

THE FIVE WITS IN ENGLISH MEDICAL LITERATURE, 1375-1600

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ABSTRACT

The five wits were an important component of culture in the Middle Ages, and passages dealing with the bodily wits occur frequently in early vernacular medical literature (1375-1600). Our aim is to relate these texts to their readers to detect how the commonplace was presented to various audiences. We shall apply two lines of research. First, we shall discuss the linguistic realizations with qualitative discourse analysis. The data come from two digital corpora, *Middle English Medical Texts* (Taavitsainen, Pahta and Mäkinen 2005) and *Early Modern English Medical Texts* (Taavitsainen et al. 2010), compiled from edited versions. The scope of these passages is wide, ranging from theoretical treatises of natural philosophy and surgery to compendia and practical adaptations in recipes and remedybooks. Second, we provide case studies on the underlying manuscript reality by philological methods and study the same or related passages in some Cambridge and British Library manuscripts. The analysis showcases the importance of going back to the versions that reached the medieval audiences for the dissemination of medical knowledge in the early periods.

KEYWORDS: medieval medicine, dissemination of knowledge, corpora, theory, practice, manuscripts, editions.

LOS CINCO SENTIDOS EN LA LITERATURA MÉDICA INGLESA, 1375-1600

RESUMEN

Los cinco sentidos fueron un importante componente de la cultura en la Edad Media, y los fragmentos centrados en los sentidos corporales aparecen con frecuencia en la literatura médica vernácula temprana (1375-1600). Nuestro objetivo es relacionar estos textos con sus lectores/as para detectar cómo se presentaba lo común a diversas audiencias. Aplicaremos dos líneas de investigación. En primer lugar, abordaremos las realizaciones lingüísticas a través de un análisis del discurso cualitativo. Los datos provienen de dos corpus digitales, *Middle English Medical Texts* (Taavitsainen, Pahta y Mäkinen 2005) y *Early Modern English Medical Texts* (Taavitsainen et al. 2010), compilados a partir de versiones editadas. El alcance de estos pasajes es amplio, abarcando desde tratados teóricos de filosofía natural y cirugía hasta compendios y adaptaciones prácticas en recetas y libros de remedios. En segundo lugar, proporcionaremos estudios de casos sobre la realidad subyacente del manuscrito mediante métodos filológicos y estudiaremos los mismos pasajes, o relacionados, en algunos manuscritos de la Biblioteca Británica y de Cambridge. El análisis pone de manifiesto la importancia de remontarse a las versiones que llegaban al público medieval para la difusión del saber médico en épocas tempranas.

PALABRAS CLAVE: medicina medieval, difusión del conocimiento, corpus, teoría, práctica, manuscritos, ediciones.

DOI: <https://doi.org/10.25145/j.recaesin.2023.87.05>

REVISTA CANARIA DE ESTUDIOS INGLESES, 87; octubre 2023, pp. 89-107; ISSN: e-2530-8335



1. AIM AND APPROACH: AN INTRODUCTION

The five senses belonged to the shared common ground in Western medicine. The aim of this article is to show how a medieval scientific doctrine deriving from classical medicine and philosophy became a commonplace in vernacular medical literature and how it was adapted to the needs and capacities of different audiences. We apply the methods of qualitative discourse analysis and philological manuscript study, and discuss passages dealing with the five senses in late medieval medical writing and in the transition period to early modern up to 1600. It is well known that modern scientific discourse varies according to its target audience (Meyers 1992; Swales 1990; Hyland 2005; etc.), but the insight that texts vary in the same way in the earlier periods is more recent (see, e.g., Taavitsainen 2009 [for early modern] and Benati 2022 [for medieval surgical texts]).

Our approach is pragmatic: texts are viewed as communication between authors and their audiences, displaying dissemination of scientific knowledge in its various forms (see, e.g., Taavitsainen 2017). The leading question from the historical pragmatic angle can be formulated as follows: Are there differences in style, contents and applications in the text passages dealing with the five wits that were targeted, on the one hand, at learned readers and, on the other hand, at heterogeneous lay audiences? We can even speculate whether knowledge of the five senses reached the semiliterate or illiterate people via oral delivery. It would also be interesting to achieve an understanding of how common cultural sets, such as the present scientific doctrine, were understood and acted upon (Chartier 1995, 89; Taavitsainen 2005, 180). It is, however, difficult to find clues, but we examined physical features of manuscripts with possible indications of past practices for this end.

2. THE FIVE SENSES IN MEDICAL LITERATURE

One of the commonplaces constantly repeated in medieval and early modern medical writing deals with the five senses. The prevailing medical tradition begins with Aristotle's *De anima* and *De sensu*, and with Galen, and it was elaborated by Arab scientists (Sears 1993, 23-25; Woolgar 2006, 19). Lists of the five 'outer wits' are common (see Lewis 1964, 161-165), related to the constituents of the 'inner wits,' which had their locations in the brain (Heller-Roazen 2008, 37; Carrillo Linares 2006, 249). They acted as links between man's intellect and the external world (Woolgar 2006, 19). The physical or the outer wits feature prominently in medical literature, whereas the spiritual or inner wits, also referred to as the 'myndly virtues,' typically belong to devotional literature, with only sporadic mentions in medical texts.

(1) **And so both the v wittes þat is to sey heryng seyng smellyng tastyng and felyng.** And so be the iij myndly virtues that is to sey ymaginatyf discretyf and memoratyf. (*MEMT, Gouvernayle of healthe*, 11v, fifteenth century) (Emphasis in all examples ours).



