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Introduction

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This volume of *Token: A Journal of English Linguistics* originates from the first international conference on historical medical discourse (CHIMED-1) organized by the University of Milan in June 2017. This event brought together more than forty researchers of various fields: social historians and historians of medicine, historical linguists researching on medical discourse in its various manifestations, and literary critics interested in illness and health-related issues as literary topics. The diachronic and cross-disciplinary perspectives of the conference proved so successful and inspiring that continuation was immediately agreed upon. CHIMED-2 was held in Helsinki in June 2019, and CHIMED-3 is currently being planned in London for 2021.

A great number of the contributions to the Milan conference came from scholars working on English language and linguistics. Indeed, ESP (English for Special Purposes) has long been a staple element of English language teaching and learning worldwide, and research on various aspects, including the diachronic dimension, is blooming. Recent decades have shown an increasing interest in historical aspects, including the initial stages and various traits of development of special language varieties, especially that of medicine, but those of other fields as well. The multifarious nature of specialized discourse from academic communication to didactic texts and popularizations showing different levels of adaptation to various audiences has also been fostered among English scholars. This interest has been generated for several different reasons. First of all, an increasing number of historical corpora have been made readily available with new comprehensive data in an accessible form. This state of affairs has promoted corpus linguistic studies on language use in a diachronic perspective. Furthermore, digital databanks like *Early English Books Online*

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(*EEBO*) and *Eighteenth-Century Collections Online* (*ECCO*) have brought big data to individual scholars' desks. These developments have made it possible to study with more precision scientific English in its different uses. Scholars are encouraged to customize their own selections for their own purposes; this recommendation opens up even more new avenues for research. Secondly, current trends in historical linguistics, with an emphasis on sociolinguistics and pragmatics, have called for studies on hitherto neglected areas of written language in publications meant for less educated readerships. A wide variety of data sources with translations, popularized versions of important texts as well as more ephemeral writings, have received attention and initiated the study of language history 'from below'. All this is particularly relevant to medical language and discourse, as medicine has always been considered one of the most important fields of science, covering both technical and practical aspects. Health issues are of concern to all people and pertain to culture in general, providing the varying macro context. These different element form the background against which research published in this issue of *Token* was conducted and against which the papers should be read.

The articles of the present issue make up a fairly tightly focused and coherent collection. The topics illuminate important aspects of specialized lexis and its development in the language of medicine in the Early and Late Modern English periods. During this time Latin was in the process of losing its monopoly as the language of science and technology in Europe, and the vernacular took over in England as the major language of publications. Reference works, such as dictionaries and encyclopedias, played an important role as agents of popularization of science and dissemination of knowledge.

The first paper, authored by Giovanni Iamartino and Giulia Rovelli, analyses the lexicological and lexicographical characteristics of *A Physical Dictionary*, a 13-page medical glossary appended to the English edition of Lazare Rivière's *Praxis Medica*, translated by Nicholas Culpeper and others, and published by Peter Cole as *The Practice of Physick* in 1655. This glossary was aimed at literate but not highly educated readers of Rivière's book in English. The audience role can be verified by the text, which provides easier language equivalents of the many technical terms that are part and parcel of a medical book of this kind. It is a useful addition to Rivière's treatise in English and further evidence of Nicholas Culpeper's long-lasting activity as a translator and popularizer of medical discourse in seventeenth-century Britain.

The contribution by Lucia Berti deals with more or less the same period, the second half of the seventeenth century and the very beginning of the eighteenth. The medical texts she discusses come from, and are meant

for, more learned people, the Fellows of the Royal Society and foreign gentlemen – more specifically, Italians – interested in the study of medicine. By examining twenty-five selected articles published in the *Philosophical Transactions* as either translations of Italian writings or reports of Italian research, Berti illustrates the main features of the Italian medical contributions to the early *Philosophical Transactions*, casting new light on a largely neglected aspect of the history of Anglo-Italian relations.

The next three papers focus on medicine in eighteenth-century dictionaries and encyclopedias. This century was characterized by extensive efforts to make science accessible to the general public. Various strategies were employed, as the following contributions show.

The paper by Alicia Rodríguez-Álvarez deals with the medical terms included in John Kersey's *Dictionarium Anglo-Britannicum* (1708), an abridged version of Kersey's revision of Edward Phillips's *The New World of Words* (1706). Her study discusses the lexicographer's methods of abridgement and assesses the importance given to medical terminology in portable volumes of this kind by comparing Kersey's *Dictionarium* with the *Glossographia Anglicana Nova* (1707). These works shared the same target readership, the same purposes, and the same emphasis on scientific terminology.

M. Victoria Domínguez-Rodríguez concentrates on the second important and innovative lexicographer of the eighteenth century, Nathan Bailey. She studies medical terminology in Bailey's *An Universal Etymological English Dictionary* (1721) by analysing Bailey's own definition of *medicine* and his strategies to single out and define medical terminology.

Medical terminology is also at centre stage in Elisabetta Lonati's article, but she approaches it from a different angle, through a selection of eighteenth-century British specialised dictionaries and universal dictionaries of arts and sciences. Her aim is to illustrate how scientific terminology was becoming more and more stable in those days. By selecting a number of medical terms related to some relevant areas of interest in eighteenth-century medical research and practice (e.g., inflammatory diseases, anatomical description, and surgical operations), Lonati highlights the underlying mechanisms that define the medical lexicon, and medical writing in general, in specialised language use.

The interest shifts to the nineteenth century with Magdalena Zabielska's and Anna Franca Plastina's papers. This era was important for medicine as it brought forth both novel methods of diagnosis and treatment, and advances in medical reasoning and discourse. Both papers analyze meaningful linguistic and stylistic features of two different kinds in texts for medical professionals, the *British Medical Journal* (*BMJ*) and Medical-Officer-of-Health reports.

Magdalena Zabielska explores the discourse of the late nineteenth-century case reports in *BMJ* in search of the linguistic manifestations of the changes taking place in the medicine of that period. She devotes her attention to the themes marking changes in medical reasoning as well as aspects like patient's presence, authorial persona and referential behaviour.

Anna Franca Plastina deals with an under-researched genre, the Medical-Officer-of-Health report. It emerged from the need to improve poor sanitary conditions in nineteenth-century industrialized Britain. She concentrates on *if*-conditionals and their macro-functions with sociohistorical meanings. Another matter addressed is how participants in MOH discourse are represented through such constructions. Plastina bases her analysis on a diachronic corpus evidencing the spread of smallpox infection in MOH reports from the mid-nineteenth to the early twentieth century. Her results reveal shifts in the semantic functionality of *if*-conditionals.

Finally, Kim Grego's paper proposes a terminological review of the word *euthanasia* and the concepts related to this practice. Her aim is to discover what changes occurred in the period between the mid-nineteenth and the mid-twentieth centuries, and what social and historical events prompted them. The study draws its data from the British newspapers *The Times* and *The Manchester Guardian* from the years 1864-1949. She offers a critical reflection on the changes that occurred to the term and concept of *euthanasia* in its social, ideological and period contexts, and attention is also paid to the role of the media.

In short, the topics dealt with in this collection of articles in *Token* form a focused and coherent whole, although treated by linguists of different backgrounds, specializations and interests. Historical medical discourse is a versatile field that offers plenty of possibilities for interesting research that can be conducted using fresh materials. This special issue gives evidence of the increasing interest in the large literature of medical writing including both professional texts and more popular adaptations. We are confident that this trend will continue in the future.

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A Physical Dictionary of 1655: When translating medical science is not enough

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ABSTRACT

This paper analyses the lexicological and lexicographical characteristics of *A Physical Dictionary*, a 13-page medical glossary appended to the English edition of Lazare Rivière's *Praxis Medica*, translated, among others, by Nicholas Culpeper, and published by Peter Cole as *The Practice of Physick* in 1655. Notwithstanding a few inconsistencies in the form of variant spellings, repetitions, and inaccuracies, the glossary can be described as a useful addition to Rivière's treatise as evidenced by its inclusion in the following editions of the English text. With its generally short (often one-word) definitions which tend to present the literate but not highly educated readers of Rivière's book in English with easier language equivalents of the many technical terms that are part and parcel of a medical book of this kind, *A Physical Dictionary* can, indeed, be described as further evidence of Nicholas Culpeper's long-lasting activity as a translator and popularizer of medical discourse.

Keywords: specialized lexicography, historical medical lexicography, vernacularization, medical popularization, knowledge dissemination, Nicholas Culpeper.

1. Introductory remarks[1]

The Practice of Physick (Culpeper et al. 1655), printed in London in 1655, is the English translation of the Latin treatise *Praxis Medica cum Theoria* (Rivière 1640), which was first published in 1640 by the renowned French

[1] This paper was jointly conceived, prepared, and written by the two co-authors, with Giovanni Iamartino responsible for sections 1, 2 and 4, and Giulia Rovelli for section 3.

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physician Lazare Rivière (1589-1655). Rivière's *Praxis Medica* came to be considered one of the two "reference textbooks of seventeenth-century practical medicine" (Rinaldi 2018: 49) together with Daniel Sennert's *Practicae Medicinae* (1628). The English translation of both these texts was attributed to Nicholas Culpeper (McCarl 1996), widely recognized as a key figure in the popularization of medical lore in seventeenth-century Britain (Thulesius 1992; Sanderson 1999). Indeed, Culpeper's name was found to be associated with 8.5% of all medical books published in English between 1641 and 1740 (Fissell 2007: 115), and among his published works figure "the only appearances in English of three of the most popular text books of their time" (Russell 1956: 159), i.e. Johann Vesling's *Syntagma Anatomicum* (1641), Jean Riolan's *Encheiridion Anatomicum et Pathologicum* (1649), and Thomas Bartholin's *Anatomia* (1641), respectively Culpeper 1653, 1657 and 1663.

Although books of popular medicine had been written in the vernacular since Anglo-Saxon and medieval times,[2] the seventeenth century saw the publication of a number of texts of a more learned nature, as either translations of important Latin treatises (see, e.g., Iamartino 2014 and Rovelli 2018) or original productions (Fissell 2007). This development, which was especially strong in the second half of the century, was related to at least three different beliefs: that the use of the mother tongue would make the scientists' job easier; that knowledge, and especially medical knowledge, should be made accessible to more, if not all; and that the English language was adequate and capable enough for specialized, scientific and technical usage.[3]

However, owing to the still dominant role of Latin as the language for international communication among scientists (Taavitsainen 2006: 688) and the recent great advances in experimental science, English was found to be lacking in scientific terminology (Taavitsainen – Pahta – Mäkinen 2006), a situation which could only be remedied by the introduction of a huge number of neologisms, either adopted more or less verbatim from Latin texts or derived from Latin or Greek roots (see, among others, Johnson 1944, Barber 1976, Görlach 1991, Nevalainen 1999). This process, while adding to the English lexical store and thus allowing British scientists to

[2] See Pahta – Taavitsainen (2004, 2010). Irma Taavitsainen and Päivi Pahta are the two scholars who have most systematically researched historical medical discourse in English: their most outstanding contributions include Taavitsainen – Pahta (2004), Taavitsainen – Pahta – Mäkinen (2005), Taavitsainen (2009), Taavitsainen – Pahta (2010, 2011), Taavitsainen (2017, 2018), Taavitsainen – Hiltunen (2019).

[3] Relevant information on Early Modern English is found in the still useful manuals by Barber (1976) and Görlach (1991).

communicate in their own mother tongue, also rendered these texts often extremely difficult to understand for anyone who had not had the privilege of a university education.

Given this linguistic and socio-cultural context, Nicholas Culpeper's *The Practice of Physick* is typical and peculiar at the same time. Typically, being the translation of a learned medical text, it is rich in technical terms, among them some 50 neologisms, a few of them certainly created by the translators/compilers themselves, others probably already in circulation but never before recorded in an English text, and undoubtedly introduced as the English equivalents of the Latin technical terms that were part and parcel of a medical book of this kind. However, what makes this text peculiar, or at least different from most others of a similar nature, is the fact that it also includes a 13-page glossary (Culpeper et al. 1655*:* unnumbered pages), supplied with its own title-page: *A Physical Dictionary, Expounding Such Words, as Being Terms of Art, or Otherwise Derived from the Greek and Latin, are Dark to the English Reader* (henceforth, *A Physical Dictionary*). It has been described as one of the possible sources of what Tyrkkö identified as the "first English dictionary to focus on medical terminology" (Tyrkkö 2009: 171; see also McConchie 2019: 68-77). Interestingly, this glossary does not simply list and explain all those learned medical terms and expressions that were felt to be incomprehensible for the intended readership of Rivière's translated book, but it is also declared to be "of use in the reading of all other Books of this Nature, in the English Tongue" (Culpeper et al. 1655*: A Physical Dictionary* title-page).[4]

Culpeper's book is described as being "chiefly a Translation" (Culpeper et al. 1655: cancel title-page) of Rivière's work, the adverb *chiefly* possibly alluding to the addition of the glossary but also to some adaptations and rewritings of the text itself, advertised in the address by "The Printer to the Reader" as a means of making it more comprehensible.[5] This can also be evinced from the fact that the translated text has two partially different title-pages, the first or cancel title-page describing the work as *The Practice of Physick, in Seventeen Several Books*, the second or inner title-page, perhaps boastingly, as *The Compleat Practice of Physick, in Eighteen Several Books*, since it includes the glossary in the number. According to both title-pages,

[4] McConchie (2019: 68) rightly notices that "the implication of general use puts it [*A Physical Dictionary*] beyond the scope of a glossary".

[5] Here it is stated that "many hard phrases in these Seventeen Books are explained in the Context, by more easie words following, which signifie the same with the foregoing hard word" (Culpeper et al. 1655: The Printer to the Reader).

the translation was jointly made by Nicholas Culpeper, Abdiah Cole and William Rowland, while a fourth translator is mentioned in the address by "The Printer to the Reader" as "an eminently learned and pious Physitian, who desires not to be named, being (as he saies) content with the applause of his own Conscience" (Culpeper et al. 1655: The Printer to the Reader).[6]

This prefatory text is very important for two different but related reasons. Firstly, it makes clear that this translation from Rivière's Latin text is further evidence of Nicholas Culpeper's long-lasting activity as a translator and popularizer of medical discourse, as evidenced by the very long list of his published works (see McCarl 1996 and Fissell 2007), and of the purpose he aimed at, namely instructing already competent people to substitute more learned physicians when none could be found, as the following quotation shows:

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[6] The cancel title-page, the inner title-page and the dictionary's title-page are perhaps worth reproducing in full:

The Practice of Physick, in Seventeen several Books. *Wherein is plainly set forth, The* Nature, Cause, Differences, *and Several Sorts of* Signs; *Together with the* Cure *of all Diseases in the Body of Man*. By *Nicholas Culpeper*, Physitian and Astrologer. *Abdiah Cole*, Doctor of Physick. And *William Rowland*, Physitian. Being chiefly a Translation of The Works of that Learned and Renowned Doctor, Lazarus Rivierius, Now living: *Councellor* and *Physitian* to the present *King* of *France*. Above fifteen thousand of the said Books in Latin have been Sold in a very few Yeers, having been eight times printed, though all the former Impressions wanted the *Nature, Causes, Signs*, and *Differences* of the Diseases, and had only the Medicines for the Cure of them; as plainly appears by the Authors Epistle. *The Names of the seventeen Books of the* Practice of Physick, *and the Principal Matters treated in each of them, are printed in one sheet of Paper, and put before these Books*. With these Books is bound a *Physical Dictionary*, explaining hard Words used in these Books, and others. London: Printed by *Peter Cole* in *Leaden-Hall*, and are to be sold at his Shop, at the Sign of the Printing-press in Cornhil, neer the Royal Exchange. 1655.

The Compleat Practice of Physick, in Eighteen Several Books. *Wherein is plainly set forth, The* Nature, Differences, Diagnostick, *and* Prognostick Signs. *Together with the* Cure *of all Diseases in the Body of Man*. By *Nicholas Culpeper*, Physitian and Astrologer. *Abdiah Cole*, Doctor of Physick. And *William Rowland*, Physitian. Being chiefly a Translation of The Works of that LearnIed and Renowned Doctor, Lazarus Rivierius: Now living, and Physitian to the present King of *France*. Above fifteen thousand of the said Books in Latin have been Sold in a very few Yeers, having been eight times printed. *The Names of the seventeen Books of the* Practice of Physick, *and the Principal Matters treated in each of them, are printed in one sheet of Paper, and put before these Books. The Eighteenth Book is a* Physical Dictionary, *explaining hard Words used in these Books, and others*. London: Printed by *Peter Cole* in *Leaden-Hall*, and are to be sold at his Shop, at the Sign of the Printing-press in Cornhil, neer the Royal Exchange. 1655.

A Physical Dictionary, Expounding such words, as being terms of Art, or otherwise derived from the Greek and Latin, are dark to the English Reader. *This Dictionary is of use in the reading of all other Books of this Nature, in the English Tongue*. London: Printed by *Peter Cole* in Leaden-Hall, and are to be sold at his Shop, at the Sign of the Printing-press in Cornhil. 1655.

> our intent is, That where in the Country there is no learned Physician at hand; at Sea, in the States and Merchants Ship, where the Chyrurgion is compelled to act both his own, and the Physitians part; In Armies and Leguers, &c. an ingenious and diligent Chyrurgion, Apothecary, or any other that hath from his youth been exercised in these kind of studies, and conversant about the sick, may attain such a competent knowledg in the Causes and Methodical Cure of Diseases, as they may with honor to themselves, and profit to the sick (by Gods Blessing) supply the place of a more learned Physitian. (Culpeper et al. 1655: The Printer to the Reader)

Secondly, this address to the reader also highlights the rationale for adding a glossary – which, it should be remembered, was not included in the source text – to the translation. Indeed, in a passage that reminds one of the title-page of Robert Cawdrey's *Table Alphabeticall* and the mention of "Ladies, Gentlewomen, or any other vnskilfull persons" (Cawdrey 1604: title-page) as the target users of the dictionary, "The Printer to the Reader" identifies its intended audience with

> honorable Ladies and Gentlewomen in the first and chiefest place, and […] all others unacquainted with the Greek and Latin Tongues, and consequently unable to understand divers terms of Art, and other words drawn from the said Tongues (which it was necessary to retain for brevity sake, and to avoid tedious Circumlocutions)… (Culpeper et al. 1655: The Printer to the Reader)

Here, the translation of Rivière's learned work gets justified by arguing that, far from favoring the spread of quacks and charlatans, it will help readers become aware of their own health problems. By

> viewing the state of their own Bodies in such Books as these (as in Looking-Glasses) [readers] will perceive certain Diseases in themselves, either now in being, or likely ere long to seize upon them, which otherwise they would never have so much as dream'd of; and thereupon crave the Advice and Assistance of the learned Physitian. (Culpeper et al. 1655: The Printer to the Reader)

Moreover, such a translation might also be commended for its important social function. Since women were in charge of preparing medicines and tending to the sick, as the household still represented the main arena for medical treatment (Leong – Pennell 2007), by perusing these books they

might better help their "Husbands, Children, or other Relations and Friends in their respective Sickness […] and be more apprehensive of the Physitians Directions, and so better able to practice them" (Culpeper et al. 1655: The Printer to the Reader). Furthermore, those

> Honorable Ladies and Gentlewomen, that out of a truly Christian and Charitable Disposition have not disdained, but counted it a great Honor to be helpful to the poor in the time of their sickness, may by perusal of these Books, and the like, confirm and increase their knowledg, and become honorable Instruments in the Hand of God (Culpeper et al. 1655: The Printer to the Reader).[7]

The Practice of Physick may be described as a dispensatory, or recipe collection, as its main purpose is that of providing several cures for "all Diseases in the Body of Man" (Culpeper et al. 1655: cancel title-page). However, its content is much more comprehensive than that: as a matter of fact, the book is divided into different sections, each one dealing with a specific body part and organized into a head-to-toe order. At first, all diseases that affect a given body part are fully described, then their probable causes are explained, and finally different alternative remedies are provided, in the form of traditional medical recipes (Leong – Pennell 2007).

2. Aims and methodology

This paper aims at providing a detailed lexicological and lexicographical analysis of the glossary appended to *The Practice of Physick*, with the purpose of understanding its role in the popularization of learned medicine in early modern Britain.[8]

In order to carry out the analysis of *A Physical Dictionary*, both entry-words and definitions were transcribed, and tagged for word-class, semantic field, etymological source, and type of definition.

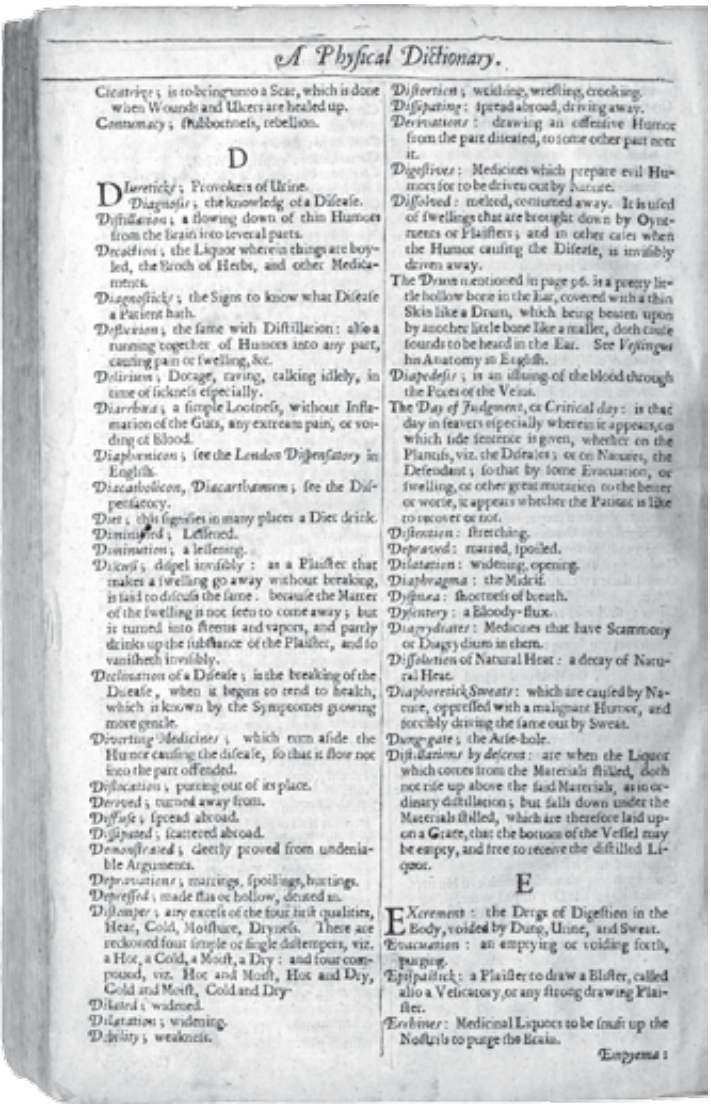
Moreover, a close reading of a sample section of *The Practice of Physick*, namely "Of the Diseases of the Eyes" (Culpeper et al. 1655: 61-94), and of the corresponding book in the Latin source text ("De Affectibus Oculorum", Rivière 1640: 167-262) was also carried out in order to understand: (a) to

7 See also the discussion in McConchie (2019: 68-69).

8 Of course, any research on early modern English glossaries should rely on Schäfer's (1989) seminal work and, among others, on the essays included in Considine (2012).

what extent *The Practice of Physick* may be described as "chiefly a translation" (Culpeper et al. 1655: cancel title-page) of Rivière's *Praxis Medica*; (b) how much the glossary and its definitions rely on the translated text itself; and (c) how the glossary must probably have been compiled.

3. Results and discussion



A Physical Dictionary.

Cicatrize; is to bring unto a Scar, which is done when Wounds and Ulcers are healed up.
Contumacy; Stubbornness, rebellion.

D

Diuretick; Provokers of Urine.
Diagnosis; the knowledg of a Disease.
Distillation; a flowing down of thin Humors from the brain into several parts.
Decoction; the Liquor wherein things are boyled, the Broth of Herbs, and other Medicaments.
Diagnosticks; the Signs to know what Disease a Patient hath.
Defluxion; the same with Distillation: also a running together of Humors into any part, causing pain or swelling, &c.
Delirium; Dotage, raving, talking idlely, in time of sickness especially.
Diarrhœa; a simple Looseness, without Inflamation of the Guts, any extream pain, or vomiting of blood.
Diaphoretica; see the London Dispensatory in English.
Diacatholicon, Diacarthamum; see the Dispensatory.
Diet; this signifies in many places a Diet drink.
Diminished; Lessened.
Diminution; a lessening.
Discuss; dispel invisibly: as a Plaister that makes a swelling go away without breaking, is said to discuss the same: because the Matter of the swelling is not seen to come away; but is turned into fleems and vapors, and partly drinks up the substance of the Plaister, and so vanisheth invisibly.
Declination of a Disease; is the breaking of the Disease, when it begins to tend to health, which is known by the Symptomes growing more gentle.
Diverting Medicines; which turn aside the Humor causing the disease, so that it flow not unto the part offended.
Dislocation; putting out of its place.
Derived; turned away from.
Diffuse; spread abroad.
Dissipated; scattered abroad.
Demonstrated; clearly proved from undeniable Arguments.
Depravations; marrings, spoilings, hurtings.
Depressed; made flat or hollow, drawn in.
Distemper; any excess of the four first qualities, Heat, Cold, Moisture, Dryness. These are reckoned four simple or single distempers, viz. a Hot, a Cold, a Moist, a Dry: and four compound, viz. Hot and Moist, Hot and Dry, Cold and Moist, Cold and Dry.
Dilated; widened.
Dilatation; widening.
Debility; weakness.
Distortion; writhing, wrestling, crooking.
Dissipating: spread abroad, driving away.
Derivations: drawing an offensive Humor from the part diseased, to some other part near it.
Digestives: Medicines which prepare evil Humors for to be driven out by Nature.
Dissolved: melted, consumed away. It is used of swellings that are brought down by Ointments or Plaisters; and in other cases when the Humor causing the Disease, is invisibly driven away.
The Drum mentioned in page 56. is a pretty little hollow bone in the Ear, covered with a thin Skin like a Drum, which being beaten upon by another little bone like a mallet, doth cause sounds to be heard in the Ear. See *Vestingus* his Anatomy in English.
Diapedesis; is an issuing of the blood through the Pores of the Veins.
The *Day of Judgment*, or *Critical day*: is that day in fevers especially wherein it appears, on which side sentence is given, whether on the Plaintiff, viz. the Disease; or on Nature, the Defendant; so that by some Evacuation, or swelling, or other great mutation to the better or worse, it appears whether the Patient is like to recover or not.
Distention: stretching.
Depraved: marred, spoiled.
Dilatation: widening, opening.
Diaphragma: the Midriff.
Dyspnœa: shortness of breath.
Dysentery: a Bloody-flux.
Diapydiates: Medicines that have Scammony or Dragy drum in them.
Dissolution of Natural Heat: a decay of Natural Heat.
Diaphoretick Sweats: which are caused by Nature, oppressed with a malignant Humor, and forcibly driving the same out by Sweat.
Dung-gate; the Arse-hole.
Distillations by descent: are when the Liquor which comes from the Materials stilled, doth not rise up above the said Materials, as in ordinary distillation; but falls down under the Materials stilled, which are therefore laid upon a Grate, that the bottom of the Vessel may be empty, and free to receive the distilled Liquor.

E

Excrement: the Dregs of Digestion in the Body, voided by Dung, Urine, and Sweat.
Evacuation: an emptying or voiding forth, purging.
Epispastick; a Plaister to draw a Blister, called also a Vesicatory, or any strong drawing Plaister.
Errhines: Medicinal Liquors to be snuft up the Nostrils to purge the Brain.

Empyema:

Figure 1. Sample page of *A Physical Dictionary* (Courtesy of Wellcome Library, London)

As can be seen from the sample page of *A Physical Dictionary* (Fig. 1), entries in the glossary are printed in two justified columns and listed in first-letter alphabetical order.[9] Indeed, the very first entries under the letter D are DIURETICKS, DIAGNOSIS, DISTILLATION, DECOCTION, and DIAGNOSTICKS, which shows that not even etymologically related words (namely DIAGNOSIS and DIAGNOSTICKS) necessarily follow one another in the word-list. The entry-words are systematically printed in italics, and, in most cases, they are linked to their definitions by either a semicolon or a colon (see e.g. DISTENTION, DEPRAVED and DILATATION) or, more rarely, by a comma (e.g. VISCOUS and VICISSITUDE). Most entries are 1 to 5 lines long, while only some are longer: in the sample page (Fig. 1), the entries THE DAY OF JUDGEMENT, OR CRITICAL DAY and DISTILLATIONS BY DESCENT are both 8 lines long, whereas the longest entry in the dictionary is ELIXIR PROPRIETATIS, which takes up 18 lines. Obviously enough, the length of each entry depends on its encyclopedic as opposed to its linguistic character, and also on what is being explained; for example, an anatomical feature (see CORNEA and STERNON) may be easier and shorter to be defined than a morbid condition in a patient (see COINDICANTS and PALLIATIVE CURES):

(1) *Cornea*, a Coat of the Eye like the Horn of a Lanthorn. See *Veslingus* in English.

(2) *Sternon*: the breast bone, See Veslingus Anatomie in English.

(3) *Coindicants*, are divers things in a Disease or Patient, which plead for one and the same Remedies. So in a putrid Feaver, the person being full bodied, and the season warm also, the person lusty and yong: The Feaver, the fulness of Blood in the Patient, his Age and strength, and Season of the Year, are Coindicants that he must be let Blood.

(4) *Palliative Cure*: is when a Disease is not taken away, but only mitigated and made more mild, so that the patient may have as much ease as

[9] First-letter alphabetical order was common practice in medieval glossaries, and "the process of alphabetization was a slow and a gradual one" (Sauer 2009: 23). At the start of the seventeenth century and of English monolingual lexicography, Robert Cawdrey still thought it necessary to explain to his "gentle Reader" that "if the word, which thou art desirous to finde, begin with (a) then looke in the beginning of this Table, but if with (v) looke towards the end. Againe, if thy word beginne with (ca) looke in the beginning of the letter (c) but if with (cu) then looke toward the end of that letter. And so of all the rest. &c." (Cawdrey 1604: *To the Reader*, sig. A4v). And yet, alphabetization is often wrong in *A Table Alphabeticall*, ABERRATION preceding ABDICATE, ALLEGORIE preceding ALLEGIANCE etc.

> possible. Or if the Disease deform the Body, a palliative Cure, does hide as much as may be that deformity. So an Eye being thurst out, cannot be properly cured; but it may admit of a palliative cure, in asswaging the pain, and other Symptoms, and by putting into the place thereof a Glass or other Artificial Eye.

The sample page (Fig. 1) also exemplifies the admittedly rare cross-references to a chapter in the book or to other medical books translated by Culpeper and published by Peter Cole: The Drum, for example, refers back to page 96 and the chapter on deafness, and also mentions "*Veslingus* his Anatomy in English", that is, Culpeper's (1653) English translation of Johann Vesling's *Syntagma anatomicum* (1641). The entries Diaphoenicon and Diacatholicon, too, refer to another book: it is "the *London Dispensatory* in English", another most successful work by Culpeper, first published in 1649 as *A Physicall Directory* and reprinted a dozen times until 1720. This was the unauthorized translation of the *Pharmacopoeia Londinensis*, that is, the catalogue of simple and compound medicines which had been compiled by the Royal College of Physicians in 1618 to exert their control over the newly established Society of Apothecaries (Sanderson 1999: 25).[10]

Table 1. Entries' word-class in *A Physical Dictionary*

WORD CLASS IN *A PHYSICAL DICTIONARY*	#	%
TOTAL	587	100
NOUNS	429	73.1
ADJECTIVES	122	20.8
VERBS	31	5.3
ADVERBS	4	0.7
PROPER NAMES	1	0.2

As Table 1 shows, out of nearly 600 entries almost three quarters are – quite unsurprisingly – nouns (94 of which are listed in the plural form), 122 are adjectives, 31 are verbs, four are adverbs, while one is a proper name.

[10] As a matter of fact, a passage in "The Printer to the Reader" explains the reason for this kind of intertextual references: "When the Reader meets in these Books, with the names of Simple or Compound Medicaments, and desires a more full knowledg of them, let him have recourse to the *London Dispensatory* in English, where he may be satisfied; for it had been an endless and vain work, to repeat what hath there been said" (Culpeper et al. 1655: The Printer to the Reader).

Most entry-words are borrowings of Latin (76%, e.g. DILATATION) or Greek (20%, e.g. OEDEMA) origin. The remaining 4% is divided among words of Germanic origin that, however, are to be intended in a specialized sense (e.g. WATER-GATE), and borrowings from other modern languages (e.g. TACAMAHACA).[11]

24 terms were found to antedate the first attestation in the *Oxford English Dictionary* (henceforth, *OED*), some of them by one or very few years (e.g. ANEURISM and EPISPASTICK), thus showing that the compiler of the glossary focused on words that were probably being used in those days; others antedate the *OED* by 20 years or more (e.g. BRONCHIA and DYSPNAEA), which could be taken as evidence of the compiler's attitude towards lexical innovation. More examples (27 altogether) can be added of entries defining further, new acceptations of words that already existed in 1655 and as such are listed in the *OED*, although the specialized meaning introduced by the compilers of the dictionary is not mentioned as it did not catch on:

(5) *Adverse*: contrary to, of a contrary Nature.[12]

(6) *Alteratives*, are such Medicines as only change the qualities of the Body and its Humors, by heating, cooling, moistening, drying, &c. they are opposed to such as do cause Vomiting, Purging, Sweating, Transpiration, &c.[13]

As evidenced by all these instances, the entry-words in *A Physical Dictionary* may, therefore, be considered hard words for an English readership on two different grounds: firstly because, etymologically speaking, they are of classical origin; and secondly, because they have adopted a specialized, technical meaning and are, therefore, used in the text in a restricted acceptation. It is to be added, though, that *A Physical Dictionary* lists entry-words that are not typical of medical use (ADVERSE, in example 5, for one). According to McConchie,

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11 "*Tacamahaca*: A sweet Gumm. See the London *Dispensatory* in English". According to the *OED*, s.v. TACAMAHAC / TACAMAHACA, the word is from obsolete Spanish *tacamahaca*, but ultimately from Aztec, and it is first attested in English in 1577.

12 This definition seems to specifically refer to the different and opposing qualities of the four humours, and as such does not correspond to any of the adjectival uses of *adverse* listed in the *OED*.

13 *OED* antedatings in *A Physical Dictionary* are the topic of a forthcoming paper by Giulia Rovelli.

> The presence of such terms suggests the recognition of a 'halo' lexicon, or medical metalexicon, which enables the core medical lexicon by way of explanation, avoiding 'circumlocutions', as well as reinforcing its status through the use of a further set of hard words. (McConchie 2019: 69)

As to the ways in which the entry-words in the glossary are defined, since they are mostly of Latin or Greek origin, the most common strategy to which the compiler resorted was that of providing an easier lexical equivalent, generally a word of Germanic origin. This strategy was very popular, especially with those technical terms (e.g. ABDOMEN and THORAX) and uncommon adjectives (e.g. OCCULT and PUTRID) which already had simpler or less formal equivalents in everyday English, as the following examples show:

(7) *Abdomen*: The Belly, or Paunch

(8) *Thorax*: the Chest.

(9) *Occult*: hidden, unknown.

(10) *Putrid*: rotten, filthy, stinking.

Sometimes, the specialized usage and technical meaning of a word or expression is also foregrounded by means of an added clause (e.g. FRACTURE, where the scope of the equivalent "breaking" is restricted to the breaking of bones), or the reference to an anatomy book (e.g. VISIVE NERVE, where the compiler provides the reader with a Germanic equivalent of the technical term, describes its function, and also refers the reader to another medical book for further reading or clarification):

(11) *Fracture*: breaking, as fracture of the Skul or Arm, &c.

(12) *Orifice*: the whol which is made by a Surgeon when he lets blood. Also the mouth or passage into the Womb, or Stomach, &c.

(13) *Visive Nerve*: the seeing Nerve. The Sinnew wherewith the Objects of sight are carried into the Brain, to the Imagination or Common-sence. See *Veslingus* Anatomy.

(14) *Sternon*: the breast bone, See Veslingus Anatomie in English.

As is demonstrated by the above examples, the compiler of the glossary clearly endeavoured to find equivalents in everyday English, not unlike the authors of contemporary hard-word dictionaries. However, when such equivalents did not exist, a new term had to be coined, as in the case of "Womb-Madness", which is introduced by the compiler as the English equivalent of *Furor Uterinus* and is defined as follows:

(15) *Furor Uterinus*: Womb-Madness; when Women are mad by reason of a disorder in the Womb. See the Chapter of that Disease.[14]

As an alternative, an explanatory gloss or definition of sorts was provided, either by pivoting it around a classificatory term (e.g. ALTERATIVES, example 6 above, and ELIPHANTIASIS, which are described as a type of medicine and a type of disease, respectively), or by filling it with key medical terms (as in the case of CHOLLICK and MATTER) or by writing purely encyclopedic definitions (e.g. OPTICKS and SAL-PRUNELLAE):

(16) *Eliphantiasis*: a leprous disease, which makes the Patients skin like the Hide of an Elephant.

(17) *Chollick*, pain and griping of the Gut *Colon*; and because the pain proceeding from the Stone, is very like thereunto, it is called the Stone-Collick.

(18) *Matter, or Quittor*: a snotty kind of filth which comes out of Imposthumes when they break, and out of the Ulcers when they are in a good way of cure.

(19) *Opticks*: a Part of Natural Philosophy (though falsly reckoned for a branch of the Mathematicks) opening all the Mysteries of sight, and the reasons of the Deceptions, or mistakes thereof, and teaching to make augmenting Glasses, mutiplying Glasses, Perspective Glasses, burning Glasses, &c.

(20) *Sal-prunellae*: salt-peter purified with Brimstone Clean white salt Peter is as good for use, only the Chymists love to mend *Magnificat* and many times take great paines to little purpose.

