research done in this regard. Cf. for example, Hargreaves (1956).

to in the literature as the Early and Late Version (henceforth EV and LV respectively). The passages from the Book of Daniel, Book of Isaiah and Gospel of Luke found in Beinecke MS 360 and the other three English primers will be thus analyzed with regard to their textual tradition, and the findings will be juxtaposed against the existing research on canticles as well as the claims circulating in the literature as to the textual tradition of the psalms contained in primers in English. In that regard, the present study is parallel to the one presented in Hordyjewicz (2023) on the nine lessons from the Book of Job.

The paper is structured as follows. Section 2 offers details of the chapters of the Book of Isaiah, Book of Daniel and Gospel of Luke from which the five canticles are taken and provides a short description of the texts selected for the analysis. Section 3 discusses the applied methodology, which is grounded in digital humanities and enables comparative analysis expressed in terms of objective mathematical values. Section 4 presents the obtained similarity scores, displayed in tabular form. The conclusions are formulated in Section 5.

2. The texts

As signaled above, the subject of this study are five canticles (*Song of Ezekiel*, *Benedicte*, *Magnificat*, *Benedictus* and *Nunc dimittis*) from the Book of Daniel, Book of Isaiah and Gospel of Luke, found in six English translations: four of them contained in Books of Hours for the Use of Sarum and two in complete Bibles. The texts come from the following chapters of the Wycliffite Bible (the numbering given here follows Forshall and Madden's edition): *Song of Ezekiel* – Is. xxxviii. 10-20, *Benedicte* – Dan. iii. 57-90, *Magnificat* – Luke i. 46-55, *Benedictus* – i. 68-79, and *Nunc dimittis* – ii. 29-32.

The main focus of the present analysis is Beinecke MS 360 titled *Psalter and Hours*, produced in England between 1400 and 1415 and purchased from Henry Fletcher in 1965 by John Edwin and Frederick W. Beinecke. As signaled above, it has received no editions yet and has only recently begun to be analyzed in depth (cf. Hordyjewicz 2023), and so, the text of its canticles has been edited for the purpose of this study. The other primers with which Beinecke MS 360 is compared have their respective editions. The edition of St. John's College, MS G. 24 (henceforth St. John's, MS G. 24) was produced by Henry Littlehales in 1891. The manuscript itself was created in the late fourteenth century and Littlehales's (1891) edition represents it verbatim, without even

expanding the abbreviations, the editor's aim being to reproduce the original as closely as possible. The edition of British Library, MS Additional 17010 (henceforth BL, MS Add. 17010) was produced by William Maskell in 1846, and the editor dates the text to 1410 at the latest. The original manuscript has no title, and although at the end of the eighteenth century the words 'Hours of Virgin Mary' were written on the binding (Maskell 1846, xxxii), the editor deems it inadequate with respect to its contents and instead calls it 'The Prymer in English'. The edition of Cambridge, University Library, MS Dd. 11.82 (henceforth CUL, MS Dd. 11.82) was produced by Littlehales in 1895. CUL, MS Dd. 11.82 comes from the first half of the fifteenth century and contains, in the words of the editor, 'only the indispensable contents of a primer, with no additions of any kind' (Littlehales 1895, vii).

The final two texts analyzed here come from the Early and Late Version of the Wycliffite Bible. As signaled above, the Wycliffite Bible, completed in the late fourteenth century, was the first complete translation of the whole Bible, consisting of two renditions known as EV and LV and commonly associated with the Oxford philosopher and theologian John Wycliffe (cf. Daniell 2003; Dove 2007; Kenyon 1895; Metzger 2001; Norton 2000, Solopova 2016). The texts relied on here come from Forshall and Madden's (1850) edition of EV and LV and are the following: Oxford, Bodleian Library, MS. Douce 369 (EV) and British Library, MS Royal I. C. 8 (LV). It has to be noted that Forshall and Madden's edition includes textual variants from several other manuscripts collated partly or throughout. Since the aim of the present analysis is to compare the selected text of the primers with an actual text rather than a collation, these variants have been discarded.