‘And so are the five wits, that is to say hearing, seeing, smelling, tasting and feeling. And so are the three virtues of the mind, that is to say imagination, reason and memory.’ (Translations by Taavitsainen, unless otherwise indicated)

The five wits had a place in the medieval world view through correspondences that encompassed all aspects of life. According to the medieval outlook, man was the microcosm, the centrepiece of the universe, and the influences of the macrocosm were reflected in him (Burrow 1986, 12). The five wits were integrated into this holistic system with the four seasons, the four elements, the four temperaments, the seven arts, the seven deadly sins, the seven ages of man, and the list could be extended to nines and twelves. Other related commonplaces were the *homo signorum* (‘zodiac man’) doctrine. The prevailing thought style of the medieval period was scholasticism, according to which all knowledge was contained in ancient books and the aim of scholarship was to rediscover the uncorrupted wisdom once known by Adam (Thomas 1971, 511; see below). An absolute reliance on authorities is expressed with frequent references to ancient philosophers and scientists.

The transition to the early modern period began at the end of the fifteenth century: the first printing press was set up in England in 1476, new continents were discovered in 1492, and two important books came out in 1543 that were to revolutionise scientific thinking.¹ Scientific knowledge in Europe at the dawn of the new era was highly mediated through longstanding textual traditions, but news from the widening world proved traditional inventories of nature inadequate, and the new instruments of the seventeenth century gave greater accuracy to observation by stretching the limits of unassisted human senses (Shapin 1996, 19). The firm belief in authorities broke down gradually, and observation as the predilect mode of knowing started to gain ground. The discovery of the new continents was instrumental as new observations showed how erroneous the descriptions of the nature had been, or as Walter Bailey (1588, A5r) put it “hath made manifest to vs, how greatly the old authors [...] were deceiued.”

3. DATA AND METHOD

To find answers to our research questions, we used two electronic corpora with a broad range of texts: *Middle English Medical Texts (MEMT)* (Taavitsainen, Pahta and Mäkinen 2005) and *Early Modern English Medical Texts (EMEMT)* (Taavitsainen et al. 2010). The medical corpora are designed to contain representative samplings of medical writing. For this purpose, we relied on medical historians’ expertise and consulted surveys of the relevant literature (Taavitsainen and Pahta 1997; Taavitsainen, Pahta and Mäkinen 2006; Pahta and Taavitsainen 2010, 4-6).

¹ Copernicus, *De revolutionibus orbium caelesticum*, and Vesalius, *De humani corporis fabrica*.



MEMT comprises about half a million words primarily of editions of medical treatises. The scope is wide, from texts of highest learning to practical health guides and remedybooks written for general and heterogeneous lay audiences. Texts are grouped into three categories: specialised treatises, surgical tracts and remedybooks. *EMEMT* begins where *MEMT* ends (1500), and its finishing point was set to 1700.² It contains about two million words in some 230 texts printed in the two centuries, also ranging from theoretical treatises rooted in academic traditions to popularised and utilitarian texts. *EMEMT* texts are grouped into six categories: general treatises and textbooks; treatises on specific topics; recipe collections and *materia medica*; regimens and health guides; surgical treatises; the *Philosophical Transactions* (1665-) forms a category of its own. The two corpora were used for locating passages relating to the five wits up to 1600 with the help of lexical searches.³ The names of the senses were an obvious point of departure, but other lexical items, such as the sense organs, were checked as well. Spelling variation was taken into consideration as we consulted *MEMT* wordlists and *EMEMT* normalised text files,⁴ not to miss unusual spellings or rare words. The method of the empirical study is qualitative discourse analysis complemented by philological assessment of some Cambridge and London manuscripts.

4. THE FIVE WITS IN EARLY VERNACULAR MEDICAL LITERATURE

In our assessment, we shall proceed according to the medieval traditions of writing and continue to the early modern period in the chronological order. We begin with learned surgical treatises, then deal with specialised texts and compendia, proceed to health guides, remedies and recipes, and we shall also discuss verse texts at the end of the section.

4.1. SURGICAL TEXTS

Surgical texts were at the most learned end of vernacular writing in the late medieval period. Most texts in this category contain discussions of surgery, but some, like Guy de Chauliac's texts, are sophisticated treatises with descriptions of the human anatomy. Chauliac wrote in Latin for academic audiences, but when his works were translated into Middle English and other vernaculars in the late fourteenth and early fifteenth centuries, they lost their academic status. A passage

² For this decision, we considered changes in medical thought, institutional developments, as well as the final breakthrough of the vernacular. Continuation to these two corpora is provided by *Late Modern English Medical Texts* (see Taavitsainen and Hiltunen 2019).

³ The first scientific journal, however, remains outside the present timeline.

