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## **Practitioner from Instrument: Metonymy in Names for Physicians in the History of English<sup>1</sup>**

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### **Abstract**

I focus here on several names for the physician in the history of English, which I suggest have metonymically evolved from names of medical instruments. I will first briefly discuss the importance of metonymy in semantic change, and indicate the theoretical background of my analysis (section 2). The lexical items will be reviewed, and their use in context exemplified (section 3). I will look into the reasons for metonymization, and make a case for pejoration, a downward move in evaluative attitude on the part of a speech community. To substantiate this claim, cultural arguments will be put forward, and the types of contexts which first made the meaning ‘physician’ accessible will be suggested (section 4).

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### **1. Introduction**

Much scholarly work, including studies from a historical perspective (cf. Hunt 1990; Taavitsainen, Pahta, and Mäkinen 2005; Taavitsainen and Pahta 2011, among others), has already been devoted to medical English. Linguists have also offered in-depth terminological studies – names of diseases, instruments, medicines, etc. (Faure 2014; Norri 1992; Norri 2004; Sylwanowicz 2007, among others) – or thorough analyses of patients’ discourse (cf. Faure 2015).

My own approach here to names for the physician in English will be historical. I will not be concerned with giving a complete historical overview of the lexical field in question; nor will I describe the rivalry between French and English lexical items in Middle English, as this point has already been extensively investigated (cf. Sylwanowicz 2003, among others). I will focus instead on a sub-category of names, among which *clyster*, *leech*, and *pisspot*, that were selected because they appear to have a common semantic feature: I suggest they have all metonymically evolved from names of medical instruments.

Names for the physician in English have been coined by other metonymic shifts from contentful to contentful meaning,<sup>2</sup> e.g. *velvet-cap* or *white-coat*. The

garment or cap is so closely associated with the person in his/her capacity as physician that the name of the former comes to designate the latter. Ullmann (1962, 91-92) mentions examples similar to these, e.g. *the cloth* for the clergy, *silk* for Queen's Counsel, or *town and gown* for 'town and University', and argues that they represent a type of motivation based on semantic factors. Unlike the garment-for-person type of metonymy, it appears that the instrument-for-person type has not been investigated with regard to physicians, although a sizeable number of lexical items are concerned. Not being a *pars-pro-toto* type of metonymy (unless one considers the instrument to be an extension of a doctor's arm or brain), the instrument-for-person type of metonymy raises interesting and original questions, like the motivation for such a semantic shift.

I will first briefly stress the importance of metonymy in semantic change, as seen in different approaches (Ullmann 1962; Traugott and Dasher 2002; Paradis 2011); this will provide the theoretical background of my analysis (section 2). The list of lexical items concerned (from OE to PDE) will be drawn, based on etymological and chronological evidence, and their use in context will be exemplified (section 3). Depending on the periods or on the lexical items involved, my examples are taken from the *Oxford English Dictionary (OED)*, the *Middle English Dictionary (MED)* or the *Dictionary of Old English Web Corpus (DOEWC)*. A sub-section of this survey will be devoted to the controversial case of *leech* (section 3.7): one may wonder whether there exists a relationship between *leech*<sub>1</sub> ('blood-sucking worm') and *leech*<sub>2</sub> ('physician, doctor'), and if so, what kind of relationship. Is it pure and simple homonymy between two terms coming from different sources (and no metonymy should be assumed), or is *leech* a polysemous noun coming from a single etymon (in which case a metonymic development has to be assumed)? I will try to make a case for homonymy.

The nouns selected are related to different periods in the history of English (Old, Middle and Modern English), to different registers, and to different source languages. Yet, it will be shown that with most of them the claim that an instrument-for-person type of metonymy is/has been at work is well substantiated. This will lead me one step further in terms of generalization: the final section (section 4) will be devoted to finding the plausible motivations for and mechanisms of what appears to be a recurring metonymic development in the history of English.

## 2. Metonymy and metonymization in the semantic evolution of languages

This study is carried out within the Historical Pragmatics framework, and more precisely within the theory of semantic change expounded in Traugott and Dasher (2002), in which the concepts of metonymy and polysemy are key. Works by other scholars have proved very useful too: for example, Ullmann (1962), within the structuralist school of thought, and Paradis (2011), who devotes a whole chapter

to defining metonymy from a Cognitive Linguistics perspective. The way the latter conceptualizes linguistic change strikes me as being highly compatible with Elizabeth Traugott's (and in that respect it is probably no coincidence that Carita Paradis thanks Elizabeth Traugott for commenting on an early draft of her chapter).

In the approach adopted here, "[t]here are no stable inherent word meanings", only "use potentials" (Paradis 2011, 81): the way words get their stabilized meanings, as well as the way meanings change, is in their context of occurrence, that is in the context of speaker-addressee negotiation of meaning. This entails that the meanings of words in context are pragmatically motivated.

Paradis (2011, 61-62) considers metonymization as one of the construals operating on the use potential of words, thus profiling their meaning in context. Here is the definition she gives of the process: "Metonymization (...) involves the use of a lexical item to evoke the sense of something that is not conventionally linked to that particular lexical item (Paradis, 2004/2010). It is affected "on-line" and is an implied, contingent relation that precedes change." (Paradis 2011, 63). She also underlines the well-known link between metonymy and polysemy (on that topic cf. Ullmann 1962, 163-164, too): "[M]etonymization proper is a polysemy phenomenon and concerns different senses, where one of the senses is conventionally associated with the lexical item used, whereas the other sense is inferred." (Paradis 2011, 69), whereby the linguist refers to pragmatic inferencing.

As can be read above, metonymization is shift, but not yet change: change is effective when conventionalization (i.e. semanticization in Traugott and Dasher 2002) has taken place, as evidenced by the creation of a new form-meaning pairing. Conventionalization is a socio-cognitive phenomenon which implies correct recognition/interpretation of the semantic innovation by the addressee, and then its acceptance by the speech community. In what follows, I will use the technical terms *metonymization* to refer to the process, and *metonymy* to designate its result.

As the metonymization process discussed here involves names of medical instruments, the non-technical term *instrument* has to be defined too: it will be understood as referring to a) instruments used in assessing a patient's condition and detecting a disease, e.g. the urinal in medieval medicine; b) measuring instruments, e.g. the thermometer; or c) curatives – remedial medicines and other material agents – used in fighting a disease, such as drugs, salves, or leeches.

### 3. The lexical items concerned: evidence and exemplification

According to the *Historical Thesaurus of English (HTE)*,<sup>3</sup> English has had 55 different words or phrases so far to designate the physician.