While most entry-words are immediately followed by their translational equivalents or definitions, the compiler sometimes resorts to some less

[14] The so-called 'Madness from the womb' is discussed in Berrios (2006).

orthodox structures. In the following examples, for instance, the semantic connection between the difficult entry-word and its easier equivalent is made explicit by using such redundant linking elements as "that is" or "signifies":

(21) *Infuse*: that is, steep.

(22) *Stupid*: that is benummed, besotted, hath no feeling or sense, blockish.

(23) *Opiate* signifies an Electuary: properly it is put for Venice Treacle, Mithridate, Diascordium, &c. which have Opium in them: from whence the name is derived. But secondarily, it signifies any Electuary or Antidote made up in such a body as Treacle, &c. though it have no Opiate in it.

Moreover, when the compiler is at a loss to define a given term, he may also recur to such definitional structures as "is/are that which", "is/are when", which, although not completely acceptable, can help convey the meaning:[15]

(24) *Morbifical*, or *Morbifick matter*; is that which is the principal cause of any Disease.

(25) *Cupping-glass*, is that which Physitians use to draw out Blood with Scarrifying of the Skin, Glasses fastened with lighted Tow or Flax.

(26) *Distillations by descent*: are when the Liquor which comes from the Materials stilled, doth not rise up above the said Materials, as in ordinary distillation; but falls down under the Materials stilled, which are therefore laid upon a Grate, that the bottom of the Vessel may be empty, and free to receive the distilled Liquor.

(27) *Luxation*: is when one Joynt is loosned from another.

Besides these minor inconsistencies on the compiler's part, the glossary also presents some lexicographic mistakes,[16] which include inaccurate, if not utterly wrong, definitions, as is the case with JUGULAR VEINS, which pertain to

[15] Incidentally, these definitional structures are still sometimes used in present-day learner's dictionaries (cfr. Atkins – Rundell 2008: 444).

[16] McConchie briefly discusses this problem and states that "This physical dictionary itself is, frankly, rather messy" (2019: 70).

the neck rather than the throat, and ANUS, for which *fundament*[17] is no proper synonym (at least, technically speaking):

(28) *Jugular Veins*: that is, the Throat Veins. See *Veslingus* Anatomy in English.

(29) *Anus*, the Fundament.

Moreover, while it is fairly common and certainly right for some entries to refer to others, or for some definitions to be complemented by a reference to a chapter in *The Practice of Physick* or even to another medical book, it is a lexicographic flaw on the compiler's part when the other entry referred to is spelt in a different way (e.g. ECLEGMA, which refers the reader to LAMBITIVE, which is actually spelt as "Lambative") or when a given entry simply refers to another book without providing any attempt at a definition (e.g. ELECTUARY):

(30) *Eclegma*. See Lambitive.

A Lambative or *Lohoch*: is a medicine to be lickt from a Liquoris stick, and to be swallowed softly down, being chiefly ordained for the Lungs.

(31) *Electuary*: See the.[18]

Finally, another lexicographical mistake of sorts is represented by the repetition of an entry in the wordlist, as is the case with the verb ASTRINGE, the nouns DILATATION and SUPPRESSION, and the adjective LIVID, which are found twice in *A Physical Dictionary*, at a short distance from one another and sometimes having partly different definitions:

(32) *Astringe:* bind, fasten, close;
[…]
Astringe, to bind.

(33) *Dilatation*: widening;
[…]
Dilatation: widening, opening.

17 See *OED*, s.v. ANUS and FUNDAMENT, 2.

18 Still, *A Physical Dictionary* includes the entry "*Electuaries.* Medicines made up of Conserves of Flowers or Herbs; to which is added some sweet Spicy pouder for the most part, and so with Syrup it is made up in the form of Mithridate or Treacle." See also the entry OPIATE, reproduced as example 23.

(34) *Suppression*: stoppage;
[…]
Suppression: stoppage.

(35) *Livid*: black and blew;
[…]
Livid: black and blew, Lead-coloured.

While this kind of mistake is certainly not uncommon in early modern dictionary-making, it may provide an insight into how the glossary was compiled. Indeed, this imprecision, together with the fact that entry-words are only listed in first-letter alphabetical order, suggests that the compiler most likely went through the translation of *The Practice of Physick* probably after it had been printed (as some entries refer to specific pages in the book, e.g. DE GUTTETA)[19] and, while reading it page after page, he listed and defined the words worth including in the glossary by writing them on a number of sheets of paper, possibly one for each letter of the alphabet. And sometimes, when he encountered a difficult word for the second time, the compiler forgot having already included it in the wordlist and added it again.

This interpretation is also supported by the fact that some definitions seem to reproduce word-for-word or just slightly rephrase the explanations which had been introduced in the text itself, as a sort of in-text glossing, to render it more comprehensible. The analysis of a sample section of *The Practice of Physick*, indeed, revealed that many technical words are made clear in the text itself through the traditional means of doublets, which were not present in the Latin source text, and are sometimes either copied verbatim or closely imitated in the glossary, as is demonstrated by the following examples:

(36) The Optick Nerves are many waies affected, but chiefly by obstruction or stoppage, astriction or binding, and by solution of continuity. (Culpeper et al. 1655: 62)
Obstruction stopping.
Astriction: binding, knitting together.[20]

(37) "Of Ophtalmia, *or Inflamation of the Eyes*" (Culpeper et al. 1655: 78)
Ophtalmy: an Inflamation of the Eyes, causing soreness and redness.

[19] *de Gutteta*: a Pouder used in Falling-sickness and Convulsion of Children by the French. It is described page 33. at the bottom.

[20] The glossary also includes the variant form "*Adstriction*: binding together, shutting up."

(38) "There is also another difference taken from the immediate cause, which is defluxion, or congestion, that is, gathering of humors" (Culpeper et al. 1655: 78-79)
Defluxion; the same with Distillation: also a running together of Humors into any part, causing pain or swelling, &c.
Congestion; a gathering together or heaping up.

(39) "If the pain be intollerable, you must fly to Narcotick or stupifying Medicines, which you must use sparingly, and with good advice" (Culpeper et al. 1655: 82)
Narcotick medicines: stupefying medicines: that dull the sence of feeling, and cause profound sleep.

The close reading of the sample section also showed that most technical terms which are made use of in the translated text are included in the glossary, albeit occasionally with slightly different spellings:

(40) "The Dilatation of the Pupilla, which is a hole in the Uvea Tunicle, by which the Species of Objects pass into the Eye" (Culpeper et al. 1655: 74)
Pupil of the Eye: is the middlemost round circle, which we commonly call, *the sight of the Eye*, and which in Cats, is seen to widen and contract it self.
Uvea tunica: a coat of the Eye, resembling the skin of a Grape, from whence it is named. See *Veslingus* Anatomy in English.

However, some terms which might be expected to be listed in the glossary, by reason of analogy with others, are actually left out, and for no apparent reason. Indeed, while *corrode*, *corroding* and *corrosion* are all present both in the text and in the glossary, the same cannot be said for all lemmas: *repelled*, *repelling* and *repellers* are all used in the translation, but only the first two are listed in the glossary.

4. Concluding remarks

Despite a few shortcomings, namely variant spellings, repetitions, and somewhat inaccurate definitions, *A Physical Dictionary* can be considered a useful tool for the literate but not highly educated readers of *The Practice*

of Physick and similar works for the same target readership. The compiler's choice of limiting the wordlist to medical terminology and to the medical acceptation of more general words, and his strong preference for short (often, one-word) definitions made this glossary a useful addition to Rivière's book in English, as it provided a solution of sorts to what must have been the readers' main difficulty in understanding such texts, namely technical and specialized vocabulary. Indeed, the glossary was included in all the following editions of the book (six of them, published between 1658 and 1678 – clear evidence of its editorial success), and in some of them it was placed at the beginning of the book, right after the table of contents. Moreover, while the inclusion of encyclopedic material might fall outside the main purpose of the glossary, i.e. that of providing easier equivalents for the technical terms which could not be dispensed with in the translation (Culpeper et al. 1655: The Printer to the Reader), *A Physical Dictionary* nonetheless provides a further channel for knowledge dissemination, thus emphasizing the popularizing process which lies behind the concept of scientific and technical translation itself, and confirms Nicholas Culpeper's role in the movement towards the "democratization of learned medical knowledge" (Sanderson 1999: 5) – a growing trend interestingly also fostered, in this specific instance, by the other translators involved in the compilation, not to mention the printer Peter Cole.

REFERENCES

Sources

Bartholin, T.
1641 *Anatomia Ex Caspari Bartholini*. The Hague: Adriani Vlacq.
Cawdrey, R.
1604 *A Table Alphabeticall, Contayning and Teaching the True Writing and Vnderstanding of Hard Vsuall English Words, Borrowed from the Hebrew, Greeke, Latine, or French …* London: Edmund Weauer.
Culpeper, N.
1649 *A Physicall Directory, or a Translation of the London Dispensatory Made by the College of Physicians in London*. London: Peter Cole.
1653 *Anatomy of the Body of Man: Wherein is Exactly Described Every Part Thereof, in the Same Manner as it is Commonly Shewed in Publick Anatomies*. London: Peter Cole.

1657 *A Sure Guide; or, the Best and Nearest Way to Physick and Chyrurgery: That Is to Say, The Arts of Healing by Medicine and Manual Operation*. London: Peter Cole.

1663 *Bartholinus Anatomy; Made from the Precepts of his Father, and from the Observations of all Modern Anatomists, together with his own*. London: Peter Cole.

Culpeper, N. – Cole, A. – Rowland, W.

1655 *The Practice of Physick in Seventeen Several Books Wherein is Plainly Set Forth the Nature, Cause, Differences, and Several Sorts of Signs: Together with the Cure of All Diseases in the Body of Man.* London: Peter Cole.

Oxford English Dictionary Online (OED Online), http://www.oed.com/, accessed April 2019.

Riolan, J.

1649 *Encheiridium Anatomicum et Pathologicum*. Leiden: Adriaen Wyngaerden.

Rivière, L.

1640 *Praxis Medica cum Theoria*. Paris: O. de Varennes.

Sennert, D.

1628 *Practicae Medicinae in Libri Sex*. Wittenberg: Zacharias Schürer.

Vesling, J.

1641 *Syntagma Anatomicum Publicis Dissectionibus, in Auditorum Usum, Diligenter Aptatum*. Padua: Paolo Frambotti.

Special studies

Atkins, B.T. – M. Rundell

2008 *The Oxford Guide to Practical Lexicography*. Oxford: Oxford University Press.

Barber, C.

1976 *Early Modern English*. London: André Deutsch.

Berrios, G.E.

2006 "Madness from the womb", *History of Psychiatry* 17, 223-235.

Considine, J. (ed.)

2012 *Ashgate Critical Essays on Early English Lexicographers. Volume 4: The Seventeenth Century*. Farnham, Surrey: Ashgate.

Fissell, M.E.

2007 "The marketplace of print". In: M.S.R. Jenner – P. Wallis (eds.) *Medicine and the Market in England and Its Colonies, c. 1450 – c. 1850*. Basingstoke and New York: Palgrave Macmillan, 108-132.

Görlach, M.

1991 *Introduction to Early Modern English*. Cambridge: Cambridge University Press.

Iamartino, G.
2014 "Translators as wordsmiths: Lexical innovations in Harvey's *De Motu Cordis* in English". In: M. Sturiale – C. Nocera – G. Iamartino (eds.) *English Words in Time*. Milan: Polimetrica, 59-78.
Johnson, F.R.
1944 "Latin versus English: the sixteenth-century debate over scientific terminology", *Studies in Philology* 41 (2), 109-135.
Leong, E. – S. Pennell
2007 "Recipe collections and the currency of medical knowledge in the early modern 'medical marketplace'". In: M.S.R. Jenner – P. Wallis (eds.) *Medicine and the Market in England and Its Colonies, c. 1450 – c. 1850*. Basingstoke and New York: Palgrave Macmillan, 133-152.
McCarl, M.R.
1996 "Publishing the works of Nicholas Culpeper, astrological herbalist and translator of Latin medical works in seventeenth-century London", *Canadian Bulletin of Medical History* 3, 225-276.
McConchie, R.
2019 *Discovery in Haste. English Medical Dictionaries and Lexicographers 1547 to 1796*. Berlin and Boston: Walter de Gruyter.
Nevalainen, T.
1999 "Early modern English lexis and semantics". In: R. Lass (ed.) *The Cambridge History of the English Language. Vol. III. 1476-1776*. Cambridge: Cambridge University Press, 332-458.
Pahta, P. – I. Taavitsainen
2004 "Vernacularization of scientific and medical writing in its sociohistorical context". In: I. Taavitsainen – P. Pahta (eds.) *Medical and Scientific Writing in Late Medieval English*. Cambridge: Cambridge University Press, 1-22.
2010 "Scientific Discourse". In: A. Jucker – I. Taavitsainen (eds.) *Historical Pragmatics vol. 8*. Berlin and Boston: Walter de Gruyter, 549-586.
Rinaldi, M.
2018 "Organising pathological knowledge: Théophile Bonet's *Sepulchretum* and the making of a tradition". In: S. De Renzi – M. Bresadola – M. Conforti (eds.) *Pathology in Practice. Diseases and Dissections in Early Modern Europe.* Abingdon-on-Thames and New York: Routledge, 39-55.
Rovelli, G.
2018 "'For the benefit of those who understand not the Latine tongue'. The vernacularization of medicine in late-seventeenth-century England", *Expressio* 2, 123-151.
Russell, K.F.
1956 "Nicholas Culpeper. His translations of Bartholin, Riolan and Vesling", *ANZ Journal of Surgery* 26 (2), 156-159.

Sanderson, J.
1999 *Nicholas Culpeper and the Book Trade: Print and the Promotion of Vernacular Medical Knowledge, 1649-65*. PhD Dissertation. Leeds: University of Leeds.
Sauer, H.
2009 "Glosses, glossaries, and dictionaries in the medieval period". In: A.P. Cowie (ed.) *The Oxford History of English Lexicography. Vol. I.* Oxford: Clarendon Press, 17-40.
Schäfer, J.
1989 *Early Modern English Lexicography: Volume 1. A Survey of Monolingual Printed Glossaries and Dictionaries 1475-1640.* Oxford: Clarendon Press.
Taavitsainen, I.
2006 "Medical discourse: Early genres, 14th and 15th centuries". In: K. Brown (ed.) *The Encyclopedia of Language and Linguistics* (2nd edn.). Oxford: Elsevier, 688-694.
2009 "'My brother Ihesu Crist that is the principal leche…': Religious discourse in Middle English medical writing", *Poetica* 72, 59-76.
2017 "Meaning-making practices in the history of medical English: A sociopragmatic approach", *Journal of Historical Pragmatics* 18 (2), 252-270.
2018 "Scholastic genre scripts in English medical writing 1375-1800". In: R.J. Whitt (ed.) *Diachronic Corpora, Genre, and Language Change*. Amsterdam: John Benjamins, 95-115.
Taavitsainen, I. – T. Hiltunen (eds.)
2019 *Late Modern English Medical Texts: Writing Medicine in the Eighteenth Century*. Amsterdam: John Benjamins.
Taavitsainen, I. – P. Pahta (eds.)
2004 *Medical and Scientific Writing in Late Medieval English*. Cambridge: Cambridge University Press.
2010 *Early Modern English Medical Texts: Corpus Description and Studies.* Amsterdam: John Benjamins.
2011 *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press.
Taavitsainen, I. – P. Pahta – M. Mäkinen
2006 "Towards a corpus-based history of specialized languages: Middle English medical texts". In: R. Facchinetti – M. Rissanen (eds.) *Corpus-based Studies in Diachronic English*. Bern: Peter Lang, 79-94.
Taavitsainen, I. – P. Pahta – M. Mäkinen (eds.)
2005 *Middle English Medical Texts*. Amsterdam: John Benjamins.
Thulesius, O.
1992 *Nicholas Culpeper, English Physician and Astrologer*. New York: St. Martin's.

Tyrkkö, J.

2009 "*A Physical Dictionary* (1657): The first English medical dictionary". In: R.W. McConchie – A. Honkapohja – J. Tyrkkö (eds.) *Selected Proceedings of the 2008 Symposium on New Approaches in English Historical Lexis*. Somerville, MA: Cascadilla Proceedings Project, 171-185.

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Italy and the Royal Society: Medical papers in the early *Philosophical Transactions*

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ABSTRACT

During the first years of the Royal Society's existence, a whole network of natural philosophical exchanges was set up between the Fellows and foreign gentlemen interested in the study of nature. From the exchanges with Italy, medicine appears to be one of the major topics of interest; and a series of medical papers based on Italian researches appear in the Society's journal, the *Philosophical Transactions* (*PT*).

This article is a linguistic and socio-historical analysis of 25 medical papers published in the *PT* in the first fifty years of its existence. The selected articles were either translations of Italian writings or reports of Italian research. The purpose of the study is: (1) to illustrate from a linguistic and socio-cultural point of view the nature of Italian medical contributions to the early *PT*; and (2) to investigate Anglo-Italian relations through the Royal Society's medical interaction with Italians by analysing the *PT* articles and further contextual resources from a critical perspective.

Keywords: Anglo-Italian relations, medical writing, *Philosophical Transactions*, Royal Society, seventeenth century.

> And your own intelligence will spur you on, without the urging of others, to inform yourself about these matters; in the same way you will be led, without doubt, to encourage all the keen minds of Italy to employ their talents in advancing the sciences and the arts by observations and experiments faithfully and diligently performed. We hope that that great prince of the Roman Church, Cardinal de' Medici, will never leave off philosophizing, or making his academicians philosophize, nor that those celebrated men Rucellai, Ricci, Capponi,

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> Cassini, Viviani, Rinaldini, Dati, Redi, Borelli, Fabri, del Bono, de Angeli, Settalla, Magalotti, Falconieri, Manfredi, Travagino, etc. will ever cease to contribute their knowledge and diligence to increasing the glory of this century, so exalted already by the growth of knowledge and useful discoveries. (Oldenburg to Azout, 1668, in Hall – Hall 1967: 482-483)

1. Introduction

Soon after its foundation in the 1660s, the Royal Society became a centre of philosophical exchanges; and natural philosophers from all over Europe sent letters, books and accounts seeking approval and/or publication. As far as the Italian states were concerned, there was mutual interest; Italian learned men were attracted to the Society's Baconian agenda and metaphysical neutrality (Cavazza 2002: 6), while English Fellows often sought contact with notable Italians as they were interested in receiving information on Italy's scientific advances.

The plans of the Royal Society – to cultivate "a sound and useful philosophy" through the "joint labours of the industrious and wise men of the whole world in mutual co-operation" and by a "diligent and unremitting examination into Nature through observation and experiment, carefully and frequently performed" (Oldenburg in Hall – Hall 1966: 620-621)[1] – were especially promoted by its secretary Henry Oldenburg, who from the first years of the Society's existence sought contacts with foreign scholars and gentlemen. To this purpose, Oldenburg exploited every means possible: English residents in Italy, travellers, merchants, and even foreign acquaintances, who collected and transmitted to him Italian knowledge, writings and objects of all kinds. Thanks to their help, Oldenburg also got in direct (epistolary) contact with Italians whose names and works had come to his knowledge. He sent out many letters written according to a rather standardised schema: praising his addressees, asking them to send him any information available on their own work and that of others, and offering to do the same in exchange. Italian men of learning held the Royal Society in high esteem too, to the extent that academies and journals, such as the Istituto delle scienze e delle arti and Francesco Nazzari's *Giornale de' Letterati*, were founded on the Society's model.[2] Several Italians thus corresponded

[1] This is from a 1667 letter by Henry Oldenburg to Leopold de Medici.

[2] For historical studies on the Royal Society's relations with Italy see: Beretta (2000), Boschiero (2002), Cavazza (1980, 2002), Clericuzio (2013), Cook (2004), Fisher (2001),

with the Society, became Fellows and sent news about their work. Among the early Italian Fellows, a relatively high number were physicians, some of whom, such as Marcello Malpighi, were very influential not only in their own time but also on later generations of researchers of nature.

Hence, books based on Italian research were published through the Society's publishers, and natural philosophical papers – written in English, Latin and (rarely) in Italian – appeared in the Society's journal, the *Philosophical Transactions of the Royal Society* (hereafter *PT*). By focusing on *PT* papers based on Italian medical researches and published in the first 50 years of the journal's existence, the purpose of the present study is: (1) to illustrate from a linguistic and socio-cultural point of view the nature of Italian medical contributions to the early *PT*; and (2) to investigate Anglo-Italian relations through the Royal Society's medical interaction with Italians by analysing the texts from a critical perspective.[3]

To this end, 25 medical papers that were either translations of Italian writings or reports of Italian research were collected and analysed. The papers were published between 1665 and 1706 (given the lack of Italian medical papers for the year 1705). A largely qualitative linguistic analysis of the collected primary sources was carried out. The methodological framework behind the analysis draws primarily on Atkinson (1992, 1999), Bazerman (1988) and Biber (1988) for the analysis of structural and linguistic features[4] and adds the critical approach of Fairclough (1992) and Reisigl and Wodak's (2016) Discourse Historical Approach (DHA) to gain a more objective view of what emerges on Anglo-Italian relations from the discourses under study.[5] Original letters, meeting minutes, logbooks and reports have therefore been integrated into the study in order to obtain as accurate and multifaceted a picture of the sampled discursive events as possible. An important aspect

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Gómez López (1997), Hall (1982), and Knowles Middleton (1979). Further relevant background studies include: Rusnock (1999), Schickore (2010), Shapin (1988) and Shapiro (2002). For a more language-focused perspective, see Avramov (1999), Henderson (2013), and Turner (2008).

3 The present study stems from a broader research project currently being carried out on Anglo-Italian relations through the Royal Society's letters and published papers in all fields between the seventeenth and nineteenth centuries.

4 This however represents a preliminary study on Italian-research-based papers in the *PT* and a first attempt at carrying out CDA on discourse that was not produced in recent history – as is typical for CDA – but on early modern writings. A short time span was therefore sampled in order to privilege a more detailed analysis of the sources. Consequently, the diachronic aspect that characterises Atkinson's sociolinguistic approach was left out – at least as far as this study is concerned.

5 See also Banks (2009, 2010, 2012), Gotti (2011, 2014), Locke (2004), Lonati (2016) and White (2004).

that characterises the present research, and that appears to have been overlooked in previous researches carried out on *PT* papers, is that the original source of the papers was taken into consideration throughout the analysis. That is, a great deal of what was published in the *PT* originates from letters sent from abroad; the content of these letters was then reported in or translated into English in the *Transactions*. This means that the use of the English language was possibly influenced by the source writings and, in the case of translations, it may have represented discursive practices of the foreign country rather than English ones.

This introduction is followed by a section focusing on the Italian medical men from which the research reported in the collected *PT* papers originated and on the nature of their relations with the Society. Section 3. reports the results of the analysis focusing on the discursive strategies that were more prominent among the papers and on how Italian medical discourse has been represented in the *PT*. Section 4. adds some further historical information that emerged from the content analysis of the papers and section 5. draws some preliminary conclusions to the study.

2. Italian contributors and their relations with the Society

Of the over 100 Italians of different callings who were made Fellows of the Royal Society between the seventeenth and eighteenth centuries, 34 were men with medical interests.[6] A third of them were concentrated in the first half century of the Society's existence.[7] It should be remembered, however, that it is not possible to precisely relate Fellows to specific disciplinary groups since, as was typical of the time, many of them had multiple interests and

[6] Marcello Malpighi (1669), Francesco Travagino (1676), Giacomo Pighi (1680), Giacomo Grandi (1690), Domenico Bottone (1695), Silvestro Bon-figlioli or Bonfigliuoli (1696), Francesco Spoleti (1696), Giorgio Baglivi (1698), Domenico Guglielmini (1698), Emanuele Timone (1703), Antonio Vallisnieri (1703), Giovanni Maria Lancisi (1706), Michelangelo Tilli (1708), Michele Bernardo Valentini (1715), Francesco Torti (1717), Giovanni Battista Morgagni (1722), Nicola Cirillo (1727), Jacopo Bartolomeo Beccari (1728), Antonio Leprotti (1734), Jacobus Jattica (1735), Antonio Cocchi (1736), Giuseppe Lorenzo Bruni (1744), Pietro Paolo Molinelli (1749), Saverio Manetti (1756), Vitaliano Donati (1757), Carlo Allioni (1758), Antonio Maria Matani (1763), Antonio Montani (1763), Giovanni Francesco Cigna (1764), Conte Simone Stratico (1764), Conte Giovanni Battista Carburi (1765), Lazzaro Spallanzani (1768), Leopoldo Marco Antonio Caldani (1772), and Antonio Scarpa (1791). For a list of Italian Fellows in the seventeenth and eighteenth centuries, irrespective of their occupation, see Hall (1982).

[7] 9 out of the 20 Italians elected in the seventeenth century and 25 out of the 105 Italians elected in the eighteenth century.

occupations, and the concepts of science and sciences had not yet developed to what they are today. Domenico Guglielmini, for instance, had studied both medicine and mathematics but mainly carried out studies in astronomy and physics.

Another aspect that must be born in mind when considering the Royal Society's foreign relations is that not all of their correspondents were made Fellows, and that this made them no less important than those who were elected. In fact, non-Fellow correspondents often contributed more knowledge to the Society's plans of a universal natural history than Italians who had been formally elected.[8] Hence, names such as Francesco Redi and Carlo Fracassati, who were not FRSs, should be added to the list of the Society's contributors, since information on their researches – on the nature and effects of viper poison and spontaneous generation, for the former, and experiments on the transfusion of blood for the latter – not only appeared in the *Philosophical Transactions*, but also stimulated responses from other natural philosophers interested in these subject areas.

The papers on Italian researches published in the *PT* were related to the following Italians: Marcello Malpighi, Francesco Travagino, Giacomo Grandi, Giovanni Maria Lancisi, Francesco Redi, Carlo Fracassati, Tommaso Cornelio, Giuseppe del Papa, Giovanni Cosimo Bonomo and Lorenzo Bellini.[9] The anatomist and biologist Malpighi was one of the earliest Italians to be invited by Henry Oldenburg to correspond and cooperate. He accepted the invitation promising to become one of the chief promoters in Italy of a universal natural history and to collaborate with scientists throughout the peninsula to this effect. Soon after, in 1669, he was elected honorary Fellow. All of his works were sent to the Society and published by their official printers (Cavazza 1980: 109-111).[10] His studies on the anatomy of the frog, which lead to his famous discovery of the pulmonary and capillary network, were among the material he sent to the Society.[11] A key feature of his work was the use of the microscope; Italian-made microscopes and telescopes

8 Indeed, some Italian Fellows, were often Fellows just in name, in that they do not appear to have had any philosophical exchanges with the Society. This was especially the case of high-profile men such as statesmen and diplomats, who were more likely elected for their political potential and their own web of notable contacts rather than their own philosophical interests.

9 Biographical information has been retrieved from the *Fellows Directory* of the Royal Society, the *DBI* and the *ODNB*.

10 *Dissertatio Epistolica de Bombyce* (1669); *Dissertatio Epistolica de Formatione Pulli in Ovo* (1673); *Anatome Plantarum* (1675); *Opera Omnia* (1686); *Opera Posthuma* (1697).

11 One of his letters on his dissections of frogs appears in the *PT* (*Phil Trans* 1671a: 2149-2150).

were another source of interest to the Society and detail regarding these instruments and their makers was frequently reported alongside one's research or in specific papers on the topic. Among the papers sampled for the present study, four are related to Malpighi's research, and in particular to his anatomical studies on the brain, tongue, and pulmonary system. All this goes to show that while Malpighi had to face opposition from his Italian colleagues, who did not share his views, the Fellows showed great interest in him and those who travelled to Italy would generally pay him a visit and report back to the Society about him and his work. Francesco Travagino was also a correspondent. In the literature he has been defined as a physician, a would-be-alchemist, a physicist and an astronomer, thus reflecting his various interests. In his letter exchanges with the Fellows, he reported about his experiments with mercury, about earthquakes, and medical topics. He sought the Society's opinion on his *Synopsis Novae Philosophiae & Medicinae*, a review of which is found in the *PT* (EL/T/9, *Phil. Trans.* 1666e: 555-556).[12] Jacobus Grandi[13] was a lesser known physician from Venice. He sent a letter to Oldenburg about two unusual cases of childbirth, which was published in the journal (*Phil. Trans.* 1670a: 1188-1189). On the contrary, the Roman Giovanni Maria Lancisi was well known in his time and is still famous today. The publications associated with him in the *PT* are two, one on Malpighi's death and autopsy, the other on the presence of acid salts in blood. Although he does not appear to have had any direct relations with the Fellows, Francesco Redi's research was well known to the Society and he is referenced in several papers. His work was both inspirational for further research and questioned. Among the sampled group of papers, one deals specifically with Redi's viper experiments and there is also a report of a reproduction of his experiments.[14] Fracassati's case is similar to Redi's, no direct relations but information on his researches appears in three *PT* papers all dealing with his experiments on blood and blood transfusion. Tommaso Cornelio was not a Fellow either, yet he was a supporter of the Society's experimental approach to the study of nature (EL/C1/108) and exchanged a series of letters with John Dodington – one of the Society's contacts in Italy – and Henry Oldenburg. The result of this exchange was a paper in the *PT* "concerning some observations made of persons pretending to be stung by tarantulas" (*Phil. Trans.* 1672b: 4066). Giuseppe Del Papa was another physician from the Tuscan circles and

[12] EL/T/9 refers to the original letter in the Royal Society's archives. References to ELs (Early Letters) are provided throughout the paper.

[13] His first name is also found as Jacomo, James and Giacopo.

[14] There is also a paper, drawn from a written discourse of his, on factitious salts (*Phil. Trans.* 1698: 281-289). This paper however was not included in the present study.

succeeded Redi in his role of personal physician to Cosimo III de Medici.[15] A paper related to his research on the effects of an "Indian varnish" was published in the *PT*, communicated by William Sherard (FRS 1720).[16] Lorenzo Bellini had no direct contacts with the Society; his work was nevertheless well known to them. A paper on his "anatomical engagements", which has mostly been left in Bellini's original Latin, is found in the *PT*. The Society also managed to publish one of Giovanni Cosimo Bonomo's very first studies on the scabies mite (*Phil. Trans*. 1702: 1296-1299). However, Bonomo does not appear to have had any personal relations with the Fellows. The paper related to him was communicated by Richard Mead (FRS 1703).

Finally, another source of information for the Society were Italian journals. Several Italian papers published in the *PT* were taken out of the Venetian and Roman journals *de' Letterati*. Moreover, Francesco Nazari, the founder of the first *Giornale de' Letterati*, wrote to Oldenburg asking him to correspond. In his journal Nazzari wrote about the Society and translated and published papers from the *Transactions* (Gómez López 1997). The French *Journal des Sçavans* too provided the Society with material on Italy, which the Society translated and published in the *PT*.

3. The papers

A total of 25 *PT* papers were collected for the purpose of investigating English-Italian medical relations. The group includes five anatomical studies; four blood studies; one death report; two studies on the effects of viper poison, one on tarantula bites, and one on the effects of an Indian varnish; one of the first studies on the scabies mite; a paper on stones found in animals; four book accounts; and two letters of general updates on Italy's medical advances.

Four of the papers were published in their original Latin and were excluded from the linguistic analysis, which focused on papers written in English. However, the publication of a paper in Latin was itself significant in that Latin was generally used by the publishers to make papers internationally accessible.[17] Papers written in English were thus occasionally translated into Latin, and papers written in Latin were not always translated into English.

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15 *DBI*, s.v. Del Papa, Giuseppe.

16 FRS (Fellow of the Royal Society) followed by a year, after a Fellow's name, refers to the year of their election.

17 According to Henderson, while there is evidence in the bureaucratic archival material of requests for translations from foreign vernacular languages, there appear to be no

Two papers instead were partly in English and partly in Latin. In both cases, English served the purpose of framing the main body of the papers by means of introductory and concluding sections written by the editor. One of the two papers (*Phil. Trans.* 1706: 2282-2303) provides a series of miscellaneous medical notes in Latin by the naturalist John Ray (FRS 1667). The other Latin-English paper (*Phil. Trans.* 1670: 2093-2095) consists of notes by Lorenzo Bellini.

Of the papers written in English, nine were translations from Italian or Latin, while the remaining were originally written in English. The actual writers or translators of seventeenth-century *PT* papers are generally anonymous. The tendency is to put the Italian source of information and the name of the addressee, but not the person who dealt with the translation or the writing of the paper for publication. At least until the late 1670s, however, the translator of most papers was generally Oldenburg himself. In the eighteenth century, instead, names of translators and "communicators" started appearing, as in the case of William Sherard, Richard Mead and Samuel Dale who are found as the communicators of three of the early eighteenth-century papers.

The discourse analysis distinguished between translated papers and reporting papers. The translated papers were originally written by Italians and were then translated into English. Reporting papers instead were written directly in English and report about a particular topic based on Italian researches. Since the different nature of these papers can influence the writing style, the two text types have been treated separately. In the first case, the writing style may be that of the original Italian author, only translated into another language; while in the case of reporting papers, the style will be that of the English (or other nationality) writer. Further, the translated papers display the Italians' opinions (where present), while the reporting papers generally display those of the reporter.

3.1 Discourse features

Starting from the macrostructural features, it was observed that 12 out of the 25 papers (48%) are in letter form. Letters could either be prefaced with a short introduction by the editor or be directly published in their full or abridged version. Titles tend to be long, self-explanatory and often point out

such requests for material written in Latin, which would suggest that the Fellows felt comfortable with this language (2013: 108).

the source of the reported information. The body of the papers, instead, tends to be short, generally not exceeding four pages in length. Both translated and reporting papers often contain a brief introduction written by the publisher. Sometimes the introduction is followed by footnotes with references to other papers and/or short comments. Moreover, the publisher occasionally intrudes into the translated texts with quick reminders in brackets informing the reader that the person speaking is the original Italian author.

Ten papers were written in the form of observations. Other text types included four book accounts, three experimental reports, two updating papers, one report of death and autopsy, and a brief piece of commentary on a published paper.

As far as the use of language is concerned, just over half of the papers display a narrative writing style (13/25, 52%), featuring past or present tense, perfect aspect, public verbs and third person personal pronouns. Narrativity is generally found to be frequent in the early *PT*, and this is especially true in the case of the reporting papers, which mostly deal with the work of a third Italian party, making a narrative and/or descriptive use of language necessary. More than half of the papers (14/25, 56%) were also characterised by an involved and author-centred approach (Atkinson 1992 and 1999). This means that the writing was characterised by features marking the author's presence and thoughts within the text and as the main agent of what was being reported. The main features marking involvement were first person pronouns, active verbs, private verbs (showing the author's psychological states and mental processes, e.g. think, believe), displays of personal relations, modesty, and forms of encomia mostly towards Italian natural philosophers. See for instance the following extract where features of involvement are marked in italics:

> *I have* several times *spread* a great deal of this varnish hot upon the naked skin of poultry, and they never received any mischief from it, either internal or external. *I have caused* other fowl to swallow crumbs of bread sopt in the varnish, and they seemed to like it very well. In others *I have made* several little pricks in their breasts till blood came out, and then *anointed* it all over with varnish, which instead of hurting them, proved a balsam to heal them. […] *I verily believe* there is no mercury of what sort soever in this varnish; not only because it is very light (as was said), but besides because *I have been very diligent* in trying whether gold would discover any sign of mercury […]. (*Phil. Trans.* 1700d: 949, translated)

Of the fourteen papers that were characterised by an involved use of language, eight were reported papers (57%), thus slightly more than the papers directly translating Italian research. However, seven papers (28%), three of which were translations and four reported, appeared to be more informational in nature in that they lacked the presence of an authorial persona; the use of language was less verbal (however not yet highly nominal either); and writers simply reported what was observed or performed – four papers being observations, two experimental reports, and one a book account. Interestingly, three of these more informational papers displayed a rather abstract use of language, characterised by passive voice, which allows the authors to put the object of their research in focal position. As a result, these few papers appear to be object-centred rather than author-centred, going against the general tendency of the early research article. Features marking abstractedness are in italics in the following extract:

> *Having infused* into the jugular and crural vein of a dog some aqua fortis diluted, the animal died presently; and *being opened*, all the bood in the vessels *was fixed*, but that in the guts not so well. *It was* also *observed*, that the great vessels *were burst*, perhaps by an effort of nature; even as in the greatest part of those that die of an apoplexy, the vessels of the lungs *are found broken*. (*Phil. Trans.* 1666a: 490, translated)

Modesty and encomia appear to be employed in the papers mostly by English writers and the publisher; however, the original letter exchanges show that this kind of formality was widespread practice among both Italian and English scholars. See for instance the following extracts:

> Having been honour'd here with the place of publick anatomist of Venice, though I have given as yet but a very slender accompt of my performances, in comparison of the illustrious example of Mundinum, Vestigius, Molineta, &c. yet I shall acquaint you with some particulars that have occurred to me. (*Phil. Trans.* 1670a: 1188, translated)

> The journalist having been informed, that Signor Gyeronymo Barbato, publick professour of practical physic at Padua, and physician in Venice, had written a book upon that subject, and illustrated it with new anatomical diagrams, all ready for the press; did, it seems, obtain the perusal of the original manuscript, and permission withal, to make an extract thereof, which in this journal [the *Giornale de' Letterati*

> of Venice] he presents the curious with, to stay their desire whil'st the whole dissertation is printing. This breviate we thought fit to English here out of the Italian, as followeth. (*Phil. Trans.* 1671b: 2224, reported)

Choosing one wording instead of another means making choices about how to signify or construct social identities, social relationships, knowledge and belief (Fairclough 1992: 76). Hence, considering the particular wording choices that have been made, especially in contrast to alternative wordings, can provide further useful insight into what may have been the authors' thoughts and intentions and into the cultural and ideological meaning of their writing. The analysis of wording choices in the first extract reveals how the original Italian author, Giacomo Grandi, cautiously puts forward his piece of information by understating himself and his work through the use of contrastive subordination (*though…*) and words that have a connotation of smallness (*slender* in contrast with the connotation of greatness suggested by *illustrious* used with reference to notable physicians of the past). Again, in the second extract, Oldenburg modestly proposes an Italian piece of research to the reading public. He provides some background information for the written piece, hedging some of his statements (*it seems, we thought fit*). The second extract, moreover, displays another typical feature of the editors' introductions to both translated and reported papers; expressions like *we thought fit to English here* or *the publisher thought fit to insert* were often inserted to humbly present papers to the readership.