⁴ Otherwise we used the versions with original spellings.



from an anatomical treatise begins with a definition of the eyes and proceeds to a quotation from Galen, the most frequently cited ancient authority in medical literature (Taavitsainen and Pahta 1998; Pahta et al. 2016). Example 2 indicates a precise text source; such exact references are found in learned treatises only. Deontic modality is a typical feature, expressed in scholastic phrases like *It byhouep* and *forwhi* (see example 5 and Taavitsainen and Schneider 2019):

(2) The eyzen beep the instrumentis of sight, and þai beep sette wiþynne þe papþe þe whiche is a parte of þe coronal and of þe bones of þe temples. Whoos bygynnyng **Galien telleþ so in 10 De Vtilitate, capitulo finali: It byhouep** þe synowes opitikes to be persed þat þere were the waie of þe spirite and to procede fro two parties, and þat þay beep oned wiþynne þe brayne panne. (*MEMT*, Chauliac, *Cyrurgie*, 42-43) ‘The eyes are the instruments of sight and they are set in the pathway which is part of the skull and the bones of the temples. Galen tells about their origin in 10 *De utilitate*, final section: it is necessary for the optical sinews to be pierced so that there is a way for the spirit to proceed from two parts so that they be joined to one within the brain.’

It is not known who the audience of the Middle English versions were, but the manuscripts that survive are carefully executed large-size volumes that show no signs of wear. They are likely to have been valuable display objects not intended for use (see Taavitsainen 2004a).

Example 3 below deals with hearing. It contains an anatomical description with references to all three layers of medieval medical knowledge: ancient wisdom (Galen), Arab learning (Avicenna) and contemporary surgery (Lanfrank). Genre features of top scholastic research are present as the conflicting opinions of authorities are quoted according to the commentary tradition, overlapping with compilations in this period (Taavitsainen 2004b).

(3) The full grustly eeres beþ ordeyned to herynge, vpon þe stony bone. To þe whiche eeres by croked hooles of þe forseide bone comen pores or synowes of þe fifte payre of synowes of þe brayne, in þe whiche the heryng is. And vnder þe eeres ben glandulouse flesshes þe whiche beþ þe purgyng places of þe brayne. Nyh þe whiche þe veynes passen þe whiche, as **Lamfranque saip**, beren a partie of þe mater of sparne to þe gendryng stones, þe [f. 14vb] whiche if þay be kutte, þe gendryng is lost. **Of þe whiche Galien holdeþ þe contrarie, as Auicen reherseþ in þe book of blood laste.** (*MEMT*, Chauliac, *Cyrurgie*, 44) ‘The cartilaginous ears are ordained for hearing and set upon the hard bone. To these ears by their crooked holes of the above-mentioned bone come pores or sinews of the fifth pair of sinews of the brain where hearing is situated. And under the ears is granulous flesh, which is the purging places of the brain. The veins pass near it which, as Lanfrank says, carry part of the sperm to the testicles. If they are cut the ability to procreate is lost. Of this Galen holds a contrary opinion, as Avicenna rehearses in the book of bloodletting.’

Old received knowledge was repeated in surgical books of the early modern period. With its lists of the five senses, Thomas Vicary’s *A Profitable Treatise of the*



Anatomie of Mans Body (1577) is a typical witness of the transmission of scientific ideas in the sixteenth century. It is based on medieval sources. Its anatomical description of the brain as the seat of the senses repeats the doctrine as it was discussed in the earlier literature.

(4) [...] in euery parte God hath ordeyned and set singular and seuerall vertues, as thus: First, in the foremost Ventrikle God hath founded and set **the common Wittes, otherwise called the fyue Wittes, as Hearing, Seeing, Feeling, Smelling, and tasting.** And also there is in one part of this Ventrikle, the vertue that is called Fantasie, and he taketh al the formes or ordinaunces that be disposed of **the fyue wittes**, after the meaning of sensible thinges: (*EMEMT*, Vicary 1577, 30-31)

4.2. SPECIALISED TREATISES

The category of specialised treatises is wide, encompassing both learned and more popular texts, as the texts were selected based on their topic. The authors of medical texts in this category were mostly learned doctors known by name, and the intended audience was professional practitioners.

Descriptions of various correspondences within the holistic system of the universe with man as its centrepiece are common in specialised treatises. Example 5 from *De humana natura* relates the five senses to the nine emotions and the four humours. The text is a theoretical treatise of natural philosophy of unknown origin, ascribed to various authors, including Galen, Hippocrates and Constantinus Africanus. The first section of the treatise contains passages on the organs of the five senses. The eyes are treated more fully, but in general the descriptions are somewhat vague as the translator had difficulties in finding vernacular expressions for Latin notions (see Carrillo Linares 2006, 249-252). The passage below contains several features typical of learned writing: the title is in Latin, *forsoth* ('truly') is a core phrase of scholastic style that occurs frequently in learned writing and contributes to the tone of absolute reliance on the doctrine. The apposition beginning with *that is to say* is frequent in explication and definitions:

(5) *de sensibus animalibus*

Bi beastes,⁵ **that is to say**, sciences, a body vsed to lustis 9 thynges, to the brayne to hym enlarged, **that is to say**, dilectacioun, haate, joy, sorowe, hardynes, dreede, shame, wrath, woodnes, **fforwhi bi sight, smellyng, feelyng, heryng, tastyng**, lovith, or haatith, joyeth or sorowith, dar or dredith, shameth, wrathith or woodith. **Fforsoth**, whan any man, bi any of thiese 5, to the love of any other be areised, it smytith the hert. Of whiche smytyng, proceden spirites hoote and

⁵ A mistranslation for Latin *animalibus*; Tavormina's interpretation 'Pertaining to the soul' is given in the edition (2006, 776).

drye, wherof oon is thynner and weiker whiche drawith the brayne. (*MEMT, De humana natura*, 78-79)

‘Pertaining to the soul, that is to say, sciences, a body has 9 emotions that enlarge the brain, that is to say, delight, hatred, joy, sorrow, hardness, dread, shame, wrath, madness, whereby by sight, smelling, feeling, hearing, tasting, man loves or hates, rejoices or grieves, is ashamed, angry or mad. Truly, when a man by any of these 5, be raised to the love of another, it smites the heart. Of which spreading proceed hot and dry spirits, whereof one is thinner and weaker which draws to the brain.’