**Table 1.** Names for the physician in the history of English (source: *HTE*)

There are 55 words at this level:			
lacnystre	OE	medic	1659–
leech < læce	OE– now arch. & joc.	physicster	1689
woruldlæce	OE	medico	1689–now slang & joc.
healer	c1175–	nim-gimmer	a1700 slang
physician	a1225	pill-monger	1706–1764
flesh-leech	c1340	M.D.	1755 Dict. + 1766–colloq.
Galen	c1369–	physicianer	1815–1836/48 dial.
leecher	c1374 + 1887	therapeutist	1816/30–
mediciner	c1375–1828 chiefly Scots + 1873 arch.	physicker	1826
practiser	1377–1767	medical	1834– colloq.
miri	c1400(2)	medical man	1849
doctor	c1400–	pill peddler	1857–
medicine	a1450–1632	therapeutic	1858
practioner	1544–	squirt	1859 slang
minister	1559–	pill(s)	1860 slang
medicianer	a1578 Scots + 1634	therapist	1886
physion/phision	c1580–1611	doser	1888 contemp.
leech-man	1591–1600 + 1888 Medicine/Obstetrics Dict.	medicine man	1890– colloq., also transf.
artist	1592–1761	doc	a1900– colloq.
piss-pot	1593–1662	internist	1904– US
medician	1597	pill pusher	1909– slang
Aesculapius	1598–1840	white coat	1911–
velvet-cap	1602	pill-roller	1917– slang
physiner	1616 dial.	butch	1919 colloq.
clyster	1621	quack	1919– orig. Aus. & NZ
clyster-pipe	1622–a1672	vet	1925– slang
practicant	1637–	pill shooter	1928– slang
hakeem/hakim	1638–		

But in actual fact, 55 physician names is only a minimum; Table 2 contains additional items that I have come across – which only tends to show that there are probably more to be found.

**Table 2.** Additional items not included in the list given by *HTE* (source: *OED*)

Lexical item in the <i>HTE</i>	Additional items
piss-pot (1593)	piss-prophet (1625) urine-monger (1625), urine-prophet (1654), urine-caster (1763), urine-doctor (1815), urine-inspector (1863) water-caster (1603), water-monger (1623), waterologer (1654)
quack 'a medical impostor' (1638) 'a physician, a surgeon' (1919)	quacksalver (1579), quack doctor (1670), quack physician (1707) no additional items corresponding the non-derogatory meaning  croaker (slang. 'a doctor, physician; esp. a prison doctor.' Now chiefly U.S.); crocus (slang. 'a quack doctor')  sawbones ( <i>OED</i> : slang. 'a surgeon') ( <i>Dictionary of American Slang</i> : "any physician or medical doctor")

The list given by the *HTE* is organized chronologically. Firstly, it is important to bear in mind that the chronological information given by the *HTE* – or any other authority – represents no-later-than dates: a word may well have been used for decades before it made its first appearance in written form, thus making it possible for historians of the language to record its use. Secondly, the list includes quite different items, in particular as regards register (e.g. slang and standard words like *pill pusher* and *doctor* in PDE) and variety of English (e.g. *hakeem*, used only in Muslim countries and in India, or *quack*, whose non-depreciative use seems limited to Australia and New Zealand). Having looked up all of these items in the *MED* and *OED*, I can safely say that at least half of them belong to everyday language and are semantically very close to PDE *medical practitioner*.

I will focus on a sub-category of names which I suggest have metonymically evolved from names of medical instruments. It includes *clyster*, *leech*, *medicine*, *pill(s)*, *pisspot*, *therapeutic* and *quack*. I will ignore compounds of the N<sub>[instrument]</sub><sup>+</sup>V-*er* type (e.g. *pill shooter*), as well as derivatives of the N<sub>[instrument]</sub><sup>+</sup>-*er* type (e.g. *mediciner*) or of the V-*er* type displaying N<sub>[instrument]</sub> > V conversion (e.g. *doser*).<sup>4</sup>

The nouns selected are related to different registers and source languages. It is sheer coincidence that they are also representative of the main periods in the history of English. In strictly etymological terms, *leech* represents the Germanic period (Old English), while *medicine*, *pisspot* and *clyster* are linked to the period of greatest French influence in England (Middle English); *therapeutic* is representative of "English in the scientific age" (Barber 1993, 199), with its taste for learned words of Latin or Greek origin, which could be rather obscure or pedantic; lastly

*quack* represents the stage of expansion of English outside the British Isles and into the Southern hemisphere (in other words, *therapeutic* and *quack* are associated to late Modern English). I propose reading that history backwards and will begin with *quack*, as the most recent item.

### 3.1. *Quack* ('physician': no later than 1919)

The well-known meaning of *quack*, 'a medical impostor', is irrelevant here. I consider only the non-depreciative use of *quack* as found in Australian and New Zealand English: "A doctor (with no implication that he or she is unqualified); a physician, a surgeon; (Mil.) a medical officer." (*OED* s.v. *quack*, n<sup>2</sup>):

- (1) I'll get the **quack** at the Bush Hospital to have a look at it in the morning.  
(1960 J. Iggulden *Storms of Summer* 169)

*Quack* is a clipped form of *quacksalver*. The misconception that *quacksalver* is a variant form of *quicksilver* first led me to take *quack* into consideration: *quicksilver* itself can be metonymically associated with *thermometer* (*pars-pro-toto* type of metonymy) and then further with *quack* 'physician' (instrument-for-person type of metonymy, by analogy with the other items in the list). But this was based on popular etymology, *quacksalver* being originally a Dutch word with cognates in several other Germanic languages: "early modern Dutch *quacksalver* person who cures with home remedies (1543; Dutch *kwakzalver*)" (*OED*, s.v. *quacksalver*). The further etymology of this word remains uncertain, but the general idea is thus summed up by Klein (2003): "one who quacks or patters about his salves in trying to sell them", *salve* meaning 'ointment'. According to Onions (1966), *quack* as a short form of *quacksalver* dates back to the 17<sup>th</sup> century, which ties in with the discovery of Australia by a Dutch sailor in 1605 and with the planting of New Zealand by European settlers coming from Australia in the 1770s.

With no allomorphic relation between *quicksilver* and *quacksalver*, a metonymic shift from the instrument called *thermometer* to a physician name has to be ruled out. Yet, another metonymic development is plausible if we follow one of the alternative hypotheses for the etymology of *quacksalver* mentioned by the *OED*: "< *kwakzalven* to use or sell false cures (...) < †*kwakzalf* salve used as a home remedy". Should this hypothesis be correct,<sup>5</sup> it would indeed involve a metonymic shift from the curative called "salve" to a physician name.

### 3.2. *Pill(s)* ('physician': no later than 1860)

This word comes from Latin *pilula*. The shortened form of the English noun is an indication that its “immediate transmission into English is uncertain” (*OED*, s.v. *pill*, n.<sup>3</sup>), and etymological dictionaries mention possible intermediate source languages such as Middle French, Middle Dutch, or Middle Low and Middle High German.

The word is first attested in English in the early 15<sup>th</sup> century with the meaning “a small compressed ball or globular mass containing a medicinal substance” (*OED*, s.v. *pill*, n.<sup>3</sup>):

- (2) He schal ofte be purgid wip **pillis** [L. *pilulis*] cochie rasis; þat is þe beste þing laxatif þat mai be for iþen. (a1400 tr. Lanfranc *Sci. Chirurgie* (Ashm.) (1894–1988) 250)  
[‘He must often be purged with *cochias rasis* pills; that is the best laxative that may be given.’]