3.1.1 Witnessing

In the case of both translated and reported papers, great importance was given to the presence of notable gentlemen, or *virtuosi*, that witnessed what was now being reported in the article:

> Being opened, the Spectators were surprised to find his blood not curdled, but on the contrary more thin and florid than ordinary. (*Phil. Trans.* 1666a: 491, translated)

> Signor *Steno*, who honour'd me with his visit, saw the administration of it [autopsy of a not-completely formed baby], which I had before made in the presence of many Noblemen and Physitians at my House. (*Phil. Trans.* 1670a: 1189, translated)

In both the above extracts, the writers specify that a number of witnesses were present at the running of the experiments. While in the first case the

author speaks more generically of a number of spectators, in the second case an individual space is given to the Danish scientist Nicolas Steno[18] – possibly regarded as more newsworthy – and then more vaguely, but still relevant, to "many Noblemen and Physitians".

There was moreover a tendency to specify who the witnesses were in terms of their profession, reputation and/or social standing. Notice in the following extract, how the writer lists the names of the persons present at the running of a series of experiments and how, for each one of them, he provides brief biographic notes:

> Some few days after, a rendezvous [of experiments to see the effect of viper poison on pigeons] was made in Sign. *Magalotti's* Garden, where, besides the forenamed persons, met Mr. *Thomas Frederick*, Mr. *John Godscall* (two English Gentlemen), Abbot *Strozzi* (his Most Christian Majesties Publick Minister in this Court), Sign. *Paolo Falconieri* (the first Gentleman of the Bed chamber to the G. Duke), Sign. *Luigi del Riccio*, Mons. *Pelletier*, Mons. *Morelle* (the one Physitian, and the other Chirurgeon to the G. Dutchess), Dr. *Gornia* Physitian in Ordinary to His Highness, Dr. *Bellini* Professor of Anatomy at *Pisa*, Sign. *Lorenzo Lorenzini* a Mathematician, and Sign. *Pietro Salvetti* […] who is one of the G. Dukes Musicians, and plays on all Bow instruments. (*Phil. Trans.* 1672a: 5064)

Witnessing was common practice among early modern scientists and writers of science. Together with detailed recording and reporting of natural and experimental events, witnessing served the purpose of building a discourse of fact. In the absence of other forms of evidence, the presence of witnesses would ultimately give credibility to the truthfulness of the report (argument from authority). The existing literature on testimony in early modern science links the credibility attributed to witnesses to their social status: the higher the witness's status, the more credible was the report. However, Shapiro (2002) argues that the role of gentlemanly norms is overemphasised by historians. She shows that gentle status was only one of the factors involved in assessing witness credibility and that witnesses were often not gentlemen. A more important aspect for the credibility of the testimony was the level of skill and experience. This appears to be confirmed by the author of the above-quoted paper when he writes:

[18] Nicolas Steno (1638-1686) settled in Italy in 1666 and converted to Catholicism in 1667.

> This is, Sir, what I can confidently affirm to have been an eye witness of; [….] but that, which urged me to make this repetition [to test the effects of viper poison], was the thought that it might be acceptable to you, to see his Assertions [Francesco Redi's] confirmed by the Testimonies of so many Persons, that are the more able to be judges of them, because their understandings are such, that 'tis not possible to impose upon them. (*Phil. Trans.* 1672a: 5066)

Thus, according to the author, the referenced witnesses had a broader understanding of the subject and their opinion could not therefore be doubted.

3.1.2 Explicit place reference

The tendency to report in detail appears to lead writers to name the town where a piece of research was carried out or sent from and to specify the location where the event took place. This is especially true in the case of reporting papers and travel accounts. Various sampled articles report that the experiments were performed at the homes of specific physicians or other amateur scientists. An example can be seen in the extract quoted above (*Phil. Trans.* 1672a: 5064), where it is said that the experiments were carried out in Lorenzo Magalotti's garden. Magalotti was not a physician but an intellectual and diplomat, who had visited the Royal Society and held regular correspondence with them.[19]

The most frequently cited toponyms reflected the locations of some of the main universities and medical Italian circles of the late seventeenth century; namely Bologna, Pisa, Sicily,[20] Padua and Rome. A great deal of correspondence was kept between London and Tuscany, in that several Italian learned men lived in and moved about the Tuscan towns. Florence moreover, was the home of the Accademia del Cimento, whose members – among which also the De Medici brothers, Prince Leopold and the Grand Duke Ferdinando II, founders of the academy – had contacts with the Society. Table 1. below lists all of the place names found in the papers with the number of mentions.

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[19] Magalotti, who had studied English, visited England and the Royal Society twice in 1667 and 1668 (Wis 1996: 343). Two of the main purposes of his visits were to bring back information about the Society to Italy and to encourage Boyle to correspond with Italian scholars (Knowles Middleton 1979: 163). See also Knowles Middleton (1980).

[20] On the Society's relations with the south of Italy, see D'Amore (2017).

Table 1. Cited place names and number of citations

Toponym	Number of mentions
Venice	6
Rome	4
Bononia (Bologna)	3
Pisa	3
Naples	3
Padua	2
Florence	2
Sicily	2
Genoa	2
Udine	1
Lombardy	1
Savoy	1
Tuscany	1
Leghorn (Livorno)	1
Palermo	1
Calabria	1
Otranto	1

Venice was the most frequently mentioned in that it was the home of one of the Italian journals *de' Letterati* from which the Society often retrieved material for publication in the *PT*. It was also the home of the physicians Travagino and Grandi, and of the English diplomat John Dodington, who worked as an intermediary between Italians and the Society. Although less active from a medical point of view (Cook 2004), Rome was also frequently mentioned as the source of the two Lancisi papers and one of the favourite stops for travellers.

Finally, no distinctions appear to be made between the different Italian states. While place names are provided for the sake of exhaustiveness and factuality, the physicians are generally referred to as being Italian, which would seem to suggest that the various states were seen as belonging to a unified socio-cultural entity, the Italian *Res publica litterarum*.[21]

[21] Mentions of the Italian states individually were made in other papers related to Italy; these were however very few and irrelevant among the broad group of over 300 *PT* papers related to Italy.

3.2 Evaluation and discourse representation

Evaluation – i.e. positive or negative assessments which the author makes on his own behalf either explicitly or implicitly (White 2004) – should be considered in a critical approach in that the author's opinions "might influence or position readers/listeners/viewers to take a negative or positive view of the people, events and states of affairs being depicted in the text" (White 2004: 1). Discourse representation instead – a subcategory of intertextuality, i.e. "the property texts have of being full of snatches of other texts, which may be explicitly demarcated or merged in, and which the text may assimilate, contradict, ironically echo and so forth" (Fairclough 1992: 84-85) – refers to the explicit incorporating of other texts focusing on how discourses are represented within the discursive event under study. This category is particularly relevant to the present analysis, in that most of the sampled papers include some form of represented discourse, either by incorporating original extracts and full Italian papers or by reporting and adapting their contents.

Starting from the first category, the high presence of an involved language production on the authors' part entails that evaluation of Italian physicians and their work did indeed occur. Evaluation was generally explicit and positive, especially considering that what was published in the *Transactions* had been discussed at meetings and judged worthy of publication beforehand. As was mentioned earlier, also letter exchanges reveal mostly positive encomiastic relations between English and Italian natural philosophers, and between English natural philosophers speaking about Italians.

Explicit evaluation was mostly expressed through praise and positive evaluative adjectives, or, in DHA terms, through the extensive use of nomination and predication strategies that positively construct objects, events, processes and especially social actors such as "the *ingenious* [Paolo] Boccone", "that *great* anatomist seignor Antonio Marchetti", or "that *learned* anatomist" referring to Lorenzo Bellini (my italics). Translated papers too reveal examples of praise and positive evaluation. For instance, Lancisi refers to Malpighi as the "*incomparable* Malpighi, who naturally applied himself only to *serious* studies" and later "this *worthy* and *learned* man", "this *illustrious* person", "this *most learned* man". Positive evaluation was also referred, on a minor scale, to the physicians' studies with expressions like "a *curious* observation"; "many *notable* experiments"; "his book of vipers, which for several years passes in this country *almost for an undoubted truth*".

Evaluation towards the author was however much more abundant than evaluation towards the study, once again reflecting how the agent played a central role in seventeenth- and eighteenth-century natural philosophical discourses. These encomiastic strategies could be considered merely as part of seventeenth- and eighteenth-century genteel manners; however, reverential forms of this kind were not employed in speaking of all scientists. In the case of unknown Italian men, for instance, English writers would generally speak of "an Italian" or provide whatever piece of information was available regarding their profession and/or reputation. For instance, one of the first papers mentioning Redi's work, which will later become very well known in England, refers to him simply as "a curious Italian" and "this Italian philosopher" (*Phil. Trans.* 1665: 160, 162); and in another paper the author introduces Domenico Guglielmini by saying that "he is esteemed an excellent mathematician" (*Phil. Trans.* 1700c: 627), thus hedging his statement through the use of the passivized verb *esteem* and attributing the opinion to others.

Only two minor cases of potentially face-threatening discourse were found among the 25 papers.[22] The first was a case of implicit negative evaluation of a synopsis that the Society had recently received of a book by Francesco Travagino. The book was entitled *Nova Philosophia e Medicina* and, from the description made in the article, the book would seem to reflect a medieval summa, i.e. a compendium of all knowledge and sciences. In the extract below, the verbs and expressions that the author of the paper uses to attribute what is being said to Travagino are in italics:

> That *this Author hath compos'd* a System of Natural Philosophy by Observations and Experiments, accommodated to the benefit of Humane Life, and Subservient to Physick and other subalternate Arts; which Philosophy *he pretends* to have raised on Principles that are certain Bodies drawn out of Mixts, which, though in themselves invisible and incoagulable, yet become, *according to him*, visible by their Contrariety and mutual Operation […] And from their various Complication (in which he places the whole business and moment of Philosophy) *he holds*, that […] In particular, *he deduceth* from the

[22] Fairclough's (1992) critical approach to discourse analysis is interdisciplinary in that it exploits various linguistic, social, political and psychological theories. Among the most influential linguistic theories treated in *Discourse and Social Change* and underlying the present study are Systemic Functional Linguistics, presupposition and politeness theory/speech-act theory. Hence, the view of discourse as a cluster of face-threatening acts and politeness strategies that follow.

> said Principles the cause of Ferments and their variety, the Nature of Generations, Concretions, Putrefactions, Precipitations, &c. and *sheweth* how those principles run through all Minerals, Vegetables, and Animals, by their manifold Combinations, and various ways of acting on one another […] And having raised this Structure of his *as far as he judgeth* it sufficient for the Subordinate Arts, *he proceeds* to adapt it to the Art of Physick. And applying it to Animal Bodies, he thence *draws* the diversity of Humours and Tempers, the beginning and duration of Vital Heat, the motion of the Limbs, the faculties of Entrails, the origin, vitality, and properties of the Blood […] concluding with an Indication of the proper Remedies (*as he conceives*) of many Diseases.
>
> Whether this Philosophy be new, is easy to judge. (*Phil. Trans.* 1665: 556)

The extract is constituted by frequent attributions, repetition of the *and* conjunction and by the presence of several sceptical parenthetical remarks such as "though in themselves invisible and incoagulable, yet…"; "(in which he places the whole business and moment of Philosophy)" or "(as he conceives)". By saying "in which he places the whole business and moment of philosophy" the author is also exaggerating and oversimplifying Travagino's book intentions (intensification strategy). The perlocutionary force produced by this utterance contributes to the overall understating process set in motion in the passage. Moreover, the text includes a series of lists of the numerous topics that the author discusses in the book. All of these strategies together seem to create a slight mockery of the book being described. The writer of the paper finally concludes with the rhetorical comment "whether this philosophy be new, is easy to judge", thus implying that the book was certainly not a novelty; notice also the use of the indicative in the main clause (*is* easy to judge), which presents the writer's opinion as fact rather than suggestion.

An important step in a critical study of discourse is to interpret results taking into account the relevant context knowledge and any intertextually related sources. Hence, whenever some form of opinion, tension or evaluation appeared to transpire from a given discursive event, the original writing that led to the publication and/or any related letter exchanges were consulted in order to view how original discourses were represented in the *Transactions* and to compare different perspectives of the same argument. From a closer look into Travagino's correspondence with Oldenburg, it emerges that it was Travagino himself who had asked Oldenburg to review

his synopsis.[23] As has been seen, the Society did review the synopsis and published the review in the *PT*. Oldenburg moreover privately replied to Travagino's letter, but the tone of the letter is quite different from that of the published paper[24] going back to the traditional encomiastic formality of seventeenth-century letter exchanges:

> The Royal Society thinks highly of your remarkable deference to it, and instructed me to inform you of its great goodwill towards you and your endeavours. Indeed, nothing more pleasing to them could occur, than the news from my place on the globe that there are men who strive earnestly to promote science by reliance on observation and experiment and who, neither feigning nor formulating hypotheses on nature's actions, seek out the thing itself. And as they gather from the synopsis you submitted that you are a follower of the experimental method of philosophy, and more especially because the opportunities for exploring nature's hidden byways are so vast, they congratulate you upon your undertakings and labours, praying for your happy success in them. They desire you to supply what you so kindly offer in your letter (namely, the communication of the schedule of your experiments), when you conveniently can. When the work upon which you are engaged shall be published, it will assuredly furnish the Society with a further occasion for disclosing its judgement of yourself and your work. (Oldenburg to Travagino, in Hall – Hall 1966: 415-416)

Hence, Oldenburg's reply to Travagino positively congratulates him on his work and approach to nature and, although it mentions his synopsis and the Society's judgement of it, no actual judgement appears to be expressed. Moreover, it should be born in mind that the *PT* paper was in English

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[23] Like many of his contemporaries, Travagino saw the Society as an authority in natural philosophical matters: "As it is the chief object of your Society to judge of the causes and effects in physics discovered by art and through art, and to promote discoveries sent to you from any quarter, no matter who makes them, I beg you again and again – or if you not yourself then whoever acts for you in this duty, but I assume you to be the most likely person – to take the laws into account and examine the Synopsis or Idea of a new Physics, a Practice which I have discovered through my experiments. This is a new task of mine; many, as you know, have tried it before me, but all in vain. So I fear that the same may befall me […]. However, it is certain that unless you too free me from my fear that the opposite is true I cannot ever consent to publish it, for all who know me, not to condemn me." (Travagino to Oldenburg in Hall – Hall 1966: 302).

[24] The identity of the author of the paper is not stated.

while the epistolary exchanges between the two men were carried out in Latin. Oldenburg may thus have been trying to avoid expressing an actual judgement on the synopsis yet wanting to maintain a good relationship with Travagino.

The second case of potentially face-threatening discourse is a claim of authorship of an experiment. The paper includes a letter,[25] whose anonymous author subtly points out that an experiment made by the Italian physician, Carlo Fracassati, had been previously performed in a very similar manner by himself, and that possibly Fracassati

> may have had some imperfect Rumour of our Experiment without knowing whence it came, and so may, without any disingenuity, have thence taken a hint to make and publish what now is English'd in the *Transactions*. (*Phil. Trans.* 1666d: 552)

The author of the letter appears to mitigate his claim of authorship through extensive hedging given by the modal verb *may* and the use of negation found in "imperfect" and "without"(mitigation strategy). Moreover, the author chooses words that have a connotation of smallness as in "an *imperfect rumor* of our experiment" – which suggests that Fracassati only heard a little of the experiment – and a "hint". The author thus opts for negative politeness in order to put forward his claim in a more indirect, respectful and less imposing manner.

Despite these two minor cases, overall the representation of Italian medical discourse in the *Philosophical Transactions* can be considered mostly positive, at least from what emerges from the involved author-centred papers, in that the positive discursive construction of Italian medical men and their work, through a general display of appreciation, dominates the sampled corpus. In the case of the seven informational papers, instead, discourse representation tended to be neutral starting directly with the narrative and avoiding comments and evaluative language. These papers, however, tended to make more frequent use of attribution through the use of public verbs (e.g. "he maintains", "he pretends", "he affirms"). In some cases, as was seen in the extract on Travagino's book above, the use of attribution is interestingly rather frequent; when moderately used, in fact, attribution can be considered a neutral discourse representation device, but its repetitiveness in certain papers seems to transform it into a slightly

[25] The letter is framed by Oldenburg's introduction and notes. In the paper, he acts as a referee providing evidence and thus confirming what is being stated in the letter.

negative device: it shows a desire on the authors' part to distance themselves from what they are reporting and thus conveying weak commitment, or possibly even scepticism, towards the reported discourse. Hence, while the Fellows were appreciative of Italian research, they were cautious when presenting it to the *PT*'s readership.

4. Collecting Italian medical intelligence for the RS: Pierre Silvestre's letters

Before attempting to draw some preliminary conclusions to this study, some further contextual historical details that emerge from the small corpus of *PT* papers are worth reporting. In the early modern period, there were severe difficulties in exchanging letters and books between Italy and England; yet the Society was interested in receiving news on Italian natural philosophy. The role of British fellows travelling to or resident in Italy thus became pivotal for scientific communication between the two countries.[26] Two of the papers under study, consisting of letters by Pierre Silvestre,[27] provide a good example of how information and, in this specific case, medical intelligence was collected and communicated to the Society. The papers are inserted in the *PT* with the following titles:

> A Letter from Dr P. Silvestre, of the Coll. of Phy. & F.R.S. to the Publisher, Giving an Account of Some New Books and Manuscripts in Italy. (*Phil. Trans.* 1700b: 613)
>
> A Letter from Dr Peter Silvestre, F.R.S. to the Publisher, concerning the State of Learning, and Several Particulars Observed by Him Lately in Italy. (*Phil. Trans.* 1700c: 627)

At the opening of the eighteenth century, Silvestre travelled through Italy and visited physicians, universities and academies collecting information for the Royal Society. He reported some information in a letter, and then, since the Fellows desired to be "more particularly informed of the virtuosi" he had seen in Italy and "of the state of learning there, chiefly as to natural philosophy and physick" he added the second more detailed supplementary letter.

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[26] See among others D'Amore (2017).

[27] Also anglicised as Peter Sylvester (1662-1718, FRS 1699). Silvestre was a French physician. He arrived in England as William of Orange's physician in 1689 (Source: Royal Society's *Fellows Directory*).

In the first letter, he focuses on medical books that were being published in Italy in that period. He proceeds by mentioning the places he visited, the physicians he met, the researches they were working on, and occasionally some further curiosities about the physicians or his conversations with them. The following extract provides an example of Silvestre's manner of proceeding:

> I saw at passing *Florence*, Monsieur Bellini, he is at present busie in writing the anatomy of the body of man, in the *Tuscan* language. He assured me this work was wrote so clearly, and that he had taken such pains to explain the functions, by examples from ordinary mechanicks, and the commonest things, that the most ignorant could understand them […]. At *Rome*, I saw some manuscripts of the late famous Borelli at the Scholæ piæ, where he died. One of them was a discourse of his *de volatu hominum*, wherein by mechanicks he pretends to make up the natural defects a man has to fly. There are also many other academical discourses […]. Some others of these discourses were by him read in the Academy[28] of the Queen [Christina] of Sweden, and ready for the press. I had almost forgot to tell you that I saw at *Bononia*, a very fine preparation of the human organ of hearing, […] the author thereof Senior *Valsalva* told me he would speedily publish something, not being satisfy'd with what is already made publick upon that subject. (*Phil. Trans.* 1700b: 613-614)[29]

Letters such as Silvestre's were frequently sent in this period both by English and Italian correspondents allowing the Society to be well informed on the state of Italian medical research. However, only Silvestre's letters (EL/S2/26, EL/S2/27 and EL/S2/28) were translated (from French) and inserted in the *Transactions* in full.[30]

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[28] Queen Christina's court in Rome was a lively centre of natural philosophy. She extended her patronage to the Accademia Fisica-matematica, founded in 1678 by Giovanni Giustino Ciampini (Cook 2004: 4). Christina's court was frequently visited by learned travellers including Pierre Silvestre.

[29] Italians mentioned in this paper: Marcello Malpighi, Giangirolamo Sbaragli, John Baptista Triumphetti (Giovanni Battista Trionfetti), Giovanni Maria Lancisi, [?] Sanguinetus, Antonio di Monforte, Monsieur Gimelli (Giovanni Francesco Gemelli Careri), Lorenzo Bellini, Giovanni Alfonso Borelli and Antonio Maria Valsava.

[30] This statement is limited to the period under study and to letters regarding medical topics. In some papers, brief pieces of information taken from the letters were sometimes reported by the editor.

In the second letter, Silvestre provides more detail about his travel and the people he met, sending over to England books and natural curiosities. He digresses in further, at times mundane, detail, which allowed the Fellows to gain a picture of the Italian cultural scene. For instance, he explains that in Padua "he enquir'd for the most eminent men of that University" but he unfortunately found that most of them were out of town since it was vacation time. He expresses his appreciation for Giangirolamo Sbaragli, but found that he was disliked because of his antagonism towards Malpighi. He visited the Collegio Romano and the Museum Kircherianum. In Naples he was surprised to find "a great many persons applying themselves to the corpuscular philosophy and mathematicks". He also met

> Signior Joseph Valeta, a gentleman who has a very good library, and has learnt a little English, on purpose to understand English books, for which he has a very great value. He lent me a manuscript of his that he will speedily publish. His design is to commend and encourage the Experimental Philosophy. (*Phil. Trans.* 1700c: 629)[31]

He goes on listing the names of Italian physicians and other men of learning, some already known and some new, providing detail as to their lives and careers. For instance, he says that Bellini had become Professor Emeritus and physician to the Grand Duke of Tuscany and that Del Papa had become physician to the Cardinal De Medici. He then goes back to more specifically medical curiosities describing some wax carvings of the muscles and internal viscera that he had been shown in Genoa. He praises them saying that he could hardly distinguish them from the parts of a real corpse and emphasises the utility that such material could have in the study of medicine:

> If there was half a dozen of these wax carvings, in several views, to shew at any time the structure of humane bodies, it would not only shorten the study of anatomy, but besides make it a great deal less nauseous to the beginners. (*Phil. Trans.* 1700c: 630-31)

[31] Italians mentioned in this paper: Pompeio Sacchi, Francesco Spoleti, Cavalier Soranzo, Domenico Guglielmini, Giangirolamo Sbaragli, Marcello Malpighi, Monsignor Luca Tozzi, [?] Sinibaldi, Giorgio Baglivi, Raffaele Fabretti, Filippo Bonanni, Paolo Boccone, Tommaso Cornelio, Leonardo di Capua, Giuseppe Valletta, Tommaso Donzelli, Anello di Napoli, Ottavio Sandoro, Giovanni Battista Garnieri, Nicola Partenio Giannetasio, Lorenzo Bellini, Giuseppe del Papa, Giuseppe Zambeccari, Pascasio Gianeti, Antonio Magliabechi, Vincenzo Viviani and [?] Colechiani.

He closes with some of his own observations on a distemper that was frequent in Lombardy and Savoy and with a list of natural curiosities that he sent with the letter.

It is thanks to letters such as the above that the Society was informed on the state of learning in Italy and all over the world. Learned men and their work would eventually come to the knowledge of the Fellows and physical samples of natural curiosities added a further sense of truthfulness to the reports.

5. Conclusions

The linguistic analysis of Italian-research-based papers published in the *Philosophical Transactions* revealed that Italian and English rhetorical practices in communicating medicine did not seem to differ considerably between the two cultures. Indeed, both translated papers – which were more representative of Italian medical discourse – and reported papers made extensive use of forms of encomia, elaborate politeness and witnessing. A high level of narrativity was present in more than half of the articles, and especially among reported papers. Moreover, more than half of the group was characterised by an author-centred approach to research, with the translated articles being slightly less than the reported ones. A small group of articles were not labelled as author-centred but rather tended towards an informational writing style. English medical reports of Italian research were this time slightly more than the translated papers, making the differences between the two text types in terms of authorial presence within the narration irrelevant. Both Italian and English medical writings thus show that the role of the researcher was still of primary importance, yet there already was a tendency towards reducing the author's thoughts and opinions in order to foreground the object of research. The comparison of the linguistic features of translated and reported papers thus helped reveal a series of common practices among the English and Italian medical communities. Given the shared use of Latin as the international language of science roughly up until this time, it is not surprising that the rhetorical strategies employed by scholars of different countries did not differ considerably.

Most papers tended to specify place names of where a given natural philosophical event was observed or took place. Toponyms were more numerous in reported papers and travel accounts. This aspect can be associated with the tendency to report in detail for the building of a discourse of fact.

Italian medical discourse was mostly framed by positive-evaluative nomination and predication strategies or was presented neutrally by simply reporting or translating the Italian piece of research. The representation of Italian medical discourse can therefore be considered to be mostly positive or, in fewer cases, neutral. Yet, the frequent use of attribution would seem to suggest that, although the Fellows admired Italians and their research, they were cautious when presenting it to the *PT*'s readership.

The critical aspect of the analysis with the integration of further intertextually related sources, revealed that what is portrayed in the *PT* papers is quite representative of the management of English and Italian relations behind the scenes. Published papers were often heavily edited but this process generally made the content of letters more concise and free of irrelevant elaborate formalities and digressions.

Finally, the content of the papers showed how the Society treasured any piece of information coming from Italy. Oldenburg moreover exploited the example of foreign studies to encourage further research in order to obtain multiple perspectives and therefore a more thorough knowledge of nature.[32] He never stopped stressing the importance of a cooperation of all natural philosophers for the attainment of a universal natural history based upon fact.

REFERENCES

Sources

Phil. Trans. *Philosophical Transactions giving some Account of the Present Undertakings, Studies, and Labours, of the Ingenious, in many Considerable Parts of the World*, http://rstl.royalsocietypublishing.org/content/by/year, accessed March 2019.

Phil. Trans.
1665 Some Observations of Vipers. 1: 160-162.

[32] An example can be seen in *Phil. Trans.* 1670b: 2095: "this Inquisitive Anatomist['s studies], which the Publisher […] thought fit to insert in these papers, thereby to administer occasion to our dextrous Anatomists here, with all possible diligence and care to pursue, jointly with that Italian Professour [Lorenzo Bellini], those important inquiries about such considerable subjects, as have been above related; comparing with their researches in this matter the many notable Experiments lately published".

Phil. Trans.
1666a An Account of Some Experiments of Injecting Liquors into the Veins of Animals, Lately Made in Italy by Signior Fracassati Professor of Anatomy at Pisa. 2: 490-491.

Phil. Trans.
1666b An Account of Some Discoveries Concerning the Brain, and the Tongue, Made by Signior Malpighi, Professor of Physick in Sicily. 2: 491-492.

Phil. Trans.
1666c An Experiment of Signior Fracassati upon Bloud Grown Cold. 2: 492.

Phil. Trans.
1666d A Confirmation of the Experiments Mentioned in Numb. 27. to Have Been Made by Signor Fracassati in Italy, by Injecting Acid Liquors into Blood. 2: 551-552.

Phil. Trans.
1666e An Account of the Synopsis Novae Philosophiae & Medicinae Francisci Travagini Medici Veneti. 2: 555-556.

Phil. Trans.
1668 Two Extracts out of the Italian Giornale de' Letterati; The One, about Two Experiments of the Transfusion of Blood, made in Italy, the Other, Concerning a Microscope of a New Fashion, Discovering Animals Lesser Than Any Seen Hitherto. 3: 840-842.

Phil. Trans.
1669 An accompt of some books. Marc. Malpigii, phil. & Med. Bononiensis dissertatio epistolica De Bombyce, Regia Societati dicata. Printed at London for Iohn Martin and Iames Allestry printers to the R. Society [...]. 3: 987-1000.

Phil. Trans.
1670a An Extract of an Italian Letter Written from Venice by Signor Jacomo Grandi, to an Acquaintance of His in London, Concerning Some Anatomical Observations, and Two Odd Births: English'd by the Publisher, as Follows. 5: 1188-1189.

Phil. Trans.
1670b An Extract Out of a Lately Printed Epistolary Address, Made to the G. Duke of Toscany Touching Some Anatomical Engagements, of Laur. Bellini, Ord. Anat. Prof. at Pisa. 5: 2093-2095.

Phil. Trans.
1671a An Extract of a Latin Letter, Written by the Learned Signior Malpighi to the Publisher, Concerning Some Anatomical Observations, about the Structure of the Lungs of Froggs, Tortoises, & c. and Perfecter Animals; As Also the Texture of the Spleen, & c. 6: 2149-2150.

Phil. Trans.
1671b An Extract Out of the 3d and 7th Venetian Giornale De Letterati, Concerning the Formation of Faetus's. 6: 2224-2227.

Phil. Trans. 1672a An Extract of a Letter Written to the Publisher by Mr. Thomas Platt, from Florence, August 6. 1672. Concerning Some Experiments, There Made upon Vipers, Since Mons. Charas His Reply to the Letter Written by Signor Francesco Redi to Monsteur Bourdelet and Monsieur Morus. 7: 5060-5066.

Phil. Trans. 1672b An Extract of a Letter, Written March 5. 1672 by Dr. Thomas Cornelio, a Neapolitan Philosopher and Physician, to John Dodington Esquire, His Majesties Resident at Venice; Concerning Some Observations Made of Persons Pretending to be Stung by Tarantula's: English'd Out of the Italian. 7: 4066-4067.

Phil. Trans. 1672c Two observations about stones found, the one in the bladder of a dogg, the other fastned to the back-bone of a horse: both mentioned in two Roman journals de letterati. 7: 4095-4095.

Phil. Trans. 1684 Praeclarissimo et Eruditissimo Viro D. Jacobo Sponio Medicinae Doctori, et Lugdunensi Anatomico Acuratissimo. Marcellus Malpighius S.P. 14: 601-608, 630-646.

Phil. Trans. 1694 An Account of Books. 18: 33-40.

Phil. Trans. 1695 Extract of a Letter from Jean Marie Lancisi, Prof. Anat. Rom. To Mr. Bourdelot, Giving an Account of Mr Malpighi, the Circumstances of His Death, and What Was Found Remarkable at the Opening of His Body. Being Art. I. of the 3d. Journal of Brunets Progres de la Medecine. 19: 467-471.

Phil. Trans. 1700a Responsio Almi Collegii Romanorum Archiatrorum ad Epistolas Clarissimi D. Raymundi Vieussends Medicinae Doctoris Monspeliensis, in Qua Potissimum Agitur De Existentia Salis Acidi in Sanguine, & De Proportione Principiorum Ejusdem Scripta Per Jo. Mariam Lancisi Olim. S.D. Innocentis XI. Med. a Secretis & Nunc Archiatrum Collegialem, & in Romano Licaeo Theoricae Extraordinariae Professorum. 22: 599-610.

Phil. Trans. 1700b A Letter from Dr P. Silvestre, of the Coll. of Phy. & F.R.S. to the Publisher, Giving an Account of Some New Books and Manuscripts in Italy. 22: 613-614.

Phil. Trans. 1700c A Letter from Dr Peter Silvestre, F.R.S. to the Publisher, concerning the State of Learning, and Several Particulars Observed by Him Lately in Italy. 22: 627-634.

Phil. Trans.
1700d An Account of the Strange Effects of the Indian Varnish. Wrote by Dr Joseph Del Papa, Physician to the Cardinal De Medices, at the Desire of the Great Duke of Tuscany. Communicated by Dr William Sherard. 22: 947-951.
Phil. Trans.
1702 An Abstract of Part of a Letter from Dr Bonomo to Signor Redi, Containing Some Observations concerning the Worms of Humane Bodies. By Richard Mead, M.D. 23: 1296-1299.
Phil. Trans.
1706 A Letter from Mr Samuel Dale to Dr Hans Sloane, R.S. Secr. Giving an Account of What Manuscripts Were Left by Mr John Ray, Together with Some Anatomical Observations Made at Padua by the Said Mr Ray. 25: 2282-2303.

Special studies

Atkinson, D.
1992 "The evolution of medical research writing from 1735 to 1985: The case of the Edinburgh Medical Journal", *Applied Linguistics* 13 (4), 337-374.
1999 *Scientific Discourse in Sociohistorical Context. The Philosophical Transactions of the Royal Society of London, 1675-1975*. New York: Routledge.
Avramov, I.
1999 "An apprenticeship in scientific communication: The early correspondence of Henry Oldenburg (1656-63)", *Notes and Records of the Royal Society of London* 53 (2), 187-201.
Banks, D.
2009 "Starting science in the vernacular. Notes on some early issues of the *Philosophical Transactions* and the *Journal des Sçavans*, 1665-1700", *ASp* 55, 5-22.
2010 "The beginnings of vernacular scientific discourse: Genres and linguistic features in some early issues of the *Journal des Sçavans* and the *Philosophical Transactions*", *E-rea* 8 (1), http://www.journals.openedition.org/erea/1284, accessed March 2019.
2012 "How modality may function in some early issues of the *Philosophical Transactions*", *Revista de Linguistica y Lenguas Aplicadas* 7 (1), 61-76.
Bazerman, C.
1988 *Shaping Written Knowledge*. Madison, WI: University of Wisconsin Press.
Beretta, M.
2000 "At the source of western science: The organization of experimentalism at the Accademia del Cimento (1657-1667)", *Notes and Records of the Royal Society of London* 54 (2), 131-151.

Biber, D.
1988 *Variation across Speech and Writing*. Cambridge: Cambridge University Press.
Boschiero, L.
2002 "Natural philosophizing inside the late seventeenth-century Tuscan court", *The British Journal for the History of Science* 35 (4), 383-410.
Cavazza, M.
1980 "Bologna and the Royal Society in the seventeenth century", *Notes and Records of the Royal Society of London* 35 (2), 105-123.
2002 "The Institute of Bologna and the Royal Society in the eighteenth century", *Notes and Records of the Royal Society of London* 56 (1), 3-25.
Clericuzio, A.
2013 "Le accademie scientifiche del Seicento. Il Contributo italiano alla storia del Pensiero – Scienze". In: *Enciclopedia Treccani online*. Rome: Istituto dell'Enciclopedia Italiana, http://www.treccani.it/enciclopedia/, accessed April 2019.
Cook, A.
2004 "Rome and the Royal Society, 1660-1740", *Notes and Records of the Royal Society of London* 58 (1), 3-19.
D'Amore, M.
2017 *The Royal Society and the Discovery of the Two Sicilies: Southern Routes in the Grand Tour*. New York: Palgrave Macmillan.
DBI *Dizionario Biografico degli Italiani*. Rome: Istituto dell'Enciclopedia Italiana, http://www.treccani.it/biografico/index.html, accessed April 2019.
Fairclough, N.
1992 *Discourse and Social Change.* Cambridge: Polity Press.
Fellows Directory. London: The Royal Society, https://royalsociety.org/fellows/fellows-directory/, accessed April 2019.
Fisher, N.
2001 "Robert Balle, merchant of Leghorn and Fellow of the Royal Society (ca. 1640-ca. 1734)", *Notes and Records of the Royal Society of London* 55 (3), 351-371.
Gómez López, S.
1997 "The Royal Society and post-Galilean science in Italy", *Notes and Records of the Royal Society of London* 51 (1), 35-44.
Gotti, M.
2011 "The development of specialised discourse in the *Philosophical Transactions*". In: I. Taavitasainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press, 205-219.
2014 "Scientific interaction within Henry Oldenburg's letter network", *Journal of Early Modern Studies* 3, 151-171.

Hall, M.B.
1982 "The Royal Society and Italy 1667-1795", *Notes and Records of the Royal Society of London* 37 (1), 63-81.
Hall, A.R. – M.B. Hall (eds.)
1966 *The correspondence of Henry Oldenburg*. Vol. III 1666-1667. Madison, WI: University of Wisconsin Press.
1967 *The correspondence of Henry Oldenburg.* Vol. IV 1667-1668. Madison, WI: University of Wisconsin Press.
Henderson, F.
2013 "Faithful interpreters? Translation theory and practice at the early Royal Society", *Notes and Records of the Royal Society of London* 67, 101-122.
Knowles Middleton, W.E.
1979 "Some Italian visitors to the early Royal Society", *Notes and Records of the Royal Society of London* 33 (2), 157-173.
Knowles Middleton, W.E. (ed. and transl.)
1980 *Lorenzo Magalotti at the Court of Charles II: His Relazione d'Inghilterra of 1668*. Waterloo, Ont.: Wilfrid Laurier University Press.
Locke, T.
2004 *Critical Discourse Analysis*. London: Continuum.
Lonati, E.
2016 "The language of medicine in the *Philosophical Transactions*: Observations on style", *Token: A Journal of English Linguistics* 5, 5-24.
ODNB *Oxford Dictionary of National Biography*, https://www.oxforddnb.com/, accessed April 2019.
Reisigl, M. – R. Wodak
2016 "The discourse-historical approach (DHA)". In: R. Wodak – M. Meyer (eds.) *Methods of Critical Discourse Analysis*. London: SAGE, 23-61.
Rusnock, A.
1999 "Correspondence networks and the Royal Society, 1700-1750", *The British Journal for the History of Science* 32 (2), 155-169.
Schickore, J.
2010 "Trying again and again: Multiple repetitions in early modern reports of experiments on snake bites", *Early Science and Medicine* 15 (6), 567-617.
Shapin, S.
1988 "The house of experiment in seventeenth-century England", *Isis* 79 (3), 373-404.
Shapiro, B.J.
2002 "Testimony in seventeenth-century English natural philosophy: Legal origins and early development", *Studies in History and Philosophy of Science* 33 (2), 243-263.

Turner, A.
2008 "An interrupted story: French translations from *Philosophical Transactions* in the seventeenth and eighteenth centuries", *Notes and Records of the Royal Society of London* 62 (4), 341-354.
White, P.R.R.
2004 "Subjectivity, evaluation and point of view in media discourse". In: C. Coffin – A. Hewings – K. O'Halloran (eds.) *Applying English Grammar*. London: Hodder Arnold, 229-246.
Wis, M.
1996 "Lorenzo Magalotti e la sua Relazione di Svezia: I. Origini del testo", *Neuphilologische Mitteilungen* 97 (4), 343-364.