The text survives in a unique late fifteenth-century copy in Cambridge, Trinity College, MS R.14.52, ff. 40v-44r (see the description by Pahta 2006). The manuscript contains several texts that pertain to the highest level of medical knowledge in the Middle Ages. It broadens the scope of vernacularised texts as, e.g., the Hippocratic commentary text shows an early attempt to transfer scholastic science into Middle English (see Tavormina 2006 and Taavitsainen 2018, 101-103).

A specialised treatise on ophthalmology by Benvenutus Grassus deals with the various eye diseases, according to the prevailing humoral theory, attributing them to an imbalance “of one or another of the four humours” (Eldredge 1996, 6).⁶ The text is a translation from Latin and the shortness of the tradition of writing science in the vernacular shows in the vacillation over pronouns.⁷ The following passage deals with the eye colour and its significance:

(6) But þei þat haue humours situat or set nygh besyde the tonnycles haue **eyen varied of diuers colours**, and hangyn mych yn whitenesse and hir syght is not right goode neþer yn yowgth nor age. Ffor yn þo maner of eyon haue bendyng humors of teris more þan yn oþer; ffor when the uisibile spirite descendyng down by the holow synews fynde aboute the tonycle fresche habundance and plente of corupte humors, þei ben the sunner disgregat and dyssolued from the humors. Also ys the sight the feblere yn them þan yn þo that haue þer eyon meueablye blake. (*MEMT, Benvenutus Grassus*, 51)

‘But they that have humours placed or set near the tunics have eyes of diverse colours and hang much in whiteness and their sight is not very good either in youth or in old age. Because such eyes have plenty of tears, more than others. For when the visible spirit descending down by the hollow sinews finds fresh abundance and plenty of corrupt humours in the tunic, they are the sooner shedding tears and dissolved from the humours. Also the sight is feebler in them than in those who have their eyes in a lighter shade of black.’

The basic idea became expressed with extended metaphors in figurative language in Latin: the five senses were “messengers” (Cicero), the organs “doors” (Lucretius) with eyes as “windows” (Lactantius), and the head as a “castle” or “citadel”

⁶ Eldredge’s edition is based on manuscripts from the Bodleian, British and Glasgow University Libraries.

⁷ E.g., sometimes the author is referred to with the third person “he,” sometimes with the first person “I” as in the original text.



(Plato; see Vinge 1975, 29-39). The imagery was enriched by scriptural additions of man as “a house,” reaching its peak of applications in the sixteenth century (Vinge 1975, 63). The images enter vernacular English medical writing with a slight delay as witnessed by the extract in example 7 from 1599.⁸

(7) [I]t is most euident that the **soule is shut vp within the bodie**, as it were **in a darke dungeon**, and that it cannot discourse, neither yet comprehend any thing without the helpe of the sences, which are as **the obedient seruants and faithfull messengers** of the same: it was needfull to place the instruments of the sences very neere vnto **the seate of reason**, and round about **her royal pallace**. Now **the sences** which we call externall **are onely fīue; the sight, the hearing, the smelling, the taste and handling**, of which altogether dependeth our knowledge, and nothing (as saith the Philosopher) can **enter** into the vnderstanding part of our minde, except it **passe through one of these fīue doores**. (*EMEMT*, Laurentius, *Preservation of sight* 1599, 10)

The scale extends to more heterogeneous audiences in anonymous texts in the pseudo-Aristotelian tradition intended for a wide lay audience. The relation of body and soul, which first appears in the learned treatise *De humana natura*, finds its way into the most popular text of medical writing *Aristotle's Masterpiece*. It enjoyed best-seller status for long, reprinted in the same form even in the seventeenth century. It refers to Biblical wisdom of Salomon's proverbs in order to convince its readers of the truth of the statements:

(8) It has caused many Disputes amongst the Learned, especially Philosophers, in **what part of the Body the Soul chuseth to reside**: and some have given their opinion, that its resident is in the middle of the Heart, and from thence communicates it self to every part; which **Solomon, in the Fourth of his Proverbs**, seems to assert, when he says, *Keep thy Heart with all thy diligence, because Life proceedeth therefrom*: but many curious Physicians ... do give it as their Opinion, that **its chief Seat is in the Brain, from whence proceed the Senses, Faculties, and Actions, diffusing the operations of the Soul through all parts of the Body**, [...] if stopped they become **Apoplectick**; for there must necessarily be some ways through which the Spirits animal and vital may have intercourse, and convey native heat from the Soul. For although the Soul is said to reside in one place, it operates in every part, exercising every Member which are the Souls Instruments, by which she manifesteth her pow'r: (*EMEMT*, *Aristotle's Masterpiece* 1684, 40-41)

⁸ A full allegorical presentation is found in Phineas Fletcher's *The Purple Island* from 1633.