Quite a long time elapses before the slang, chiefly military, meaning of “a doctor, a surgeon; a medical officer or orderly” is found, at least in written documents. Here is the earliest occurrence, which dates from the first half of the 19<sup>th</sup> century.:

- (3) **Pills**, why dont you buy more vegetables? (1835 *Mil. & Naval Mag.* US Jan. 357)

In this sense and register, the item is frequently used in the plural, as a form of address (*OED*, s.v. *pill*, n.<sup>3</sup>). If considered in isolation, this fact might suggest a development from the other slang meaning of the plural *pills* (i.e. ‘testicles’), maybe with an implication of virility at a time when medical officers (in the Royal Army Medical Corps or any other) were males only. Yet, the fact that *pill* as a singular form can also designate ‘a doctor’, as in (4):

- (4a) The ‘**pill**’ of the regiment (...) had come out to inspect the men. (1890 M. Williams *Leaves of Life* I. iii. 30)

is an argument in favour of metonymization, i.e. a metonymic shift from curative agent to doctor resulting in – or rather here increasing – the polysemy of the lexical item *pill(s)*.

There exist tests providing the evidence for distinct meanings (cf. Paradis 2011, who uses those tests and puts her conclusion in terms of “boundaries” between meanings). Coordination is one such test. (4b) is a semantically unacceptable sentence in PDE, due to the zeugmatic effect created by coordinating



*pill(s)* understood first as ‘a small ball containing a medicinal substance’ and then as ‘a doctor’:

(4b) The pill had little effect on the patient, and so did the ‘**pill**’.

This goes to show that two distinct meanings – as opposed to two different facets of the same meaning – are associated with *pill(s)*.

### 3.3. *Therapeutic* (‘physician’: no later than 1858)

According to the *OED*, recent absolute use of the adjective *therapeutic* has given rise to the noun, attested in 1842 with the meaning ‘curative agent’:

(5) M. Roche acknowledges (...) that cold water has long been known as a **therapeutic**. (1842 E. S. Abdy tr. R. von Falkenstein *Water Cure* (1843) 123)

and with the meaning ‘doctor’ shortly afterwards, in 1858 (*OED*, s.v. *therapeutic*, n.):

(6) Medical society (...). Some of the **therapeutics** were tolerably good company. (1858 T. J. Hogg *Life Shelley* II. 429)

The fact that the two earliest written occurrences are so close to each other in time invites caution. It is true that as long as we find no occurrences of *therapeutic* ‘doctor’ antedating *therapeutic* ‘curative agent’ in corpora of Modern English, an instrument-for-person metonymic development can still be safely assumed (this is referred to as *negative evidence*). But it can also be challenged when the restriction at work in the semantic evolution of *therapeutic* is considered. Restriction of meaning happens when semantic change narrows the range of meanings conveyed by a word (McMahon 1994, 178). The earlier history of *therapeutic* shows that the word has been restricted from the general idea of “serving or attending to someone” to “attending to someone’s health”, and from “inclined to take care of” to “able to cure” (the paraphrases are mine, based on Skeat (1961), s.v. *therapeutic*). Two features can be observed to remain stable through the restriction process, namely [+human animate] and [+agentivity], which makes it quite possible to assume that a metonymic shift occurred, but the other way round – the curative agent might well have got its name from the physician name, rather than vice versa.

Further investigation into the semantic development of *therapeutic* would be required to reach a more robust conclusion. It should be pointed out, however, that there is no room for doubt as regards the two very close items *therapeutist* and *therapist* (cf. Table 1): an instrument-for-person metonymic development cannot

be assumed as these words never designated any kind of medical instrument at any time in English.

### 3.4. *Clyster* ('physician': no later than 1621)

This noun comes either from OF *clystère* (attested in the 13<sup>th</sup> century) or from Latin *clyster*, itself borrowed from Greek *κλυστήρ* 'a clyster-pipe, syringe, clyster'. It appears in English in the late 14<sup>th</sup> century, first with the meaning "a medicine injected into the rectum, to empty or cleanse the bowels" (1398), then denoting "the pipe or syringe used in injection" (1425, according to Norri, ed. 2016). The following passage contains *clystery*, a variant form of *clyster*:

- (7) Sawge (...) soden in wyn and dronken or hyld in by a **clysterye** prouokeþ menstrue. (a1425 \*Arderne(3) 164v)  
 ['Sage sodden with wine and drunk, or held in by a clyster, provokes menstruation.']

*Clyster* is attested as "a contemptuous name for a medical practitioner" (*OED*, s.v. *clyster*, n.) only one century later (1621). That occurrence is to be found in (8), in a variant form with an initial voiced consonant:

- (8) What's that to you, or any, Yee dosse, you powdered pigsbones, rubarbe **glister**? (1621 J. Fletcher et al. *Trag. of Thierry* i. i. sig. B3v)  
 ['What concern of yours, or of anybody's, is that, you dose, you powdered pigsbones, bitter clyster?']

Two other lexical items have had strictly parallel semantic developments: i) *clyster-pipe*, whose first recorded meaning is "a tube or pipe for administering clysters" (1541, according to Norri, ed. 2016), and which then becomes "a contemptuous name for a doctor" (1622) (*OED*, s.v. *clyster-pipe*); ii) more recently, *squirt*, whose successive meanings are "a small tubular instrument by which water may be squirted; a form of syringe" (a1475, according to Norri, ed. 2016) and "doctor, or chemist" (1859), the latter being restricted to slang use (*OED*, s.v. *squirt*, n.).

### 3.5. *Pisspot* ('physician': no later than 1592)

The first element in this compound is a deverbal noun borrowed from **Anglo-Norman (hereafter AN)** and OF, while the second noun comes from **Old French (hereafter OF)**, but is probably a Latin loan-word (*pottus*) later reinforced by the equivalent words in AN and OF.

*Pisspot* is first attested with the meaning “a chamber pot or other pot for holding urine”. Its earliest occurrence is in *the Promptorium Parvulorum*, an English-to-Latin dictionary completed about the year 1440, where it is simply juxtaposed to its Latin equivalents (*jurdanus, madella, madula, urna*), and further on glossed as “pyssynge vessel”. I have selected an 18<sup>th</sup> century instance of this use, in context:

- (9) They hold a **Piss-pot** over the Womens Heads whilst in Labour, thinking it to promote hasty Delivery. (1744 *Philosophical Transactions 1742-3* (Royal Soc.) 42 614)

In the late 16<sup>th</sup> century (1592), that is to say a century and a half after its first appearance in writing, *pisspot* is found to designate also ‘a physician’:

- (10) Had Phisition Iohn liu’d, (...) a sinode of **Pispots** would haue concluded, that Pierce Pennillesse should be confounded without repriue. (1592 T. Nashe *Strange Newes* sig. G2v)  
[‘If Physician John had lived, (...) an assembly of pisspots would have concluded that Pierce Pennillesse should be silenced without delay.’]