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The medical entries in John Kersey's abridged *Dictionarium Anglo-Britannicum* (1708) or how to retain highly demanded lexical material in a short dictionary[1]

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ABSTRACT

The eighteenth century is characterised by efforts to make science accessible to the general public. In this sense, dictionaries played an important role as agents of popularisation of science. This essay focuses on a particular type of scientific entry, that of medical terms, included in John Kersey's *Dictionarium Anglo-Britannicum* (1708), an abridged version of Kersey's revision of Edward Phillips's *The New World of Words* (1706). Kersey's revision had featured the inclusion of a high number of scientific and technical terms from John Harris's *Lexicon Technicum*, but in the abridgement Kersey had to make editorial decisions to shorten this massive work but still include scientific entries that could be of interest to common readers. This study discusses these methods of abridgement and assesses the importance given to medical terminology in portable volumes of this kind by comparing Kersey's (1708) *Dictionarium* with the *Glossographia Anglicana Nova* (1707), since both shared the same target readership, the same purposes and the same emphasis on scientific terminology.

Keywords: medical terminology, abridged dictionaries, John Kersey, *Dictionarium Anglo-Britannicum*, *Glossographia Anglicana Nova*.

1. Introduction

In the latter part of the seventeenth century, medicine was not a matter of concern for scientists and experts only. The intense publication of recipe books and medical texts in pamphlets, journals and handbooks addressed

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to lay readers testifies to a widespread interest in medical issues, above all in therapeutic questions (Bennett 1989: 140-143; Curth 2002; Fissell 2007; Taavitsainen et al. 2011: 14-16). Besides, the introduction of medical entries in the early eighteenth-century encyclopaedia and in reference books such as dictionaries contributed not only to the popularisation of medicine, and of science in general, but also responded to the readers' demand for such contents (Layton 1965; Lonati 2014).

A landmark in the history of the English encyclopaedia is John Harris's *Lexicon Technicum* (1704). As Hayashi (1978: 72) notes, "Harris's emphasis was […] placed upon the explication of terms relating to practical scientific subjects at the expense of those relating to the liberal arts. The immediate influence of this scientific encyclopaedia is evident in subsequent publications of English dictionaries". Thus, after the publication of John Harris's *Lexicon Technicum* in 1704, John Kersey undertook a revision of Phillips' *New World of Words* introducing some 20,000 terms in a volume published in 1706 (henceforth Kersey – Phillips). About half of the wordlist of the new revised dictionary comprised scientific terms mainly derived from Harris's *Lexicon Technicum* (Starnes – Noyes 1991: 84-85).

One year later, the editorial market provided readers with a small dictionary which also paid special attention to scientific terminology, the *Glossographia Anglicana Nova* (1707), whose anonymous author acknowledged his indebtedness to Harris's *Lexicon Technicum* (Hayashi 1984: 358). And soon after that, in 1708, Kersey published his *Dictionarium Anglo-Britannicum* (henceforth *Dictionarium*), an abridgement of Kersey – Phillips which likewise announced the inclusion of scientific entries. Therefore, in just five years, the editorial market put at the readers' disposal four reference books which took pride in their scientific contents.

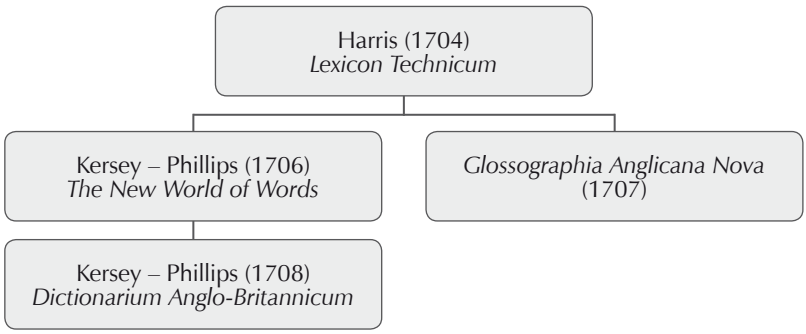

Figure 1. Dictionaries published in the first decade of the eighteenth century under the influence of Harris's *Lexicon Technicum* (1704)

The focus of this paper will be on the last of these dictionaries, Kersey's *Dictionarium,* which was presented as a low-priced reduced version of Kersey – Phillips. Since the latter had been subject to a thorough revision and enlargement due to the incorporation of a massive amount of scientific material, the question arises as to how Kersey managed to achieve both downsizing and inclusiveness. This article tackles this question by analysing Kersey's *Dictionarium*, which is particularly interesting for being the first abridged dictionary in the history of English lexicography. Its small format, its low price, its intended general readership and its announced inclusiveness makes it a good candidate to study the kind of medical information retained in a short dictionary and, consequently, perceived by the editorial market as attractive for the general reader. Besides, the comparison of Kersey's *Dictionarium* with a similar dictionary published just one year earlier, the *Glossographia Anglicana Nova* (1707), can help us to support the conclusions derived from the analysis of Kersey's dictionary.

Thus, this paper has a twofold aim: first, to discover the methods of abridgement adopted by Kersey in his shortened version of Kersey – Phillips, and, second, to assess the importance given to medical terminology in portable volumes of this kind by comparing Kersey's *Dictionarium* (1708) with the *Glossographia* (1707), two dictionaries that show many similarities in format, intent and coverage.

2. Kersey's *Dictionarium Anglo-Britannicum* (1708)

Before the publication of the *Dictionarium*, John Kersey had compiled what is considered the first general English dictionary (Read 2003: 222-223), *A New English Dictionary* (1702). In this work, Kersey included common words that had been put aside in former hard-word dictionaries (Lancashire 2005: 166; Miyoshi 2017: 104). This innovative approach gives Kersey a prominent place in the history of English lexicography (Landau 2001: 52-53), although his definitions were still "brief and often inadequate" (Landau 2001: 53), much in line with those in spelling dictionaries (Long 1909: 30).

Kersey's *Dictionarium* marks a return to the well-trodden path of the hard-word tradition (Read 2003: 223); however, it still managed to include everyday words together with dialectal, legal and, mainly, scientific terms in a small format, "thus for its size the work is unprecedented in flexibility and usefulness" (Starnes – Noyes 1991: 96). In fact, the *Dictionarium* presents a peculiarity: it is the first abridged dictionary in the history of English

lexicography and, paradoxically, it is "the first to add words by the tens of thousands" (Long 1909: 33). As an abridgement, it is not an original work, but a shortened version of Kersey's revision of Phillips's *New World of Words*, and, accordingly, it does not offer new material. Thus, whereas Kersey – Phillips was "designed as a reference work for advanced students of literature, science, and the arts" (Starnes – Noyes 1991: 69-70), Kersey's abridgement widens the target audience to all kinds of readers. Hence, in the preface to his dictionary, Kersey himself recommends "the last Edition of Phillips's Dictionary, set forth by us, with very large Additions and Improvements" (Kersey 1708: The Preface) to those who want to expand their knowledge. In this way, Kersey makes it clear what he had intended with this new shorter volume: "to provide a quick look-up reference work for a somewhat different group of users" (Osselton 2009: 148). However, the small size of his work does not prevent Kersey from boasting about the completeness and inclusiveness of his achievement.

In comparison, on the one hand, to previous expensive large dictionaries, and, on the other hand, to small limited ones, Kersey's *Dictionarium* is presented as a low-priced "Portable Volume" (Kersey 1708: The Preface) containing a "large collection of words and phrases" (Kersey 1708: Title page) used by well-known authors. Certainly, as Starnes – Noyes (1991: 95-96) have noted, "Kersey's vocabulary, estimated at 35,000 words, far surpasses that of any preceding dictionary with the single exception of the folio Kersey – Phillips", from which it is derived.

But, given that Kersey's *Dictionarium* is a shortened version of Kersey – Phillips, how did he manage to reconcile two seemingly contradictory concepts in his compilation, that is, completeness and brevity? I will try to answer this question by focusing on one type of entry, that of medical terms. The comparison of the medical terms contained in Kersey (1708) with those in Kersey – Phillips (1706) will allow me to identify the shortening strategies adopted by the compiler of the *Dictionarium*.

3. Medical terms in Kersey's *Dictionarium Anglo-Britannicum* (1708)

Prior to the analysis of the medical terms contained in Kersey's *Dictionarium*, it seems necessary to make some clarifications about the concept of "medical term" and the limits of this analysis.

For the purposes of this paper, medical term is used to designate human body disorders as well as those agents and elements directly involved

in the healing process, that is, the professionals who take care of these disorders, the instruments they use in their professional activities, generic or specific medicines, the treatments and techniques involved in the healing process, and the places where healing activities are developed. Therefore, anatomical, mineral and botanical terms, as well as chemical preparations, are not considered medical terms in this paper unless their therapeutic properties are reported in the definitions. Likewise, I have not considered those terms used to designate physiological and organic processes such as *sweat*, *urinate*, etc.

As for the limits of this study, the sample size has been restricted to the letters A and S, a decision that responds to the necessity of studying entries that may have a different, or rather, an unbalanced treatment on the part of the compiler. Indeed, whereas lexicographers are careful in the initial stages of their compilation process, they may rush through the final part of his dictionary due to physical exhaustion or editorial pressures, what Osselton has called "alphabet fatigue" (2007), which justifies the selection of entries located at the beginning of the dictionary as well as other ones from the middle or the end of the work. Taking into account these preliminary considerations, the extent of this survey is then restricted to the medical entries, as defined above, contained in the letters A and S.

4. Kersey's methods of abridgement

As an abridgement, one of the main features of Kersey's dictionary is its intended conciseness. Despite the large folio format of Kersey – Phillips, Kersey managed to produce an octavo volume abridged dictionary (Kerling 1979: 196) retaining the informative load of the original. The methods adopted by Kersey to achieve his ends will be discussed in this section.

Van Sterkenburg (2003: 389) defines an abridged dictionary as "a dictionary made from a larger one which has been shortened by removing some of its parts, e.g. obsolete words or phrases". According to this definition, one way to reduce the size of a dictionary would be to eliminate a number of entries which, according to Landau (2001: 398), usually amounts to a third of the entries in the original dictionary. In other words, 66.6% of the total number of entries would be retained in the abridged version.

Regarding the *Dictionarium*, it would be a plausible hypothesis to consider a reduction in the total number of entries recorded in Kersey – Phillips, and accordingly, of the medical entries, as the main strategy used by Kersey to shorten the folio source into a small-format abridgement. For this

reason, the results of the manual count of medical terms in the alphabetical ranges under discussion were quite surprising, at the same time as revealing, since rather than the expected 290 medical entries resulting from the removal of a third of the original entries, the number of medical terms in Kersey's *Dictionarium* amounts to some 369, that is, almost 85% of the medical entries in Kersey – Phillips. Besides, the proportion of medical terms with respect to the total number of entries is very similar in both dictionaries, as shown in Table 1, and even the total number of entries in both dictionaries does not differ much.

Table 1. Comparison of (medical) entries in Kersey – Phillips (1706) and Kersey (1708)

	No. of entries in A, S	No. of medical terms (A, S)	Proportion of medical terms (A, S)
Kersey – Phillips (1706)	6,019	435	7 %
Kersey (1708)	5,727	369	6.4 %

Therefore, far from the expected drastic reduction in the number of headwords, we find a very high proportion of words being retained by Kersey in his abridgement of Kersey – Phillips, a fact which takes us to a second possible shortening strategy: cutting down the definitions. Pruning and remodellation of the explanations are in fact noted by Osselton (2009: 148) as the solutions adopted by Kersey to produce his "handy octavo volume". But, how did Kersey undertake these significant alterations of the definitions? Can we identify certain systematicity in his shortening practices?

An analysis of the medical entries in Kersey will disclose different ways adopted by the author to reduce the length of the entries in Kersey – Phillips; most of them involve deletion, which will be indicated by Ø in the examples. However, generally speaking, Kersey retains those definitions that are originally short in Kersey – Phillips, as shown in (1):[2]

(1)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ACMASTICA, (*Greek*) a continued Feaver so call'd by some, the same with *Synochus*.	ACMASTICA, (*G.*) a continued Fever so call'd by some, the same with *Synochus*.

[2] Different typographical schemes used in the dictionaries have been normalised as follows: headwords are in small caps and highlighted words in the original texts are in italics.

(b)	ALBA PITUITA, A Disease, the same with *Leucophlegmatias*; which See.	ALBA PITUITA, A Disease, the same with *Leucophlegmatias*.
(c)	ALVIDUCA, loosening Medicines.	ALVIDUCA, loosening Medicines.
(d)	SARCOCELE, *(Gr.)* a Rupture, which consists in a fleshy swelling of the Testicles.	SARCOCELE, (*G.*) a Rupture, which consists in a fleshy swelling of the Testicles.

And we even find a few cases of longer definitions that have not been shortened in Kersey's abridgement:

(2)	Kersey – Phillips (1706)	Kersey (1708)
(a)	AMAUROSIS, (*Gr.*) A Dimness or loss of Sight, without any outward Fault to be seen in the Eye.	AMAUROSIS, (*G.*) A Dimness or loss of Sight, without any outward Fault to be seen in the Eye.
(b)	AUGMENTUM FEBRICUM (among Physicians) a Reckoning from what time the Heat of a continual Feaver has seiz'd upon the Mass of Blood, till it come to the Height.	AUGMENTUM FEBRICUM (*P.T.*) a Reckoning from what time the Heat of a continual Feaver has seiz'd upon the Mass of Blood, till it come to the Height.

As a general rule, however, Kersey took one of the following measures to shorten the length of the definitions in Kersey – Phillips.

Alternative names of diseases are omitted in the abridgement, as in (3a), where the phrases "It is also termed *Hoplochrysina* and *MagnesMicrocosmicus"* and (3b) "which some call the Running-Worm, others the Wild-Fire" are not recorded in Kersey's *Dictionarium*. The omission of the explanation by Kersey in the definition for *shingles* (3b) can be justified by the reference to "St. Anthony's Fire", which can be considered a cross-reference the readers can consult for further information:

(3)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ARMARIUM UNGUENTUM, (*Lat.*) a Weapon-Salve, by which Wounds (as some give out) may be cur'd at any Distance only by dressing the Weapon: It is also termed *Hoplochrysina* and *Magnes Microcosmicus*.	ARMARIUM UNGUENTUM, (*L.*) a Weapon-Salve, by which Wounds are said to be cur'd at any Distance only by dressing the Weapon Ø.

(b)	SHINGLES, a Disease, a sort of *St. Anthony's* Fire, which some call the Running-Worm, others the Wild-Fire; 'tis a spreading Inflammation about the Waste, which kills the Patient, if it get quite round […].	SHINGLES, a Disease, a sort of *St. Anthony's* Fire Ø.

In other cases, when we have binomial constructions of synonyms or quasi-synonyms in the definitions, one of them is omitted. Thus, the two words in the phrases "break or dissolve" (4a), "scrape or take away" (4b) and "contortion or wresting" (4c) in Kersey – Phillips (1706) are reduced to just one word in Kersey (1708). Furthermore, the examination of other definitions where one of the elements of the pairs is deleted by Kersey (1708) allows us to identify a frequent deletion pattern: in those cases where one of the terms is of Romance origin and the other one of Germanic origin, the Germanic one is preferred. Thus, in the definition of ABSCESS, the phrase "a gross Tumour or swelling" (Kersey – Phillips 1706) is reduced to "a gross Swelling" in Kersey (1708); likewise, in the phrase "imbibing or soaking them up" used in the definition of ABSORBENTS (Kersey – Phillips 1706), the Latinate element is deleted by Kersey (1708), who writes "soaking them up". This practice can also be found in the definitions of ACANTABOLUS or ANTIADES, among others.

(4)	Kersey – Phillips (1706)	Kersey (1708)
(a)	SAXIFRAGA, Medicines that break or dissolve the Stone in Humane Bodies; also the Herb Saxifrage.	SAXIFRAGA, (*L.P.T.*) Medicines that break Ø the Stone in Humane Bodies; also the Herb Saxifrage.
(b)	SCALPER, or SCALPING-IRON, a Surgeon's Instrument, to scrape or take away corrupt Flesh from the Bones.	SCALPER or SCALPING-IRON, a Surgeon's Instrument, to scrape Ø corrupt Flesh from the Bones.
(c)	SPRAIN, a violent contortion or wresting of the Tendons of the Muscles, occasioned by some sudden Accident.	SPRAIN, a violent Ø wresting of the Tendons of the Muscles, occasioned by some sudden Accident.

Another mechanism adopted by Kersey (1708) to shorten the length of the definitions consists in removing those explanations about the etymological origin of the medical terms included in Kersey – Phillips (1706), as shown in (5):

(5)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ARQUATUS MORBUS, the Jaundice, a Disease so call'd from its resembling the colour of the Rainbow, in *Latin*, *Arquus* or *Arcus Celestis*.	ARQUATUS MORBUS, the Jaundice, a Disease Ø.
(b)	SATYRIASIS, or SATYRIASMUS, an immoderate desire of Venery; it is also sometimes taken for the Leprosy, because that Disease makes the Skin rough like that of a *Satyr*: Also the Swelling of the Glandules or Kernels behind the Ears.	SATYRIASIS, or SATYRIASMUS, an immoderate desire of Venery; it is also taken for the Leprosy a Disease, Ø or the Swelling of the Glandules behind the Ears.

Occasionally, the reduction only affects the reference to the branch of knowledge of the term, "Physick" or "surgery", as illustrated in (6):

(6)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ACOSMIA, (in the Art of *Physick*), an ill state of Health, with the loss of the natural Colour in the Face.	ACOSMIA, Ø an ill State of Health, with the Loss of the natural Colour in the Face.
(b)	ACRASIA, (*Gr.*) Indisposition, Disorder. Among some Writers in *Physick*, it is taken for the excess or predominancy of one Quality above another in the Constitution of a human Body.	ACRASIA, (*G.*) Indisposition, Disorder. Ø Also the Excess or Predominancy of one Quality above another in the Constitution of a Human Body.

The examples in (7) illustrate the deletion of the English translations of many Latin and Greek headwords:

(7)	Kersey – Phillips (1706)	Kersey (1708)
(a)	APOSTEMA or APOSTEME (*Gr. i.e.* a standing apart) a preternatural Swelling caus'd by corrupt Matter gather'd together in any Part of the Body and commonly call'd an *Impostume* or *Abscess*.	APOSTEMA or APOSTEME (*G.* Ø) a preternatural Swelling caus'd by corrupt Matter gather'd together in any Part of the Body.

(b)	AQUA INTERCUS, (*i.e.* Water between the Skin) the Dropsy; a Disease.	AQUA INTERCUS, Ø the Dropsey; a Disease.
(c)	SACER MORBUS, (*i.e.* Holy Disease) the Falling-Sickness.	SACER MORBUS, Ø the Falling-Sickness.

Besides, many of the cross-references in Kersey – Phillips (1706) are not retained in Kersey's abridgement, as in the examples in (8):

(8)	Kersey – Phillips (1706)	Kersey (1708)
(a)	AFFECTUS (*Lat.*), […] Among Physicians, it is taken for Sickness or any Disturbance in the Body. See *Pathema* and *Passion*.	AFFECTUS (*L.*), […] Among Physicians, it is taken for Sickness or any Disturbance in the Body. Ø
(b)	SCLEROTES, or SCLEROTICA TUNICA, the horney Coat of the Eye. See *Cornea Tunica*.	SCLEROTES, or SCLEROTICA TUNICA, horney Coat of the Eye. Ø
(c)	SMALLPOX, an infectious Disease. See *Variolæ*.	SMALLPOX, an infectious Disease. Ø.
(d)	SPECULUM MATRICIS, a *Surgeon's* Instrument to open the Womb. See *Dilatatorium* and *Dioptra*.	SPECULUM MATRICIS, a Surgeon's Instrument to open the Womb. Ø

In the case of diseases, Kersey may condense a detailed description provided in Kersey – Phillips (1706) in just a synonym, which, in practice, functions as a cross-reference, as in (9) or in (3b) above. However, these cases are exceptional because, although the definitions of the diseases in the *Dictionarium* are shorter than in Kersey – Phillips, giving a brief description is the usual rule in Kersey (1708):

(9)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ANGINA, (*Lat.*) an Inflammation of the Jaws and Throat, attended with a continual Feaver and a difficulty of Breathing and Swallowing; the Quinsey, which is of two sorts either *Spuria* or *Exquisita*, *i.e.* a bastard or a true Quinsey: Again the latter is fourfold, *viz*. *Cynanche*, *Paracynanche*, *Synanche* and *Parasynanche*; which See in their proper Places.	ANGINA, (*L.*) Ø the Quinsey; a Disease. Ø

(b)	APHTHAE, the Thrush, especially in Children; certain Wheals, Ulcers, or Pimples about inward Parts of the Mouth; as also about the Stomach and Guts, which when come to the height, fall off by piece-meals, and are often accompany'd with a Feaver, in those of riper Years.	APHTHAE, the Thrush, a Disease. Ø

Kersey also leaves out the therapeutic properties of many plants and preparations which are reported in Kersey – Phillips, as shown in (10). In the case of ALE-HOOF (10b) we also have an instance of deletion of equivalent names, "also known by the Names of *Ground-Ivy*, *Cast-foot*, *Jill-creep-by the Ground* and *Hay-mids"*, as in (3) above, as well as a case of deletion of post-modifying prepositional phrase, "with round Leaves and blew Flowers", as in (11).

(10)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ADIANTUM (*Gr.*) the Herb Maiden-Hair, so call'd because its Leaves take no wet; being good for Coughs, shortness of Breath, as also for Pains in the Side, Kidneys or Bladder.	ADIANTUM (*G.*) the Herb Maiden-Hair. Ø
(b)	ALE-HOOF, an Herb with round Leaves and blew Flowers, so call'd because it serves to clear Ale or Beer: It is of admirable Virtue in Diseases of the Lungs, Stoppages of the Kidneys, Colick Pains *&c*. and is also known by the Names of *Ground-Ivy*, *Cats-foot*, *Jill-creep-by the Ground* and *Hay-mids*.	ALE-HOOF, an Herb Ø so call'd because it serves to clear Ale or Beer. Ø

One of the most common practices to shorten the extension of the definitions consists in omitting not only synonyms, but also post-modifying prepositional phrases and relative clauses either in the middle or at the end of the definitions. This omission, though, does not blur the meaning of the medical term.

(11)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ABSCESS (*Lat*.) a gross Tumour or swelling in any part of the Body, that may either be dissolved, or brought to run with Matter: It is commonly call'd an *Impostume*.	ABSCESS (*L*.) a gross Swelling in any part of the Body, Ø commonly call'd an *Impostume*.
(b)	ALLIOTICUM, (*Gr.*) a Medicine, which by its cleansing Quality, alters and purifies the Blood.	ALLIOTICUM, (*G*.) a Medicine which Ø alters and purifies the Blood.
(c)	SALVATORY, a Surgeon's Box, with Partitions, to hold several sorts of Salves, Ointments and Balsams.	SALVATORY, a Surgeon's Box, Ø to hold several sorts of Salves, Ointments *&c*.

Truncating the definitions is the most common shortening practice in the abridgement. This involves the deletion of clause-final extended explanations that complete the meaning of entries in Kersey – Phillips. In (12a) and (12c), for example, the benefits of the surgical intervention explained in the definitions are not recorded in the abridgement. Similarly, Kersey eliminates the causes of the disease in example (12b):

(12)	Kersey – Phillips (1706)	Kersey (1708)
(a)	AMPUTATION, a Cutting away, or Lopping off: In *Surgery*, it is taken for the Cutting off any corrupted or putrefy'd Part or Member, to prevent the Infection from spreading through the whole Body.	AMPUTATION, a Cutting away, or Lopping off: In *Surgery*, the Cutting off any corrupted or putrify'd Part or Member Ø.
(b)	ANOREXIA, a want of Appetite, a Loathing of Meat, occasioned by an ill Disposition of the Stomach.	ANOREXIA, a want of Appetite, a Loathing of Meat Ø.
(c)	TO SCARIFY, (in *Surgery*) to Lance or open a Sore, to make an Incision in any part of the Body, in order to let out Blood or corrupt Humours.	TO SCARIFY, (in *Surgery*) to lance or open a Sore, to make an Incision in any part of the Body Ø.

Truncating also involves the removal of those parts of the definition usually introduced by "viz" or "as", which serve to illustrate or explain the meaning, as shown in (13):

(13)	Kersey – Phillips (1706)	Kersey (1708)
(a)	ANABROCHISMUS, (in *Surgery*) a particular manner of drawing out the pricking Hairs of the Eye-lids that are turn'd inwards, *viz*. by means of a Thread of a fine Silk in the Eye of a Needle, which when doubled, the Hair is put through and so drawn out.	ANABROCHISMUS, (in *Surg.*) a particular manner of drawing out the pricking Hairs of the Eye-lids that are turn'd inwards Ø.
(b)	ANACARTHARSIS, a Medicine that Purges or Discharges Nature by some of the upper Parts; as any thing that provokes to Vomit, to Sneezing, or Spitting.	ANACARTHARSIS, a Medicine that Purges or Discharges Nature by some of the Upper Parts Ø.
(c)	ANTECEDENT SIGNS, (in the Art of *Physick*) such Signs or Causes as are observed before a Disease; as *An ill Disposition of the Pancreatick Juice or of the Choler* is the cause of many Diseases.	ANTECEDENT SIGNS, (in the Art of *Physick*) such Signs or Causes as are observed before a Disease Ø.

In general, the words used by Bemis (2007: 80) to describe the pattern found throughout the *Shorter Oxford English Dictionary* can be applied to the shortening strategies displayed in Kersey's *Dictionarium*: "a kind of bare-bones approach to lexicography that leaves the reader with only a rudimentary understanding of a word's meaning". This does not mean, though, that Kersey breaks the basic principle an abridger must follow in his task, i.e. guaranteeing the comprehension of the word (Landau 2001: 398), but, as expected in an undertaking of this nature, Kersey had to discard much information in order to compile a portable dictionary out of a large folio volume.

But Kersey's *Dictionarium* was not the only attempt at marketing a handy small dictionary with a scientific bias in the first decade of the eighteenth century. A cursory comparison between the *Dictionarium* and a contemporary similar dictionary issued anonymously in 1707, the

Glossographia Anglicana Nova, will reveal a genuine interest in medical issues evidenced in the high number of medical entries contained in these short reference works.

5. Kersey's *Dictionarium* (1708) and the anonymous *Glossographia Anglicana Nova* (1707)

Just one year before the publication of Kersey's *Dictionarium*, the anonymous *Glossographia Anglicana Nova* (henceforth *Glossographia*) reached the market. This work is particularly relevant for this essay because it has many points in common with Kersey's dictionary. Apart from having been issued very close in time, with just one year of difference, they were addressed to a similar target audience. In addition, their emphasis on science brings them even closer.

The anonymous author of the *Glossographia* acknowledges in the preface to have drawn most of the scientific material from Harris's *Lexicon Technnicum:* "Whilst I was compiling this, the ingenious *Dr. Harris's Lexicon Technicum* laid before me, to which I am indebted for a considerable part of this Book" (*Glossographia* 1707: A3r).[3] Likewise, as Kersey's *Dictionarium* is an abridgement of Kersey – Phillips and most of the new entries in Kersey – Phillips's dictionary were derived from Harris, the latter is also an indirect source of the *Dictionarium*. Furthermore, a number of entries in the *Glossographia* are also taken from Kersey – Phillips (e.g. ACME, ANGINA, APNŒA, ST. ANTHONY'S FIRE or SPORADICI MORBI). Finally, the *Glossographia* is also announced as a portable volume; the compiler himself calls it "this little Book", and even the word "Abridgment" is mentioned in the preface.

Given these similarities in publication dates, target audience, emphasis on scientific terminology, sources and small size, it seems a plausible exercise to make a cursory comparison of these dictionaries which can reinforce the idea of a widespread interest in medical issues at the beginning of the eighteenth century, as suggested by the extensive inclusion of medical material in an inexpensive portable volume such as the one by Kersey.

The *Glossographia* is a small dictionary, with some 14,500 words (Starnes – Noyes 1991: 90) vis-à-vis the 35,000 words in Kersey's *Dictionarium*.

[3] As Harris's *Lexicon Technicum* and the *Glossographia* were released by the same publishers, the latter may have been conceived as a portable dictionary targeted to the general reader in order to ensure wider coverage of the market (Hayashi 1978: 75-76).

As illustrated in Table 2, the word list for the letters A and S comprises 2,209 words and, accordingly, includes fewer medical terms, some 203.

Table 2. Comparison of (medical) entries in the *Glossographia* (1707) and Kersey (1708)

	Total No. of entries (approx.)	No. of entries in (A, S)	No. of medical terms (A, S)	Proportion of medical terms (A, S)
Glossographia (1707)	14,500	2,209	203	9,1%
Kersey (1708)	35,000	5,727	369	6,4%

Except for 4 terms which are not recorded in Kersey (1708), the *Glossographia* does not incorporate new entries. However, in proportional terms, if we take into account the total number of words in the letters under study, the presence of medical terms is higher in the *Glossographia* than in Kersey's dictionary.

As for the definitions, although the wording may be different, the contents are practically the same in both short dictionaries, as shown in (14):

(14)	*Glossographia* (1707)	Kersey (1708)
(a)	ACANTABOLUS, an Instrument like a Pair of Pincers, which Surgeons use to take any prickly Substance out of the Gullet.	ACANTABOLUS, a Surgeon's Instrument, like a Pair of Pincers, to take out any thing that Sticks in the Gullet.
(b)	ACIDULÆ, any Medicinal Waters that are not hot.	ACIDULÆ, any Medicinal or Spaw-Waters that are not hot.
(c)	ACOUSTICKS, (*Gr.*) are Medicines or Instruments which help the Hearing.	ACOUSTICA or ACOUSTICKS, Medicines or Instruments which help the Sense of Hearing.
(d)	SACCULI MEDICINALES, little Physical Bags filled with several Simples, and applied to the Part affected.	SACCULI MEDICINALES (*L.P.T.*) several Simples, ty'd up in little Bags, to be apply'd to the diseased Part.
(e)	SEMEIOTICA, is that part of Physick which treats of the signs of Health and Sickness.	SEMEIOTICA, that part of Physick which treats of the Signs of Health and Sickness.

However, some entries in Kersey present more information than the corresponding ones in the *Glossographia*, as illustrated in (15):

(15)	*Glossographia* (1707)	Kersey (1708)
(a)	ABAPTISTON or ANABAPTISTON, a Surgeon's Instrument; see *Modiolus*.	ABAPTISTON or ANABAPTISTON, (*G.*) a Surgeon's Instrument, a kind of Trepan to lay open the Scull.
(b)	AMAUROSIS, a Disease in the Eyes.	AMAUROSIS, (*G.*) a Dimness or loss of Sight, without any outward Fault to be seen in the Eye.
(c)	ASPYXIA (Gr.) is the highest Degree of Swooning.	ASPHYXIA, (*P.T.*) a Cessation of the Pulse throughout the whole Body; which is the highest Degree of Swooning, and next to Death.

Whereas on other occasions, as in (16), the *Glossographia* features definitions which are more complete than the ones in Kersey:

(16)	*Glossographia* (1707)	Kersey (1708)
(a)	ACME, (Gr.) a Term used by Physicians signifying the Height of a Disease; some Diseases have four Periods, 1. The *Arche* of beginning, 2. the *Anabasis*, i.e. the Growth or Encrease, 3. the *Acme* when the Matter of the Distemper is fully ripe, 4. the *Paracme* or the declining of it.	ACME, […] Among Physicians, the height of a Disease.
(b)	ANGINA, (Lat.) an Inflammation of the Jaws and Throat, attended with a continual Feaver, and a Difficulty of Breathing and Swallowing. The Quinsy.	ANGINA, (*L.*) the Quinsey; a Disease.

Perhaps the more noticeable difference between these dictionaries lies in the spelling of the medical entries. Whereas Kersey systematically records a Latinate spelling, the same entries present an anglicised spelling in the *Glossographia*. In this sense, the anonymous author is following Harris's practice of anglicising the Latinate forms he took from Stephanus Blancardus' *A physical dictionary* (1684), as noted by Lonati (2007: 103-104). Examples of these different spelling practices are shown in Table 3.

Table 3. Anglicised and Latinate spellings in the *Glossographia* (1707) and Kersey's *Dictionarium* (1708)

Glossographia's (1707) anglicised spelling	Kersey's (1708) Latinate spelling
Acrasy	Acrasia
Acrisy	Acrisia
Alopecy	Alopecia
Allogotrophy	Alogotrophia
Scletoricks	Sclerotica
Spasmedicks	Spasmodica

In general, though, both dictionaries are good examples of portable, low-priced volumes addressed to a wide audience that seemed to be eager to read and understand medical texts. The analysis of the methods of abridgement found in the *Dictionarium* has revealed Kersey's awareness of the target readers of his work. Thus, he omits elements that could be of interest to advanced readers but not to the general public, for example, information related to classical languages (e.g. synonyms of Romance provenance (4), the etymological origin of medical terms (5), or translations of Latin and Greek headwords (7)), as well as specific medical details, such as the therapeutic qualities of plants (10), or the causes of certain diseases (12b), among others. Similarly, the anonymous author of the *Glossographia* eliminates Latinate spellings and adopts anglicised forms, which probably sounded more familiar to the general reader. It can be inferred that these dictionaries were designed as useful and practical look-up reference works and, in this sense, they served their function well. The wide range of areas covered by the medical entries contained in both dictionaries reveals the readers' various interests as well as the terminology they were likely to find in non-specialised medical texts. Just to illustrate the type of medical entries that are given more prominence, Table 4 presents a classification of the main categories arranged in ascending order taking into account the number of terms within each category. Thus, the most abundant group includes those terms that designate diseases or any pathological disorder that may affect bones, muscles, organs or any physiological process. This group includes the terms designating both the diseases and the diseased. Then, the second most numerous group contains those generic terms referring to medical substances that have a distinctive therapeutic property or action. Much smaller are other groups which contain terms referring to medical instruments, remedies, stages in a pathological process, etc. (Only those groups containing more than 10 entries have been recorded.)

Table 4. Medical contents contained in the *Glossographia* (1707) and Kersey's *Dictionarium* (1708)

Main medical contents covered	*Glossographia* (1707) No. of entries (approx.)	Kersey (1708) No. of entries (approx.)
Diseases and pathological disorders (terms that designate both the diseases and the diseased): *acrasia*, *aneurism*, *spina ventosa*, *stone-colick**	83	161
Medicines categorised according to the effects produced on the human body: *absorbents*, *analepticks*, *sarcoticks*, *somnifera*	60	100
Surgical and medical instruments: *abaptiston*, *ancteres*, *Scamnum Hippocratis*	11	22
Terms to refer to medicines and remedies: *absolutorium*, *alephanginæ*, *apozem*e	10	18
Terms related to the different stages in the development of diseases: *acme*, *acrisia*, *attenuation*	10	19
Medical and surgical techniques: *amputation*, *arteriotomy*, *scarification*	10	13
Botanical/animal/mineral elements and chemical preparations with therapeutic applications: *acidulae*, *ale-cost*, *saxifrage*	7	19

* The terms included follow the spelling in the *Dictionarium*.

6. Conclusions

Harris's *Lexicon Technicum* constituted a turning point in the history of specialised lexicography and proved to be pivotal in the inclusion of medical terms in general reference works. After its publication, and in just four years, the readers had at their disposal three dictionaries which were enriched with the incorporation of medical terms mainly drawn from Harris: Kersey – Phillips, Kersey's *Dictionarium* and the *Glossographia*. The release of these works with a marked interest in scientific terminology in such a short space of time clearly indicates the readers' demand for this kind of information in reference works.

Kersey's *Dictionarium Anglo-Britannicum* is especially relevant in the history of English lexicography for being the first abridged dictionary. This

shorter version of Kersey – Phillips placed a special emphasis on scientific terminology, which is not surprising since Kersey himself had been responsible for the revision of Phillips's *New World of Words*, a process that had entailed the inclusion of a high number of scientific terms from Harris's *Lexicon Technicum.*

The comparative analysis of the medical terms contained in the letters A and S of Kersey – Phillips and Kersey's *Dictionarium* has revealed that, despite the size difference between the original folio and the octavo abridgement, Kersey decided against sacrificing the high number of medical headwords that had been introduced in Kersey – Phillips. In this way, he gave credit to the merits he had assigned to his abridged version in the preface to his dictionary: completeness and inclusiveness. But if the reduction of the dictionary did not affect the number of entries, it necessarily affected the extension of the definitions to achieve the intended conciseness. Kersey adopted different strategies to prune and remodel the definitions which embraced the omission of cross-references, of synonyms, of translations from Latin and Greek, of indications of the branch of knowledge, of examples, and of detailed explanations, among other elements. The application of these measures allowed Kersey to retain a large number of medical entries in a limited space.

In order to assess Kersey's practices in the production of his abridgement, the *Dictionarium* has been compared with another short dictionary published just one year earlier: the *Glossographia Anglicana Nova*. They shared the same target readership, the same purposes and the same emphasis on scientific terminology. The analysis of their medical entries confirmed that medical terminology awakened a great interest among contemporary readers, so much so that even short dictionaries devoted considerable space to this type of contents. Certainly, as Kersey acknowledges, the *Dictionarium* did not offer detailed definitions – after all, it was just a look-up reference work; however, it provided enough surface information for the general public to become familiar with medical material. For a full understanding or a full scope, as Kersey reminds the readers, the market offered other dictionaries.

REFERENCES

Sources

Anon.
1707 *Glossographia Anglicana Nova*. London: Printed for Dan. Brown et al.

Blancardus, S.
1684 *A Physical Dictionary: In Which All the Terms Relating Either to Anatomy, Chirurgery, Pharmacy, or Chymistry are Very Accurately Explain'd*. London: Printed by J.D.
Harris, J.
1704 *Lexicon Technicum: Or, an Universal English Dictionary of Arts and Sciences.* London: Printed for Dan. Brown et al.
Kersey, J. – E. Phillips
1706 *The New World of Words.* London: Printed for J. Phillips.
Kersey, J.
1708 *Dictionarium Anglo-Britannicum: or, a General English Dictionary*. London: Printed by J. Wilde, for J. Phillips.