3. Methodology⁶

The first step in preparing the texts for a digital analysis was to transcribe them into a single Word file, excluding the elements not considered relevant for the analysis such as titles and short prayers. Moreover, the continuous texts of St. John's, MS G. 24, BL, MS Add. 17010, and Beinecke MS 360 were split into verses, with all the texts adjusted to the divisions made in Forshall and

6 The methodology presented in this paper was also applied in Hordyjewicz (2023), and was first proposed by Charzyńska-Wójcik (2021).

Madden's edition of EV. As signaled above, Beinecke MS 360 was the only text with no edition to rely on, so its canticles were transcribed by the author of this contribution from the manuscript available at <https://collections.library.yale.edu/catalog/10269839>. There were, however, certain elements that could not be preserved, such as medieval punctuation marks and abbreviations, and so the former were replaced by their modern equivalents, and the latter were expanded and italicized.

Regarding the texts of St. John's, MS G. 24, CUL, MS Dd. 11.82, and BL, MS Add. 17010, only the first two editions required editorial modifications in order to be suitable for a digital analysis. When it comes to St. John's, MS G. 24, this concerned medieval punctuation marks and abbreviations that were kept by the editor. As regards CUL, MS Dd. 11.82, the only necessary modification was expanding and italicizing the ampersand (&), making it indistinguishable from all the other abbreviations already expanded and italicized by the editor. As far as Forshall and Madden's edition is concerned, its texts were copied directly from the Corpus of Middle English Prose and Verse, where the edition is made available both as an OCR-ed text and as scans. The text presented there did not require any modifications for the purposes of this analysis.

The texts examined in this study were created long before English spelling was standardized,⁷ and as a result include a considerable degree of spelling variation. For the digital analysis to measure textual discrepancies disregarding differences in spelling, it was necessary to normalize the orthography of the texts, i.e. replace all the variants of a given word with a single shared form. In effect, differences in the spelling of the same word were not treated as meaningful. In order to ensure the consistency of the process, it was performed with the use of a software called VARD – from Variant Detector (cf. Baron 2008). VARD is a semi-automatic tool designed to aid digital analyses of texts containing a large amount of spelling variation (Baron and Rayson 2008, 2). Spelling normalization followed the general principle of providing one stable modern form spelling (and lemmatization with regard to verbs) whenever a given word was listed in the *Oxford English Dictionary* (OED Online 2022). When a given word had no modern equivalent, basic headword

7 As far as the timing of the process is concerned, researchers place it in the sixteenth and seventeenth centuries (Rutkowska 2013, 48), the mid seventeenth century (Nevalainen 2012, 151), and at the end of the seventeenth century (Scragg 1974, 80; Howard-Hill 2006, 18).

form was selected from the *Middle English Dictionary* (Lewis et al. 1952-2001).

The canticles were compared by performing text similarity measurements, which rely on calculating length distance between texts represented as vectors, using the numeric features of text (number of types and tokens)⁸ and bag-of-words text analysis models (Wang and Dong 2020, 2, 7). Among the many available ways of calculating the distance between texts represented as vectors, the one selected for this analysis was performed with the use of the cosine distance method. The cosine similarity score is obtained by computing the cosine of the angle between the two vectors (Wang and Dong 2020, 3), i.e. whether they are pointing in roughly the same direction. If two vectors are at 90 degrees to each other, the cosine value equals 0. And so, the smaller the angle, the closer the cosine value to 1 and the greater similarity between the compared texts.⁹ In effect, the cosine values obtained in the calculations range from 0 to 1, with 0 indicating that the two texts do not share a single item (i.e. are completely different) and 1 meaning that the compared texts are identical (Han et al. 2012, 77-78; Charzyńska-Wójcik and Wójcik 2022, 4). It has to be noted that the texts of the canticles will be compared on an individual basis, the aim being to trace the textual tradition of each individual canticle and not all the texts as a whole. All the calculations were performed with the use of R software (R Core Team 2020), a freely available software environment (Magali and Gries 2020, 376).

4. Results

As signaled above, the results obtained in the present study will be analyzed against the existing research on canticles and that on the lessons from the Book of Job as well as the psalms as far as the textual tradition is concerned to verify whether the scriptural contents of the Books of Hours follow a single tradition or represent a heterogeneous collection of texts.