Metonymy undoubtedly accounts for the semantic evolution observed and the polysemy thus created. More precisely, it is an instrument-for-person type of metonymy, because it was common practice for physicians at the time to assess their patients’ condition and detect a disease by examining their urine: “Many Medieval doctors carried with them a **vademecum** [...] book of diagnoses and a **urine chart**. Usually, they examined the colour, smell and taste of the patient’s urine, and made an on-the-spot guess as to what they might be suffering from.” (source: BBC website, cf. References). The author of the entry for *pisspot* in the *OED* seems to be of the same opinion, since the (depreciative) meaning ‘a physician’ is thus justified: “Prob. from the former practice of diagnosing illness by inspecting a patient’s urine. Cf. PISS-PROPHET n.”.

### 3.6. *Medicine* (‘physician’: no later than 1450)

On the one hand, we have *medicine*<sup>1</sup> (I adopt here the numbering of the items in the *OED*, to whose entries I am referring again); it is a noun meaning “a substance or preparation used in the treatment of illness”. It comes from AN, OF and **Middle French (hereafter MF)** *medicine*, ‘medicine, medicament, remedy’ (first half of the 12<sup>th</sup> century), ‘the art of medicine’ (late 13<sup>th</sup> century), and the French terms themselves go back to classical Latin *medicina*. *Medicine*<sup>1</sup> first appears in writing in the *Ancrene Riwe* (c1225):

- (11) Pu seist þet nis nan need **medicine**. (?c1225 (►?a1200) *Ancrene Riwle* (Cleo. C.vi) (1972) 136)  
 [‘You say that there is no need of medicine[s].’]

On the other hand, we have *medicine*<sup>2</sup>, a noun denoting ‘a medical practitioner’. It comes from MF *medecin/medicin* (12c), which is probably a deverbal noun derived from the OF verb *medeciner, mediciner*. *Medicine*<sup>2</sup> is attested two centuries after *medicine*<sup>1</sup> (in 1450). In the following example we have *medicines* (the plural form of *medicine*<sup>2</sup>) in coordination with the noun *surgens*, while the second occurrence of *medicine*, coordinated with *hele*, is the infinitive form of the verb:

- (12) She hadde her **medicines** [Fr. fisiciens] and surgens foreto hele and medicine all suche as were nedefull. (?c1450 tr. Bk. Knight of La Tour Landry (1906) 137)<sup>6</sup>  
 [‘She had her physicians and surgeons give medical attention to all those who were in need of help.’]

The difficulty in this case is to check the etymological data provided by the *OED* against other sources. As *medicine*<sup>2</sup> is no longer part of the English word-stock (cf. Table 1), the other etymological dictionaries consulted (cf. References) contain no information on the word, their entries concerning mainly extant items and meanings.

If indeed *medicine*<sup>1</sup> and *medicine*<sup>2</sup> are two homophones, the examples surveyed so far, especially those involving a curative-for-person type of metonymy (i.e. *pill(s)* and *therapeutic*) lead me one step further. I would like to suggest that these homophones may well have been reinterpreted, the reinterpretation giving rise to polysemy through popular etymology. To the best of my knowledge, this process was first described by Bloomfield, who is quoted by Ullmann (1962, 164):

Polysemy can also arise through a special form of popular etymology (...). When two words are identical in sound and the difference in meaning is not very great, we are apt to regard them as one word with two senses. Historically these are cases of homonymy since the two terms come from different sources; but the modern speaker, unaware of etymologies, will establish a link between them on purely psychological ground.

This type of polysemy is very rare and most of the examples are doubtful since, as Bloomfield rightly points out, ‘the degree of nearness of the meanings is not subject to precise measurement’ (*Language*, p.436).

If this hypothesis is correct, then *medicine* has not been subject to a metonymic development properly speaking, but the reinterpretation process of the

homophones has resulted in polysemy, just as metonymization would have. On the other hand, *medicine*<sup>1</sup> and *medicine*<sup>2</sup> may not be homophones, in which case the meaning ‘a medical practitioner’ would originate in a metonymization process. Given the established international reputation of the *OED* on the one hand, given the absence of information in other sources, I will opt for a reinterpretation of a pair of homophones.

### 3.7. *Leech* (‘physician’: no later than c900)

*Leech* is a reflex of OE *læce* ‘doctor, physician’ (*BTS*, s.v. *leech* I):

- (13) Him stod stincende steam of þam muþe: swa þæt earfoðlice ænig **læce** him mihte genealæcan. (Clemoes, P.A.M. *Ælfric’s Catholic Homilies: The First Series, Text*, EETS s.s. 17 [0063 (221.135)])  
[‘Smelly steam came from his mouth, making it difficult for any doctor to draw near to him.’]

The same word exactly (with the same long *æ* vowel, and the same spelling in the late West-Saxon standard) referred to the ‘bloodsucking worm’ in OE. It is found for instance in *Ælfric’s Glossary*, in the *Nomina Insectorum* section:

- (14) Sanguisuga, **læce** (Quinn, J.J. ‘The Minor Latin-Old English Glossaries in MS. Cotton Cleopatra A.III’, *Arbeiten aus Anglistik und Amerikanistik* 14 [0059 (59)])

Medieval medicine made extensive use of leeches, “the idea being that the worm would consume corrupting substances from an inflamed lesion” (Sylwanowicz 2003, 156). For this reason leeches can be considered a typical instrument (a curative agent) employed by medieval physicians.

From a lexical point of view, two competing hypotheses have to be discussed here, as with *medicine* before: i) *leech* was a polysemous word in OE, ii) *leech*<sup>1</sup> (‘physician’) and *leech*<sup>2</sup> (‘bloodsucking worm’) were a pair of homophones in OE. Logically enough, we should expect the dictionaries supporting hypothesis i) to have one lexical entry only, while hypothesis ii) makes it necessary for dictionaries to have two distinct entries. As we shall see now, no such logical arrangement of the lexical material is to be found: there is overall a definite amount of confusion, which I interpret as a sure sign of how complex the problem is.

Hypothesis i). *Leech* had become a polysemous word in OE, thanks to a metonymical development from ‘bloodsucking worm’ to ‘physician’, on account of the fact that medieval physicians made extensive use of leeches and that both had curative faculties. This is the position implicitly adopted in the Bosworth and

Toller's *An Anglo-Saxon Dictionary* (BTS), which contains one entry for *leech*. It also seems to be the implicit opinion of the authors of the *Thesaurus of Old English*, Roberts, Kay, and Grundy, as 'parasite' and 'physician' are grouped together in their index. Borden (1982) makes a similar decision with a single entry, yet adds an obscure remark in it concerning sense 2: "originally distinct from 1 but associated with it". If we now turn to etymological dictionaries, Klein (2003) seems to be the only author clearly supporting the polysemy hypothesis. Skeat (1961) opts for two distinct entries, but paradoxically writes "the same word as the above" in the second entry, which is quite confusing for the reader.