Special studies

Bemis, M.F.
2007 "Abridging a classic", *Library Journal* 132 (9), 80.
Bennett, H.S.
1989 *English Books and Readers 1603 to 1640. Being a Study in the History of the Book Trade in the Reigns of James I and Charles I*. Cambridge: Cambridge University Press.
Curth, L.
2002 "The commercialisation of medicine in the popular press: English almanacs 1640-1700", *The Seventeenth Century* 17 (1), 48-69.
Fissell, M.E.
2007 "The marketplace of print". In: M.S.R. Jenner – P. Wallis (eds.) *Medicine and the Market in England and its Colonies, c. 1450-c. 1850*. New York: Palgrave Macmillan, 108-132.
Hayashi, T.
1978 *The Theory of English Lexicography*. Amsterdam: John Benjamins.
1984 "Methodological problems of 18th-century English lexicography". In: S. Auroux et al. (eds.) *Matériaux pour une histoire des théories linguistiques*. Lille: Presses Universitaires de Lille, 355-362.
Kerling, J.
1979 *Chaucer in Early English Dictionaries*. Leiden: Leiden University Press.
Lancashire, I.
2005 "Johnson and seventeenth-century English glossographers", *International Journal of Lexicography* 18 (2), 157-171.
Landau, S.I.
2001 *Dictionaries. The Art and Craft of Lexicography* (2nd edn.). Cambridge: Cambridge University Press.
Layton, D.
1965 "Diction and dictionaries in the diffusion of scientific knowledge: An aspect of the history of the popularization of science in Great Britain", *The British Journal for the History of Science* 2 (3), 221-234.

Lonati, E.
2007 "Blancardus' *Lexicon Medicum* in Harris's *Lexicon Technicum*: A lexicographic and lexicological study". In: J. Considine – G. Iamartino (eds.) *Words and Dictionaries from the British Isles in Historical Perspective*. Newcastle upon Tyne: Cambridge Scholars Publishing, 91-108.
2014 "Medical entries in 18th-century encyclopaedias: The lexicographic construction of knowledge". In: T. Canziani et al. (eds.) *Perspectives in Medical English*. Monza: Polimetrica International Scientific Publisher, 89-107.

Long, P.W.
1909 "English dictionaries before Webster", *Bibliographical Society of America* 4, 25-43.

Miyoshi, K.
2017 *The First Century of English Monolingual Lexicography*. Newcastle upon Tyne: Cambridge Scholars Publishing.

Osselton, N.E.
2007 "Alphabet fatigue and compiling consistency in early English dictionaries". In: J. Considine – G. Iamartino (eds.) *Words and Dictionaries from the British Isles in Historical Perspective*. Newcastle: Cambridge Scholars Publishing, 81-90.
2009 "The early development of the English monolingual dictionary (seventeenth and early eighteenth centuries)". In: A.P. Cowie (ed.) *The Oxford History of English Lexicography. Volume I. General-Purpose Dictionaries*. Oxford: Oxford University Press, 131-154.

Read, A.W.
2003 "The beginnings of English lexicography", *Dictionaries: Journal of the Dictionary Society of North America* 24, 187-226.

Starnes, D.T. – G.E. Noyes.
1991 *The English Dictionary from Cawdrey to Johnson 1604-1755* (new edn. by G. Stein). Amsterdam/Philadelphia: John Benjamins.

Taavitsainen, I. et al.
2011 "Medical texts in 1550-1700 and the Corpus of *Early Modern English Medical Texts*". In: I. Taavitsainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press, 9-29.

van Sterkenburg, P. (ed.)
2003 *A Practical Guide to Lexicography*. Amsterdam/Philadelphia: John Benjamins.

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An overview of medical terminology in Nathan Bailey's *An Universal Etymological English Dictionary* (1721)[1]

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ABSTRACT

Our paper presents a macro- and micro-structural overview of medical terminology in Bailey's *An Universal Etymological English Dictionary* (1721), a general-purpose dictionary that served as a model for other eighteenth-century lexicographical works including Samuel Johnson's celebrated *Dictionary of the English Language* (1755). Accordingly, we first offer some key notes on Bailey's dictionary for contextualisation purposes. Then, we address his own definition of *medicine* as a reference point that could help decide what terms and expressions may be considered medical in the absence of any other information or clue in a particular dictionary entry. Finally, we examine Bailey's strategies to single out medical terminology, the overall structure of individual medical entries and the most common methods of definition deployed in the A-Z wordlist.

Keywords: eighteenth century, dictionary, Nathan Bailey, medical terminology, scope, subject label, definition.

1. Introduction

The eighteenth century has been referred to as an "age of dictionaries" (Sledd – Kolb 1955: 19). John Kersey's *A New English Dictionary* (1702) was the forerunner to a series of lexicographic works that gradually replaced the

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hard-word dictionary tradition so popular in the course of the seventeenth century (see Starnes 1937; Osselton 1990; Starnes – Noyes 1991 [1946]; McIntosh 1998; Read 2003; Considine 2010). Later, eighteenth-century English lexicographers included common words of the language in their growing general dictionaries, with the so-called "terms of art" (specialised terminology) also having a place in their works (Segar 1931; McIntosh 1998).

Contrary to other contemporary lexicographical trends in Europe, monolingual dictionaries in England were not issued by an academy, but by individual lexicographers, resulting in steps towards more and more general English dictionaries to satisfy the market demand. The number of readers increased sharply in eighteenth-century England as a result of several factors working in combination: "the schooling system was improved. There were more authors, more books, and more documents to be bought and read for business or for pleasure. The printing presses and the publishing houses were more productive, periodicals flourished, public libraries were created, as well as academies, and learned associations" (Béjoint 2016: 14). Hence, monolingual dictionaries of the vernacular were needed by a growing reading population who "belonged to an intermediate class that […] was then called the *bourgeoisie*. They were characterised by their social aspirations" (Béjoint 2016: 14). Thus, to develop their professional lives properly and to improve their social status, the bourgeoisie demanded reference books that could guide them in the intellectual and cultural activities of the time: "they needed a grammar, an encyclopaedia, an atlas, an almanac; at the very least, they needed a dictionary that had information on words as well as on things, and that was easy to consult" (Béjoint 2016: 15).

These sociocultural circumstances prompted eighteenth-century English lexicographers to produce more user-friendly and comprehensive material, at the same time having a major role in laying down rules on correct language use and lexical choices, on the one hand, and on establishing the dictionary as a reference book *per se*, on the other. As Mitchell (1994: 551) puts it:

> While grammarians were battling over teaching methods and grammatical theory, lexicographers focused on setting standards [because they] had a stronger base from which to impose 'correctness' on the vernacular: research. Eighteenth-century lexicographers were inventorying definitions, pronunciation, and various forms of spelling. John Kersey (*A New English Dictionary*, 1702), Edward Cocker (*Cocker's English Dictionary*, 1704), and Nathan Bailey (*An Universal*

> *Etymological English Dictionary*, 1721) helped establish the dictionary as an authority. It would be the editors of dictionaries, not the authors of grammar texts, who would become the guardians of English, formalizing it and protecting it from decay.

Our paper presents a macro- and micro-structural overview of medical terminology in Bailey's influential dictionary. After some key notes on the dictionary, we address his own definition of *medicine* as a reference point that could help decide what terms and expressions may be considered medical in the absence of any other information or clue in a particular dictionary entry. We then proceed to examine how Bailey singles out medical terminology, the overall structure of individual medical entries and the most common methods of definition identified in the A-Z wordlist.

2. Some notes on *An Universal Etymological English Dictionary* (1721)

Nathan Bailey (bap. 1691, d. 1742), a schoolmaster in Stepney (London) and a philologist, is considered one of the pioneers of English lexicography inasmuch as his contributions to the field actually influenced and, to some extent, determined the treatment of general and hard words in later monolingual dictionaries of the language.[2] He was the author of three known dictionaries during his lifetime: *An Universal Etymological English Dictionary* (1721), *The Universal English Dictionary: In Two Parts* (1727, a supplementary volume to the 1721 edition) and the *Dictionarium Britannicum* (1730).[3] The latter is presented as an improved work, that is, as "a More Compleat Universal Etymological English Dictionary Than Any Extant" (Bailey 1730: title page) and was compiled with the advice of experts in the domains of Mathematics, Botany and Etymology. However, Starnes and Noyes (1991 [1946]) state that much of the word list is based

[2] For further insight into Bailey's life and lexicographic work, see e.g. Starnes – Noyes (1991 [1946]: 98-108), Murray (2003 [1900]: 45-69), Wells (1973: 20-24) and Hancher (2019).

[3] Bailey's dictionaries went through a number of editions in the eighteenth century. A revised edition of Bailey's *An Universal Etymological English Dictionary* was published posthumously in 1755 in order to compete against Johnson's masterpiece. It was compiled by Joseph Nicol Scott, M.D., by demand of "the *Whole Body* of our Subscribers, as being the first and chief Encouragers of this New Edition of Bailey's *Dictionary*" (Scott – Bailey 1755: iii). It is generally known as the Bailey-Scott's dictionary.

on his own 1721 universal dictionary and that no markers of general or specialised usage are given.

An Universal Etymological English Dictionary is traditionally considered a milestone in English lexicography. Just as John Kersey had done in *A New English Dictionary* (1702), Bailey went beyond the seventeenth-century lexicographic tendency to focus on documenting and defining hard words adopted into the language, thus incorporating many commonly used words into his wordlist. If, from the very title page, Kersey placed a new emphasis on comprehensiveness and inclusiveness of proper, significant and genuine words, i.e. on those used by "Persons of clear Judgement and Good Style" (Kersey 1702: preface), Bailey followed in his footsteps and "built on the foundation that Kersey had laid to produce what has been termed 'the supreme popular dictionary of the eighteenth century'" (Long 1909: 31). But, like many other lexicographic works of the period, Bailey's dictionary mainly resulted from a "process of accretion rather than evolution" (Long 1909: 32). In fact, reproducing information from other sources without acknowledgement was so habitual during the age that Bailey

> was able to muster an impressive array of sources […] for example, while indebted to Kersey's 1708 *Dictionarium Anglo-Britannicum*, [he also] draws massively upon Stephen Skinner's *Etymologicon Linguae Anglicanae* (1671), the Kersey revision of Phillips, Coles' *English Dictionary*, John Ray's *Collection of English Words not Generally Used* (1674), and others. (Wells 1973: 21)[4]

The popularity of *An Universal Etymological English Dictionary* is undeniable as it went through nearly thirty editions between 1721 and 1802 and, besides, it was a primary source in Samuel Johnson's *A Dictionary of the English Language* published in 1755 (Starnes – Noyes 1991 [1946]: 98-108; Alston 1966: 13-66). As the very title suggests, Bailey compiled his 1721 dictionary having two pivotal aspects in mind: the need to be comprehensive and complete ('universal') and to provide the origin of the words included ('etymological'). And such purposes "led him away from the hard word tradition to an attempt to include all the words in the language" (Wells 1973: 19). Therefore, he produced a voluminous dictionary extending over

[4] It would be of particular interest to carry out a comparative study of medical terminology to check to what extent Bailey was original in his definitions or rather borrowed a considerable amount of medical entry material quite freely from his sources.

963 pages (the A-Z entry section being printed in two columns) and having around 40,000 entries that, on occasions, incorporate encyclopaedic-like information (Starnes – Noyes 1991 [1946]; McIntosh 1998; Yeo 2001).

From the very beginning, Bailey states the aim of the dictionary and which type of user will benefit from his work; namely:

> Compil'd and Methodically digested, as well for the Entertainment of the Curious, as the Information of the Ignorant, and for the Benefit of young Students, Artificers, Tradesmen and Foreigners, who are desirous thorowly to understand what they Speak, Read, or Write. (Bailey 1721: title page).

It seems that Bailey had an educational intention and, accordingly, he compiled a dictionary for different general-user profiles that could serve to develop and improve their oral and written communicative skills. Likewise, he seems to have been concerned with the role of dictionaries in vocabulary acquisition and how they can be helpful for formal education (with "young Students"), independent learning (when he says the dictionary has information for the ignorant) and practical purposes (for instance, in case tradesmen needed to consult the dictionary for their business affairs). This is confirmed in the first page of the Introduction, in which Bailey explains the importance of using the words properly:

> Words are those Chanels by which the Knowledge of Things is convey'd to our Understandings: and therefore upon a right Apprehension of them depends the Rectitude of our Notions; and in order to form our Judgments right, they must be understood in their proper Meaning, and us'd in their true Sense, either in Writing or Speaking. For if the Words of the Speaker or Writer, tho' ever so apposite to the Matter be taken in a wrong Sense, they form erroneous Ideas in the Mind concerning the Thing spoken or written of; and if we use Words in a false and improper Sense, this causes Confusion in the Understanding of the Hearer, and renders the Discourse unintelligible. (Bailey 1721: Introduction)

Moreover, the title page is also instructive regarding the lexical content in *An Universal Etymological English Dictionary*, which combines common words and specialised terms from different scholarly disciplines, trades and professions. These are outlined as follows:

> [It comprehends] The Derivations of the Generality of Words in the *English* Tongue, either Antient or Modern […] in their Proper Characters […]
> A Brief and clear Explication of all difficult Words derived from all of the aforesaid Languages; and Terms of Art relating to Anatomy, Botany, Physick, Pharmacy, Surgery, Chymistry […] Gardening, Husbandry, Handicrafts, Confectionary, Carving, Cookery *&c*. […]
> Together with A Large Collection and Explication of Words and Phrases us'd in our Antient Statutes, Charters, Writs, Old Records, and Processes at Law; and the Etymology and Interpretation of the Proper Names of Men, Women, and Remarkable Places in *Great Britain*: Also the Dialects of our different Counties.
> *To which is Added* a Collection of our most Common Proverbs, with their Explication and Illustration. (Bailey 1721: title page)

Going from words of general use to proverbs, Bailey's dictionary has a place for "terms of art" that here include, among others, medical and medicine-related terminology. To him, general and specialised words alike must be learnt and used if people wish to improve their lexical competence in order to become more knowledgeable about "things", as he explains in the Introduction to the dictionary:

> It ought therefore to be the special Care and Study of every one, who would have his Mind furnished with the useful Knowledge of Things of any kind, to get a True and Distinct Idea of the proper Sense and Meaning of Words, and Terms of Art, in which they are express'd, without which no good Progress can be made. (Bailey 1721: Introduction)

3. An overview of medical terminology

In this section, we will first focus on Bailey's own definition of *medicine*, as a way of rationalising why he may have decided to present certain words and expressions as medical or medicine-related. We will then examine how he labels medical terminology in the dictionary, the overall structure of individual medical entries and the most common methods of definition identified in the A-Z wordlist. Although it is challenging to fully categorise these methods of definition and how frequently they are used throughout the dictionary, there are some recurrent patterns and strategies that will be tackled and exemplified in § 3.4 below.

3.1 Scope

Bailey's entry MEDICINE[5] includes two definitions, namely: "[*Medecine*, F. of *medicina*, L.] the Art of Physick, also a Physical Remedy." The first is the core sense of the word and contains an indirect cross-reference to PHYSICK, which in turn includes two other similar definitions: "[*physique*, F. of *Ars physica*, L. of *φυσικη* (sic.), *Gr.*] the Art of curing Diseases, or Medicines prepared for that Purpose." In both entries, *medicine* and *physick* are defined as an art, that is, an occupation requiring skill, knowledge or experience to be performed; and this occupation is expressly linked to disease and therapy in *physick*. However, the second definition in both entries corresponds to a semi-specialised subsense referring to a substance, preparation or technique that relieves or cures a disease.

In the etymological information immediately following the headword, Bailey reveals that *medicine* and *physick* are synonymic loanwords in English, one having French<Latin origin and the other a French<Latin<Greek one. According to *The Oxford English Dictionary* (s.v. MEDICINE 4.a and PHYSIC 3.b respectively), the two terms had been integrated into the language since the Middle Ages in both senses: *medicine*, as "the science or practice of the diagnosis, treatment, and prevention of disease (in technical use, often taken to exclude surgery)", dates back to *Sir Tristrem*: "Þe fair leuedi, þe quene, Louesom vnder line And sleiȝest had y bene, And mest couþe of medicine" (*ca.* 1330, *?a* 1300; line 1204); *physick*, instead, is first found *a.* 1387 in John Trevisa's translation of Ranulf Higden's *Polychronicon* (III. 263 "Appollo fond first art of fisik [?*a* 1475 anon. tr. medicynes; *L. medicinæ*] among þe Grees."). On the other hand, *medicine*, as "1.a. A substance or preparation used in the treatment of illness; a drug; *esp*. one taken by mouth. Also: such substances generally", is first attested in the *Ancrene Riwle*: "Þu seist þet nis nan neod medicine" (?*ca.* 1225 (?*a* 1200); Cleo. C.vi: 136), while *physick* with the same meaning is located in *The Chronicle of Robert of Gloucester*: "He nom wiþ him spicerie þat to fysike drou" (*ca.* 1300; *Calig*. 3162 *MED*).

All in all, *medicine* and *physick* were still in use in Bailey's time,[6] carrying their original scientific connotations and having a range of precise meanings

[5] Bailey's entries may include one, two or three headwords; in all cases, just the first is printed in capital letters, the second being in italics, with initial capital letter, rather inconsistently. We do not reproduce this practice here to avoid confusion; all terms and expressions under scrutiny are in small caps if the dictionary entry is meant, otherwise in italics.

[6] While *medicine* is still current today in both senses, *physick* is mainly restricted to historical, obsolete or archaic usage (*OED*, s.v. PHYSIC, passim).

and authority in certain contexts (French 2003: 204-205). A couple of actual examples from eighteenth-century works appear in Jonathan Swift's *Gulliver's Travels* of 1726 ("While the whole Operation was performing, I lay in a profound sleep, by the force of that soporiferous Medicine infused into my Liquor") or in Charles Lucas's *Pharmacomastix* of 1741 ("Neither thinking the knowledge of simple or compound medicines material, or necessary, nor their preparation or composition his proper occupation, they lay themselves out for practising physic and surgery") (*OED* s.v. Medicine 1.a and Physic 3.b respectively).

In view of the above, we expect the medical terminology included in Bailey's 1721 dictionary to revolve around the medical profession, human diseases and therapeutic actions, with room for exceptions. However, not all terms and expressions are explicitly labelled as medical or associated with medicine in the A-Z entry list, making it difficult to decide whether, in Bailey's opinion, they fell under the three keyword hypernyms – *art*, *disease* and *therapy* – or not.[7] Yet the dictionary contains clearly identifiable medical terms due to their etymological origin (classical), explicit subject labelling or the tacit semantic relationship with the domain (see § 3.2).

Generally speaking, Bailey's medical terminology covers at least five different semantic fields. What follows is a categorisation based on the key concepts included in the definitions of *medicine* and *physick* discussed above, so that the entries under (A) and (B) are related to the art itself; those under (C) and (D) to disease; and those under (E) to therapy:

A. Medical branches and (sub-)specialities having an active role in the medical theory and practice of the age, such as Anatomy ("a neat dissection or cutting up the Body of Man or Beast, whereby the Parts are severally discovered and explained, for the use of Physick and natural Philosophy.")[8] or Pharmacy ("that Part of Physick which teaches the Choice and Preparation of Medicines, the Apothecaries art."). However, when Bailey inserts an entry that is specifically used in these and other medicine-related disciplines – such as botany, chemistry

[7] This shortcoming makes it very difficult to draw a neat line to select unlabelled or non-explicitly-medical entries belonging to the scope of medicine in Bailey's dictionary (all the more so from a somewhat biased 21st-century point of view).

[8] In this section we omit Bailey's etymological notes, labels and abbreviations to concentrate on the meanings of the terms, and also for clarity's sake on the exemplification process. But note that Bailey does not systematically include etymological information in the dictionary entries, with no identifiable lexicographic criteria for the addition of this kind of information, or otherwise.

or optometry – he often singles them out by inserting unequivocal labels, as described in § 3.2, for medical terms. But this practice is not consistent throughout the dictionary and, on occasions, it is not possible to distinguish medical from pharmaceutical terminology, for instance, especially when the entry is not informative enough or is too broad for the term to fit into either discipline.

B. Professions, jobs and specialisations related to medicine and other allied disciplines, such as GALENICK PHYSICK ("is that which is grounded upon the Principles of *Galen.*"), EMPERICK ("a Physician by bare Practice, a Mountebank or Quack.") or ENTEROLOGY ("a Discourse or Treatise of the Entrails.").

C. Physiology, that is, normal organic processes and bodily functions, such as EUPEPSY ("a good and easy Concoction or Digestion.") and RESPIRATION ("Breathing, an alternate Dilation and Contraction of the Chest, whereby the Air is taken in by the Wind-Pipe, and by and by is driven out again.").

D. Physiopathology, referring to altered organic processes and functions evident or measurable whenever the human body is affected by impairment, injury, disease or disorder; e.g. SCOTOMY ("a Dizziness or Swimming of the Head causing a Dimness of Sight."), FRACTURE ("is the Breaking of a Bone"), or VENEREAL DISEASE ("a virulent Distemper commonly called the *French Pox.*"). This is probably the most frequent type of medical terminology in Bailey's dictionary, and it is usually explained to the eighteenth-century lay reader by non-classical counterparts or analogies (cf. § 3.4).

E. Therapeutics, including terms for simple and compound remedial agents, methods and techniques with medicinal or curative properties; e.g. ALEXIPYRETICUM ("a Remedy that drives away Fevers."), SACCULI MEDICINALES ("several Simples ty'd up in little Bags, to be apply'd to Parts aggrieved"), SYNULOTICKS ("Medicines which bring Wounds or Sores to a Scar.") or TO TREPAN ("to apply a Trepan in Fractures of the Scull.").

3.2 Identification

Bailey's medical terminology is not visually distinctive or printed in a different letter type or format; i.e. the terms are normally incorporated into the A-Z entry list. Therefore, to find medical terms in Bailey's dictionary the pages have to be scanned in order to locate the headwords that can be categorised as medical, either directly or indirectly.

Direct identification is possible in four different ways, as follows: (a) when the headword's denotative meaning is unequivocally medical because it is a self-explanatory expression; (b) when subject labels appear in between square brackets just after the headword or in the definition itself with no brackets; (c) when the definition contains keywords related to medicine; and (d) when a specific abbreviation – an initialism – in italics appears at end of the definition.

As to the first type, a number of medical headwords in Bailey's dictionary are noun phrases having a clear denotative meaning (cf. § 3.3). Indeed, dictionary users will know that medical terminology is dealt with in the following entries even before reading the full definitions:[9]

(1) (a) Attenuating Medicines, are such as opening the Pores with their sharp Particles, cut the thick and viscous Humours, in the Body, so that they may easily be circulated through the Vessels.

(b) Malignant Disease, is that which rages more vehemently and continues longer than its Nature usually permits it do.

But Bailey shows a preference for the second procedure, that is, the insertion of subject labels into different places in the definition, even if he does not do that systematically. At times, he encloses short, slightly varying prepositional phrases between square brackets just after the headword, such as "in a physical sense", "in physick", "with physicians" or "among physicians" (as in (2)); less frequently, this information appears at some point in the definition, integrated into the sentence(s) with no bracketing (3). In any case, the prepositional phrase deployed introduces a specialised subsense, being a mechanism to "mark individual items in the vocabulary" as well as to make dictionary users "appreciate the connotations that a word has in context, and to be able to use the word effectively themselves" (Brewer 2016: 480):

(2) (a) Expiration, [in a *Physical Sense*] is an alternate Contraction of the Chest, whereby the Air, together with the Fuliginous Vapours, are exprest or driven out by the Wind-pipe.

(b) Oroboides, [among *Physicians*] a Settlement in Urine like Vetches.

(c) Peccant Humours, [with *Physicians*] are such Humours of the Body that contain some Malignity, or else abound too much.

9 Bailey's etymological notes are not included here.

(3) Cenosis, [*Κενοσις*, *Gr.*] an empting, or voiding: In a Physical Sense, a discharging the Body of Humours.

As indicated above, the third means of direct identification occurs when the very definition contains keywords related to medicine so that the meaning can be more or less clearly delineated and associated with medical and health issues. Note the following examples:

(4) (a) Convalescence, Convalescency }, a Recovery of Health.[10]

(b) Sphigmica, that Part of Physick, which treats of Pulses.

(c) A Purge, a cleansing Medicine.

Finally, the fourth lexicographic procedure consists in placing the shortened form *P. T.* (for "Physical Term") at the end of the definition (5a-c). This form is included in the abbreviation list which comes after Bailey's introduction to the dictionary, but it is much less used in the entries than the subject labels; exceptionally, the extended version of this abbreviation is found just after the headword (5d):

(5) (a) Apocrisis, Apocrisia, } Ejection, or voiding Superfluities out of the Body. *P. T.*

(b) Arythmus, a Pulse, which is so far lost, that it cannot be any longer felt. *P. T.*

(c) Diluents, Medicines serving to thin the Blood. *P. T.*

(d) Res Naturales, [*Physical Term*] natural Things, which are reckoned 3 in Number, *viz.* Health, the causes of Health, and its Effects.

As opposed to direct identification of medical terminology by means of the abovementioned procedures, medical entries in Bailey's dictionary may lack indications of the specialised meaning of words. Hence, indirect identification is sometimes necessary, on the basis of sense or concept association with the domains as in (6a), where the epidermal symptoms point to skin disorder, or in (6b), where the abnormal curvature may affect the lumbar and cervical regions:

(6) (a) Papulosity, Fulness of Blisters and Pimples.

(b) Lordosis, the bending of the Back-bone forward in Children.

[10] For the function of a closing curly brace < } > after the headwords, see § 3.3.

Overall, one of the main problems arising here is that Bailey defines some words and expressions so broadly or vaguely that they could be understood in either a general or a specialised sense. In those cases, a tacit categorisation is not possible:

(7) (a) Emphraxis, an Obstruction in any Part.

(b) Ingestion, putting in.

(c) To exudate, to sweat out.

3.3 Entry structure

Bailey's dictionary follows the same entry typology throughout the A-Z entry list; i.e. there is no special treatment for the so-called "terms of art" announced in the title page. The typical medical entry consists of a simple or complex headword followed by+--+ etymological, classifying and content data that jointly give shape to the definition of the term. While simple headwords are nouns, adjectives, verbs and abbreviations, in this order of importance, complex ones include two- or three-word English noun phrases or else idiomatic expressions and loans from classical languages. Greek and Latin terms and expressions can present Latin spellings, as in Res Præter Naturam ("[*Physical Term*] Things beside Nature, *viz.* Diseases, with their Symptoms, Causes and Effects.") or an Anglicised one, as in Bronchocele ("[of *βρογχός* and *κύλυ*, *Gr.*] a Tumour in the top or middle of the fistulous-part of the Wind-pipe."), a transliteration from the Greek alphabet.

Alongside the headword and its variant spellings, if any, we find etymological information, though not consistently, the subject label, though not always, and the definition proper, according to four main identifiable patterns explained below. Note that the information given in brackets is not always present in the entry so that different combinations arise.

A. Headword + (etymon and language of origin)[11] + (subject label) + definition + (initialism). This pattern contains one headword and one definition, plus additional information, and is seen in the entries listed in (8) that include a Latin formulaic expression common in medical or pharmaceutical texts (8b) and an example of the simplest version of the pattern: headword + definition + initialism (8d).

[11] In Bailey's dictionary, etymology is not only used to trace back the origin of the word, but also as a method of definition as explained in § 3.4.4.

(8) (a) HUMORES, [in *Physick*] the several Humours of the Body, L.

(b) AD PONDUS OMNIUM, [among *Physicians*] signifies that the last prescribed Medicine ought to weigh as much as all the Medicines mentioned before. L.

(c) AFFECTED, [in a *Physical Sense*] troubled or sized with a distemper.

(d) ANEURISM, a Dilation or Bursting of the Arteries, so that they continually beat and swell. *Gr.*

B. Headword + (etymon and language of origin) + (subject label) + definitions [= $sense_1$, $sense_2$…] + (initialism). This second pattern contains one headword and a definition in which two or more senses are explained; that is, polysemy is introduced in the same entry. The different senses are separated from each other by a colon or semicolon, depending on how conceptually close the two meanings are. If they are more or less related, Bailey uses a colon to separate them, as in (9) where both senses have to do with remedies and their therapeutic effects; however, if each sense refers to more distant or even independent ideas in the medical field, he inserts a semicolon as in (10):

(9) ANACOLLEMATA, Medicines apply'd to the Forehead or Nostrils to stop bleeding: Also Medicines that will breed Flesh, and conglutinate the Parts. *L.*

(10) (a) ANADOSIS, [in *Physick*] is the Distribution of Chyle, through its proper Vessels; also whatsoever tends upwards, as a Vomit. *Gr.*

(b) ANTIADES, [*Αντίαδες*, *Gr.*] the Glandules and Kernels, commonly called the Almonds of the Ears; also an Inflammation in those Parts.

C. Headword [= $entry_1$, $entry_2$…] + (etymon and language of origin) + (subject label) + definition + (initialism). Unlike the second type of entry structure above, this third one consists of the same headword repeated two or three times, in separate entries. This type has two variants. The first is found when Bailey provides the general definition of the word followed by a specialised one in the same entry, the two being separated by a colon, and then he adds a second entry defining a further meaning. In examples (11), (12) and (13), the etymological note appears only in the first entry:

(11) [entry$_1$] Anadiplosis, [*ἀναδίπλωσις, Gr.*] a redoubling: A Figure in Rhetorick, when the last Word in the End of a Verse or sentence, begins the next.

[entry$_2$] Anadiplosis, [in *Physick*] a frequent Reduplication of Fevers, *& c.*

In the second variant structure, Bailey provides the general definition of the word and then adds more specialised meanings ("terms of art") in the following entries, as exemplified by Area and Exhalation:

(12) [entry$_1$] Area, [*Area, L.*] a Barn-Flower; also, the Ground-Plot of a Building.

[entry$_2$] Area, [among *Physicians*] an Ulcer or Sore of the Head that causes Baldness.

[entry$_3$] Area, [in *Geometry*] is the Superficial Content of any Figure, measured in Inches, Feet, Yards, *& c.*

(13) [entry$_1$] Exhalation, [*Exhalaison, F.*] a Fume, Steam or Vapour. *L.*

[entry$_2$] Exhalation, [among *Philosophers*] is whatsoever is raised up from the Surface of the Earth or Water, by the Heat of the Sun, subterraneous Fire, *& c.*

[entry$_3$] Exhalation, [in *Physick*] is a subtile spirituous Air, which breathes forth out of the Bodies of Living Creatures.

D. Headword [= spelling$_1$, spelling$_2$…] + (etymon and language of origin) + (subject label) + definition + (initialism). When a headword has two or more spelling variants in English, Bailey puts one under the other separated by commas, as if in a list of separate entries, and joins them together by using a closing curly brace (}). The definition is, therefore, applicable to all the words or expressions embraced.

(14) (a) Archiater, Archiatrus, } [*Ἀργίατρος, Gr.*] the Chief or Principal Physician; a Physician to a Prince, *L.*
(b) Scrofula, Scrophula,} Hard Glandules or Swellings of the Glandules of the Neck and Ears, the King's Evil. *L.*

3.4 Methods of definition

In Bailey's dictionary, the methods employed to define medical terminology are not special for the purpose, but rather similar to those he uses

throughout the wordlist. That is, the words of general use and the "terms of art" are explained by the same definitional procedures. However, a preliminary analysis of Bailey's dictionary reveals that the five commonest methods to define medical terms are, in order of frequency: (a) synonymy; (b) hyponymy; (c) relation; (d) cross-reference; and (e) etymology. While the first three and the fifth were already common definitional practices in early modern English medical texts (McConchie – Curzan 2011: 84-87) – which may have influenced, or even modelled, seventeenth- and eighteenth-century dictionary definitions of medical terminology – the deployment of cross-references is more associated with early English lexicography than medical literature (Starnes – Noyes 1991 [1946]; Franzen 2012). Note that, sometimes, two of these methods of definition coexist in a given entry, as commented on and exemplified in the following subsections.

3.4.1 Synonymy

The most frequent form of definition is to provide dictionary users with one or more synonyms of Germanic origin or in any case words more familiar to them. Thus, the headword is the specialised term and the synonymic definition lists words that Bailey considered acceptable to clarify the meaning,[12] or make it conceptually "accessible" to the end user. These kinds of concise definitions were useful to explain the meanings of unfamiliar words to an expanding reading public and were probably influenced by the early seventeenth-century hard-word lexicographical tradition (Wells 1973; McConchie – Curzan 2011):

(15) (a) Ablepsy, [*Ablepsia, L.* of *Ἀβλεψία, Gr.*] Blindness, Unadvisedness.

(b) Salubrity, [*salubrite,* F., *salubrites,* L.] Wholsomness, Healthfulness, Clearness.

(c) Venemous, [*Venimeux, F.*] Poisonous.

A variant is found when a headword like Arthritis is defined by both a synonym and a brief explanation of the term that describes the resulting medical condition (cf. § 3.4.3), the two definitional elements being separated

[12] The need for objectivity is one of the well-established principles of dictionary defining (Heuberger 2016: 31), yet early modern lexicographers were still at the initial stages and they suffered from various shortcomings that determined the quality and comprehensibility of the definition. One of these, according to Béjoint, was that, at times, "they, the lexicographers, knew what was good for the public, and the users simply had to adapt to the dictionary as it was" (Béjoint 2010: 223).

from each other by a semicolon to indicate that the two meanings are related: the first refers to the disease itself, the second to the symptoms it produces (cf. § 3.3). The entry in (16a) includes a synonym ("the Gout"); although Bailey does not expressly cross-refer the user to the headword Gout (16b), this is actually listed in the dictionary and contains an extended etymological note based on analogy with a natural phenomenon as well as a definition that is not very different from the one s.v. Arthritis:

(16) (a) Arthritis, [*αρθριτις, Gr.*] the Gout; a Pain in the Joints of the Limbs.

(b) Gout, [*Goutte, F.* of *Gutta, L.* a Drop, because it is an Humour that falleth down, as it were by Drops into the Joints, the *Greeks* call it *γόσορα*] a painful Disease in the Legs, Feet, *& c.*

In addition, some entries include glossing in their definitions. For instance, as shown in (17a) such a phrase as "commonly called" introduces vernacular equivalent terms that can also be found elsewhere in the dictionary as headwords (17b-c) and is combined with expressions that suggest the same or nearly the same meaning (cf. § 3.4.4 on cross-references).

(17) (a) Apostema, Aposteme, } [*Ἀποστημα, Gr.*] a preternatural Swelling, caused by corrupt Humours gathered from any Part of the Body, commonly called an Imposthume or Abcess.

(b) Abscess, Abscesse, } [*Absces, F.* of *Abscessus, L.*] an Ulceration arising in any part of the Body after a *Crisis*: The same with an Imposthume.

(c) Impsotume, [*Apostume, F. Apostema, Ital.*] a swelling of Humours or gathering of corrupt Matter in any Part of the Body.

3.4.2 Hyponymy

Medical terminology is also defined in terms of inclusion or class-membership (Palmer 1981: 85) by means of a hypernym-hyponym pair that establishes a hierarchical sense relationship. In some entries, the definitional procedure consists of relating a generic term (hypernym or superordinate) to a specific instance of it (hyponym or subordinate), the hypernym being included in the definition and the hyponym being the headword itself.

As with synonymy, definitions involving hyponymy may take different forms. The most recurrent one is directly associating the headword to a semantic field. In this way, the hypernym is the first word appearing in

the definition and the reader can quickly associate the medical term with a given subject matter. In (18), the headwords are recognised as a type of symptom (18b) and as a medicinal product (18a and 18c):

(18) (a) EMULSION, a physical Drink, made of the Kernels of some Seeds, infused in a convenient Liquor. *L.*

(b) MARASMUS, [*μαρασμός*, *Gr.*], a Fever in which the Body wastes away by Degrees.

(c) MATRICALIA, Medicines for Diseases in the Matrix.

Alternatively, the hypernym may not be immediately mentioned since it is sometimes preceded by such formulaic phrases as "that part of", "a sort of" or "a kind of", which make the hierarchical relationship clearer. In (19a-c) these serve in turn to describe the medical term as a specific medical-related discipline, a symptom manifested in the skin, and a disorder that causes hair loss. Each refers to a distinct concept in their respective semantic fields:

(19) (a) THERAPEUTICKS, [*Therapeutique, F. Terapeutice, L.* of *Θεραπευτική*, *Gr.*], that Part of Physick which shews the Method of curing Diseases.

(b) ATHEROMA, [*αθήρομα*, *Gr.*], a sort of Swelling, consisting of a thick and tough Humour, like Pap of sodden Barley.

(c) ARNALDIA, ARNOLDIA, } a kind of Disease that makes the Hair fall off. *O. L.*

3.4.3 Relation

According to McConchie and Curzan, there is a type of definition in early modern English medical texts that describes medical conditions "in relation to their symptoms and body parts in relation to the body as a whole and to other body parts. We might call this symptomatological defining 'symptomatography'" (McConchie – Curzan 2011: 85).

In Bailey's dictionary, a series of definitions based on this descriptive approach can be identified, some of them requiring advanced specialised knowledge on the users' part or further dictionary consultation in order to fully understand them. Bearing in mind that this is a general reference work aimed at the eighteenth-century average dictionary user, a definition like the one reproduced in (20) may be difficult to grasp without knowing what "a continual Fever" is (which anyway has its own entry in the dictionary), or what "whole Mass of Blood" means. On occasions, it seems that the term is

not only used by physicians but it is defined for them or, at least, for people having a basic knowledge of the keywords that construct the definition.

(20) Augmentum Febricum, [among *Physicians*] is a Computation from what time the Heat of a continual Fever has seized upon the whole Mass of Blood, 'till it hath arrived at the Height.

However, in the definitions here below (21-22) one may notice that the symptomatological description is less technical and more visual, in the sense that it helps users to form a mental image of the concept being defined, and it may even combine clinical signs with a description of patients typically showing this symptom to offer a more detailed or illustrative definition:

(21) Metastasis, [among *Physicians*] is when a Disease departs from one Part to another, as in Apoplectick People, when the Matter which affects the Brain is translated to the Nerves.

(22) Pestilential Tumours, [among *Physicians*] a Swelling accompanied with a Fever, Swooning, *& c*. which usually arises in the time of a Pestilence or Plague.