When it comes to the canticles, Hargreaves (1956) claims that *Magnificat*

8 In a contribution assessing textual similarities between sixteenth-century translations of Psalm 6, Wójcik (in press) proposes to reconceptualize as basic textual units (types) not individual words (as is done here) but n-grams (sequences of 2 words). By replacing individual words with sequences of words and calculating the cosine distance based on these units Wójcik effectively implements word-order differences into what is still a bag-of-words method.

9 Textual analyses inherently rely on positive or zero values of any dimension: a word either is present in a given text (positive value) or not (zero value). This restricts the mutual positioning of the vectors to the angle within the range of 0°-90°.

and *Benedictus* found in BL, MS Add. 17010 resemble the text of EV, while CUL, MS Dd. 11.82 shows close connection to LV. The remaining canticles are not discussed by the author at all. When it comes to Beinecke MS 360, Dove (2007) includes it in her *Index of manuscripts of the Wycliffite Bible* and claims that the canticles found in the text are part of LV. As regards the textual traditions of the nine lessons contained in the primers, they were established in a parallel study presented in Hordyjewicz (2023). Although CUL, MS Dd. 11.82 and BL, MS Add. 17010 follow the tradition of LV for eight lessons, in the final lesson only BL, MS Add. 17010 shows greater similarity to the text of LV than that of EV. On the other hand, Beinecke MS 360 and St. John's, MS G. 24 follow both EV and LV and mostly come from the same source with respect to particular lessons. As far as the psalms are concerned, Kennedy (2014) and Sutherland (2015 and 2016) note that Beinecke MS 360 bears a close connection to the text of LV. CUL, MS Dd. 11.82 and BL, MS Add. 17010 are also said to come from LV (cf. Hargreaves 1956; Kennedy 2014; Sutherland 2015). The text of St. John's, MS G. 24, however, is claimed to exhibit greater similarity to EV (cf. Kennedy 2014; Sutherland 2015) or classified as an independent rendition (cf. Hargreaves 1956). It is the purpose of this study to establish the textual tradition of the canticles in the analyzed texts and compare the obtained similarity scores against the above-mentioned findings, with special attention paid to the text of Beinecke MS 360. I am going to focus on tracing the textual affinities of the primers' versions of the canticles with respect to the EV and LV, with the assumption that the greater the similarity between the two versions of the Wycliffite Bible, the more similar the degree of resemblance between the primers and EV and LV.

For each canticle all six texts were compared, resulting in five tables with 36 scores each and a total of 180 scores. Almost half of the scores are superfluous as the similarity scores are calculated for each pair of texts to the effect that not only is text A compared to text B but also text B is compared to text A, with the two calculations producing the same results. The repeating results are indicated in the tables by the grey area. The lowest obtained score is 0.737 (cf. Table 2) and the highest indicates identity, i.e. 1 (cf. Table 4). Similarity scores obtained for each canticle are presented in Tables 1-5 below, with underlining used to mark the highest score (excluding the calculation presenting the similarity of the text to itself, which is at the level of 1 by definition) and bold type marking the lowest score (a convention which will be applied in the remaining

canticles as well). Due to the limitations of space, only the scores for the first canticle will be illustrated with the actual text.

	EV	LV	B360	G. 24	Dd.11. 82	Add.17010
EV	1	0.962	0.959	0.953	0.96	0.966
LV	0.962	1	<u>0.993</u>	0.927	0.988	0.992
B360	0.959	0.993	1	0.931	0.988	0.992
G. 24	0.953	0.927	0.931	1	0.927	0.933
Dd.11. 82	0.96	0.988	0.988	0.927	1	0.986
Add.17010	0.966	0.992	0.992	0.933	0.986	1