Hypothesis ii). *Leech*<sup>1</sup> ('physician') and *leech*<sup>2</sup> ('bloodsucking worm') were a pair of homophones in OE. This is the position adopted by Onions (1966), who yet makes a rather puzzling remark on *leech*<sup>2</sup>: "originally distinct from prec. but assimilated to it" (cf. Borden 1982 above). The *OED* too contains two separate entries, but its position on homonymy is more explicit and better argued, the following comment being adduced in the entry for *leech*<sup>2</sup>: "Commonly regarded as a transf. use of LEECH n<sup>1</sup>; this is plausible, but the forms Old English *lyce*, early Middle English *liche*, Middle Dutch *lieke*, suggest that the word was originally distinct, but assimilated to *lâce* LEECH n<sup>1</sup> through popular etymology". Barnhart & Steinmetz (1988), who also posit homonymy and transfer of meaning through popular etymology, claim that *leech*<sup>1</sup> was assimilated to *leech*<sup>2</sup>: theirs is just the reverse hypothesis of the *OED*'s.

Watkins' view (1985) might be very helpful in reaching a conclusion on such a complex subject. This scholar relates *leech*<sup>1</sup> to the PIE root *\*leg*<sup>1</sup> ('to collect', with derivative meaning 'to speak', cf. Latin *legere*), hence the Proto-Germanic root *\*lekjaz* 'enchanter, speaker of magic and healing words'. But he traces *leech*<sup>2</sup> to an altogether different root, *\*leig*<sup>1</sup> ('to bind', cf. Latin *ligare*).

Basing my decision mainly on the criterion of the PIE root, I will adopt the homonymy hypothesis and suggest the following chain of linguistic events: an original homonymy between *leech*<sup>1</sup> and *leech*<sup>2</sup> in OE gave rise to a two-way transfer of meaning through popular etymology, eventually resulting in polysemy. In other words, it would have been the same process as with *medicine* except that the reinterpretation operated *both ways*, resulting in merger (cf. Onion's assimilation). Both lexical items then developed a form of polysemy: *leech*<sup>2</sup> thus became 'the healer' (Haubrich 1997, 124, quoted in Sylwanowicz 2003, 156), and conversely *leech*<sup>1</sup> took on the meaning of 'blood-sucker' from the 15<sup>th</sup> century onwards (Sylwanowicz 2003, 156).<sup>7</sup> The value assigned to the word *leech*<sup>1</sup> can thus be said to have moved downward over the centuries, as the attitude of the speech community to physicians (the referent of *leech*<sup>1</sup>) altered negatively. This semantic process is known as pejoration (McMahon 1994, 179).

*Leech*<sup>1</sup> 'doctor' was eventually lost in English, its replacement by *physician* being completed at the turn of the 16<sup>th</sup> century (Sylwanowicz 2003, 161-162). I venture that pejoration brought about a situation that was incompatible with

the new prestige gained by physicians as part of their university education (more about this in the next section), thereby weakening the position of *leech* in the English word-stock to a greater extent (cf. Sylwanowicz 2003 for other causes).

From a more general perspective, I think that pejoration is the mechanism underlying the type of metonymy discussed here, which now leads me to the last section.

#### 4. Pejoration

Let us leave *quack*, *medicine* and *leech* out, for the reasons stated above: we are left with four names of the physician in English which it is reasonable to assume have metonymically evolved from names of medical instruments. In chronological order, these are *pisspot*, *clyster*, *therapeutics*, and *pill(s)*.

If we posit that some kind of analogy has been at work between them, then a problem arises: analogy is essentially a synchronic process, while these lexemes belong to different periods in the history of English. There is even a two-century time gap between *clyster* and *therapeutics*, which means that *clyster* ‘physician’ very likely had fallen into disuse at the time *therapeutics* was developing its own polysemy.

If analogy has to be ruled out, then we must be dealing with a series of independent changes, which bear on individual items but testify to the regularity of semantic change. I suggest that at different times and for various reasons, societal attitudes to physicians have deteriorated in England; this triggered the metonymization process discussed here, and in turn the emergence of new, often strongly negative words denoting physicians. I will now examine what linguistic evidence of pejoration we have, its cultural reasons, and the way metonymization might have been “affected on-line” (cf. Paradis 2011, 63) in the context of speaker-addressee negotiation of meaning.

##### 4.1. Linguistic evidence of pejoration

For lack of space, I have restricted myself to the evidence found in the *OED*, from whose entries I quote below, but similar indications can be found in numerous other dictionaries.

If we take the case of *pisspot*, clearly the metonymic shift goes hand in hand with pejoration, as the dictionary labels the meaning “physician” as “depreciative”, while the extended use of the synonymous compound *piss-prophet* is paraphrased as “a quack doctor”. *Quack* and its original form *quacksalver*, as has already been mentioned, carry very derogatory connotations in the varieties of English other than Australian and New Zealand English, being associated with the idea

of charlatanism: a quack is “a person who dishonestly claims to have medical or surgical skill, or who advertises false or fake remedies; a medical impostor”; along the same lines a quacksalver is “a pedlar of false cures”. *Clyster* and *clyster-pipe* are both described as “a contemptuous name for a medical practitioner”. In the sense of “a doctor, or chemist”, the noun *squirt* (briefly mentioned here after *clyster*) is considered slang. The same goes for *pill(s)* and for the whole series of compounds *pill-monger*, *pill peddler*, *pill pusher*, *pill-roller*, *pill shooter* – *pill(s)* itself being chiefly a military slang word.

Finally, no trace of pejoration can be found regarding *medicine* – which should be an additional argument for leaving the word out of the list, as suggested earlier.

#### 4.2. Cultural reasons for pejoration

First I will look for the cultural reasons for pejoration in the representations of the medical profession in medieval Europe between the 12<sup>th</sup> and the 15<sup>th</sup> centuries, and in particular in the developments that followed the institution of university education. I will then consider post-15<sup>th</sup> century representations more briefly.

Medieval physicians were authority figures, and appear prone to impose unpleasant advice, prescriptions and constraints on their patients, whose own experience and representations of ill-health might have clashed with their physician's,<sup>8</sup> – not to mention preventive prescriptions imposed on those who felt healthy (Nicoud 2006, 3). PDE expressions containing *pill* (such as *a bitter pill to swallow* or *that kid is a real pill*) and the meaning of the noun bear testimony to this, even in this day and age: “a remedy or solution, esp. one which is unpleasant but necessary; (more generally) something unpleasant which has to be accepted or endured.” (*OED*, s.v. *pill*<sup>9</sup>).

It is also relevant to take into account the physicians' new prestige gained as part of their university education. In England the first medical faculties were set up in Oxford in the late 13<sup>th</sup> century and in Cambridge a century later. University education reinforced the divide between surgeons and surgeon barbers, who dealt with wounds and operated on patients, and physicians, who were taught to look down on manual practice as a lower form of medicine. Physicians then increasingly appeared as men of bookish learning, trapped in sterile arguments (Darricau-Lugat 2007, 13), and their obscure and learned jargon has since been a popular standing jest (Jacquart and Thomasset 1989, 42).