3.4.4 Cross-references

Another method of definition consists in introducing cross-references to the immediate context or elsewhere back or forward in the dictionary, thus forming a network of sense relations within the book. As with the identification of medical terminology, the cross-references may be direct or indirect.

On the one hand, direct cross-references are similar to modern practices and help dictionary users move backwards or forwards through the pages; expressions like "which see", or just the imperative "see" plus a synonym or variant spelling,[13] can serve as a definition (23), or be appended to it after a short explanation that unequivocally establishes a relation of similarity or correspondence between headwords (24). In any case, the user is guided to look elsewhere in the dictionary for further details.

[13] This contrasts with the practice in (14), where two variant spellings are joined together by a closing brace instead of being separate and cross-referenced. This also illustrates the difficulty in establishing a clear-cut typology of Bailey's lexicographical procedure because, even though the dictionary seems to be fairly consistent throughout, there are also several exceptions to the rule.

(23) (a) Antastmaticks, see *Antiasthmaticks.*

(b) Matrix, see matrice.

(24) (a) Abluent medicines, the same with *Abstergent*; which see.

(b) Ecpyesma, [*ἐχπύεσμα, Gr.*] the same with *Empyema*.

On the other hand, indirect cross-references can occur when the user finds a word in the definition that is immediately before or after the headword, so that there is no need to page through the dictionary to locate its meaning. This is observed whenever there are two or more words listed in a row because they belong to a group of derivatives, but the adjective or verb is only defined in relation to the noun:

(25) Asthma, [*Asthme, F., Asthma, L.* of *ἄσθμα, Gr.*] a difficulty in Breathing, proceeding from an ill affection of the Lungs.

Asthmatick [*Asthmatique F. Asthmatic, L.* of *Ἀθματικός, Gr.*] belonging to, or troubled with an Asthma.

This also applied in the cases of Bailey's symptomatological definitions that contain some examples of diseases that produce a given medical condition. Although these entries do not include a cross-reference directing the user to look for further information, it can be argued that the corresponding entries should have to be consulted. In the case of Acinesia, for instance, the meaning of the term might be more completely and precisely understood by looking up the entries for *palsey*, *apoplexy* and *swoon* in the dictionary:

(26) Acinesia, [*Ἀκινησία, Gr.*] the Immobility of the whole Body, or of any part thereof, as in a Palsey, Apoplexy, Swooning, *& c. L.*

3.4.5 Etymology

Apart from using etymology simply to trace the origin of the headword back to such languages as Arabic, Danish, (Old) French, Greek, Hebrew, (Old) Latin, Syrian or Teutonic, Bailey sometimes draws on etymology as a further method to define medical terminology concisely (though perhaps not very efficiently). He does so by offering a literal or approximate translation, or even a paraphrasis, of the original meaning of the loanword into English, as these examples show:

(27) (a) Pellicle, [*pellicula, L.*] a Little Skin.

(b) Recidivous, [*recidivus, L.*] falling Back.

4. Conclusion

Bailey's "universal" and "etymological" dictionary is an example of the general monolingual dictionaries published in the eighteenth century,

> to which, as to Store-Houses, […] Persons may have recourse, as often as any thing occurs in Conversation or Reading, with which they are unacquainted, or when they themselves would speak or write Properly and Intelligibly. (Bailey 1721: Introduction)

The analogy with a building in which there is abundant supply of goods, or with a repository in which non-material elements can be found, reveals one of the central purposes of Bailey's work: providing the general dictionary user with words enough to understand, codify and communicate ideas meaningfully.

Apart from "the generality of words in the *English* Tongue" announced on the title page, Bailey's dictionary covers a wide range of "Terms of Art", among which medical and medical-related terminology is a relevant subset. The modern distinction between a general and a scientific or technical dictionary (Becker 2016) is somehow blurred in this case. In fact, Bailey's entry for *medicine* indicates it is an "art" itself, i.e. a profession or occupation requiring knowledge (= theory) and skill (= practice) to be exercised, but it can also be a generic name to encompass remedies or medicinal products for disease treatment.

As to the entry structure, there are several combinations of headword/definition in which extra information is provided to further characterise the term being explained. The etymon and language of origin, for instance, trace the specialised word back to its earliest form and source, probably in an attempt at "negotiating the relative prestige of the language from which terminology comes and supplying English with the vocabulary to discuss medicine" (McConchie – Curzan 2011: 83), but the etymological information does not go beyond the identification of the word(s) from which the English term is derived. Variant spellings of the same headword, subject labels and initialisms are variously inserted in Bailey's medical entries, thus creating a number of possible combinations. Different definitions can be either included in the same entry, properly separated from each other by punctuation marks, or found in distinct entries; in this case, the headword is repeated two or three times, the first being attached to the general meaning of the word, and the next ones detailing the specialist or professional domains.

Finally, different methods to define medical terminology have been identified. The most salient one is the use of synonymic equivalents (either by listing words on an almost one-to-one correspondence or by glossing). In order of importance, this is followed by the establishing of a unidirectional relationship between hyponyms and their hypernyms in several semantic fields (i.e. a taxonomy); defining by listing the signs and symptoms that characterise a given disease or disorder, sometimes also using analogy to better illustrate the meaning; cross-referencing back and forwards in the dictionary; and "Englishing" the original meaning of a borrowed learned word by providing a literal translation or paraphrasis. The definitions vary in structural complexity, going from one word to full complex sentences, yet the effort to explain the terms in plain language is evident in all the examples provided in § 3.

Needless to say, Bailey is not pioneering a lexicographic approach to medical terminology in general monolingual English dictionaries. Seventeenth-century authors such as Thomas Blount (*Glossographia*, 1656) and Edward Phillips (*The New World of English of Words*, 1658) are representative of the hard-word tradition and actively sought ways of incorporating and defining medical terms into their dictionaries, which could be rooted in earlier vernacular medical texts and glossaries (McConchie – Curzan 2011; Domínguez-Rodríguez 2016). Overall, the examples selected and commented on in this paper show Bailey's most commonly used strategies to present and explain medical terms in the dictionary. The form(at) and content of the entries examined suggest an authorial intentionality to reach general dictionary users, especially whenever Bailey employs simple, familiar language to describe scholarly knowledge and specialised vocabulary otherwise obscure to lay people.

REFERENCES

Sources

Bailey, N.

1721 *An Universal Etymological English Dictionary*. London: Printed for E. Bell and J. Darby.

1727 *The Universal Etymological English Dictionary: in Two Parts*. London: Printed for T. Cox.

1730 *Dictionarium Britannicum*. London: Printed for T. Cox.

Blount, T.
1656 *Glossographia: Or a Dictionary, Interpreting All Such Hard Words…* London: Printed by Tho. Newcomb.
Johnson, S.
1755 *A Dictionary of the English Language*. London: Printed for J. and P. Knapton et al.
Kersey, J.
1702 *A New English Dictionary*. London: Printed for Henry Bonwicke and Robert Knaplock.
Oxford English Dictionary Online (OED), http://www.oed.com, accessed March 2019.
Phillips, E.
1658 *The New World of English of Words*. London: Printed by E. Tyler for Nath.
Brooke.
Scott, J.N. – Bailey, N.
1755 *A New Universal Etymological English Dictionary*. London: Printed for T. Osborne and J. Shipton.

Special studies

Alston, R.C.
1966 *A Bibliography of the English Language from the Invention of Printing to the year 1800. Vol. 5: The English Dictionary*. Leeds: Arnold & Son.
Becker, H.
2016 "Scientific and technical dictionaries; Coverage of scientific and technical terms in general dictionaries". In: P. Durkin. (ed.) *The Oxford Handbook of Lexicography*. Oxford: Oxford University Press, 393-407.
Béjoint, H.
2010 *The Lexicography of English*. Oxford: Oxford University Press.
2016 "Dictionaries for general users: History and development; Current issues". In: P. Durkin (ed.) *The Oxford Handbook of Lexicography*. Oxford: Oxford University Press, 7-24.
Brewer, C.
2016 "Labelling and metalanguage". In: P. Durkin (ed.) *The Oxford Handbook of Lexicography*. Oxford: Oxford University Press, 488-500.
Considine, J.
2010 "The history of lexicography". In: J. Considine (ed.) *Adventuring in Dictionaries: New Studies in the History of Lexicography*. Newcastle upon Tyne: Cambridge Scholars Publishing, ix-xxii.
Domínguez-Rodríguez, M.V.
2016 "Thomas Blount's *Glossographia* (1656): An approach to citation styles in the medical entries". In: M.V. Domínguez-Rodríguez et al. (eds.) *Words across History: Advances in Historical Lexicography and Lexicology*.

Las Palmas de Gran Canaria: Servicio de Publicaciones y Difusión Científica de la ULPGC, 149-166.

Franzen, C. (ed.)
2012 *Ashgate Critical Essays on Early English Lexicographers. Volume 2: Middle English*. Oxford/New York: Routledge.

French, R.
2003 *Medicine Before Science. The Business of Medicine from the Middle Ages to the Enlightenment*. Cambridge: Cambridge University Press.

Hancher, M.
2019 "Bailey, Nathan (Bap. 1691-d.1742)". In: *Oxford Dictionary of National Biography Online (ODNB)*. Oxford: Oxford University Press.

Heuberger, R.
2016 "Learners' dictionaries: History and development; Current issues". In: P. Durkin (ed.) *The Oxford Handbook of Lexicography*. Oxford: Oxford University Press, 25-43.

Long, P.W.
1909 "English dictionaries before Webster", *Bibliographical Society of America* 4, 25-43.

McConchie, R.W. – Curzan, A.
2011 "Defining in early modern English medical texts". In: I. Taavitsainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press, 74-93.

McIntosh, C.
1998 "Eighteenth-century dictionaries and the Enlightenment", *Yearbook of English Studies* 28, 3-18.

Mitchell, L.C.
1994 "Inversion of grammar books and dictionaries in the seventeenth and eighteenth centuries". In: W. Martin et al. (eds.) *Euralex 1994 Proceedings*. Amsterdam: Euralex, 548-554.

Murray, J.A.H.
2003 [1900] "The evolution of English lexicography". In: R.R.K. Hartmann (ed.) *Lexicography: Critical Concepts. Volume I: Dictionaries, Compilers, Critics and Users.* London/New York: Routledge, 45-69.

Osselton, N.E.
1990 "English lexicography from the beginning up to and including Johnson". In: F.J. Hausmann et al. (eds.) *Wörterbücher. Dictionaries. Dictionnaires.* Vol. 2. Berlin/New York: Walter de Gruyter, 1943-1953.

Palmer, F.R.
1981 *Semantics* (2nd edn.). Cambridge: Cambridge University Press.

Read, A.W.
2003 "The beginnings of English lexicography", *Dictionaries* 24, 187-226.

Segar, M.
1931 "Dictionary making in the early eighteenth century", *The Review of English Studies* 7 (26), 210-213.

Sledd, J.H. – G.J. Kolb
1955 *Dr. Johnson's Dictionary: Essays in the Biography of a Book*. Chicago: University of Chicago Press.
Starnes, D.W.T.
1937 "English dictionaries of the 17th century", *Studies in English* 17, 15-51.
Starnes, D.W.T. – G.E. Noyes
1991 [1946] *The English Dictionary from Cawdrey to Johnson 1604-1755* (ed. by G. Stein). Amsterdam & Philadelphia: John Benjamins.
Wells, R.A.
1973 *Dictionaries and the Authoritarian Tradition*. Berlin: De Gruyter.
Yeo, R.
2001 *Encyclopaedic Visions: Scientific Dictionaries and Enlightenment Culture*. Cambridge: Cambridge University Press.

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Stabilising the scientific lexicon in eighteenth-century British encyclopaedias and specialised dictionaries: A focus on medical terminology

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ABSTRACT

The general aim of this research is to illustrate how scientific terminology was stabilising in eighteenth-century British specialised dictionaries and in universal dictionaries of arts and sciences. These were encyclopaedic works in alphabetical order, which "sought to combine alphabetical entries with deference to the classification of knowledge" (Yeo 2001: 27). Recurrent lexical items, frequent patterns of disciplinary thinking, and emerging communicative conventions highlight the complexity of the scientific process through time (Taavitsainen et al. 2014: 148). They also reveal the underlying mechanisms which define the medical lexicon, and medical writing in general, as specialised language use, as "medical group language" (Gunnarsson 2011: 305). The approach is mainly qualitative: the analysis is carried out on a selection of medical terms representing macro-areas of interest in medical research and practice for the period considered (e.g. *inflammatory diseases*, *anatomical description*, *surgical operations*, etc.). Selection, reduction, recurrence, adoption, and adaptation make *form* (spelling and lexical variants), *structure* (entry components), and *content* (semantic and pragmatic, lexical and encyclopaedic load) converge, and stabilise their relationship disciplinarily as well as lexicographically and/or lexicologically.

Keywords: eighteenth-century lexicography and lexicology, eighteenth-century medical dictionaries, eighteenth-century encyclopaedias, medical terminology, medical writing.

1. Introduction

The general aim of this research is to illustrate how scientific terminology was stabilising in eighteenth-century British specialised dictionaries and

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in universal dictionaries of arts and sciences.[1] The specific purpose of the present contribution focusses on the medical lexicon, that is to say on the analysis of those terms belonging to medicine "generally defined to be, The art of preserving health when present, and of restoring it when lost" (*Encyclopaedia Britannica* 1768-1771: 58, s.v. MEDICINE). According to major classifications of the time (Lonati 2017: 38-40), medicine encompasses surgery, pharmacy, anatomy, physiology, midwifery, and botany-medical plants. These disciplinary subdivisions are also used as lexicographic labels in universal dictionaries of arts and sciences.

Medicine represents a complex disciplinary area undergoing dramatic changes over the century: Lindemann (2010) and Lane (2001: 11) highlight the social impact of medicine, which became "a recognised and respected profession", particularly by the 1750s.[2] Universities continued to provide higher education for physicians, whereas private schools and public institutions (e.g. hospitals, infirmaries, dispensaries) specialised in practical instruction, or training courses for apprentices (Taavitsainen et al. 2014: 144). These courses were usually addressed to regular practitioners, especially apothecaries and surgeons (cf. Loudon 1992), who became established as "the forefront of empirical medicine" (Taavitsainen et al. 2014: 143). In the second half of the eighteenth century, traditional medical knowledge was losing ground as a fixed system of reference, "whereas empirical practitioners were very much the fashion" (Rieder – Louis-Courvoisier 2010: 579), with their performative approach grounded on experience, and training:

> The growing number and diversity of medical practitioners reflected rising demand for skilled services, which was driven by growing

[1] Dictionaries of arts and sciences emerged as encyclopaedic reference works aiming to encompass and describe a wide range of subjects. With language dictionaries, they shared the alphabetical arrangement of entries, and with systematically organised encyclopaedias of the past, "proper relations between subjects" (Yeo 2001: 25). This is the reason why they are considered the "Encyclopaedias of the Enlightenment", surrendering "to the mercy of the alphabet", but relating the "various subjects […] to each other in logical, conceptual or historical ways" (Yeo 2001: 27), by the use of hierarchical schemes (e.g. the tree of knowledge) and/or cross-references between entries.

[2] The role of the physician changed over time, and declined in popularity, whereas more practical activities increased their prestige alongside their professional reliability: "The share of accounts reporting any medical care which included debts to physicians fell markedly, from 52 percent in the 1670s to 15 and 20 percent in the 1730s and 1780s samples. In contrast, the share using apothecaries, surgeons or nurses remains broadly stable. […] The physicians' downfall was a change in the combinations of different types of practitioner used by the deceased" (Pirohakul – Wallis 2014: 21).

> consumerism, industrialization, urbanization and the emergence of more bureaucratic states. This combined with Enlightenment pragmatism and individualism to help define specialist groups. Professional men came to be seen as specialists who had expertise in particular fields, a position reinforced by their relative scarcity, and by the efforts of these proto-professional groups to organize and assert their identity. […] Enlightenment ideas emphasized the value of practical education and empirical research to progress. (Waddington 2011: 173)

The need to structure a medical career, to expand medical knowledge as disciplinary dynamic knowledge, and to face an increasing demand for professional medical advice, were key factors in stimulating the production of reference works, and the circulation of "vernacular medical books" (Fissel 2007: 112). This expression covers a variety of emerging genres and text types, and includes lexicographic works and handbooks. They were addressed to expert, semi-expert and non-expert users and, in different ways, recorded and defined medical terminology, or used technical expressions in the description and explanation of diseases and medical events (Lonati 2017: 15, 19).

The socio-cultural interest in medicine, as well as the scientific advancement in the field, stimulated the process of identification, adoption, systematisation, and dissemination of disciplinary language features at various language levels: orthography (lemmatisation, spelling variants, and the standardising process), lexicology (semantic load, that is specialisation vs. general usage, Latin/Latinate terms vs. English/Anglicised equivalents), and lexicography (wordlists, degree of inclusion and selection of terms; entry structure and components,[3] encyclopaedic content, practical issues).

Recurrent lexical items, frequent patterns of disciplinary thinking, and emerging communicative conventions highlight the complexity of the scientific process through time (Taavitsainen et al. 2014: 148). They also reveal the underlying mechanisms which define the medical lexicon, and medical writing in general, as specialised language use, as "medical group language" (Gunnarsson 2011: 305):

> Language, texts and spoken discourse were part of this construction process, that is to say, medical terminology, medical text structures

[3] H/Headword, SpV/Spelling Variant, Lab/Label, Ety/Etymology, Eq/Equivalent, Def/Definition, Exp/Expansion, CRef/Cross-Reference.

> and medical discourse patterns developed as a means of dealing with reality in a manner that was appropriate for medical purposes. The way in which language was used was related to existing knowledge within the field and also to conceptions about what constituted knowledge and the attitude that should be adopted to it. […] it is not only what medical scientists knew in the eighteenth century, but also what knowledge they believed to be relevant and how they considered that data should be collected, observed and analysed. (Gunnarsson 2011: 305)

In other words, this multilayered discipline construction results in the development of a shared "language variety" encompassing "different sub-registers of medical writing" (Taavitsainen et al. 2014: 139, 138). The "linguistic construction of scientificality" (Gunnarssonn 2011: 303) required time and textual experimentation, a process of adaptation, selection, and scientific categorisation.[4]

2. Sources, methodology, and sampling techniques

2.1 Primary sources

The main sources are medical dictionaries, and include James's *A Medicinal Dictionary* (*MD*, 1743-45), Barrow's *A New Medicinal Dictionary* (Ba*NMD*, 1749), Motherby's *A New Medical Dictionary* (Mo*NMD*, 1775), and Hooper's *A Compendious Medical Dictionary* (*CMD*, 1798). They are addressed mainly to a professional and semi-professional readership, and are devoted to the recording, categorising, and organising of specialised material. As regards universal dictionaries of arts and sciences, the main sources for analysis and comparison are the fifth edition of Chambers's *Cyclopaedia* (5th*Cy*, 1741-43), the *Encyclopaedia Britannica* (*EB*, 1768-1771), and Rees's *Cyclopaedia, or An Universal Dictionary of Arts and Sciences* (Re*Cy*, 1778-1788). James's *MD*, Barrow's *NMD*, and Chambers's 5th*Cy* were issued in the 1740s, whereas all the other dictionaries are later works, issued in the second half of the cen-

[4] For an in-depth discussion about the creation and the development of scientific medical language in a variety of texts and registers, the following studies are worth mentioning: Jones (2004), Lonati (2017), McConchie (2019), McConchie – Curzan (2011), Pahta (2011), Taavitsainen – Pahta (2004, 2011), Pahta – Taavitsainen (2011).

tury. It is in this period that the attention to establishing accurate disciplinary terminology (form and meaning) becomes essential in professional settings.[5]

For the purpose of this study, these reference works may be subdivided into three groups, all of which include mid- and late-century dictionaries. James's *MD* and Motherby's *NMD* are folio volumes, comprehensive, prestigious and expensive works for an educated readership of experts and non-experts. They are a repository of medical knowledge, particularly James's *MD*, also including scholarly issues. Barrow's *NMD* and Hooper's *CMD* are octavo and duodecimo volumes respectively, portable, small-size dictionaries including concise information for a non-expert, semi-expert or trainee readership (e.g. students, apprentices, practitioners, etc.). These are affordable works, less expensive than the preceding ones, with very practical applications.

Before introducing the third group of works, it is worth highlighting that two of the preceding dictionaries are intimately related, despite their size (folio vs. octavo) and specific aims (scholarly repository vs. practical usage). These are James's *MD* and Barrow's *NMD* (Barrow's sub-title suggests this "close relationship", McConchie 2019: 170): Ba*NMD* wordlist depends on that of *MD*, "a cut-down version of James's […] including omitting many headwords and creating new ones" (McConchie 2019: 172, 175). However, this issue, although highly relevant, does not undermine the comparison between these two works, and the others included in the corpus, since the focus of this study (cf. §§ 1. and 2.2) is to examine and display in detail the similarities and differences (recurrences and innovations) at the lexicographic and disciplinary levels across dictionaries (cf. §§ 4. and 4.1 as well as Appendix 2 for the analysis).

The last group enumerates three universal dictionaries of arts and sciences: 5thC*y* (folio), *EB* (quarto) and ReC*y* (folio) are prestigious and expensive works for an expert and non-expert readership, and include many traditional and emerging disciplines, medicine being just one of them. In this particular context, medical terms are unevenly distributed across the alphabet: the analysis is essentially qualitative, concerning only

[5] The close relationship between specialised dictionaries and universal dictionaries of arts and sciences, as well as their shared background in the eighteenth-century effort to define scientific terminology and disciplinary contents, is discussed from different perspectives in Abbattista (1996), Bisaccia et al. (2011), Brack – Kaminski (1984), Bradshaw (1981), Kafker (1994), Lonati (2007, 2013, 2014, 2017), McConchie (2009, 2019), Osselton (2007), Werner (1994), and Yeo (1991, 1996, 2001).

a comparison of individual headwords/entries with selected headwords/entries in medical dictionaries.

2.2 Methodology

The approach is mainly qualitative: the analysis is carried out on a selection of medical terms representing macro-areas of interest in medical research and practice for the period considered (e.g. *inflammatory diseases*, *anatomical description*, *surgical operations*, etc.). Macro-areas themselves have been selected according to recurrent topics of interest in contemporary medical reference works (e.g. handbooks and compendia recording the most frequent diseases and afflictions), compiled by medical practitioners and/or physicians. The comparison is first carried out across wordlists to highlight the degree of inclusion (cf. also § 2.1); later on, specific headwords/entries are selected and compared across dictionaries. The analysis is usually focussed on major entry components (cf. fn. 3), which are typically included in the first paragraphs, irrespective of entry length.

2.2.1 Sampling

The method and sampling depends strictly on the nature of the works under scrutiny (medical and universal dictionaries of arts and sciences, and their encyclopaedic perspective), and on their size (folio, quarto, octavo, duodecimo; number of volumes per single work; total number of pages and lexicographic pages per single work).[6]

Due to clear differences in size among sources and, as a consequence, to the complexity in selecting a basic corpus of examples (quantity and quality), many criteria need to be considered and combined in this specific investigation. Two fundamental studies to establish practical criteria of analysis have been Bukovska (2010, 2013). In both these works, Bukovska suggests a combination of sample techniques to provide reliability to any analysis, either within single dictionaries, or across dictionaries. Two sampling schemes are described: the simple random selection of pages (SRS, "taking a random selection of pages from the whole dictionary", 2010:

[6] The total number of pages refer to front/back matter and lexicographic matter altogether; lexicographic pages only refers to lemmata, headwords, and entries. James's *MD*: 3 folio vols, pp. 3327; Motherby's *NMD*: 1 folio vol., pp. 640; Barrow's *NMD*: 1 octavo vol., pp. 591; Hooper's *CMD*: 1 duodecimo vol., pp. 308; Chambers's 5th*Cy*: 2 folio vols, pp. 2069; *EB*: 3 quarto vols, pp. 2576; Rees's *Cy*: 4 folio vols, pp. 4940, to which is added the 5th vol. of plates.

1259; cf. also 2013: 27), and the stratified selection of pages (SS, "consists in dividing the dictionary into non-overlapping parts called strata – e.g. letters […] and selecting a simple random sample from each one", 2010: 1259; cf. also 2013: 27).

Multiple-stretch selection. The qualitative basis of the research also needs some quantitative parameters to be considered as a background. To establish the wordlists as a basic corpus for the analysis, specific sections in each dictionary have been scrutinised: particularly letters A-beginning, H and I/J-mid, and P-end, to balance the number of terms included in different parts of the dictionaries, and systematically compare a relevant number of sample words/entries (cf. Osselton 2007 on "alphabet fatigue"). Because of the number of works included, and of the number of pages (and entries) under scrutiny (cf. fn. 6), a limited multiple-stretch selection of letters A-H-I-J-P has been used for basic quantitative analysis at this stage of the research. A selection covering the whole alphabet would be recommended to refine the corpus of examples across dictionaries, and provide a more thorough analysis. There are at least two further reasons to go through the whole alphabet in the future: first, the section for letter A always tends to be longer than other letters in medical dictionaries due to Latin and Greek source terminology (McConchie 2019: 157); second, this section is extremely long in *MD* if compared to the subsequent letters, as explained by James himself in his Preface (McConchie 2019: 156-157). Nonetheless, the inclusion of letter A is useful to emphasise recurrent compiling techniques/strategies of reduction (e.g. entry length, and mean number of entries per page) within *MD* itself, and across dictionaries.

Stratified selection of pages (systematic space-based sampling). Stratification within and across dictionaries is the second criterion selected for the analysis. Even though "randomization within strata is […] crucial" (Bukovska 2013: 28), random sampling of pages has been excluded here, due to the purpose of comparing wordlists and entries across dictionaries.[7] Each letter has been subdivided into strata. Strata are based on the initial ten pages under each letter (absolute criterion), and the initial ten per cent of pages under each letter (relative criterion: this metalexicographic approach allows to compare, and tries to counterbalance, research in works of very different sizes and of different degrees of inclusion). The results have been transcribed to verify how many headwords are included in the initial 10pp-unit and in

[7] Bukovska (2010: 1267) maintains that "a researcher might be interested in comparing samples from several dictionaries […] the comparator text should encompass the same ranges in all the dictionaries being compared".

the initial 10%pp-unit (cf. Appendix 1, Table 2, horizontal axis-single dictionary and vertical axis-across dictionaries), and to select single entries to be compared. The combination of these two criteria results in wordlists which are analysed in each dictionary under each letter (a kind of single-stretch selection), and compared across dictionaries (a kind of multiple-stretch selection). This comparison is systematic across medical dictionaries, whereas universal dictionaries of arts and sciences have been excluded because of the multidisciplinary nature of their wordlists. The initial 10%pp-unit for the formation of wordlists emerges as the most effective to contextualise data and results, since it provides a part-whole relationship within the single dictionary, as well as the mean number of entries per page (cf. Appendix 1, Table 2), both within the single dictionary, and across dictionaries.

3. Quantitative results and qualitative implications

The quantitative survey has highlighted some general features for each single work, and more general lexicographic trends across dictionaries, either medical or universal. Before summarising the most relevant issues in the following paragraphs, it is worth recalling the overreaching length of James's letter A, and Barrow's heavy dependency on James's wordlist, (McConchie 2019: 156-157; cf. § 2.2.1 above). This fact might appear to render the quantitative comparison between these dictionaries redundant. However, in Appendix 1, and in Table 2, it is made clear that the distributions of terms in the 10pp-unit and 10%pp-unit are different. The mean number of entries per page shifts between 2.2-2.4 (10pp-unit vs. 10%pp-unit) in *MD*, and between 16.1-16.5 in Ba*NMD* (10pp-unit vs. 10%pp-unit). The wordlist in each dictionary covers a different number of terms per 10%pp-unit: *MD* includes A-ABDOMEN (24 terms, 10pp-unit), and A-ACETUM (165 terms-74pp., 10%pp-unit); Ba*NMD* includes ABAPTISTON-ACUPUNCTURA (161 terms, 10pp-unit), and ABAPTISTON-ACRITON (129 terms-7.8 pp., 10%pp-unit).

A great disparity in the total number of pages per work, alongside the size of the works, represent the general context of the investigation (cf. fn. 6 above and Appendix 1, Table 1): different strategies, aims, readership and functions (e.g., scholarly repository vs. practical issues, prestigious folio/quarto dictionaries vs. practical octavo/duodecimo dictionaries, etc.) emerge. The two smaller dictionaries (Ba*NMD* and *CMD*) display a more even distribution of pages per letter (pages-per-volume and pages-per-letter relationship, in particular for letters A and P), which also results in

mid-dictionary letters between H and L; the most lopsided dictionaries are instead *MD*, Mo*NMD*, and *EB* (cf. fn. 8 and 9). This is necessarily due to the following reasons, already mentioned above: firstly, the numbers of medical terms are differently distributed across letters, according to their Greek or Latin origin; secondly, as James explains in his Preface, there is an imbalance of letter A (McConchie 2019: 157; cf. § 2.2.1 above); thirdly, and perhaps most importantly, the compilers have distinct aims, their criteria of inclusion/omission and compilation are consequently different.

5thC*y* and ReC*y* are more balanced than the preceding compilations:[8] the mid-alphabet letters H I-J usually testify to a decrease in the number of pages per letter, and a resulting decrease in the total number of terms included per single letter. This reduction may also be due to the more limited number of disciplinary terms beginning with H I-J, and a more limited number of disciplinary headwords included in the general wordlists of universal dictionaries of arts and sciences, in comparison with specialised dictionaries.

By matching the results of the word count in the 10pp-unit and 10%pp-unit for each letter, it emerges that after letter A the number of headwords/entries per page usually increases. This typically implies a decrease in length and complexity per entry, and the inclusion of more concise, essential information. This tendency is also confirmed for some works within a single letter (e.g. H in Mo*NMD*, P in Ba*NMD*: cf. Appendix 1, Table 2) and, more generally, by considering the mid-dictionary letter, or word.[9] In *MD* the mid-

[8] In *MD*, A is more than 77% of the first vol. (cf. McConchie 2019: 156-157; §§ 2.2.1 and 3. here), P is 23%; in Mo*NMD*, A is about 21% of the single vol., P is less than 8%; in *EB*, A covers almost entirely the first vol., about 73%, P is less than 9,5% in the third vol. In 5thC*y*, A and P cover about 17,5% and 20,5%, in vols 1 and 2, respectively; in ReC*y*, A is 34% and P is 40%, in their respective volumes. Cf. also Appendix 1, Table 1.

[9] According to Osselton, seventeenth- and eighteenth-century mid-dictionary was marked by a continuum between letters *HU-* and *LO-*, *insult* being Cawdrey's (1604) mid-point word and *landmark* Johnson's (1755); he also affirms that "there is much greater variability in the works of the early compilers, but nearly all of them can be seen to have inflated the early part of the alphabet" (Osselton 2007: 82). This refers to the general framework of universal dictionaries, but it is worth noting that things may be different with medical terminology, as McConchie explains (2019: 156-157, 171-174). In particular, the more balanced distribution of pages per letter in Ba*NMD*, as it emerges from the present analysis, may be due to "[h]is deletions from James […] high in A […] they decline as he moves into B, and are at their lowest at about COR-[…] By contrast, the rate of additions is almost nil early in A, begins to pick up about ANC- and rises slowly to a peak at about LAB-, culminating in a very large block of additions for *lapis*. From there it declines gradually until a final increase, […] about REM-. […] This may suggest that Barrow was over-zealous in his omissions early in the task, anxious to keep the work within limits and unwilling to add, but eventually

letter is E (EUP-EUS, from EUPHORIA to EUSCHEMOSYNE), and in Mo*NMD* the mid-letter is also E (EMB-EMO, from ELLEBORINE to EMOLLIENTIA). Both of them are lopsided. However, Ba*NMD* (HEP-HER, from HEPAR to HERBA) and *CMD* (LEA-LEV, from LAVENDULA to LEVATORANI) are clearly balanced, with mid-letters between H-L (cf. fn. 8; present-day dictionaries are between L-M). *CMD* is also the most balanced as regards the average number of terms per page and per letter (cf. Appendix 1, Table 2).[10]

The transcription and the comparison of wordlists (§ 2.2.1) across medical dictionaries highlights some asymmetry of inclusion. A strict correspondence in the wordlists emerges for the letters H, I-J, and P across *MD*, Mo*NMD* and Ba*NMD*, where as *CMD* stands out as a more selective and concise compilation. Clear differences in the degree of inclusion under A (except for *MD* and Mo*NMD*) shift towards more similar patterns in H, I-J, P across dictionaries. As expected according to his Preface, James reduces the number of entries, their length and complexity, in *MD* after letter A. Some entries consist solely of internal cross-references, equivalents, concise definitions (cf. § 4.1). Small dictionaries (Ba*NMD* and *CMD*) are more balanced in the distribution of items per page, and pages per letter, they have highly reduced wordists (particularly under A), when compared to folio medical dictionaries. From letter H onwards, *MD* and Ba*NMD*'s lemmata tend to overlap, or to display many similarities, which is extremely relevant in relation to their different size and purpose: three folio volumes vs. one octavo volume respectively (cf. fn. 9). *CMD* is the most diverse among the four medical dictionaries under scrutiny.

Universal dictionaries of arts and sciences are usually more balanced as regards the average distribution of words per page: they include many disciplines and areas of knowledge and, as a consequence, the comparison with medical wordlists is not quantitatively effective, the initial 10pp and the initial 10%pp criteria considered. Hence, a comparison seems inappropriate and not technically useful here. However, similarities and differences clearly emerge from a qualitative analysis of individual entries, which is the focus of § 4. below.

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found a balance. The demands of the publishers concerning length may well also have been a factor" (McConchie 2019: 174).

10 Mid-letters are established half-way of the total number of lexicographic pages in each dictionary. Paratextual sections are always excluded. In the case of *MD*, the three volumes count 3153 lexicographic pages: dedication, preface, tables, and explications of the tables in vol. 1 (131 pp.), and advertisement, tables, explication of the tables, and index in vol. 3 (43 pp.) are omitted from page count. The total number of pages for *MD*'s three volumes is 3327.

4. Qualitative analysis across medical dictionaries and universal dictionaries of arts and sciences: Sample headwords and entries

The analysis of single entries across dictionaries is based on the initial 10 pp – initial 10%pp criteria wordlists and, in particular, on shared terminology across dictionaries: it focusses on individual entries (microstructure), to determine systematic features and patterns within and across works.

As regards the qualitative analysis of individual entries, further quantitative parameters have also been selected: the minimum-maximum portion of text (text continuum) under examination covers the initial five-to-twenty lines under each entry, according to the size of the page (from folio to duodecimo) and the typeface. This parameter has proved effective to include the most relevant lexicographic and lexicological elements (H/Headword, SpV/Spelling Variant, Lab/Label, Ety/Etymology, Eq/Equivalent,[11] Def/Definition, Exp/Expansion, CRef/Cross-Reference), and can be considered reliable for the comparison across dictionaries. The necessity to establish boundaries on text continuum is due to the unbalanced and very diverse sequences of long (much longer than twenty folio lines), medium, concise, very concise entries (shorter than five octavo/duodecimo lines) within the same dictionary or across dictionaries. Some entries may span many pages, particularly in *MD*, Mo*NMD* and Re*Cy*, or be reduced to the essential H + CRef/Eq pattern, in any dictionary. In this context, the delimitation of text continuum is essential and useful to establish equivalent, comparable, and reliable text units.

The qualitative comparison is also carried out across medical dictionaries and dictionaries of arts and sciences, since the focus of the analysis here is on individual entries as microtext units independent of the macrolexicographic structure.

The selected headwords/entries for the exemplification of stabilising lexicographic and lexicological patterns across dictionaries include twelve terms: *abdomen*, *abductor/s*, *abscess/us*, *habena*, *hæmorrhagia/hæmorrhage*, *hæmatocele*, *hæmoptysis*, *ichor*, *panacea*, *pandemius*, *papula*, and *paracentesis*. For reasons of space, and to provide a straightforward discussion of recurrent patterns and features, the entries have been transcribed in Appendix 2, in alphabetical order. A note on entry length (number of lines, or number of columns, size of the page) is added at the end of each transcription.

[11] For the notionof equivalence or equivalent, cf. Zgusta (1987), and Adamska-Sałaciak (2010).

4.1 Qualitative approach in medical entries: Lexicography, lexicology, and encyclopaedic issues

This section discusses the most relevant features of medical entries: comments refer to the extracts transcribed in the Appendix. However, these text units exemplify and represent more general, recurrent and systematic compiling features, and lexicographic techniques across dictionaries, as they emerge from a more extended and in-depth investigation in the background. The discussion is always focussed on single lexicographic components in the order they are usually provided in the entry, and on their function in framing entry structure.

Headword. The language of preference in medical dictionaries is Latin or Latinised spelling and lexical variants from Greek, whereas universal dictionaries of arts and sciences tend to include Anglicised or English versions, and more than one if attested, or in use (encyclopaedic inclusion). In the sample under scrutiny here, most of the headwords are provided in Latin, or Latinised forms, across dictionaries: only *abscess*, *hæmoptoe*, and *hæmorrhage* are Anglicised. *Abscess* is used in universal dictionaries and in *CMD* as a headword, and as a spelling variant and lexical equivalent of *abscessus* in Mo*NMD*. *Hæmoptoe* is included as a spelling variant and lexical equivalent in 5th*Cy*, *EB*, and Re*Cy*, along with the Latinised *hæmoptysis*, and the corrupted spelling version *hæmoptosis*. This spelling is used as a headword in the *EB*, which also includes *hæmaptysis*. This variability is not to be found in medical dictionaries, which only select, attest, and display the original *hæmoptysis*. The Anglicised form *hæmorrhage* is used as headword in universal dictionaries and in Ba*NMD*, whereas the other medical dictionaries prefer the more prestigious Latinised version *hæmorrhagia* or *hæmorrhagiæ*. However, *hæmorrhage/s* is included in *MD* and *CMD* as a spelling variant, and lexical equivalent. Some terms are not included in universal dictionaries: *hæmatocele*, *pandemius*, *papula/æ*. This may depend on compiling restrictions, and wordlist selection: from mid-dictionary onwards, the number of pages per letter and number of lines per entry are progressively reduced. Highly specialised headwords, or tiny details, may be omitted. It is not an accident that also across medical dictionaries *hæmatocele* is a very concise entry (H + Ety + Eq/Def), and *pandemius* and *papula* are minimal entries (H + Eq).