Table 1. Similarity scores for *Song of Ezekiel* from the Book of Isaiah

In the first canticle, *Song of Ezekiel*, the similarity scores range between 0.927-0.993. When it comes to EV and LV, although the texts show fairly high resemblance to each other, the score is the second lowest out of all the canticles (0.961). And so, the scores between the primers and the two versions of the Wycliffite Bible are quite varied. As regards Beinecke MS 360, it is nearly identical with the text of LV (with the score of 0.993, the highest in *Song of Ezekiel* but also the highest out of all the canticles), and fairly similar to the text of EV (0.959). CUL, MS Dd. 11.82 and BL, MS Add. 17010 also bear a striking resemblance to LV (with the scores 0.988 and 0.992 respectively), while their similarity to EV is noticeably lower (with the scores 0.96 and 0.966 respectively). St. John's, MS G. 24, on the other hand, is more similar to the text of EV (0.953), while the score between its text and that of LV is the lowest of all (0.927). The score is fully consonant with the observation that St. John's, MS G. 24 diverges from the other three primers (with the score of 0.931 for Beinecke MS 360, 0.927 for CUL, MS Dd. 11.82 and 0.933 for BL, MS Add. 17010), while their texts show very high similarity to one another (with the score of 0.988 between Beinecke MS 360 and CUL, MS Dd. 11.82, 0.992 between Beinecke MS 360 and BL, MS Add. 17010, and 0.988 between CUL, MS Dd. 11.82 and BL, MS Add. 17010). In (1) below I present the normalized text of *Song of Ezekiel*, with bold type used to mark elements that differ across the texts. It has to be noted, however, that this does not mean that one should expect each text to exhibit divergences with respect to all the marked elements. Rather, bold type should be treated as an indicator that a given word or phrase is different (or not present) in at least one version.

(1)

EV MY GENERATION BE TAKEN AWAY, AND **ALL FOLDED UP** FROM ME, AS A TABERNACLE OF SHEPHERDS. **CUT OF** BE AS OF A **WEAVER** MY LIFE; WHILE IT I **WEAVED**, HE **UNDERCUT** ME. FROM **EARLY UNTO EVEN** THOU

LV MY GENERATION BE TAKEN AWAY, AND **BE FOLDED TOGETHER** FROM ME, AS **THE** TABERNACLE OF SHEPHERDS **BE FOLDED TOGETHER**. MY LIFE BE **CUT DOWN** AS OF A **WEB**; HE **CUT DOWN** ME, THE WHILE I **WAS WEAVED** IT. FROM THE **MORROW-TIDE** `TILL TO THE **EVENTIDE** THOU

B360 MY GENERATION BE TAKEN AWAY AND **BE FOLDED TOGETHER** FROM ME; AS **THE** TABERNACLE OF SHEPHERDS **BE FOLDED TOGETHER**. MY LIFE BE SO **CUT DOWN** AS OF A **WEB**; HE **CUT DOWN** ME; THE WHILE I **WAS WEAVED** IT FROM THE **MORROW-TIDE**TILL TO THE **EVENTIDE** THOU

EV SHALL END ME; I HOPED **UNTO THE MORROW**; AS A LION, SO HE **TO BRUISED ALL** MY BONES. FROM **EARLY** `UNTO **EVEN** THOU SHALL

LV SHALL END ME; I HOPED **TILL TO THE MORROW-TIDE**; AS A LION, SO HE **ALL TO BROKE ALL** MY BONES. FROM THE **MORROW-TIDE** TILL TO **THE EVENTIDE** THOU SHALL

B360 SHALL END ME. I HOPED **TILL TO THE MORROW-TIDE**; AS A LION SO HE **ALL TO BROKE** MY BONES FROM THE **MORROW-TIDE** TILL TO **THE EVENTIDE** THOU SHALL

EV END ME; AS THE BIRD OF A SWALLOW, SO I SHALL CRY; SWEETLY I SHALL **THINK** AS A CULVER. **ALL TO FEEBLED BE** MY EYES, BEHOLDING **UP IN HEIGHT**. LORD, **FORCE** I SUFFER,

LV END ME; AS THE BIRD OF A SWALLOW, SO I SHALL CRY; I SHALL **BETHINK** AS A CULVER. MY EYES BEHOLDING A **HIGH**, **BE MADE FEEBLE**. LORD, I SUFFER **VIOLENCE**,

B360 END ME; AS THE BIRD OF A SWALLOW SO I SHALL CRY; I SHALL **BETHINK** AS A CULVER MY EYES BEHOLDING A **HIGH**; **BE MADE FEEBLE** LORD I SUFFER **VIOLENCE**