The development of university education gave rise to a deeply unequal and hierarchically organized body of people: not only did physicians insist on being distinguished from surgeons, but also court physicians did not want to be confused with town or hospital physicians. From 1350 onwards, the medical profession became increasingly urban, and its services could be afforded mainly by well-off patients, while lower urban classes and country people had to resort to



surgeons; some physicians even became notorious for their greed (Darricau-Lugat 2007, 10).

Let us now consider issues of competence. Even though the value of medieval medicine has to be assessed in the context of its time and place (cf. Cameron 1993, 4), there is no denying that confronted with a serious case or an epidemic, more often than not medieval physicians would be out of their depth or even helpless. This may have reinforced the popular tendency to ridicule them – or some characteristic of theirs, like their technical language. Even when their ability was not directly called into question, medieval physicians had to constantly heed the potentially harmful consequences of their decisions and prescriptions. Negative consequences never failed to bring about social disapprobation or condemnation, and historians tell us that physicians were not safe from insults and aggression either (Darricau-Lugat 2007, 12).

The late Middle Ages is also the time when physicians were quite seriously put to the test by the 1348 plague epidemic and its subsequent endemic episodes; pressed by the local authorities for therapeutic and prophylactic measures, they (or at least a substantial number of them) were tempted to come up with magico-astrological explanations and treatments (Nicoud, 2006, 4). The argument that the study of cosmic cycles was part of diagnosis and treatment soon led physicians from medical to non-medical horoscopes, and prompted them to turn to astrology as their new profession. Such a drift suggests that the boundary between medical practitioners and impostors was somewhat blurred (Darricau-Lugat 2007, 9), all the more so as the profession found it difficult to restrict medical practice to the duly authorized (as the word *medicus* with no accompanying academic title did not make it possible to tell an authorized medical practitioner from a charlatan, access to the medical profession became increasingly monitored from the 13<sup>th</sup> century onwards). It is difficult to view these elements as entirely disconnected from the particular use of the verb *doctor* “which implies craft and dishonesty” (Dirckx 1976, 134; cf. also *OED*, s.v. *doctor v.*, §3).

To sum up, the overall picture between the 12<sup>th</sup> and the 15<sup>th</sup> centuries is that of a university-trained profession with newly gained prestige, a disregard for any kind of manual practice as a lower form of medicine, and a learned jargon which was the object of popular jest. Access to the profession was not as strictly controlled as it is today, and the study of astrology in which they engaged further blurred the borderline between the medical science of the time and charlatanism proper. Pejoration can be said to fit in quite well with such a description.

If we now consider the later period (corresponding to early and late Modern English), we have continued evidence of very negative views and representations of doctors in Great-Britain (as in some other European countries). A number of popular plays, engravings and caricatures portray the profession with a number of identifying features, among which greed is probably the most important one. A caricature by Richard Dighton in 1793, “Three affluent doctors congratulating

themselves their profession” can be mentioned here; its caption reads: “How merrily we live that doctors be, We humbug the public and pocket the fee!”

Another identifying feature is smug confidence and superficialness, a concern with looking wealthy and fashionable, symbolized by the size of the wig, as in Henry Fielding’s farcical comedy *The Mock Doctor* (first staged in 1732): “for a physician can no more prescribe without a full wig than without a fee.”

A caricature by Thomas Rowlandson called “Medical Dispatch: Doctor Doubledose Killing Two Birds with One Stone” (1810) represents a doctor pretending to examine an old and unattractive lady (probably for an important fee) while taking advantage of the lady’s young and pretty servant. Such a caricature tells us plainly that greed and high living often went hand and hand with lasciviousness.

General incompetence and lack of care for their patients is eloquently shown in a satirical engraving by William Hogarth, “The Company of Undertakers” (1736). “They [doctors] are either in it for the money, or more interested in arguing with their peers about diagnoses and prescriptions. From William Hogarth to Thomas Rowlandson, we find representations of disputatious doctors ignoring their dying patients.” (<https://www.theguardian.com/science/the-h-word/2016/feb/25/how-to-spot-doctor-before-stethoscope-history-medicine>). Physicians may even be represented as deliberately spreading death, as in a 1808 satirical engraving by Isaac Cruikshank, “Vaccination against Smallpox: Mercenary & Merciless Spreaders of Death & Devastation Driven out of Society”.<sup>9</sup>

“[More recently] doctors continued to make money from their patients and to offer ineffective treatment. Suspicion of them and their motives did not go away (think [of] Dr Frankenstein, Dr Moreau or even the medical figures in *The Simpsons* – chuckling Dr Hibbert and quack Dr Nick).” (<https://www.theguardian.com/science/the-h-word/2016/feb/25/how-to-spot-doctor-before-stethoscope-history-medicine>). Therefore we have ample evidence in the post-15<sup>th</sup> century period of a continued tradition of mocking and ridiculing doctors (which is not to say that it is their *only* representation<sup>10</sup>) and of continued pejoration.

### 4.3. Metonymization

If my claim concerning pejoration-induced metonymy is correct, then what has taken place with *pisspot*, *clyster*, *therapeutics* and *pill(s)* is a three-stage process leading from metonymy through polysemy to semanticization.

Let us take *clyster* for instance. With reference to Traugott’s theory of semantic change (cf. Traugott and Dasher 2002, 34–40), the initial stage (i) is when that lexical item refers to a medical instrument, and accordingly its coded meaning is “a pipe or syringe used in injection” (see 2.4 above). Then, at stage (ii), a pragmatic meaning arises in the context of speaker-addressee interaction and negotiation of

meaning, that of ‘medical practitioner, physician’; the pragmatic meaning does not displace the initial one, but rather is superimposed on it. At stage (iii), contexts can be found where the initial meaning is no longer accessible: ‘physician’ then can be said to have become an encoded meaning of *clyster*, and the word *clyster* to have become polysemous. Stage (iii) is referred to as *semanticization* (and as *conventionalization* in Paradis 2011); it requires the new meanings to be conventionally coded by the forms, resulting in new form-meaning pairs, e.g. the <form *clyster* – meaning ‘physician’> pair .

Constructions have been shown to play an important part in fostering change (cf. Paradis 2011, 80, among others), so let us now turn to the contexts favouring the inference of the pragmatic meaning ‘physician’. I think they are those constructions in which the lexical items are used as forms of address, as in (15), which is the earliest known occurrence of *clyster-pipe* with the meaning ‘physician’:

- (15) Thou stinking **Glist**er-pipe, where’s the god of rest, Thy Pills, and base Apothecary drugges Threatned to bring vnto me. (1622 T. Dekker & P. Massinger *Virgin Martir* iv. sig. H3v)

Let us consider the first part of the utterance only, *Thou stinking Glist*er-pipe, *where’s the god of rest*, as might have been uttered by an irritated patient after receiving treatment. It does not seem in any way far-fetched or implausible to say that the meaning of *clyster-pipe* here could be the one conventionally associated with it at the time, i.e. ‘a pipe or syringe used in injection’. But if we now take the other half of the utterance, *Thy Pills, and base Apothecary drugges Threatned to bring vnto me*, the meaning ‘physician’ is inferred, arising pragmatically in the context of speaker (patient) – addressee (doctor) negotiation of meaning. In theoretical terms, it is an “invited inference”. The coded meaning ‘a pipe or syringe used in injection’ being still accessible in the context, it follows quite naturally that the pragmatic meaning ‘physician’ is laden with negative connotations.