Labels. Labels are used to connect specialised terms to the disciplinary field they belong to, or the compilers assign to them. They have a lexicographic function, as a basic component of the entry; a lexicological function, delimiting the semantic field of the headwords; and an encyclopaedic

function, to categorise medical contents, and highlight scientificality as a process of distinction and disambiguation.

Labels, consisting of formulaic expressions such as *in medicine* / *in medicine and surgery* (e.g., s.v. Abscess, Hæmorrhage, Hæmoptysis/Hæmoptosis/Hæmoptoe), *in surgery* / *in chirurgery* (e.g., s.v. Paracentesis), *in anatomy* (e.g., s.v. Abdomen, Abductor), are systematically used in universal dictionaries of arts and sciences. These are multidisciplinary reference works: the need to establish clear boundaries among the many branches – and sub-branches – of knowledge, and helping the non-expert, though educated, reader, is compulsory. On the contrary, medical dictionaries do not include this categorising technique: (sub)disciplinary distinctions are often included in the prefaces, or made clear in the exposition within individual entries. It is probably supposed that an expert, or semi-expert, readership can definitely understand the specific nature, role, and function of contents. However, labels may also consist in less explicit and structured expressions, kinds of glosses, anticipating definitions, and may partially overlap with them. As in previous examples, they are used to background disciplinary contents. In this case, both universal and medical dictionaries provide examples: *anatomists* (s.v. Abdomen, *MD*), *by anatomists* (s.v. Abductor, *MD* and Ba*NMD*), *by modern authors* (s.v. Abscessus, *MD* and Ba*NMD*), *remedies* / *a medicine* (s.v. Panacea, *MD*, Mo*NMD*, Ba*NMD*, *CMD*), *chirurgical operation* / *operation* (s.v. Paracentesis, *MD*, *CMD*).

Spelling variants and equivalents. As already indicated above in the section ***Headword***, the number of spelling variants and lexical equivalents is variously distributed across dictionaries. Spelling variants are more frequently included as anglicised versions in universal dictionaries of arts and sciences, whereas medical dictionaries tend to select one single form, and usually the most prestigious Latin or Latinate version: it is a period in which Latin definitely remains the professional language of scientific and medical denominations.[12] However, clear boundaries of inclusion / non-inclusion cannot be established: selection is still bound to individual headwords, and entries. In any case, when more than one spelling variant is recorded, the most prestigious one (Latin/Latinate) is usually the first to appear, or the one followed by the entry (and not only by cross-references tracing back to alternative forms, e.g. s.v. Hæmoptoe, Re*Cy*). This happens with *hæmoptysis* (5th*Cy*; and Re*Cy* from *hæmoptoe*).

[12] "Latin and Greek terminology dominated, except of course in the actual text of the entries where English equivalents appeared more freely, up until the end of the eighteenth century" (McConchie 2019: 190).

Lexical equivalents (translation or multiword explanatory equivalents) are frequent across dictionaries, either universal or medical. They are usually less prestigious English (core vocabulary) or more formal anglicised variants (morphological adaptations), but more scholarly Greek equivalents may also be included (e.g. s.v. ABSCESSUS, HÆMATOCELE, HÆMOPTYSIS, ICHOR, PANACEA, PARACENTESIS, *MD*; s.v. PANACEA, *BaNMD* and *CMD*; s.v. PARACENTESIS *CMD*; s.v. HÆMORRHAGE, HÆMOPTYSIS, PANACEA, PARACENTEIS, 5th*Cy*; s.v. ICHOR, PANACEA, Re*Cy*). In this case, Greek equivalents also act as prestigious spelling variants, and partly overlap with etymology: the structure is usually H+(Lab) + *Greek* SpV/Eq + *Core* Eq/Def.

Equivalents can be used in isolation, immediately following the headword-topic, or be part of a definition. The most recurrent structures are H+(Lab) + Eq or H+(Lab) + Eq-Def/Def-Eq. In either case, some examples may be found across dictionaries s.v. ABDOMEN (*belly*, *lower belly*, *lower venter*), s.v. ABDUCTOR (*abducent*, *a leader from*), s.v. ABSCESS (*suppurated phlegmon*, *inflammatory tumor*, *imposthume* / *impostume*, *tumor*, *apostema*), s.v. HAEMORRHAGIA/Æ-HÆMORRHAGE (*eruption of blood*, *flux of blood*), s.v. HÆMATOCELE (*hernia*, *false hernia*, *any tumor*, *collection of blood*), s.v. HÆMOPTYSIS (*spitting of blood*, *bleeding at the nose*, *vomiting of blood*), s.v. ICHOR (*sanies*, *humour of the blood*, *watery humour*, etc.), s.v. PARACENTESIS (*tapping*, *perforation of the breast*). On the one hand, multiword explanatory equivalents merge with very concise, minimal definitions, unfolding the general semantic load (e.g. ABDUCTOR – *a leader from*; HÆMORRHAGIA – *eruption/flux of blood*; PARACENTESIS – *perforation of the breast*, etc.). On the other hand, translation equivalents express various sense relations: particularly, synonymy (ABDOMEN – *belly*, *lower belly*, *lower venter*; PANDEMIUS – *epidemical*; PANDEMIC – a synonym of *epidemic*; PAPULA – *pimple*; PARACENTESIS – *tapping*) and hyponymy/hypernymy (HABENA – name of a *bandage*; HÆMATOCELE – species of *hernia*; ICHOR – a kind of *serum*; PANACEA – title of many *remedies*, a *medicine*; PAPULÆ – *eruptions* of various kind).

Etymology. The etymological principle, or the regular inclusion of the origin and derivation of words in eighteenth-century language dictionaries, is also frequently – if not systematically – adopted by universal dictionaries of arts and sciences (encyclopaedias), and by specialised dictionaries. The reference works under scrutiny here provide an effective example of this practice: the etymology of medical terms is usually included in the opening lines of the entry, it introduces the (original) meaning/s and the morpho-syntactic components of the headword-topic. It is perceived and used as a basic subsidiary element to support lexical definitions, and foster subsequent encyclopaedic expansions: e.g. "ABDOMEN, The belly. […] this word is from abdo, to hide: as its contents lay hid in it. The body is generally

divided into three cavities, called bellies" (H + Eq + Ety + Def + Exp, Mo*NMD*). The same or similar structures and sequences – with etymology preceding or following Def and/or Exp – may be found across dictionaries s.v. Abdomen, Abductor, Ab(s)cessus/Abscess, Hæmorrhagia/æ, Hæmorrhage, Hæmatocele, Hæmoptysis, Ichor, Panacea, Paracentesis.

As a rule, etymologies consist of Latin and/or Greek originals, followed by English translation equivalents: e.g. "of *abdo*, L. to hide" (s.v. Abdomen, Ba*NMD*), "*The word is purely Latin, and is derived from *abdere*, to hide: either because many of the viscera of the body are contained […]" (s.v. Abdomen, 5th*Cy*), "from abscedo, to depart" (s.v. Abscessus, Mo*NMD*), "from *αίμα*, blood, and *κήλη*, an hernia or tumor" (s.v. Hæmatocele, Ba*NMD*), "*αίμόπτυσις*, from *αίμα*, blood, and *πτύω*, to spit" (s.v. Hæmoptysis, *MD*), "from *αιμορροις*, an eruption of blood", (s.v. Hæmorrhagiæ, *CMD*), "*πανάκεια*, from *πάν*, the Neuter of *πας*, all, and *άκ*[…], a Remedy" (s.v. Panacea, *MD*), etc.

The length and detail of etymological sections vary according to the general aim, nature, and size of the work: the most accurate may be found in 5th*Cy* (e.g. s.v. Abdomen), as well as in *MD* and Re*Cy*. In comparison to them, Mo*NMD* is more selective and concise. Ba*NMD* and *CMD* provide interesting examples: despite their size (octavo and duodecimo, respectively), they testify to systematic inclusion, and detailed treatment. *EB* represents an exception, since etymology is omitted from this work, and reputed not necessary to background contemporary meaning and contents. For all the examples above mentioned, and further details, cf. Appendix 2.

Definition. The inclusion and the variety of definitions depend on the nature, function, and size of the dictionary (e.g. folio vs. octavo and duodecimo, medical vs. universal, expert and/or semi-expert and/or non-expert user), and the aim(s) of the compilers (e.g. those of *EB* vs. 5th*Cy* and Re*Cy*). They may be distinguished into lexical definition (LDef, limited to word meaning) and extended definition (EDef, including concise encyclopaedic description). Lexical and extended definitions are usually provided across dictionaries: they are more typical of universal dictionaries of arts and sciences and small-size dictionaries, and less frequent in medical dictionaries. These works tend to shift directly from equivalents and etymology to encyclopaedic-medical contents (Expansion/Exp). In this case, the entry structure is **H** + (SpV) + **Eq** and/or (**Ety**)+(LDef) **Exp**+(CRef). Examples of this kind are documented s.v. Abdomen, Abductor pollicis manus, Abscessus (*MD*, Mo*NMD*); s.v. Hæmorrhagia/æ (Mo*NMD*, *CMD*); s.v. Hæmoptysis (*CMD*); s.v. Panacea (*MD*). The entries encompassing LDef and EDef usually display more compound and/or complex structures, especially when all the lexicographic components are included (the notions of compound and/or complexity do not overlap

with entry length). The sequence highlights the minimum (bold)-maximum (bold + brackets) degree of inflation **H**+(SpV) + (Lab) + **Eq** and/or **Ety** + **LDef** and/or **EDef**+(Exp) + (CRef). Examples may be found s.v. ABDOMEN, ABDUCTORS, ABSCESSUS, HÆMATOCELE, HÆMOPTYSIS, ICHOR, PARACENTESIS across dictionaries, universal and specialised (from minimum to maximum inflation); and s.v. HABENA (*MD*, Mo*NMD*, Ba*NMD*), s.v. HÆMORRHAGIA/Æ (universal dictionaries, Ba*NMD*, *MD*), s.v. PANACEA (universal dictionaries, Mo*NMD*, Ba*NMD*, *CMD*). This scrutiny highlights two relevant issues: the *EB*, coherently with its aims and macrostructure, includes only more concise and essential entries, usually **H**+(Lab)+(Eq) + **LDef**/(EDef) + (CRef); this is the reason why *EB* is not included in previous examples; across dictionaries, the entries are progressively reduced in length and complexity, particularly after A, for the letters H, I-J, and P, except for particularly relevant topics, treated in detail, e.g. HÆMORRHAGIA/HÆMORRHAGE (*MD*, Mo*NMD*, Re*Cy*), HÆMOPTYSIS (Mo*NMD*, Re*Cy*), and ICHOR (*MD*). To conclude this section, it is worth mentioning minimal entry structures (cf. ***Spelling variants and equivalents***), whose sequence may be as follows **H**+(**Eq**)+(**Def**)+(CRef), e.g. s.v. ICHOR (Mo*NMD*, Ba*NMD*, *CMD*, *EB*), s.v. PANDEMIUS, PAPULA/Æ (medical dictionaries), PARACENTESIS (*EB*).

Expansion. Expansions refer to encyclopaedic matter proper, and they encompass the exposition of medical contents and the description of medical events extending beyond the opening lines. In this context, the microstructure of the entry displays the complexity of text and discourse construction, gradually adapting to the necessity of lexicographic treatment. The entry may cover a few lines (from folio to duodecimo volumes), or many folio columns (e.g. s.v. ABDOMEN, *MD*; s.v. ABSCESSUS, *MD* and Mo*NMD*; s.v. HÆMORRHAGIA/HÆMORRHAGE, *MD*, Mo*NMD* and Re*Cy*). In view of the aim of the present study, that is to say the analysis of the opening sections in a selected number of entries across dictionaries to identify stabilising features in medical terminology (cf. § 1.), and in view of the nature of the works under scrutiny (cf. § 2), the transcription of these long sections cannot be included in Appendix 2 and, as a consequence, cannot be fully discussed in this paper. However, as regards text and discourse construction, some strategies already emerge from the short excerpts selected in the definitions (LDef and EDef, cf. above). If *MD*, 5th*Cy* and Re*Cy* still tend to focus on individuals (medical men), as the starting point of encyclopaedic treatment, or the exposition of medical contents, Mo*NMD*, Ba*NMD*, and *CMD* systematically topicalise, or thematise, the object of the discussion. This change highlights a different approach in the elaboration of medical

writing, and scientific writing in general, in the second half of the eighteenth century. The attention of the writer/compiler (and necessarily of the reader) shifts from agent/s to content/s, making text and discourse definitely (more) informational and abstract (Lonati 2017: 27), and laying the foundation for specialised communication.

In Appendix 2, this approach is documented s.v. ABDOMEN as "Anatomists have generally divided the body into three great cavities" (*MD*), "Anatomists usually divide the body into three regions" (5th*Cy* and Re*Cy*) vs. "The body is generally divided into three cavities, called bellies" (Mo*NMD*), "the cavity of the body from" (Ba*NMD*), "A cavity between the thorax and the pelvis" (*CMD*), "The abdomen begins immediately under the thorax, and terminates" (*EB*, s.v. ANATOMY, Of the Abdomen).

This process of reformulation may also be found, with some variations, in other entries of the sample: s.v. ABDUCTOR/S, "the/a name given by anatomists to the following muscles" (*MD* and Ba*NMD*) vs. "Several muscles are thus called" (Mo*NMD*), "a name given to those muscles" (*CMD*), "name common to several muscles, whose action is" (5th*Cy* and Re*Cy*), "the name of several muscles which serve" (*EB*); s.v. ABSCESSUS, "The words […] used very frequently by Hippocrates […] by modern authors to signify" (*MD*), "This word is generally used, by modern authors, to signify" (Ba*NMD*) vs. "A cavity containing pus, or gathering" (Mo*NMD*), "A collection of pus in the" (*CMD*), "inflammatory tumor, containing purulent matter" (5th*Cy* and Re*Cy*), "tumor or cavity containing purulent matter" (*EB*); s.v. ICHOR, "by some is called […] by others […] Some take it" (*MD*), vs. "It is a thin" (Mo*NMD*), "a kind of Serum" (Ba*NMD*), "A thin aqueous, and acrid discharge" (*CMD*), "a thin wat(e)ry humour, like serum" (5th*Cy*, Re*Cy*, and *EB*); s.v. PANACEA, "Title of many Remedies both among the Antients and Moderns" (*MD*), "epithet given by the antients to those remedies" (*CMD*), "a remedy for all diseases […] The accurate Boerhaave" (5th*Cy* and Re*Cy*) vs. "title given to many remedies" (Mo*NMD*), "a medicine which cures all diseases" (Ba*NMD*), "a remedy for all diseases" (*EB*).

The examples above, beyond highlighting the basic but relevant features of structuring scientific text and discourse, also unfold the dependencies across and among dictionaries. Mo*NMD* and Ba*NMD* definitely draw from *MD* but, for different reasons, reduce the amount of information in their entries; 5th*Cy* and Re*Cy* are closely connected, since the second one is a partial reworking and reorganising of the first; *EB* is essential, and sometimes reproduces very concise versions of 5th*Cy*; *CMD* also testifies to the tendency to focus on contents.

5. Qualitative results and concluding remarks

When dealing with qualitative results, some correspondences and methodological similarities across medical dictionaries and universal dictionaries of art and sciences undoubtedly emerge: in particular, the tendency to reduce and stabilise the number of equivalents and spelling variants, or the tendency to focus on necessary and useful contemporary contents, starting from definitions. Lexicographic components and their morpho-syntactic arrangement, which structures text and discourse, define the particular function of specialised and/or universal dictionaries. The following sections summarise the key points discussed in this study and try to provide a general frame of reference for further investigation. They especially focus on methodological similarities and recurrent features of lexicographic inclusion. In other words, they highlight the process of regularisation in compilation practices, and the effort to balance lexicographic needs and scientific discourse issues.

5.1 Stabilising features of lexicographic inclusion

Except for letter A in *MD* (cf. §§ 2.1 and 3.; McConchie 2019: 156-157) and Mo*NMD*, a stricter correspondence in the wordlists clearly emerges for the letters H-I/J-P across *MD*, Mo*NMD*, and Ba*NMD* (cf. § 3. fn. 9; McConchie 2019: 172, 174). The correspondence between *MD* and Ba*NMD* is particularly relevant, due to the different nature, function, and size of their works. The selection of terms is quite the same, with a drastic reduction of contents per single entry in Ba*NMD*: according to McConchie (2019: 172), Barrow's entries "are James's by and large with all the encyclopaedic and scientific material expunged. Barrow essentially retains the linguistic information and deleted the rest, making his entries characteristically very short" (cf. Appendix 2 and § 4.1). This similarity across the three dictionaries highlights that a backbone of medical terminology is being established and that lexicographic practice is fundamental to this process.

Consulting and collecting materials from previous dictionaries clearly help in stabilising – almost *fixing* – medical wordlists in the second half of the century: this emerges as a selective – if not prescriptive – practice, or habit, with a strong influence on disciplinary wordlist delimitation, and on disciplinary issues as well.

Octavo and duodecimo dictionaries, Ba*NMD* and *CMD* respectively, display a more even distribution of pages per letter if compared to folio

dictionaries, and they help establish a lexicographic frame of very practical usage in a specialised disciplinary domain. Mid-dictionary words correspond to the H-L continuum (cf. Osselton 2007: 82; fn. 9); the entries are concise, and the number of headwords per page more stable. *CMD* stands out as different in comparison with others: it is far more selective, and scientifically essential.

5.2 Stabilising qualitative features – methodological similarities

As regards denominations, the use of Latin is systematic for the headwords in the medical dictionaries examined (cf. McConchie 2019: 190-191); instead, in universal dictionaries of arts and sciences, usage shifts between Latin/Latinised and English/Anglicised spelling variants and equivalents. The 5th*Cy* and Re*Cy* tend to include (prestigious) anglicised variants if in use, whereas *EB* headwords are usually anglicised or English variants. The distribution of spelling variants and equivalents is not systematic, and generally depends on the nature of the work(s) under scrutiny. Specialised spelling variants and equivalents are mainly used in medical dictionaries (e.g. Greek), whereas core vocabulary spelling variants and equivalents chiefly characterise universal dictionaries (e.g. in definitions). This distribution is also necessarily determined by their reading public, of expert, semi-expert, and/or lay readership.

Except for those of *MD*, contents tend to focus on necessary and useful contemporary topics: this actually delimits the inclusion of scholarly digressions on the history of medicine and medical thought within single entries.

In general terms, similar stabilising attitudes emerge in the compilation of dictionaries, promoting a more refined lexicographic practice, and a more selective attitude at a disciplinary level. Selection, reduction, recurrence, adoption, and adaptation make form (spelling and lexical variants), structure (entry components), and content (semantic and pragmatic – lexical and encyclopaedic load) converge, and stabilise their relationship disciplinarily as well as lexicographically and/or lexicologically.

The fact that, towards the mid-century and later, reference works known as *scientific* dictionaries are more frequently compiled and published than in the past, suggests a new perspective on science as a whole, and medicine in particular. This means that disciplinary areas become professional areas whose boundaries are being more strictly defined: terminology is ultimately conceived as a distinctive professional mark.

APPENDIX 1: QUANTITATIVE DATA

Table 1

ISSUE DATE – SIZE NR VOLUMES – NR PAGES	A	H	I-J	P
JAMES 1743-45 – medical 3 voll. folio (tot. pp. text + paratext 3327/only text **3153**)	**741** (1 vol. 1091/960)	**95** (2 vol. 1181)	**82** (2 vol. 1181)	**230** (3 vol. 1055/ 1012)
% pages single vol. → % pages all voll. →	77% 23%			23% 7%
MOTHERBY 1775 – medical 1 vol. folio (tot. pp. text + paratext 640/ only text **603**)	**128**	**20**	**22**	**48**
% pages single vol. → % pages all voll. →	21% 21%			8% 8%
BARROW 1749 – medical 1 vol. in-8° (tot. pp. text + paratext 591/only text 585)	**78**	**21**	**17**	**43**
% pages single vol. → % pages all voll. →	13% 13%			7.5% 7.5%
HOOPER 1798 – medical 1 vol. in-12° (tot. pp. text + paratext 308/only text 303)	**28**	**12**	**11 / I** **2.5 / J**	**25**
% pages single vol. → % pages all voll. →	17.5% 17.5%			20.5% 20.5%
CHAMBERS 1741-43 – universal 2 voll. folio (tot. pp. text + paratext 2069/only text **2040**)	**184** (1 vol. 1076/ 1047)	**92** (1 vol. 1076/ 1047)	**49** (1 vol. 1076/ 1047)	**201** (2 vol. 993)
% pages single vol. → % pages all voll. →	17.5% 9%			20.5% 10%
BRITANNICA 1768-71 – universal 3 voll. in-4° (tot. pp. Text + paratext 2576/only text **2570**)	**564** (1 vol. 782/776)	**60** (2 vol. 976)	**28** (2 vol. 976)	**77** (3 vol. 818)
% pages single vol. → % pages all voll. →	73% 22%			9.5% 3%
REES 1778-88 – universal 4 voll. + 1 vol. plates folio (preface in vol. 5-pp. 37; tot. pp. 1-4 voll. front pages + text 4940/only text **4936**)	**368** (1 vol. 1082/ 1080)	**212** (2 vol. 1249/ 1248)	**139** (2 vol. 1249/ 1248)	**483** (3 vol. 1212/ 1211)
% pages single vol. → % pages all voll. →	34% 7.5%			40% 10%

Table 2

1. **first 10 pp. per letter** 2. **10% of pages per letter** 3. **mid-dictionary**		**A** (mean nr of entries per page)	**H** (mean nr of entries per page)	**I-J** (mean nr of entries per page)	**P** (mean nr of entries per page)
MD 1743-45 mid-dict. **EUP-EUS**	10 pp.	**24 terms** (2.4) **A-ABDOMEN**	**28 terms** (2.8) **H-HAEMOR- RHOIDES**	**76 terms** (7.6) **I-ICTERUS**	**51 terms** (5.1) **P-PALPITATIO**
1 vol. **A-CAL** mid >**ANETUM** 2 vol. **CAL-M** mid >**EPILEPSIA** 3 vol. **N-Z** mid >**SALIVATIO**	10%	**165 terms** (2.2) **74 pp.** up to **ACETUM**	**28 terms** (2.9) **9.5 pp.** up to **HAEMORRHOIDES**	**76 terms** (9.2) **8.2 pp.** up to **ICTERUS**	**129 terms** (5.6) **23 pp.** up to **PARALYSIS**
Mo*NMD* 1775 single vol. **A-Z**	10 pp.	**76 terms** (7.6) **A-ABSCESSUS**	**220 terms** (22) **HABASCUM- -HERPES**	**160 terms** (16) **IACINTHUS- -INFLAMMATION**	**194 terms** (19.4) **P-PARTURIO**
mid > **ELLEBORINE- EMOLLIENTIA**	10%	**78 terms** (6.9) **12.8 pp.** up to **ABSINTHIUM**	**23 terms** (11.5) **2 pp.** up to **HAEMORRHAGIA**	**62 terms** (28.1) **2.2 pp.** up to **ILEUM INTESTINUM**	**127 terms** (26.4) **4.8 pp.** up to **PAPILLAE MEDULLARES**

1. **first 10 pp. per letter** 2. **10% of pages per letter** 3. **mid-dictionary**		**A** (mean nr of entries per page)	**H** (mean nr of entries per page)	**I-J** (mean nr of entries per page)	**P** (mean nr of entries per page)
Ba*NMD* 1749 single vol. **A-Z**	10 pp.	**161 terms** (16.1) **ABAPTISTON-** **-ACUPUNCTURA**	**203 terms** (20.3) **HABENA-HERODI-** **US**	**254 terms** (25.4) **JACEA-INTEROSSEI**	**256 terms** (25.6) **P/PUGIL-** **-PEPASTICA**
mid > **HEPAR-HERBA**	10%	**129 terms** (16.5) **7.8 pp.** up to **ACRITON**	**55 terms** (25) **2.1 pp.** up to **HAMIA**	**52 terms** (30.5) **1.7 pp.** up to **ICTHYOCOLIA**	**92 terms** (21.3) **4.3 pp.** up to **PAPAVER**
CMD 1798 single vol. **A-Z**	10 pp.	**83 terms** (8.3) **A/AA/AAA-** **ALPHUS** **(VITILIGO)**	**66 terms** (6.6) **HAEMATEMESIS-** **HYGROLOGY**	**50/I-8/J terms** (5.8) **ICE-IRON,** **JALAPIUM-JUNIPERUS**	**98 terms** (9.8) **P-PHLEGMASIAE**
mid > **LAVENDULA-** **LEVATORANI**	10%	**24 terms** (8.5) **2.8 pp.** up to **ACETABULUM**	**13 terms** (10.3) **1.2 pp.** up to **HEARING**	**7/I-1/J terms** (5.5) **1,1/I-0.25/J pp.** up to **IDIOSINCRASY,** **JALAPIUM**	**21 terms** (8,4) **2.5 pp.** up to **PAPILLAE**

APPENDIX 2: quantitative data
(transcriptions of extracts: single entries across dictionaries)

ABDOMEN

ABDOMEN. Anatomists have generally divided the body into three great cavities, which they call *bellies*. The *head*, or the *upper belly*; the *thorax*, or the *middle belly*; and the *abdomen*, or *lower belly*. The Arabians, and some writers in the barbarous ages, call'd the *Abdomen*, or at least the external part of it Mirach; and the Peritonæum, Siphac. *Zacutus Lusitanus*. [*MD*, s.v. ABDOMEN – *23 folio columns*]

ABDOMEN, The belly. As some say, this word is from abdo, to hide: as its contents lay hid in it. The body is generally divided into three cavities, called bellies; viz. The head, or upper belly; the breast, or middle belly; and the abdomen, or lower belly. The belly is divided on its outer surface [...] [Mo*NMD*, s.v. ABDOMEN – 1*,5 folio columns*]

ABDOMEN (of *abdo*, L. to hide) the lower belly, or the cavity of the body from the *Thorax* downwards to *the Os pubis*. [Ba*NMD*, s.v. ABDOMEN – *full entry*]

ABDŌMEN. The belly; from *abdo*, to hide; because it hides the viscera. A cavity between the thorax and the pelvis, lined by a smooth membrane called the peritoneum, and containing the omentum or epiploon, stomach and intestines, liver, gall-bladder, mesentery, spleen, pancreas, kidneys, renal glands or capsules [...]. [*CMD*, s.v. ABDOMEN – *medium length entry*, *eight duodecimo lines the full entry*]

ABDOMEN*, in anatomy, the belly, or lower venter; or that part of the body comprehended between the thorax, and the hips. See VENTER, &c.

* The word is purely Latin, and is derived from *abdere*, to hide: either because many of the viscera of the body are contained, and as it were hidden in this part; or as others imagine, because the part itself is usually covered and concealed from sight, whereas the part over it, *viz.* the thorax, is frequently left bare. Others suppose the word *abdomen*, a compound of *abdere* and *omentum*, in regard the omentum or caul is one of the parts contained in it. Others take it for a mere paronymon, or different termination of *abdere*; especially as in some ancient glosses it is written *abdomen*, which might have been formed from *abdere*, as *legumen* from *legere*, the *o* and *u* being often interchanged.

Anatomists usually divide the body into three regions, or venters: the head, the thorax or breast, and the *Abdomen*, which makes the lowest part of the trunk; being terminated by the diaphragm above, and the inguen or pubis below. See BODY. [5th*Cy*, s.v. ABDOMEN – *0,5 folio column*]

ABDOMEN, in anatomy, is that part of the trunk of the body which lies between the thorax and the bottom of the pelvis. See ANATOMY, part VI.
ANATOMY […] Of the ABDOMEN. [pp. 256-257] The abdomen begins immediately under the thorax, and terminates at the bottom of the pelvis of the ossa innominata.

Its circumference, or outer surface, is divided into regions, of which there are three anterior, viz. The epigastric or superior region, the umbilical or middle region, and the hypogastric or lower region. […] [*EB*, s.v. ABDOMEN, and ANATOMY – *two quarto columns included into a long treatise, pp. 145-310*]

ABDOMEN, in *Anatomy*, the belly, or lower *venter*; or that part of the body comprehended between the *thorax* and the hips.
The word is derived from *abdere*, to *hide*.
Anatomists usually divide the BODY into three regions, or venters; the head, the *thorax* or breast, and the *Abdomen*, which makes the lowest part of the trunk; being terminated by the diaphragm above, and by the *inguen* or *pubis* below. [ReCy, s.v. ABDOMEN – *1,5 folio columns*]

ABDUCTOR/S

ABDUCTOR, is a name given by anatomists to the following Muscles.
[*many specific sub-headwords as run-ons*]
ABDUCTOR POLLICIS MANUS, or THENAR, Arises by a broad tendinous and fleshy beginning from the transverse Ligament of the Carpus, and from one of its Bones that articulates with the Thumb; Is inserted tendinous into the second Joint of the Pollex digiturum manus. Its use is to draw the Thumb from the Fingers. [*MD*, s.v. ABDUCTOR – *1,5 folio columns*]

ABDUCTOR, a leader from, or that draws away. Several muscles are thus called.
[*many specific headwords follow*, *1 folio column the full entry*]
ABDUCTOR POLLICIS MANUS, called also Thenar. It rises by a broad, tendinous, and fleshy beginning, from the inner part of the transverse ligament of the carpus, and from one of its bones which articulates with the thumb, and is inserted tendinous into the second joint of the thumb. It draws the thumb from the fingers. [MoNMD, s.v. ABDUCTOR POLLICIS MANUS – *full entry*]

ABDUCTORS (of *ab* from, and *duco* to draw) a name given, by anatomists, to those muscles which serve to open or pull back divers parts of the body; they are opposite to *adductores*.
ABDUCTOR *policis manus*, or *thenar*, is that which serves to draw the thumb from the fingers. [BaNMD, s.v. ABDUCTORS and ABDUCTOR POLICIS MANUS – *full entry*]

ABDUCTOR. From ab, from, and duco, to draw; a name given to those muscles, which pull back parts of the body, into which they are inserted.
ABDUCTOR POLLICIS MANUS. A muscle of the thumb, which moves it from the fingers. [*CMD*, s.v. ABDUCTOR and ABDUCTOR POLICIS MANUS – *full entry*]

ABDUCTOR*, or Abducent, in anatomy, a name common to several muscles, whose action is the withdrawing, opening, or pulling back the parts they are fixed to. See Muscle.

* The name is *Latin*, compounded of *ab*, from; and *ducere*, to draw. Their antagonists are called *Adductores*. See Adductor[5thCy, s.v. Abductor, + *sub-headwords – 0,5 folio column*]

ABDUCTOR, in anatomy, the name of several muscles which serve to open or draw back the parts to which they are fixed. See Anatomy, Part VI. [*EB*, s.v. Abductor – *full entry*]

ABDUCTOR, or Abducent, in *Anatomy*, a name common to several muscles, whose action is the withdrawing, opening, or pulling back, the parts they are fixed to.

The name is compunded of *ab*, *from*; and *ducere*, *to draw*. Their antagonists are called Adductores. [ReCy, s.v. Abductor, + *sub-headwords – 0,5 folio column*]

ABSCESSUS – ABSCESS

ABSCESSUS, *Ἀπόςημα*. The words *απόςασις* and *απόςημα*, used very frequently by Hippocrates, are translated by Celsus *Abscessus*, and sometimes *Vomica*. Hence the word *Abscess*, generally used by modern authors to signify a Suppurated Phlegmon, or Inflammatory Tumour, though sometimes it signifies a Tumour of any other kind, which will not admit of discussion, as all Encysted Tumours. [...]
[*MD*, s.v. Abscessus – *35 folio columns*]

ABSCESSUS, an Abscess; from abscedo, to depart. A cavity containing pus, or a gathering of matter in a part. So called, because hereby the parts which were joined are now separated; one part recedes from another to make way for the collected matter. *απόςασις* and *απόςημα*, used by Hippocrates, are translated by Celsus, abscessus, and sometimes vomica. Paulus Ægineta [...].
[Mo*NMD*, s.v. Abscessus – *12,5 folio columns including sub-headwords*]

ABCESSUS (of *abs*, and *cedo* to retire, because the parts are disunited by the matter contained) This word is generally used, by modern authors, to signify a suppurated phlegmon, or inflammatory tumour; though sometimes it signifies a tumor of any other kind, which will not admit of discussion, as all enchysted tumors. [Ba*NMD*, s.v. Abcessus – *full entry*]

Abscess. *Apostema*. Impostume. A collection of pus in the cellular or adipose membrane; from *abs* and *cedo*, to retire. [*CMD*, s.v. Abscess – *full entry*]

ABSCESS*, in medicine, a kind of inflammatory tumor, containing purulent matter, pent up in a fleshy part, and corrupting and consuming the fibres, and other substance thereof. See Tumor.

* Authors are divided as to the reason of the appellation: some think the tumor thus called, by reason parts before contiguous, *abscedunt*, or separate from each other; […]. [*ten lines of etymology*]

Abscess is the same with what the Greeks call *apostema*, and the English, *imposthume*, or *imposthumation*. See APOSTUME.
Almost all *Abscesses* are the consequences of inflammation. [5th*Cy*, s.v. ABSCESS – 0,3 *folio column*]

ABSCESS, in medicine and surgery, an imposthume, or any tumor or cavity containing purulent matter. See SURGERY, title, *Of tumours or abscesses*. [*EB*, s.v. ABSCESS – *full entry*]

ABSCESS, in *Medicine*, a kind of inflammatory TUMOUR, containing purulent matter, pent up in a fleshy part, and corrupting and consuming the fibres, and other substance thereof.
Abscess is the same with what the Greeks call *apostema*, and the English *imposthume*, or *imposthumation*.
Almost all *abscesses* are the consequences of inflammation. […]
[Re*Cy*, s.v. ABSCESS – 0,3 *folio column*]

HABENA

HABENA. The name of a Bandage, contriv'd to keep the Lips of Wounds together, and supply the Place of a Suture. [*MD*, s.v. HABENA – *full entry*]

HABENA. The name of a bandage, contrived to keep the lips of wounds together. [Mo*NMD*, s.v. HABENA – *full entry*]

HABENA. A bandage used to draw the lips of a wound together, and supply the place of a suture. [Ba*NMD*, s.v. HABENA – *full entry*]

HÆMATOCELE

HÆMATOCELE, *αίματοκήλη*. A species of Hernia, caused by extravasated Blood. *Ingrassias Comment*. *in Avicenna*. *de Tumor*. [*MD*, s.v. HÆMATOCELE – *full entry*]

HÆMATOCELE. It is a species of false hernia in the scrotum; it consists of a collection of blood in the tunica vaginalis; its appearance is the same as when an hydrocele is the disorder, and so is the method of its cure. See Celsus, P. Ægineta. [Mo*NMD*, s.v. HÆMATOCELE – *full entry*]

HÆMATOCELE, (from *αίμα*, blood, and *κήλη*, an hernia or tumor) any tumor caused by extravasated blood. [Ba*NMD*, s.v. HÆMATOCELE – *full entry*]

HÆMATOCĒLE. A collection of blood in the tunica vaginalis, or cellular membrane of the scrotum; from *αιμα*, blood, and *κηλη*, a tumour. [C*MD*, s.v. HÆMATOCELE – *full entry*]

HÆMATOCELE, of *αιμα*, *blood*, and *κηλη*, *tumor*, is a tumor of the scrotum, or of the spermatic process, occasioned by extravasated blood. This disease is distinguished by Mr. Pott into four kinds; […]. [Re*Cy*, s.v. Hæmatocele – *0,5 folio column*]

HÆMATOCELE: not included in 5th*Cy* and *EB*.

HÆMOPTYSIS – HÆMOPTOE

HÆMOPTYSIS, *αίμόπτυσις*, from *αίμα*, blood, and *πτύω*, to spit. A Spitting of Blood. See Phthisis, and Sputum. [*MD*, s.v. Hæmoptysis – *full entry*]

HÆMOPTYSIS, from *άιμα*, blood, and *πτύω*, to spit. A spitting of blood; also called hæmoptoe, and hæmoptys. If blood is discharged from the nose or mouth, it is generally called a spitting of blood; but it seems more proper when blood flows from the nose, to call it a bleeding at the nose; when from the stomach, a vomiting of blood; and only when from the lungs, a spitting of blood. [Mo*NMD*, s.v. Hæmoptysis – *1 folio column*]

[HAEMOPTYCUS, (from *αίμα*, blood, and *πτύω*, to spit) one who spits blood]
HÆMOPTYSIS, (from the preceding derivation) a spitting of blood. [Ba*NMD*, s.v. Hæmoptysis – *full entry*]

Hæmoptysis. A spitting of blood; from *αιμα*, blood, and *πτυω*, to spit. A genus of disease arranged by Cullen in the class *pyrexiæ* and order *hæmorrhagiæ*. It is characterized by coughing up of florid blood, or trothy blood; heat or pain in the chest; irritation in the larynx, and a saltish taste in the mouth. Species, I. [...]. [*CMD*, s.v. Hæmoptysis – *medium length entry, 10 duodecimo lines the full entry*]

HÆMOPTYSIS*, ΑΙΜΟΠΤΥΣΙΣ, corruptly also called Hæmoptosis, and Hæmoptoe, in medicine, a spitting of blood; occasioned by the rupture, or erosion of some vessel of the lungs; and accompanied, usually, with a cough, and a sense of pressure on the breast. See Blood.