- EV ANSWER THOU FOR ME; WHAT SHALL I SAY, **OR** WHAT SHALL ANSWER TO ME, WHEN **I MYSELF** HAVE DO? I SHALL EFT **THINK** TO THEE ALL MY YEARS, IN THE BITTERNESS OF MY SOUL.
- LV ANSWER THOU FOR ME; WHAT SHALL I SAY, **EITHER** WHAT SHALL ANSWER TO ME, WHEN **I MYSELF** HAVE DO? I SHALL **BE-THINK** TO THEE ALL MY YEARS, IN THE BITTERNESS OF MY SOUL.
- B360 ANSWER THOU FOR ME; WHAT SHALL I SAY. **OR** WHAT SHALL **HE** ANSWER TO ME WHEN **HE** HAVE DO I SHALL **BETHINK** TO THEE IN ALL MY YEARS; IN THE BITTERNESS OF MY SOUL
- EV LORD, IF **THUS IT BE LIVED**, AND IN SUCH THINGS **THE LIFE OF** MY SPIRIT, THOU SHALL CHASTISE ME, AND QUICKEN ME;
- LV LORD, IF **ME LIVE SO**, AND **THE LIFE OF** MY SPIRIT **BE** IN SUCH THINGS, THOU SHALL CHASTISE ME, AND **SHALL** QUICKEN ME.
- B360 LORD IF **ME LIFE HAVE LIVED SO** AND IF MY SPIRIT **BE** IN SUCH THINGS. THOU SHALL CHASTISE ME AND **SHALL** QUICKEN ME.
- EV LO! IN PEACE MY BITTERNESS MOST BITTER. THOU FORSOOTH HAVE DELIVERED **OUT** MY SOUL, THAT IT **SHOULD NOT PERISH**; THOU HAVE **THROW AFAR** BEHIND THY BACK ALL MY SINS.
- LV LO! MY BITTERNESS **BE** MOST BITTER IN PEACE; FORSOOTH THOU HAVE DELIVERED MY SOUL, THAT IT **PERISHED NOT**; THOU HAVE **CAST AWAY** BEHIND THY BACK ALL MY SINS.
- B360 LO MY BITTERNESS **BE** MOST BITTER IN PEACE FORSOOTH THOU HAVE DELIVERED MY SOUL THAT IT **PERISH NOT**; THOU HAVE **CAST AWAY** BEHIND THY BACK ALL MY SINS
- EV FOR HELL SHALL NOT KNOWLEDGE TO THEE, **NOR** DEATH SHALL PRAISE THEE; **AND** THEY SHALL NOT ABIDE THY TRUTH, THAT **GO DOWN** INTO THE LAKE.
- LV FOR NOT HELL SHALL KNOWLEDGE TO THEE, **NEITHER** DEATH SHALL PRAISE THEE; THEY THAT **GONE DOWN** INTO THE LAKE, SHALL NOT ABIDE THY TRUTH.
- B360 FOR NOT HELL SHALL KNOWLEDGE TO THEE; **NEITHER** DEATH SHALL PRAISE THEE THEY THAT **GO DOWN** INTO THE LAKE SHALL NOT ABIDE THY TRUTH

- EV **LIVING, LIVING**, HE SHALL KNOWLEDGE TO THEE, AS AND I TODAY; THE FATHER TO **THE** SONS KNOW SHALL MAKE THY TRUTH.
- LV **A LIVING MAN, A LIVING MAN**, HE SHALL KNOWLEDGE TO THEE, AS AND I TODAY; THE FATHER SHALL MAKE KNOWN THY TRUTH TO SONS.
- B360 **A LIVING MAN A LIVING MAN** HE SHALL KNOWLEDGE TO THEE AS AND I TODAY. THE FATHER SHALL MAKE KNOWN THY TRUTH TO SONS
- EV LORD, MAKE ME SAFE, AND OUR PSALMS WE SHALL SING ALL THE DAYS OF OUR LIFE IN THE HOUSE OF THE LORD.
- LV LORD, MAKE **THOU** ME SAFE, AND WE SHALL SING OUR PSALMS **IN** ALL THE DAYS OF OUR LIFE IN THE HOUSE OF THE LORD.
- B360 LORD MAKE **THOU** ME SAFE AND WE SHALL SING OUR PSALMS **IN** ALL THE DAYS OF OUR LIFE IN THE HOUSE OF THE LORD