As a working principle, as long as the original coded meaning is accessible, we should assume that the invited inference is just that, a meaning derivable from the semantics in combination with the discourse context. In written records, clear evidence of semanticization of a polysemy typically comes from the appearance of an item in a “new” context in which the earlier meaning(s) of the item would not make sense. (Traugott and Dasher 2002, 44)

Example (16) represents the semanticization stage of the polysemy of *pill(s)*:

- (16) They seized the Young Doctor, who was a small man, and deposited him on the deck. ‘Couldn’t you see I was asleep, **Pills**?’ demanded the other. (1915 ‘Bartimeus’ *Tall Ship* ix. 159)

Finally, example (8), already quoted above, is of special interest, first because it represents the semanticization stage of *clyster*'s polysemy:

- (8) What's that to you, or any, Yee **dosse**, you powdered pigsbones, rubarbe **glister**? (1621 J. Fletcher et al. *Trag. of Thierry* i. i. sig. B3v)  
 ['What concern of yours, or of anybody's, is that, you dose, you powdered pigsbones, bitter clyster?']

Then, the strict syntactic parallelism between the three NPs used as forms of address, viz. [<sub>NP1</sub> *Yee dosse* <sub>NP1</sub>], [<sub>NP2</sub> *you powdered pigsbones* <sub>NP2</sub>], [<sub>NP3</sub> *rubarbe glister* <sub>NP3</sub>], strongly suggests that the noun *dose* too (of which *dosse* is a variant form) means 'doctor', and has gone through the three-stage process metonymy-polysemy-semanticization (the polysemy being "a quantity of a medicine prescribed to be given at one time" + "doctor"). Such semantic change is attested for *doser* in 1888, but has never been described for *dose*, as far as I know. So, if this hypothesis proves to be correct, this is new lexicographical information.

## 5. Conclusion

To the best of my knowledge, the instrument-for-person type of metonymy in the field of medical English has never been studied in its own right, although it concerns more items than the garment-for-person type. Both involve a shift from contentful to contentful meaning. It is my contention that the former type of metonymy is responsible for the semantic evolution of four lexical items (*pisspot*, *clyster*, *therapeutics* and *pill(s)*), resulting in polysemy and then, with semanticization, in the creation of new names for the physician. As we have seen, *quack*, *medicine* and *leech* are irrelevant here: *quack* is a shortened form of *quacksalver*, which is not a variant of *quicksilver*, and so turns out to be unrelated to the thermometer as a medical instrument;<sup>11</sup> *medicine* and *leech* most probably were not polysemous lexical items but nouns referring to physicians with homophones designating a contemporary medical instrument.

I have looked for the reasons for metonymization, and argued that it was pejoration, reflecting a downward move in evaluative attitude towards physicians on the part of speakers. I have put forward cultural arguments that have to do with the representations of the medical profession in medieval Europe between the 12<sup>th</sup> and the 15<sup>th</sup> centuries, following the development of university education. When pejoration occurs in post-15<sup>th</sup> century times (Modern and Present-Day English), cf. *pill(s)* for instance), I have tried to demonstrate that this too was the expression of a long-standing societal attitude towards physicians consisting in mocking and caricaturing them.

I have also suggested that the contexts which made the meaning ‘physician’ possible in the first place (i.e. as a pragmatic inference) are those where the lexical items are used as forms of address: the patient addresses a/his physician disrespectfully by using the name of an instrument of his, the latter being somehow present in the situation, if only in the speaker’s mind, as part of their medical knowledge.

Thus, at different intervals in the history of English, the wish to deride and mock would have regularly resulted in the coining of physician names from instrument names, and such coinages were all the more wickedly facetious when their starting point was an instrument like the clyster.

## Notes

- 1 Different colleagues have read the first draft of this paper, and I wish to acknowledge their kind help: they are Dr Vincent Hugou, Dr Pascaline Faure (who also gave me relevant bibliographical advice), Professor Jean-Marc Gachelin (who shared his thought-provoking remarks on the etymology of *leech* with me), and Professor David Denison of Manchester University. I also wish to warmly thank the two anonymous reviewers from *Anglica*, whose careful reading and very useful suggestions have improved this article a lot. I take full responsibility if the latter or parts of it turn out to be inaccurate or incomplete.
- 2 For other types of shift, see Paradis (2011, 77-80).
- 3 For a detailed presentation of the *Historical Thesaurus of English*, cf. Ayumi Miura. 2015. *Middle English Verbs of Emotion and Impersonal Constructions: Verb Meaning and Syntax in Diachrony*. Oxford & New York: Oxford University Press (Oxford Studies in the History of English), 50–52.
- 4 Cf. *OED* s.v. *-er*, suffix<sup>1</sup>. For morphological and etymological information I rely on the works listed above, in the “etymological dictionaries” subsection.
- 5 This hypothesis fits in with the etymological information given in the entry *kwakzalver* in I. de Vries, and F. de Tollenaere. 1958–1991. *Etymologisch Woordenboek*. Het Spectrum: “man die met huismiddeltjes geneest” [‘man who cures with home remedies’].
- 6 I would like to answer a suggestion made by one of the reviewers of this paper, that the noun *medicine* here could in actual fact be *mediciner* (a noun also designating the physician), since in medieval manuscripts the suffix *-er* could be represented with a diacritic (a hook) – which might easily have been misinterpreted or gone unnoticed. I am not of this opinion. First, *mediciner* is very rare in Middle English. The *MED* entry contains one quotation only (Chauliac, a1425, a translation). Secondly, the abbreviation would result here in the form *medicineer*, not *mediciner*. Since the text (by La Tour Landry) as

- I read it has a perfectly acceptable meaning, it seems very difficult to justify why it should be thus altered. I am thankful to Professor Stephen Morrison, who has edited so many ME texts, for his kind help with this question.
- 7 The *OED* suggests a different time period for the emergence of “one who ‘sticks to’ another for the purpose of getting gain out of him”, i.e. the late 18<sup>th</sup> century. It is also worth pointing out that contrary to Sylwanowicz (2003), it relates that meaning to *leech*, n.<sup>2</sup> (the parasite, not the physician). We interpret this as yet another indication of the very close semantic links between the two lexical items – maybe also of a certain confusion in lexicographical sources.
- 8 Nicoud (2006, 3) gives the example of Francesco Sforza, Duke of Milan, who rebelled against his physician, forcing him into the same diet as the one he had prescribed so that he would realize the great inconvenience it caused.
- 9 This engraving is both displayed and described on the **British** Museum’s website ([http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=1670695&partId=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=1670695&partId=1)).
- 10 Cf. for instance <http://gallica.bnf.fr/blog/08122015/la-representation-des-medecins>.
- 11 We have seen that a metonymic development probably took place from the curative called *salve* to the physician name *quacksalver*, but anyway as quacksalver is a compound, it cannot be included in this study.