Medicine was both a theoretical and a practical discipline and both sides are combined in a text by Gilbertus Anglicus. His original compilation in Latin, called *Compendium medicinae*, dates from c. 1240 and the vernacular versions were produced a couple of centuries later. Gilbertus was a university-educated scholar who based his work on classical writings from Salerno and Montpellier. He was also one of the first to consult new Latin translations of Arab texts (Getz 1998, 3). The following passage deals with the etiology of palsy where the sense of feeling is either lost or impaired (cf. above). According to the medieval theory, corrupt humours were the cause.

(9) Apoplexie is a sekenes þat comþ of stopping of þe principal placis þat ben in a mannes brayn þrow sum corrupte humour. And **þis sikenes bynemet a mannes wit** and his felyng for þe tyme and al maner meving wipouteforþe, saaf only breþing. Ther ben þre kyndes of þis sikenes, a more, and a lasse, and a mene bitwene hem two. The more sleep a man þe first day, for it is incurable. The meen sleep a man withyn þre daies, or ellis turneþ into a palesie; þe lasse withyn vii daies, or turneþ into palasie. And **þis sikenes comþ of moche flewme or of moche corrup blode þat filliþ þe principal places of a mannes brayn.** And if it be in so grete plente þat it filliþ al þe brayn, þen **it makeþ a man to leese his wittis as his syzte, his hering, his tasting, his smelling,** and his meving also. Þis is þe more apoplexie. (*MEMT*, Gilbertus Anglicus, *Compendium medicinae*, 27-28)

‘Apoplexy is a sickness that comes from obstruction of the principal places in a man’s brain by some corrupt humour. And this sickness takes a man’s wit and his feeling for the time and all movements apart from breathing. There are three kinds of this sickness, more, less or the mean between the two. The most vigorous kind kills a man in the first day, because it is incurable. The middle kind kills a man in three days or otherwise it turns into palsy; the lesser kind within 7 days or it turns into palsy. And this sickness is caused by much phlegm or much corrupt blood that fills the principal places of a man’s brain. And if it is so plentiful that it fills all the brain, then it makes a man lose his senses such as his sight, his hearing, his taste, his smell, and also his movement. This is the severe apoplexy.’

This Gilbertus version in Cambridge, Trinity College, MS TCC O.9.37 proved worth further examination from the viewpoint of textual transmission, as it records a detailed description of the symptoms of apoplexy in women as opposed to men (f. 42v). The focus on women is evident from two rubrics, missing from the copy edited by Getz, which specify that these symptoms apply to women:

(10) In wommen that been ystoppit. [T]he fallynge is with myche ache from the navill donwarde and with myche hevynese in her leggis by for that þei falleth downe. And thei streynen her wombe with her armys and bowith her hede to her knees and gryntith with her tethe for the grete ache þat þei haun & whan þei fall downe summe betyn þe erthe with her hondis and here fete and summe ligen still as þou3 they were dede and al her body is full colde and summe risen vp sone



and summe ligen in her accesse a daye or tweyne. (Transcription and translation by Honkapohja)

‘In women who have been obstructed, the fit causes much ache from the navel downwards and much heaviness in their legs before they fall down. And the patients stretch their womb with their arms and bow their heads to their knees and grind with their teeth, because of the great pain that they are in. When they fall down, they sometimes beat the earth with their hands and feet. Some lie still as if they were dead. All their body is very cold. Some rise up soon and some lie in their illness for a day or two.’

The above passage has value as an early vernacular witness of textual adaptation for the benefit of women’s treatment as it could help a doctor recognise the situation (cf. Whitt [2022, 180-181] about medieval obstetric passages in English). Such additions enhance the practical value of the text. Advice for medication is also included in the form of a short and standardised recipe for pills with, e.g., imperative forms: “**Take** of aloes and of euforbe iliche myche and **medill** hem with þe iuis of leke and **make** pillules” [‘Take equal amounts of aloe and euphorbium and mix them with the juice of leek and make pills’]. It is followed by longer explanations of two medical concoctions (f. 43v), “blake sope” and “white sope” with their ingredients and uses (according to the *MED*, ‘sope’ can refer to soap, whitening ointment or powder). The advice is detailed and grounded on contemporary beliefs of appropriate times and the “like favours like” principle: “it shall be made after arid somer in the caniculer dayes by hete of the sonne with owten yre and these sopes been gode for brennyng eiper scalding” [‘it shall be made after a dry summer in the dog days by the heat of the sun without iron. These mixtures are good for injuries caused by fire or hot liquid’]. The uses of these ointments included medical applications, but they also had beautifying effects: “they ben gode also for scabbis and openeth the poris of the skyn and makeþ the skynne white and for many oþer thinges thei ben full profitable” [‘they are also good for skin diseases and open the pores of the skin and make the skin white and they are very beneficial for many other things’]. This addition would have been useful for domestic households.

The greater emphasis on medical treatments directed at women also shows in texts included elsewhere in the manuscript. The manuscript includes *The Sekenesse of Wymmen* later in the codex (ff. 126r-128v). This tract was the most widely circulated gynaecological text in late-medieval England. It consists of “fifteen of the twenty gynecological and obstetrical chapters from Gilbertus Anglicus’ *Compendium medicinae*” (Green 1992, 73). Overall, the manuscript is a general medical compendium, which incorporates material explicitly concerned with childbirth and other gynaecological matters. The likely audience was still male practitioners (cf. Green 1992, 58-63).