As is clear, there are diverse lexical choices to be observed, though, as reflected by the similarity scores, they are significantly more frequent between Beinecke MS 360 and EV than Beinecke MS 360 and LV. In the former case, they concern nouns (for instance *force* vs. *violence*), verbs (for instance *throw afar* vs. *cast away*) and prepositions (for instance *unto the morrow* vs. *till the morrow*), with single cases of differing articles (*a tabernacle* vs. *the tabernacle*), conjunctions (*nor* vs. *neither*) and pronouns (*it* vs. *me*). In the latter case only individual instances of differing nouns (*middle* vs. *midst*) and conjunctions (*either* vs. *or*) can be observed. As regards grammatical differences, they are fairly limited and concern verb tense with regard to the primer and LV (for instance *live* vs. *have lived*) and different verb constructions when it comes to the primer and EV (for instance *should not perish* vs. *perish not*). These differences resulted in the score 0.959 between Beinecke MS 360 and EV and 0.993 between Beinecke MS 360 and LV. The remaining part of this section will present and briefly discuss the similarity scores obtained for the other canticles.

	EV	LV	B360	G. 24	Dd.11. 82	Add.17010
EV	1	0.939	0.825	0.799	0.816	0.807
LV	0.939	1	0.766	0.737	0.758	0.747
B360	0.825	0.766	1	0.995	0.987	<u>0.996</u>
G. 24	0.799	0.737	0.995	1	0.989	<u>0.996</u>
Dd.11. 82	0.816	0.758	0.987	0.989	1	0.994
Add.17010	0.807	0.747	0.996	0.996	0.994	1

Table 2. Similarity scores for *Benedicte* from the Book of Daniel

Out of the five canticles, *Benedicte* is the longest and exhibits the greatest range of divergences (0.737-0.996). Even though the similarity score between the two versions of the Wycliffite Bible is fairly high (0.939), it is the lowest among all the canticles. The primers are thus expected to exhibit even more varying degree of (dis)similarity to EV and LV than was the case of *Song of Ezekiel*. And so, the texts of Beinecke MS 360, St. John's, MS G. 24, CUL, MS Dd. 11.82 and BL, MS Add. 17010 diverge significantly from LV (with the scores 0.766, 0.737, 0.758, and 0.747 respectively), with also very low scores for the text of EV (0.825 for Beinecke MS 360, 0.799 for St. John's, MS G. 24, 0.816 for CUL, MS Dd. 11.82 and 0.807 for BL, MS Add. 17010). However, interestingly enough, the primers exhibit very high similarity scores between one another, ranging from 0.987-0.996 (with the highest score between Beinecke MS 360 and BL, MS Add. 17010 as well as St. John's, MS G. 24 and BL, MS Add. 17010), which might suggest an influence of a text (or texts) other than EV and LV.¹⁰

	EV	LV	B360	G. 24	Dd.11. 82	Add.17010
EV	1	0.973	0.916	0.903	0.97	0.967
LV	0.973	1	0.92	0.912	<u>0.997</u>	0.976
B360	0.916	0.92	1	0.983	0.921	0.928
G. 24	0.903	0.912	0.983	1	0.913	0.915
Dd.11. 82	0.97	0.997	0.921	0.913	1	0.976
Add.17010	0.967	0.976	0.928	0.915	0.976	1

Table 3. Similarity scores for *Magnificat* from the Gospel of Luke

In *Magnificat*, the similarity scores range between 0.903-0.997. The score between EV and LV is significantly higher here than in *Benedicte* (0.973), and

¹⁰ This, however, falls outside the scope of the analysis presented in this contribution.

so each of the primers exhibits a similar similarity score with respect to both versions. The highest score can be observed between CUL, MS Dd. 11.82 and LV (0.997), though the primer is also fairly similar to the text of EV (0.97). BL, MS Add. 17010 also shows great resemblance to LV (0.976), with only slightly lower score for EV (0.967). When it comes to Beinecke MS 360 and St. John's, MS G. 24, both texts exhibit an almost identical degree of (dis)similarity to both versions of the Wycliffite Bible (with the scores 0.92 and 0.912 for EV and 0.916 and 0.903 for LV respectively), though the scores are significantly lower than is the case with the other two primers. It is also worth noting that the score between CUL, MS Dd. 11.82 and BL, MS Add. 17010 is high (0.976), and so is the score between Beinecke MS 360 and St. John's, MS G. 24 (0.983).