## References

- Barber, Charles. 1993. *The English Language: A Historical Introduction*. Cambridge, New York, Melbourne: Cambridge University Press.
- Cameron, Malcolm Laurence. 1993. *Anglo-Saxon Medicine*. Cambridge: Cambridge University Press.
- Darricau-Lugat, Caroline. 2007. “Regards sur la profession médicale en France médiévale (XII<sup>e</sup> –XV<sup>e</sup>)”. *Cahiers de recherches médiévales* 6 | 1999. URL: <http://crm.revues.org/939>; DOI: 10.4000/crm.939 (last accessed May 30, 2016).
- Dirckx, John H. 1976. *Language of Medicine: Its Evolution, Structure and Dynamics*. New York: Joanna Cotler Books.
- Faure, Pascaline. 2014. “Du sildénafil citrate au Viagra® ou l’art délicat de nommer les médicaments.” *Terminology* 20 (1) : 74–91.
- Faure, Pascaline. 2015. “La langue du patient, de l’archaïsme à l’orthonyme: analyse comparative français/anglais.” *Les Cahiers de Lexicologie* 106 (2015-1): 213–228.
- Hunt, Tony. 1990. *Popular Medicine in Thirteenth-Century England: Introduction and Texts*. Cambridge: Cambridge university Press.

- Jacquart, Danielle, and Claude Thomasset. 1989. *Sexuality and Medicine in the Middle Ages*. Princeton, N.J.: Princeton University Press.
- McMahon, April. 1994. *Understanding Language Change*. Cambridge: Cambridge University Press.
- Nicoud, Marilyn. 2006. "Éthique et pratiques médicales aux derniers siècles du Moyen Âge." *Médiévales* 46 | printemps 2004. URL: <http://medievaux.revues.org/1147> (last accessed May 30, 2016).
- Norri, Juhani. 1992. *Names of Illnesses in English, 1400-1550. An Exploration of the Lexical Field*. *Annales Academiae Scientiarum Fennicae (Dissertationes Humanarum Litterarum 63)*. Helsinki.
- Norri, Juhani. 2004. "Entrances and Exits in English Medical Vocabulary, 1400-1550." *Medical and Scientific Writing in Late Medieval English*. Ed. Irma Taavitsainen, and Paivi Pahta. Cambridge: Cambridge University Press. 100–143.
- Paradis, Carita. 2004/2010. "Where Does Metonymy Stop? Senses, Facets, and Active Zones." *Metaphor and Symbol* 19.4: 245–264. Reprinted in *Metaphor and Figurative Language: Critical Concepts in Linguistics*. Ed. Patrick Hanks, and Rachel Giora. Amsterdam: Routledge.
- Paradis, Carita. 2011. "Metonymization: A Key Mechanism in Semantic Change." *Defining Metonymy in Cognitive Linguistics: Towards a Consensus View*. Ed. Réka Benczes, Antonio Barcelona, and Francisco José Ruiz de Mendoza. Amsterdam & Philadelphia: John Benjamins. 61–89.
- Sylwanowicz, Marta. 2003. "Leech, Doctor, Physician: On the Loss of Prototypical Meanings." *Anglica* 13: 151–164.
- Sylwanowicz, Marta. 2007. *Old and Middle English Sickness-Nouns in Historical Perspective: A Lexico-Semantic Analysis*. (Warsaw Studies in English Historical Linguistics 1). Warsaw: Institute of English Studies.
- Taavitsainen, Irma, Paivi Pahta, and Matti Mäkinen, eds. 2005. *Middle English Medical Texts (MEMT)*. (CD-ROM with MEMT Presenter software by Raymond Hickey). Amsterdam & Philadelphia: John Benjamins.
- Taavitsainen, Irma, and Paivi Pahta. 2011. *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press.
- The BBC website. URL: <http://www.bbc.co.uk/schools/gcsebitesize/history/shp/middleages/>
- The Dictionary of Old English Web Corpus [DOEWC]*. University of Michigan. URL: <http://doe.utoronto.ca/pages/pub/web-corpus.html>
- Traugott, Elizabeth Closs, and Richard B. Dasher. 2002. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.
- Ullmann, Stephen. 1962. *Semantics: An Introduction to the Science of Meaning*. Oxford: Blackwell.

### Etymological dictionaries

- Barnhart, Robert K., and Sol Steinmetz. 1988–2003. *The Chambers Dictionary of Etymology*. Edinburgh & New York: Chambers.
- Klein, Ernest. 2003 [1966-67]. *A Comprehensive Etymological Dictionary of the English Language*. Amsterdam: Elsevier.
- Onions, Charles Talbut, ed. with the assistance of George Washington Salisbury Friedrichsen, and Robert William Burchfield. 1966. *The Oxford Dictionary of English Etymology*. Oxford & New York: Oxford University Press.
- Skeat, Walter William. 1961 [1879–82]. *An Etymological Dictionary of the English Language* (new ed. revised and enlarged). Oxford: Clarendon Press.
- Watkins, Calvert. 1985. *The American Heritage Dictionary of Indo-European Roots*. Boston: Houghton Mifflin Company.
- The Oxford English Dictionary [OED]*. URL: <http://0-www.oed.com.sso.scd.univ-tours.fr/>

### Other dictionaries

- Borden, Arthur. 1982. *A Comprehensive Old English Dictionary*. Washington, D.C.: University Press of America.
- Bosworth, Joseph, and Thomas Northcote Toller. 1898 (main volume)–1921 (supplement). *An Anglo-Saxon Dictionary, Based on the Manuscript Collections of the Late Joseph Bosworth [BTS]*. Glasgow, New York, Toronto: Oxford University Press.
- Also available online: URL: [http://lexicon.ff.cuni.cz/texts/oe\\_bosworthtoller\\_about.html](http://lexicon.ff.cuni.cz/texts/oe_bosworthtoller_about.html)
- Kay, Christian, Jane Roberts, Michael Samuels, Irené Wotherspoon, and Marc Alexander, eds. 2015. *The Historical Thesaurus of English* (version 4.2) [HTE]. Glasgow: University of Glasgow. URL: <http://historicalthesaurus.arts.gla.ac.uk/> (last accessed on May 22, 2016).
- Norri, Juhani, ed. 2016. *The Dictionary of Medical Vocabulary in English, 1375-1550* (2 vols.). Abingdon, Oxon, New York [etc.]: Ashgate.
- Roberts, Jane, Christian Kay, and Lynne Grundy. 2000. *A Thesaurus of Old English* (2 vols.) (King's College London Medieval Studies 11). Amsterdam & Atlanta: Editions Rodopi B.V.
- Wentworth, Harold, and Stuart Berg Flexner (compilers and eds.). 1960. *Dictionary of American Slang*. New York: Thomas Y. Crowell Co.
- The Middle English Dictionary*. URL: <http://hti.umich.edu/mec/>