The codex itself, Cambridge, Trinity College, MS TCCO.9.37, is of medium to high grade, with gilded initials on ff. 31r and 36r. It measures 29.5 x 20.5 cm and contains thirty-four lines to a page. It is partly copied on paper and partly on parchment. Many medical manuscripts are plain and utilitarian in appearance, but the present one contains pen-flourished blue and red initials, which are simple



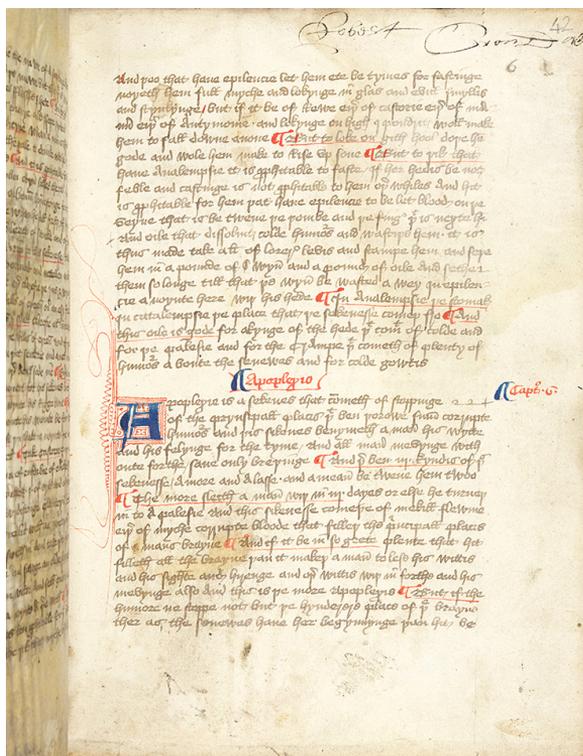


Figure 1. Gilbertus Anglicus, Cambridge, Trinity College, MS TCC O.9.37, f. 42r.
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but functional and found across a large number of late medieval manuscripts (see Figure 1). The beginning of each chapter is indicated by marginal headings in Latin in red preceded by blue paraphs. Sections within each chapter are indicated by red paraphs and underlining. It is thus very much in the higher quality end of medical manuscripts, and interestingly enough shows a specific concern with recipes and medical advice directed for women both on the level of the codex and on the level of versions of texts included.

4.4. MEDIEVAL ENCYCLOPAEDIA IN RHYMING COUPLETS: *SIDRAK AND BOKKUS*

The most popular end of the scale in this category can be found in a late medieval encyclopaedia in rhyming couplets. Its text form made the contents easy to memorise. Following a familiar text when read aloud provided entertainment to the audience who listened to its teaching (see Taavitsainen 2004c, 81-84). *Sidrak and Bokkus* is a pedagogical and philosophical dialogue between a heathen king (Sidrak) and a Christian philosopher (Bokkus) in an interactive form of questions



and answers, which also enhanced audience involvement. The work circulated widely in Europe, as several dozen manuscripts are extant in various languages (Burton 1998). The following extract deals with the learned subject matter of how the eye works, but it is rendered in much simpler terms than in the corresponding passages of theoretical texts (cf. Benvenutus text). The answer begins by quoting an “eternal truth”: “For ye may noþing 3eue outward / But it haue firste ytake inward” [‘For you cannot give anything out, unless it is first taken in’]. Such proverb-like sayings form typical features of popular texts.

(11) **‘Whan a man seeth a þing,** / Wheþer 3eueþ þe y3e out in seing
Or it resceiueþ inward þerto / Þe shappe þat it seþ so?
Noþing may come out owhere / But þere it 3ede in bifore,
For ye may noþing 3eue outward / But it haue firste ytake inward.
Perfore vndirstande aright / **Þre þinges goon to þe sight:**
First **þe þing þat þou shalt see;** / Þe secoude þat it ycoloured be -
For **alle of þinges is seen noþing** / But only þe colouryng;
Þe þridde ben **beemes of þe sight** / Þat vpon þat þing shal alight
Þat be seen shal. And after þis / The moisture þat in þe y3en is
Draweþ to him þe shaping / And þe facioun of þat þing : (*MEMT, Sidrak and Bokkus*, 493)

‘When a man sees a thing, does the eye project outwards in seeing, or does it receive inward the shape that it sees? Nothing may come out anywhere without going in first, for you may give nothing outward if it is not taken in first. Therefore understand right away, three things belong to the sight: first the thing that you shall see, second that it is coloured, third that the beams of sight shall be cast upon the thing that will be seen. And after this the moisture that is in the eyes draws the shape and the fashion of that thing...’

The manuscript transmission of *Sidrak* is interestingly varied. Manuscripts can also give us clues on what their readership considered important. Figures 2 and 3 contain the quoted extract in London, British Library, MS Lansdowne 793 (included in *MEMT*) and the closely related London, British Library, MS Harley 4294, which is perhaps twenty years later (Burton 1998, lvi) and copied in what appears to be a trained hand, but in uneven lines without ruling. Interestingly, both contain the same three things related to sight, which have been numbered 1 to 3 in the margins by Arabic numerals. In Lansdowne, the relevant words are also underlined in red. The three things that are underlined are ‘the thing’ that you see, secondly its colour and thirdly the ‘beams’ of sight. This shows that points of emphasis that called attention to different aspects of the five senses were copied as a standard form of annotation in Type 1 versions of *Sidrak*.