	EV	LV	B360	G. 24	Dd.11. 82	Add.17010
EV	1	0.988	0.961	0.969	0.987	0.968
LV	0.988	1	0.966	0.974	1	0.972
B360	0.961	0.966	1	0.979	0.963	0.994
G. 24	0.969	0.974	0.979	1	0.971	0.98
Dd.11. 82	0.987	1	0.963	0.971	1	0.969
Add.17010	0.968	0.972	0.994	0.98	0.969	1

Table 4. Similarity scores for *Benedictus* from the Gospel of Luke

Benedictus exhibits the smallest range of divergences (0.961-1). When it comes to the two versions of the Wycliffite Bible, they are nearly identical, with the highest score out of all the canticles (0.988), and so the four primers are expected to exhibit a very similar degree of resemblance to both EV and LV. Moreover, here we encounter two identical texts, which is a rare occurrence in analyses such as the one presented in this study, and in this case concerns CUL, MS Dd. 11.82 and LV. Likewise, the similarity between the primer and the text of EV is also very high (0.987). As regards Beinecke MS 360, it exhibits, not surprisingly, an almost identical degree of similarity to EV and LV (with the scores 0.961 and 0.966 respectively). The scores between the other two primers and EV and LV are also almost identical, with the scores 0.969 and 0.974 for St. John's, MS G. 24, and 0.968 and 0.972 for BL, MS Add. 17010. Also, but not surprisingly considering their resemblance to both EV and LV, all four primers exhibit high similarity to one another (with the scores ranging from 0.963-994).

	EV	LV	B360	G. 24	Dd.11. 82	Add.17010
EV	1	0.968	0.825	0.835	0.89	0.926
LV	0.968	1	0.86	0.857	0.946	0.954
B360	0.825	0.86	1	0.962	0.878	0.841
G. 24	0.835	0.857	0.962	1	0.86	0.809
Dd.11. 82	0.89	0.946	0.878	0.86	1	0.912
Add.17010	0.926	0.954	0.841	0.809	0.912	1

Table 5. Similarity scores for *Nunc dimittis* from the Gospel of Luke

The scores obtained for *Nunc dimittis*, which is the last and the shortest canticle, range from 0.809-0.968. Out of the six texts, EV and LV exhibit the greatest similarity (0.968) and so the scores between the primers and EV and LV are diverse (as was the case with *Song of Ezekiel* and *Benedicte*). When it comes to Beinecke MS 360 and St. John's, MS G.24 bear no close connection to either EV (with the scores 0.825 and 0.835 respectively) or LV (with the scores 0.86 and 0.857 respectively), but exhibit a high degree of similarity to each other (0.962). CUL, MS Dd. 11.82 and BL, MS Add. 17010, however, show fairly high resemblance to the LV (with the with the scores 0.946 and 0.954 respectively). And while the similarity between CUL, MS Dd. 11.82 and BL, MS Add. 17010 is relatively low (0.912), the texts diverge even more from Beinecke MS 360 and St. John's, MS G. 24 (with the scores ranging from 0.809-0.878).

According to the data presented above, in over half of the canticles, the close similarity scores between all the four primers and EV and LV result from the high degree of resemblance between the two versions of the Wycliffite Bible (though it is not always the rule). When it comes to Beinecke MS 360 and St. John's, MS G.24, the texts follow the tradition of both EV and LV for two canticles, namely *Benedictus* and *Magnificat*, (with the scores ranging from 0.916-0.966 for Beinecke MS 360 and 0.903-0.974 for St. John's, MS G.24). In *Song of Ezekiel*, however, Beinecke MS 360 shows more resemblance to the text of LV (with the score of 0.993), while St. John's, MS G. 24 is more similar to EV (with the score of 0.953). Also, both texts bear no close similarity to either EV or LV in *Benedicte* and *Nunc dimittis* (with the scores ranging from 0.799-0.86 for Beinecke MS 360 and 0.737-0.857 for St. John's, MS G.24). As regards CUL, MS Dd. 11.82 and BL, MS Add. 17010, the texts follow the tradition of LV for four canticles, namely *Song of Ezekiel*, *Magnificat*, *Benedictus*, and *Nunc dimittis* (with the scores ranging from 0.946-1 for CUL, MS Dd. 11.82 and 0.954-0.992 for BL, MS Add. 17010),