Harley also contains evidence of *Sidrak*’s later use. The questions were annotated by Harley’s librarian, Humphrey Wanley, who also wrote “19 November 1725” in the top margin of f. 1r. According to Burton (1998), the comments usually “indicate the subject of the question, or a topic in the answer” (lvii). In the margin of the present question-answer pair, he noted: “If the eye iudge of ought befor it be receiued inward” (Figure 3). The comment shows engagement with medieval popular



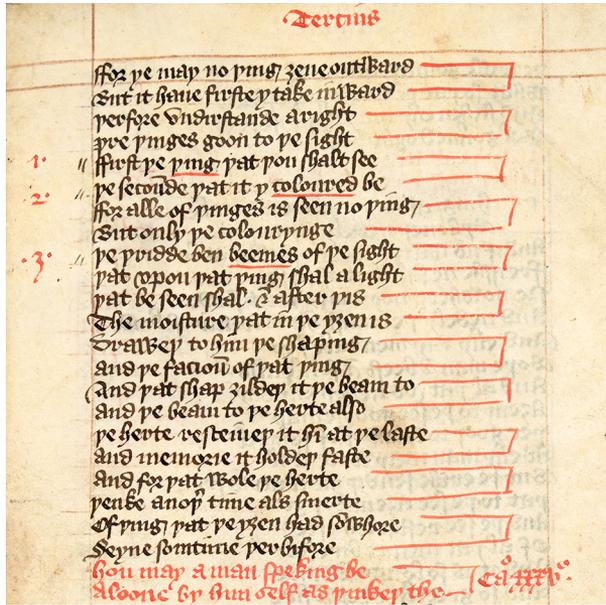


Figure 2. *Sidrak and Bokkus*; London, British Library, MS Lansdowne 793, f. 124r. Reproduced with the kind permission of the British Library.

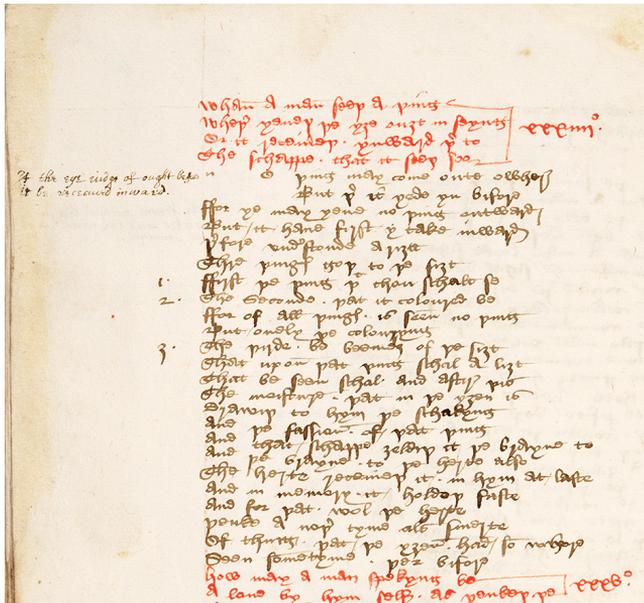


Figure 3. *Sidrak and Bokkus*; London, British Library, MS Harley 4294, f. 46v. Reproduced with the kind permission of the British Library



knowledge at a surprisingly late date. The annotation is made 200 years after Andreas Vesalius had published his major work on anatomy or fifty years after Isaac Newton had published his findings on the colour spectrum in the *Philosophical Transactions*. It is not certain from the comment(s), if the annotator was interested in *Sidrak* from an antiquarian point of view or as a genuine source of knowledge, although given Wanley's interest and expertise in palaeography and his work cataloguing the Harley collection, antiquarian interest seems more likely.

4.5. HEALTH GUIDES

A fairly high number of vernacular health guides is extant from the fifteenth century. The *Gouernayle of health* (example 1 at the beginning) is extant in multiple manuscripts suggesting a wide circulation.

With at least nine different versions, the *secreta secretorum* tradition was even more popular. Allegedly it contains Aristotle's advice to Alexander the Great, an attribution that enhances the value of the instruction. The passage below focuses on how to maintain health and strengthen the five senses:

(12) Than shalt thow froyte thy tethe and gomes with leues wele sauoured and hote and drye of nature, other with leues of grene trees of bitter nature or sovre. That helpeth and profiteth moch. [...] that openeth the closes of the brayn, and yeveth wexyng to the armes, maketh the nek fatte. It **clarefieth þe visage and the sight**, it strengtheth the 5 wittes, it shonneth and tarieth hoorenesse. After that, vse the best vngementis [...] Afterward sitte with nobles and estates, and speke with wise men, after the custume of kynges and of prynces. (*MEMT, Secrete of secretes*, 52)
'Then you should anoint your teeth and gums with well savoured leaves, hot and dry of nature, or with leaves of green trees of bitter nature and sour of virtue. That helps and profits much ... that opens the obstructions of the brain and gives vigour to the arms, makes the neck fat. It clarifies the face and the sight, it strengthens the 5 wits, it prevents and postpones corruption. After that, use the best ointments ... Afterwards sit with nobles and men of high rank and speak with wise men, after the custom of kings and princes.'

The next excerpt is from an early printed health guide originally composed in the mid-sixteenth century. It contains lists of the spiritual wits as well as the bodily wits. The metaphor of the heart as 'the prince of organs,' is also of interest, as it shows that the metaphors were employed in more popular texts, too (cf. 4.4 above).

(13) *Ioh.* [...] I would bee glad to know the partes of mankinde, with a short description of his members.

Hum. Members be simple and also compound, [...] in the which **braine**, dwelleth the vertues of **imagination, fantasie, memorie, &c.** And these animall vertues, be placed as were heauenly aboue al the members, communicating their heauenly influences, down vnto the heart, as to **a prince, or chiefe ruler** within the body which giueth life to euery part therin. [...] Note also, that as there be noble sence giuen to the body, as **seeing, hearing, smelling, tasting, feeling.** (*EMEMT, Bullein, The Gouernement of Health*, London: Sims, 1595, 14-15)



4.6. REMEDIES AND *MATERIA MEDICA*

Advice for preparing medicine for impaired senses is common in medieval remedy collections and household books. In most recipes the pattern is simple (see 4.3):

(14) **For bloody eyne:** chew mynt & lay lange to þi eghene Item: Chew betoyne, fastande, & it sall amend þi syght. (*MEMT*, Daniel, *Liber uricrisiarum*, 42)
'For bloody eyes: chew mint and lay it on your eyes. Likewise: chew betony when fasting and it shall amend your sight.'

Relevant materials focus on practical applications of the underlying doctrine without further elaboration. The ailment is briefly mentioned as the title, perhaps for easy reference. The causes of the ailments are not mentioned as these texts were consulted for finding a cure, not to gain a deeper understanding of the problem.

4.7. PRACTICAL VERSE

Rhyming couplets are favoured in practical verse for the benefit of the intended audience (see 4.4). The manuscript context of such short practical pieces seems haphazard. Recording them was likely to be guided by occasional empty spaces on folio pages rather than coherence of subject matter. The following herbal remedy gives simple advice for the preservation of sight and restoration of hearing, perhaps to be read aloud and learned by heart:

(15) It abreggyth heed werk, / And **þewyþ brythnesse to syth derke,**
And 3if it be falle to old or 3ing / **Newly to lesyn here heryng,**
Jows of betonye in hys ere do leyn / And **it bryngyþ ye herynge ageyn;** (*MEMT*,
A tretys of diverse herbis, 366)
'It abolishes headache and gives brightness to dark sight.
If it happens to old or young, to have lost their hearing recently,
Put juice of bethony to his ear and it restores the hearing.'

Bloodletting was perhaps the most common method of both maintaining health and healing. It was applied mainly in order to restore the balance of disrupted humours that were regarded as causes of illnesses. A poem listing the veins to bleed also contains advice on how to preserve one's sight:

(16) Iilke a mane hath xxx and thre: / Lythe and I shall tell them the;
Some er abowne, and some benethe; / Lithe, and thowe shall knawe, them ethe:
Behynde the heres, fyndes thowe twa; / If thowe lett blodle of tha,
His syght shall neuer fale, (*MEMT*, *What veins to bleed in*, 228)
'Every man has 33 [veins to bleed], listen and I shall tell them to you.
Some are above, some beneath, listen and you shall know them all.
Behind the ears you find two. If you let blood from them, the patient's sight will never fall.'



5. CONCLUSIONS

In the late medieval and early modern period, universities in the British Isles were monolingual Latin. Thus, all vernacular medical texts belong to utilitarian writing, with the exception of some display copies of surgical manuscripts (see 4.1). Texts dealing with the five wits demonstrate the dissemination of a medical commonplace by relating the texts to their sociohistorical contexts and audiences. The earliest texts prove how difficult it was to render abstract notions in the vernacular that had not developed the means to convey such ideas yet (see the articles in Tavormina 2006). The situation improved fairly quickly, and the late fifteenth century already belongs to a different phase in the history of medical and scientific writing (Voigts 1996). At the end of the Middle English period the scope of vernacular medical literature was wide, from theoretical treatises to practical applications in rhyming couplets, probably reaching even illiterate or semi-literate audiences with oral delivery. The present survey is based on edited texts and shows that the passages about the five wits cover the whole repertoire. The wide scope can be taken as evidence of the desire to understand the workings of the human body. A look at the manuscript reality with focus on other sources besides the edited base texts adds to our knowledge of textual transmission and reveals new applications to specific target audiences. Notes in the margins and underlining of key words give evidence of the use of these texts, as they reveal what an early reader considered particularly important.

Styles of writing vary. The most learned texts exhibit commentary features associated with scholastic research at universities. Some texts combine theory with applications, but remedybooks focus on advice without probing deeper into the topic. In all, our survey shows that the theory of the five wits reached wide audiences, and we can assume that some knowledge of it belonged to the common cultural ground of the late medieval and early modern periods.

The Biblical idea that uncorrupted and perfect knowledge had existed in Paradise prevailed all through the period in focus in this article, but change was already on its way. Expeditions to the new continents cast doubt on old authorities' wisdom; observation told otherwise. New instruments in the early modern period enhanced sight and improved the faculty of observation, shaking the old premises even more, as a mid-seventeenth-century passage shows:

[...] our Primitive father *Adam* might be more quick & perspicacious in Apprehension, than those of our lapsed selves; yet certainly the Constitution of *Adam's* Organs was not divers from ours, nor different from those of his Fallen Self, so that he could never discern those distant, or minute objects by Natural Vision, as we do by the Artificial advantages of the Telescope and Microscope. (Power 1664, 5-6)

Reviews sent to the authors: 22/03/2023

Revised paper accepted for publication: 11/04/2023



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