though the scores obtained for EV are only slightly lower (ranging from 0.89-0.987 for CUL, MS Dd. 11.82 and 0.954-0.992 for BL, MS Add. 17010). In *Benedicte*, however, the primers diverge significantly from the text of LV (with the score of 0.758 for CUL, MS Dd. 11.82 and 0.747 for BL, MS Add. 17010), while presenting higher scores for the text of EV (0.816 for CUL, MS Dd. 11.82 and 0.807 for BL, MS Add. 17010). In Table 6 below, I present the summary of the observations found in the literature concerning the sources of the scriptural content of the four primers, juxtaposed against the data obtained in the present analysis.

	The textual traditions proposed in the existing literature					The joint results obtained in the present study with respect to particular canticles
	canticles		lessons	psalms		
	Hargreaves (1956) (<i>Magnificat and Benedictus</i>)	Dove (2007)	Hordyjewicz (2023)	Hargreaves (1956)	Kennedy (2014) and Sutherland (2015)	
Beinecke MS 360	–	LV	EV and LV	–	LV	LV, both, and neither
St. John's, MS G. 24	–	–	EV and LV	Independent rendition	EV	EV, both, and neither
CUL, MS Dd. 11.82	LV	–	LV	LV	LV	mostly LV
BL, MS Add. 17010	EV	–	LV	LV	LV	mostly LV

Table 6. The comparison of the findings circulating in the literature against the results obtained in the present study.

As transpires from the above, Beinecke MS 360 could be expected to either come from LV (based on the claims concerning the psalms) or follow both versions of the Wycliffite Bible (based on the findings on the lessons). As regards the other three primers, CUL, MS Dd. 11.82 and BL, MS Add. 17010 could be expected to follow mostly the text of LV, whereas those found in St. John's, MS G. 24 – to diverge significantly from both versions of the Wycliffite Bible, or, as in the case of Beinecke MS 360, to follow both EV and LV. And so, according to the results obtained in the present analysis, the texts of CUL, MS Dd. 11.82 and BL, MS Add. 17010 indeed show the greatest degree of similarity to LV in the majority of canticles. When it comes to Beinecke MS 360 and St. John's, MS G. 24, two out of five canticles exhibit equal degree of resemblance to both versions (which is the result of EV and LV being almost identical), while two other ones bear no close similarity to either EV or LV. In the remaining canticle, *Song of Ezekiel*, the two primers follow a different tradition (LV in the case of Beinecke MS 360 and EV with respect to St. John's, MS G. 24). As regards the textual traditions of the canticles, *Magnificat* and *Benedictus* in both CUL, MS Dd. 11.82 and BL, MS Add. 17010 follow the tradition of LV, thus contradicting the claim made by Hargreaves (1956) that the two canticles found in BL, MS Add. 17010 show greater resemblance to EV. Importantly, however, the textual tradition for the canticles in Beinecke MS 360 proposed by Dove (2007) appears to be mostly confirmed by the data presented above, which adds credibility to all the other results obtained in the present study.

5. Conclusion

It appears then that, although the claims present in the literature concerning textual traditions of the canticles have been verified by the analysis performed in this study to a great extent, there are certain inconsistencies to be observed with regard to each of the primers. Therefore, when conducting linguistic research on the scriptural content of English Books of Hours, one must keep in mind the heterogeneous character of these medieval prayer books and examine as well as classify each text individually. In that regard, and as far as the established textual traditions are concerned, the results obtained in my study for the canticles from the Book of Isaiah, Book of Daniel and Gospel of Luke found in the text of Beinecke MS 360, St. John's G. 24, CUL, MS Dd. 11.82 and BL, MS Add. 17010 correspond with the findings presented in Hordyjewicz (2023) on the lessons from the Book of Job contained in the primers.

It is hoped that by exploring the textual sources of the English texts of canticles contained in medieval Books of Hours this contribution has shed sufficient light on the diversity and heterogeneity of textual traditions of medieval compilations and as such constitutes a stance in the ongoing discussion on the vernacular textual networks. On the methodological level, it has shown the benefits of relying on digital humanities tools for text similarity measurements, especially the cosine distance method, as far as analyses of historical texts are concerned.

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