* The word comes from *άιμα*, *blood*; and *πτυειν*, *to spit*. […] [5th*Cy*, s.v. Hæmoptysis – *0,25 folio column*]

HÆMOPTOSIS, Hæmaptysis, or Hæmoptoe, in medicine, a spitting of blood. See MEDICINE. [*EB*, s.v. Hæmoptosis – *full entry*]

HÆMOPTOE, in *Medicine*. See Hæmoptysis.
HÆMOPTYSIS, formed of *αιμα*, *blood*, and *πτυειν*, *to spit*, corruptly also called Hæmoptosis, and Hæmoptoe, in *Medicine*, spitting of blood; occasioned by the rupture

or erosion of some vessel of the lungs; and accompanied usually with a cough, and a sense of pressure on the breast. […] [Re*Cy*, s.v. HÆMOPTYSIS – *about 2 folio columns*]

HÆMORRHAGIA

HÆMORRHAGIA. An Hæmorrhage, or Eruption of Blood; from *άιμα*, Blood, and *ρήγνυμι*, or *ρήσσω*, to break forth. The spontaneous Evacuations of Blood, produced by Nature, are generally made from those Places which are of a lax and tender Texture, have highly minute and slender Vessels everywhere dispersed thro' them, and are not everywhere braced up by firm Membranes. [*MD*, s.v. HÆMORRHAGIA – *10,5 folio columns*]

HÆMORRHAGIA, from *άιμα*, blood, and *ρήσσω*, to break forth. There are but few hæmorrhages (not owing to external violence) which would prove fatal, if no means were used to stop them; hence many medicines have, at different times, had the repute of being specifics. Periodical and critical hæmorrhages have generally their cause in the primæ viæ, [...]. [Mo*NMD*, s.v. HÆMORRHAGIA – *about 2 folio columns*].

HÆMORRHAGE, (from *άιμα*, blood, and *ῥήγνυμι*, to break forth) an hæmorrhage, or flux of blood from any part. [Ba*NMD*, s.v. HÆMORRHAGE – *full entry*]

HÆMORRHAGIÆ. Hæmorrhages; from *αιμορροις*, an eruption of blood.
An order in the class *pyrexiae* of Cullen's nosology; characterized by pyrexia, with a discharge of blood, without any external injury; the blood on venæsection exhibiting the buffy coat. [*CMD*, s.v. HÆMORRHAGIÆ – *full entry*]

HÆMORRHAGE*, ΆΙΜΟΡΡΑΓΙΑ, in medicine, a flux of blood at any part of the body; arising either from a rupture of the vessels, as when they are too full, or too much pressed; or from an erosion of the same, as when the blood is too sharp and corrosive. See FLUX, and BLOOD.

* The word is compounded of the Greek *άιμα*, *sanguis*, blood; and *ῥήγνυμι*, *frango*, *rumpo*, *erumpo*, I break, burst forth, &c.

The *hæmorrhage*, properly speaking, as understood by the Greeks, was only a flux of blood at the nose; […]. [5th*Cy*, s.v. HÆMORRHAGE – 0,3 *folio column*]

HÆMORRHAGE, in medicine, a flux of blood from any part of the body. See MEDICINE. [*EB*, s.v. HÆMORRHAGE – *full entry*]

HÆMORRHAGE, compounded of *άιμα*, *blood*, and *ρήγνυμι*, *I burst forth*, in *Medicine*, a flux of blood at any part of the body; arising either from a rupture of the vessels, as when they are too full, or too much pressed; or from an erosion of the same, as when the blood is too sharp and corrosive.
The *hæmorrhage*, properly speaking, as understood by the Greeks, was only a flux of blood at the nose; […]. [Re*Cy*, s.v. HÆMORRHAGE – 5 *folio columns* + *sub-headwords*]

ICHOR

ICHOR, *Ιχωρ*, by some is called *Sanies*; by others, an aqueous Humour of the Blood: Some take it for an aqueous and serous Humidity, either of the Blood, or of some other Humour, and that, most properly, when consider'd as in the Body; For out of the Body, it is *Sanies*. *Ichores*, *Ιχωρες*, according to Galen, are the thin and serous Humidities, contained in the Body, and its Vessels; and are observable in all the Humours, [...]. [*MD*, s.v. ICHOR – *1 folio column*]

ICHOR, also called sanies. It is a thin, but acrid fluid, which distils some wounds. [Mo*NMD*, s.v. ICHOR – *full entry*]

ICHOR, a kind of *Serum* ting'd with blood. [Ba*NMD*, s.v. ICHOR – *full entry*]

ICHOR. *Ιχωρ*. A thin, aqueous, and acrid discharge. [*CMD*, s.v. ICHOR – *full entry*]

ICHOR*, properly signifies a thin watry humour, like serum; but is sometimes also used for a thicker kind, flowing from ulcers; called also *sanies*. See SANIES.

* The word is originally Greek, *Ιχωρ*; where it signifies *any humour*, or *humidity*. [5th*Cy*, s.v. ICHOR – *full entry*]

ICHOR, properly signifies a thin watery humour, like serum; but is sometimes also used for a thicker kind, flowing from ulcers, called also sanies. [*EB*, s.v. ICHOR – *full entry*]

ICHOR, *Ιχωρ*, signifying any *humour*, or *humidity*, properly denotes a thin, watery humour, like serum; but is sometimes also used for a thicker kind, flowing from ulcers; called also SANIES. [Re*Cy*, s.v. ICHOR – *full entry*]

PANACEA

PANACEA, *πανάκεια*, from *πάν*, the Neuter of *πας*, all, and *άκ*[…], a Remedy. A pompous Title of many Remedies both among the Antients and Moderns: Thus the *Arcanum Duplicatum* is call'd *Panacea Duplicata*. Many Preparations of Antimony are, also, called by this Name: Thus, besides that given by this Title, under the Article ANTIMONIUM, there are two others, one of which is thus prepared: [...]. [*MD*, s.v. PANACEA – *0,5 folio column*]

PANACEA, from *πάν*, the neuter, of *πάς*, all, and *άκ*[…], a remedy. A pompous title given to many remedies, and imports an universal remedy. [Mo*NMD*, s.v. PANACEA – *full entry*]

PANACEA, (*πανάκεια*, from *πάν*, all, and *άκέομαι*, to cure) a medicine which cures all diseases. [Ba*NMD*, s.v. PANACEA – *full entry*]

PANACEA. *Πανακεια*; from *παν*, all, and *ακεομαι*, to make well. An epithet given by the ancients to those remedies which they conceived would cure every disease. Unfortunately for those of the present day, there are no such remedies. [*CMD*, s.v. PANACEA – *full entry*]

PANACEA*, ΠΑΝΑΚΕΙΑ, an universal medicine; or a remedy for all diseases. See ELIXIR, &c.
*The word is formed from the Greek *παν*, all, *ακιομα*, I cure.
The accurate Boerhaave overturns the notion of *panacea's*; and shews, from the different causes, natures, effects, seats, &c. of diseases, that several may be cured by one medicine; but all, by none. See MEDICINE. […] [5thC*y*, s.v. PANACEA – *0,2 folio column*]

PANACEA, among physicians, denotes an universal medicine, or a remedy for all diseases; a thing impossible to be obtained. [*EB*, s.v. PANACEA – *full entry*]

PANACEA, *Πανακεα*, formed from *παν*, *all*, and *ακεομαι*, *I cure*, an universal medicine or remedy for all diseases. The accurate Boerhaave overturns the notion of *panaceas*; and shews, from the different causes, natures, effects, seats, &c. of diseases, that several may, indeed, be cured by one medicine; but all by none. […] [Re*Cy*, s.v. PANACEA – *0,2 folio column*]

PANDEMIUS – PANDEMIC

PANDEMIUS. Epidemical. [*MD*, Mo*NMD*, Ba*NMD*, s.v. PANDEMIUS, *full entry*]

PANDEMIC. A synonim of Epidemic; from *παν*, all, and *δημος*, the people. See Epidemic. [*CMD*, s.v. PANDEMIC – *full entry*]

PANDEMIUS/PANDEMIC: not included in universal dictionaries of arts and sciences.

PAPULA – PAPULÆ

PAPULA. A pimple, or ulcerous tubercle. [*MD*, s.v. PIMPLE and TUBERCLE; Mo*NMD*, Ba*NMD*, s.v. PAPULA – *full entry*]

PAPULÆ. Solitary hard tumours, that are either resolved, or emit a humidity, and desquamate. They differ from pustules, because they never suppurate: such are herpes, lepra, &c. [*CMD*, s.v. PAPULÆ – *full entry*]

PAPULÆ, a name used by many authors for eruptions of various kinds upon the skin, but appropriated by Bontius to those reddish and rough eruptions thrown out

all over the surface of the body by sweat in the East Indies. These are thrown out all over the surface of the body, and at their first appearance are accompanied with an intolerable itching and desire to scratching. Strangers are more exposed to these eruptions, at their first arrival in these countries, than the natives […] the biting of the mosquitos, […]. [ReC*y*, s.v. Papulæ – *0,5folio column*]

PAPULÆ: not included in 5thC*y* and *EB*.

PARACENTESIS

PARACENTESIS, *παρακεντησις*, from *παρακεντέω*, to make a Perforation. The Name of a chirurgical Operation, which consists in making a Perforation in the Abdomen, in a Dropsy, in order to evacuate the Water in an *Ascites*. See Hydrops. The Perforation of the Breast, in order to let out extravasated Blood, Water, or Pus, is, also, called *Paracentesis Pectoris*. [*MD*, s.v. Paracentesis – *full entry*]

PARACENTESIS, from *παρακεντέω*, to make a perforation. This operation is commonly called tapping, and is used for discharging water through the integuments of the belly from the cavity thereof. The place appointed for the perforation, is about four fingers breadth from the navel, or rather in the middle betwixt the navel and the upper part of the os ilium. The left side is usually preferred, on account of not injuring the liver, Mr. Sharp observes that, if the navel protuberates […]. [Mo*NMD*, s.v. Paracentesis – *0,5 folio column*]

PARACENTESIS, (from *παρακεντέω*, to pierce, or make a perforation) the perforation of the belly in hydropical cases, or of the breast in impostumations. [Ba*NMD*, s.v. Paracentesis – *full entry*]

Paracentesis. *Παρακεντησις*; from *παρακεντεω*, to pierce through. The operation of tapping, to evacuate the water in ascites, dropsy of the ovarium, uterus, &c. [*CMD*, s.v. Paracentesis – *full entry*]

PARACENTESIS*, ΠΑΡΑΚΕΝΤΗΣΙΣ, an operation in chirurgery, popularly called *Tapping*.

* The word is formed from the Greek *παρα*, with, and *κεντειν*, *pungere*, to prick.

It consists in opening a little hole in the lower venter, or belly, to let out waters collected in the cavity thereof, or between the teguments, in an ascites or water dropsy. See Dropsy. The ancients cut the aperture with a lancet; but the moderns punch it with a kind of stillet or bodkin; clapping a cannula or tap into the hole when made, to carry off the water. See Cannula. […] [5thC*y*, s.v. Paracentesis – *0,3 folio column*]

PARACENTESIS, an operation in surgery, commonly called tapping. See SURGERY. [*EB*, s.v. Paracentesis – *full entry*; *treatise* SURGERY, pp. 641-879]

PARACENTESIS, *Παρακεντησις*, formed from, *παρα*, *with*, and *κεντειν*, *to prick*, an operation in surgery, commonly called TAPPING.
PARACENTESIS is also a name applied by some authors to all operations either with the lancet, the needle, or punch; not excepting the operation of couching for cataracts: this sense is founded on the etymology of the word. Others restrain it to apertures made in the head, breast, belly, and scrotum; and others to the single operation of tapping in the dropsies. [ReCy, s.v. PARACENTESIS – *full entry*]

REFERENCES

Sources

AAVV.
1768-71 *Encyclopaedia Britannica; or, a Dictionary of Arts and Sciences, Compiled upon a New Plan*[...]. Edinburgh: Printed for A. Bell and C. Macfarquhar.

Barrow, J.
1749 *Dictionarium Medicum Universale: or, A New Medicinal Dictionary* […]. London: Printed for T. Longman and C. Hitch.

Cawdrey, R.
1604 *A Table Alphabeticall, Contayning and Teaching the True Writing and Vnderstanding of Hard Vsuall English Words, Borrowed from the Hebrew, Greeke, Latine, or French ….* London: Edmund Weauer.

Chambers, E.
5th 1741-43 *Cyclopaedia: or, an Universal Dictionary of Arts and Sciences*[...]. London: Printed for D. Midwinter et al.

Hooper, R.
1798 *A Compendious Medical Dictionary* […]. London: Printed for Murray and Highley.

James, R.
1743-45 *A Medicinal Dictionary* […]. 3 vols. London: Printed for T. Osborne.

Johnson, S.
1775 *A Dictionary of the English Language*. London: Printed for J. and P. Knapton et al.

Motherby, G.
1775 *A New Medical Dictionary; or, General Repository of Physic* […]. London: Printed for J. Johnson.

Rees, A.
1778-88 *Cyclopaedia: or, an Universal Dictionary of Arts and Sciences.* [...] *By E. Chambers, F.R.S. With the Supplement, and Modern Improvements* [...]. London: Printed for W. Strahan et al.

Special Studies

Abbattista, G.
1996 "La 'folie de la raison par alphabet'. Le origini settecentesche dell'*Enciclopedia Britannica* (1768-1801)". In: G. Abbattista (ed.) *Studi settecenteschi. L'enciclopedismo in Italia nel XVIII secolo*. Napoli: Bibliopolis, 397-434.

Adamska-Sałaciak, A.
2010 "Examining equivalence", *International Journal of Lexicography* 23 (4), 387-409.

Bisaccia, C. et al.
2011 "Nephrology in *A Medicinal Dictionary* of Robert James (1703-1776)", *JNephrol* 24 (Suppl. 17), 37-50.

Brack O.M. Jr. – T. Kaminski
1984 "Johnson, James and the 'Medicinal Dictionary", *Modern Philology* 81 (4), 378-400.

Bradshaw, L.E.
1981 "Ephraim Chambers' *Cyclopaedia*". In: F.A. Kafker (ed.) *Notable Encyclopedias of the Seventeenth and Eighteenth Centuries: Nine Predecessors of the Encyclopédie.* Oxford: The Voltaire Foundation at the Taylor Institution, 123-140.

Bukowska, A.
2010 "Sampling techniques in metalexicographic research". In: A. Dykstra – T. Schoonheim (eds.) *Proceedings of the 14th EURALEX International Congress*. Leeuwarden / Ljouwert: Afûk, 1258-1269.
2013 "Sampling in historical lexicographic research". In: R. McConchie et al. (eds.) *Selected Proceedings of the 2012 Symposium on New Approaches in English Historical Lexis* (HEL-LEX 3). Somerville, MA: Cascadilla Proceedings Project, 27-34.

Fissel, M.E.
2007 "The marketplace of print". In: M.S.R. Jenner – P. Wallis (eds.) *Medicine and the Market in England and its Colonies, c. 1450-c. 1850*. Basingstoke: Palgrave MacMillan, 108-132.

Gunnarsson, B.L.
2011 "The linguistic construction of scientificality in early Swedish medical texts". In: B.L. Gunnarsson (ed.) *Languages of Science in the Eighteenth Century*. Berlin: De Gruyter Mouton, 303-332.

Jones, C.
2004 "Discourse communities and medical texts". In: I. Taavitsainen – P. Pahta (eds.) *Medical and Scientific Writing in Late Medieval English*. Cambridge: Cambridge University Press, 23-36.

Kafker, F.A.
1994 "William Smellie's edition of the *Encyclopaedia Britannica*". In: F.A. Kafker (ed.) *Notable Encyclopedias of the Late Eighteenth Century:*

Eleven Successors of the Encyclopédie. Oxford: The Voltaire Foundation at the Taylor Institution, 145-182.

Lane, J.
2001 *A Social History of Medicine. Health, Healing and Disease in England, 1750-1950*. London/New York: Routledge.

Lindemann, M.
2010 *Medicine and Society in Early Modern Europe*. Cambridge: Cambridge University Press.

Lonati, E.
2007 "Blancardus' *Lexicon Medicum* in Harris's *Lexicon Technicum*: A lexicographic and lexicological study". In: J. Considine – G. Iamartino (eds.) *Words and Dictionaries from the British Isles in Historical Perspective*. Newcastle upon Tyne: Cambridge Scholars Publishing, 91-108.
2013 "Health and medicine in 18th-century England: A sociolinguistic approach". In: S. Kermas – Th. Christiansen (eds.) *The Popularization of Specialized Discourse and Knowledge across Communities and Cultures*. Bari: Edipuglia, 101-128.
2014 "Medical entries in 18th-century encyclopaedias: The lexicographic construction of knowledge". In: T. Canziani – K.S. Grego – G. Iamartino (eds.) *Perspectives in Medical English*. Monza: Polimetrica International Scientific Publisher, 89-107.
2017 *Communicating Medicine. British Medical Discourse in Eighteenth-Century Reference Works*. Milan: Ledizioni.

Loudon, I.
1992 "Medical practitioners 1750-1850 and the period of medical reform in Britain". In: A. Wear (ed.) *Medicine in Society. Medical Essays*. Cambridge: Cambridge University Press, 219-247.

McConchie, R.
2009 "'Propagating what the Ancients taught and the Moderns improved': The sources of George Motherby's *A New Medical Dictionary; or, a General Repository of Physic*, 1775". In: R. McConchie – A. Honkapohja – J. Tyrrkö (eds.) *Selected Proceedings of the 2008 Symposium on New Approaches in English Historical Lexis* (HEL-LEX 2). Somerville, MA: Cascadilla Proceedings Project, 123-133.
2019 *Discovery in Haste. English Medical Dictionaries and Lexicographers 1547 to 1796*. Berlin/ Boston: De Gruyter.

McConchie, R. – A. Curzan
2011 "Defining in early modern English medical texts". In: I. Taavitsainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press. 74-93.

Osselton, N.E.
2007 "Alphabet fatigue and compiling consistency in early English dictionaries". In: J. Considine – G. Iamartino (eds.) *Words and Dictionaries from the British Isles in Historical Perspective*. Newcastle upon Tyne: Cambridge Scholars Publishing, 81-90.

Pahta, P.
2011 "Eighteenth-century English medical texts and discourses on reproduction". In: B.L. Gunnarsson (ed.) *Languages of Science in the Eighteenth Century*. Berlin: De Gruyter Mouton, 333-351.

Pahta, P. – I. Taavitsainen
2011 "An interdisciplinary approach to medical writing in early modern English". In: I. Taavitsainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press, 1-8.

Pirohakul, T. – P. Wallis
2014 "Medical revolutions? The growth of medicine in England, 1660-1800", *Economic History Working Papers* 185, 1-46.

Rieder, P. – M. Louis-Courvoisier
2010 "Enlightened physicians: Setting out on an elite academic career in the second half of the eighteenth century", *Bulletin of the History of Medicine* 84 (4), 578-606.

Taavitsainen, I. – P. Pahta (eds.)
2004 *Medical and Scientific Writing in Late Medieval English*. Cambridge: Cambridge University Press.
2011 *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press.

Taavitsainen, I. et al.
2014 "Late modern English medical texts 1700-1800: A corpus for analysing eighteenth-century medical English", *ICAME Journal* 38 (1), 137-153.

Waddington, K.
2011 *An Introduction to the Social History of Medicine*. Basingstoke: Palgrave MacMillan.

Werner, S.
1994 "Abraham Rees's eighteenth-century *Cyclopaedia*". In: F.A. Kafker (ed.) *Notable Encyclopedias of the Late Eighteenth Century: Eleven Successors of the Encyclopédie*. Oxford: The Voltaire Foundation at the Taylor Institution, 183-199.

Yeo, R.
1991 "Reading encyclopaedias: Science and the organization of knowledge in British dictionaries of arts and sciences, 1730-1850", *Isis* 82 (1), 24-49.
1996 "Ephraim Chambers's Cyclopaedia (1728) and the tradition of commonplaces", *Journal of the History of Ideas* 57 (1), 157-175.

2001 *Encyclopaedic Visions. Scientific Dictionaries in Enlightenment Culture*. Cambridge: Cambridge University Press.

Zgusta, L.

1987 "Translational equivalence in a bilingual dictionary: Bāhukośyam", *Dictionaries. Journal of the Dictionary Society of North America* 9, 1-47.

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"I resolved to cut. But there was before my eyes the fear of haemorrhage." Subjective, emotional and author-centred discourse of the late nineteenth-century case reports in the *British Medical Journal*

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ABSTRACT

The nineteenth century was a landmark era for medicine in terms of the revolutionary methods of diagnosis and treatment, but also in terms of the advances in medical reasoning and discourse. This paper explores the discourse of the late nineteenth-century case reports in the *British Medical Journal* in search of the linguistic manifestations of the changes taking place in medicine in that period. More specifically, taking a qualitative,"wide-angle" approach to discourse (Berkenkotter 2009), attention will be paid to the themes marking changes in medical reasoning as well as such aspects as patient's presence, authorial persona and referential behaviour. The material under analysis constitutes a sample of one hundred and eight case reports published in the professional *British Medical Journal*. The results demonstrate that, although thematically the reports describe procedures and explanations in accordance with the significant changes medicine was undergoing, discourse-wise the texts still seem to reflect "individually and privately based non-specialised medicine" (Salager-Meyer – Zambrano 2001: 161).

Keywords: medical discourse, case report, nineteenth century, authorial persona, references, patient, theme.

1. Introduction

The nineteenth century was a turning point in medicine not only in how patients began to be diagnosed and treated but also how these procedures were understood and narrated about. The aim of the present paper is to delve into the discourse of the late nineteenth-century case reports on the

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basis of the texts from the *British Medical Journal*. More specifically, the focus will fall not only on the matters discussed but also on the participants of the communicative event of case reporting, i.e. the doctor (the discussant) and the patient (the discussed) as well as other parties mentioned, i.e. other authors referred to. The aspects that will be analysed in the texts at hand include the authorial persona, referential behaviour, patient's presence as well as their significance. The rationale behind selecting the afore-mentioned aspects is that the character of their portrayal may shed light on the milieu in which the texts were produced and the practices in which they were involved.

2. Historical and theoretical background

2.1 Nineteenth century in medicine, medical reasoning and in medical discourse

The nineteenth century can be called "a golden age" (Ramos 2006: 115) in medicine. For one thing, more and more frequent autopsies shed light on the inside of the patient's body and its functioning, especially in the state of a disease. Secondly, the invention of particular diagnostic tools which allowed the inspection of the body with the senses of sight and hearing made the body even more transparent, translating visual and auditory phenomena into particular medical conditions (cf. Hurwitz 2006). In turn, the subsequent development of the medical field of pathological anatomy allowed doctors to conclude that the affected/changed aspect of the patient's condition always stems from some sort of dysfunctioning of tissues (Virchow 1980; Porter 2003: 47). At the heart of all the afore-mentioned activities lay the process of observation which led to particular conclusions regarding the patient's state (Sournia 1994: 696). The clinic, a new medical institution, developed at the turn of the nineteenth century and, combining the treatment of patients and the education of future doctors, had observation at its core (Cartwright 1977: 47-48). As a consequence, advances in medical practice led to an important transformation of medical reasoning. Disease ceased to be a mystery whose solving could not be possible without speculation and began to be understood as a condition when the body manifests some form of dysfunction which can be observed, linked to particular symptoms, and classified as a given disease. In this context, the changes in the way doctors understood disease and what it entailed also affected how it was described in medical discourse (Foucault 1963[2003]): practitioners began to use more precise and descriptive words to render what finally the doctor's eye (ear) saw

(heard) and could decipher, frequently with the support of some equipment. In this way the language became saturated with particular words referring to shades, texture, sound quality, "spatialising" and "verbalising"(Foucault 1963 [2003: xi]) particular phenomena. As Foucault claims, medical practice started to be governed by the "medical gaze" which became indispensable in reading the patient's body (looking for symptoms) and deciphering (diagnosing and choosing appropriate treatment) (1963 [2003: 71-72]). This focus on the signs of a disease and their interpretation meant that in medical texts it was "organs [which] assumed centre stage, and patients' views were retained as prefatory material" (Nowell-Smith 1995: 52).

2.2 Case reports

The medical case report belongs to written medical genres and so can be associated closely with medical practice. Essentially, it "is a narrative of a single case of disease or injury" (Taavitsainen 2014). More specifically, "case reports (…) [are] brief reports describing an isolated clinical case or a small number of cases. They may describe new or uncommon diagnoses, unusual outcomes or prognosis [sic?], new or infrequently used therapies and side effects of therapy not usually discovered in clinical trials" (Khan – Thompson 2002: 849). It derives from the Latin genres of *consilia* and *practica*, "presenting typical cases of illness and how they should be treated" (Taavitsainen 2011: 84). It is understood to be one of the oldest forms of medical communication and for a very long period of time, "the core of medical instruction was based on typical cases of disease" (Taavitsainen 2011: 85), until a paradigm shift in 2000s (Kunt-Akbas 2013), when evidence-based genres gained primacy, among them research papers based on larger studies and larger populations, rather than abstracting from a single case.[1] Recently, however, one can observe a revival of the genre of the case report, which manifests itself in a variety of new forms and usages (Nissen – Wynn 2014b, cf. § 4.2.3).

2.3 Authorial persona

The current literature on authorial identity sees its main function as projecting the author as a credible and knowledgeable persona (Hyland

[1] It is worth mentioning that, after "the fall from favour" (Vandenbroucke 2001: 333) of the report, it made a comeback, adopting a variety of different forms which reflect changes in modern medicine.

2002: 1091), firstly, via "stance", evaluating previous research, but also via "engagement", i.e. inviting the reader to somehow participate in the presented study (Hyland 2005) "by constructing a coherent argument and by providing cohesive clues for the readers in discourse processing" (Dontcheva-Navrátilová 2013: 10). Both aspects seem of particular interest for the present study as the authors of the analysed reports also seem to wish to persuade their readers (stance) and convey content-specific information of various types in order to achieve that (engagement by means of different subject matter). In this context, various roles in authorial presence have proved to be an effective research tool. Although a number of alternative classifications based on research involving different data were proposed (Kuo 1999; Tang – John 1999; Carciu 2009; Sheldon 2009; Dontcheva-Navrátilová 2013), Vassileva's (1998) classification of a variety of roles and discourse functions seems best to reflect the actual instances in the corpus. In her study, she examines academic texts from five languages, i.e. English, German, French, Russian and Bulgarian, and thus categorises these roles and functions into common and culture-specific features. The first group includes conclusive statements, reference to other people's work, introduction of aims, procedures and advanced organisers, reference to common knowledge, terminology, theory engagement of the audience in the argumentation, methodology, procedures, and data analysis; the other contains back/self-reference, reference to previous personal/common experience, focusing, expression of personal view, exemplification, and introduction of terminology. Examples from both these groups have been attested in the current sample.

2.4 Referential behaviour

Referential behaviour of nineteenth-century scientific (medical) authors has been the subject of a number of studies. Gunnarsson (2009: 70) points to the nineteenth-century authors' general tendency to cite and assess other scientists' research. Salager-Meyer (1999) draws attention to the presence of verbatim quotes, as well as general and specific references, the latter being relatively imprecise, for example "Mr. Walter Beer, the celebrated oculist, last house physician, of Vienna, …" (1823), testifying to the fact that the scientific communities during that time were small and that individual researchers knew each other well (1999: 300). This was due to the "individually and privately based non-specialised medicine" of those times, as explained in Salager-Meyer – Zambrano (2001: 161). Other authors of the time, though,

were more precise when referring to particular sources, for instance: "Mr. J. Ronald Martin, in his excellent work 'The Influence of Tropical Climates,' ... (1816)". These results were also confirmed by Zabielska (2018) in her study of ophthalmological case reports from the period, in which different types of references to individual physicians – with an exact location and particular sources – were identified.

2.5 Patient's presence

With regard to patient's presence, the model adopted for analysis is that developed by Zabielska (2014), in which the textual representation of patients in the professional medical text may be studied, specifying particular linguistic resources and their co-texts. In the model, textual references to the treated person are divided into direct and indirect forms. The former group includes nouns ("patient", "man") as well as pronouns – personal ("she", "he") and possessive ("her", "his") ones, whereas the latter contains body parts ("arm"), organs ("kidney"), etc., as well as the term "case". It should also be noted that the use of the words in the latter group allows the author to draw attention to different aspects of the patient's condition or management. From a different angle, the above-given reference options can be divided into those referring to the whole person (Wade – Halligan 2004: 1400) ("girl", "she") or part-references, pointing to particular body parts, organs, or aspects of the patient's health ("woman's", "his"). The character of patient's presence can also be affected by the sentential function of the patient's referring expression – i.e. subject, verbal object, or prepositional object, which contributes to different arrangements of communicative accents in a sentence, either foregrounding the sentential subject/object or the complement of a preposition (Givon 1990: 137-138; Halliday 1994: 75). The latter case can be encountered, for instance, in phrases such as "in the patient" (see the examples in § 4.2.3 below) emphasising the medical procedure carried out on/in the patient, which exemplifies the container metaphor (Lakoff – Johnson 1980) portraying the patient as a container/vessel. Finally, it should be mentioned that it is possible to discuss a patient's medical issues without referring to him/her at the level of the text, thus achieving the effect of depersonalisation (cf. § 4.2.3 below). Such examples were also identified in the above-mentioned study of case reports in ophthalmology (Zabielska 2018), i.e. the patient's perspective (the patient as the main focus of sentential attention), patient as location ("in the patient"), depersonalisation, and reference by means of the word "case".

2.6 Research to date

In a broader sense, the nineteenth century has been researched variously as a period in the development of scientific writing in general and medical discourse in particular. Regarding the former, Atkinson (1996) focused on – among many other things – perspective, while Valle (1997) on structure and homogeneity. Regarding the latter, Skelton (1997) studied hedging, Gunnarsson (2009) examined perspective as well as authorial identity and evaluation, while Salager-Meyer (1999) investigated criticism and Salager-Meyer – Zambrano (2001) rhetoric.

As regards case reports, the nineteenth century was a time when recording cases became a regular practice (Rylance 2006). Nineteenth-century case reports have received a measure of attention so far, in both synchronic or diachronic studies, some focusing on a particular medical area and others on a selected aspect of their discourse. With respect to a given medical field, Nowell-Smith (1995) examined reports in gynaecology, Berkenkotter (2008) in psychiatry, and Zabielska (2018) in ophthalmology. While the first study was synchronic, the latter two along with Salager-Meyer – Alcaraz Ariza's (2013), Salager-Meyeret al.'s (2013), and Taavitsainen – Pahta's (2000) contributions were diachronic in nature, spanning the period between 1840-2009 and comparing texts from the nineteenth and twentieth centuries respectively, both representing different areas of medicine. Additionally, an overview of the development of case reporting in medicine is offered by Hurwitz (2006) and Nissen – Wynn (2014a), with the latter emphasising the role of Freud in its development. Apart from those, Rylance (2006) offers some observations on nineteenth-century narratives in a more general and literary sense, which is also a key characteristic of Hurwitz's (2006) study. Aspect-wise, a number of discursive features have been investigated in the above-mentioned studies, including: titling and authorship (Salager-Meyer – Alcaraz Ariza 2013; Salager-Meyer et al. 2013), narration and perspective (Taavitsainen – Pahta 2000), authorial persona (Nowell-Smith 1995; Zabielska 2018), references (Zabielska 2018), and patient presentation (Hurwitz 2006; Rylance 2006; Zabielska 2018).

These studies demonstrate some significant differences between the reports under examination and the ones from the seventeenth and eighteenth centuries. While in the earlier period they also addressed a general audience, and thus focused more on patients' accounts and tended to highlight sensational content (Hurwitz 2006), the ones from the nineteenth century belonged rather to scholarly communication, touched

upon particular topics and had a defined purpose (Valle 1997). In greater detail, the scholars emphasise the rather subjective character of nineteenth-century case reports. Taavitsainen and Pahta point to their double narration, i.e. the writer's first person narration (see also Nowell-Smith 1995 and Skelton 1997: 52) and the patient's third-person account, taking his/her symptoms to the fore (Taavitsainen – Pahta 2000: 63-64). With respect to authorial persona, in this case doctor(s), the direction of the development of the genre was from one pole to the other, namely from involved, author-centred and narrative-like to informational, object-centred and abstract (Atkinson 2001: 61-63). While Atkinson (2001) studied scientific papers derived from the *Philosophical Transactions of the Royal Society of London* in the period between 1675 and 1975, a similar trend is observed by Taavitsainen (2011) in medical case reports between 1375 and 1700; however, she also compares her results with modern case reports. Regarding referential behaviour, the reports contain verbatim quotes, as well as general and specific references (Salager-Meyer 1999), which was confirmed also by Zabielska (2018) in the study of the nineteenth-century case reports from ophthalmology. Additionally, Atkinson (1996: 348) emphasises their attention to detail. Another novel feature of nineteenth-century case reports was titling, featuring the name of a disease (Nowell-Smith 1995: 54). Additionally, the author stresses the relatively impersonal character of the reports, which is achieved through the use of passive voice (1995: 85).

3. Methodological background

The present research is grounded in the "wide-angle" research approach to historical texts, which aims to address a number of levels of analysis (cf. Berkenkotter 2009). At the macro-level, the texts under examination need to be presented against their cultural and historical backdrop, taking into consideration medical case-related practices in which these texts were embedded, which additionally reflect the intellectual climate of that period. This has been effectively demonstrated by Bazerman (1988), who proposed the concept of "thought styles". These are particular modes of reasoning which are followed in scientific communication and communication about science, and which are reflected in subsequent texts (Taavitsainen 2014). According to Taavitsainen (2014), they are essential to "the process by which meaning is produced, e.g. how scientific doctrines are understood and acted upon. "What is more, the relation between these doctrines and particular

text-types is dialogic, because the evolution of doctrines directly affects the evolution of genres, which are seen as "dynamic systems" responding to the "[s]ociocultural needs of communities of practice/discourse communities" (Taavitsainen 2014). At the micro-level, lexical, grammatical and syntactic elements are considered (Berkenkotter 2009: 13) requiring "a close reading of the text in order to provide insight into its organisation and construction" (Phillips – Hardy 2002: 22), relating particular linguistic choices to their co- and contexts. In this way researchers can conduct synchronic studies of particular texts of a given period with respect to the milieu in which they functioned, but they can also subsequently compare them with their equivalents from other periods to obtain a diachronic view and determine the direction of linguistic change in "genres as its loci" (Taavitsainen 2014). This line of reasoning, derived from the broader historical socio-pragmatic approach to genres (Culpeper et al. 2008), was adopted by Berkenkotter (2009) in her meticulous study of the development and significance of case histories in psychiatry, in which she not only analysed written historical cases but also delved into more modern texts authored by psychiatrists and conducted interviews with them. This allowed herto examine the final product – the outcome of particular meaning-making practices in psychiatry – and also to tap into the actual process, i.e. modes of reasoning characteristic of this profession.

4. Analysis

4.1 Data and methods

The sample for the analysis below consists of one hundred and eight case reports from the professional *British Medical Journal*. It first appeared on 3 October 1840 as the *Provincial Medical and Surgical Journal* and became known for high-quality research as well as for novel case reports. The main objective upon its establishment was the development of medical professionals and promotion of medical knowledge (Batrip 1990). The process of selecting articles began with a manual search of the texts on the journal's website through typing the phrase "case report" in the search engine, a phrase appearing in almost all analysed texts, which was established in preliminary reading. Ultimately, electronic versions of the articles were downloaded from the journal's website. With reference to the time frame studied, since the aim of the paper was to study the discourse of nineteenth-century case reports,

the results were narrowed down to the relevant period. The earliest texts available online from the period were published between 1865 and 1870, their length ranges from a quarter of a page to four pages and they cover a variety of medical areas. Title-wise, they follow a rather limited number of combinations, consisting of the name of a disease and accompanying symptoms (a feature characteristic of the reports of this century, Nowell-Smith 1995: 54), occasionally of additional patient features, and usually including the word "case": *On a case of…*, *the case of…* , *report of a case of…*, *note on a case in which…*, *notes on…*, *remarks on…*, *disease in* (a patient)…, *on* (disease or condition), …*with observations*. What can also be observed is rather frequent use of the construction *in …* (a patient), which exemplifies the container metaphor (Lakoff – Johnson 1980), an element also relatively frequently employed in modern medical case reports (Zabielska 2014). Some titles tend to be relatively descriptive: "A case of ascites, accompanied with ovarian disease, in which paracentesis abdominis was performed fifty-five times" (B44); "Case of phosphatic calculus in the male bladder, with a nucleus of bone: Probably a sequestrum detached from the innominate bone" (B41). The publications in general are not structured, but some of them contain a section entitled "remarks" (visible also at the title level), which can be seen as an equivalent of the discussion section in modern case reports.

In the following analysis, four discursive aspects of the sample at hand will be touched upon, namely authorial persona, referential behaviour, patient's presence, and the themes related to the developments in the medical practice of the period. In the case of authorial persona, the classification adopted will be Vassileva's (1998) (cf. § 2.3 above); with reference to patient'spresence, it will be Zabielska's (2014) approach to patient imaging (cf. § 2.5 above), while in the case of themes the definition proposed by Braun – Clarke (2006) will be utilised.

4.2 Results and discussion

4.2.1 Authorialpersona

What can be immediately observed is the evident visibility of the author through the use of the 1st person singular pronoun "I", as well as his clearly expressed views and precise descriptions. The former element is termed in Vassileva's (1998) classification as the EXPRESSION OF PERSONAL VIEW (1), where the author openly shares his opinion about the case discussed. Other author-related roles can be ADVANCED ORGANISER of the content presented (2); FOCUSING I, which is similar to the previous role, but more

precise and used only as metatext to limit some thought, idea described (Vassileva 1998: 170) (3); SELF-REFERENCE is used only to draw attention to the author (4); and finally PERMISSION (5), which, according to Vassileva (1988: 172), is characteristic of English and is exemplified in the phrase "let me[us]":

(1) *So far as I know* [PERSONAL VIEW], only eight cases of this particular lesion have hitherto been observed during life. B5

(2) On another occasion *I should begin* [ADVANCED ORGANISER] with a drachm dose in sugar and water every half-hour till sleep *ensued*, and then *continue* drachm doses by the mouth every twelve hours (or half a drachm every six hours) regularly. B11

(3) At present, *I restrict myself* [FOCUSING I] to averring that we know of no other disease capable of producing a secondary dicrotism, the trace of which exceeds in altitude a primary one. B1

(4) *As I have already stated* [SELF REFERENCE], the mother never manifested a trace of syphilis, either locally or constitutionally, during either of her pregnancies. B79

(5) Having now accounted for the disease in the child, *let us* [PERMISSION] turn to the wet-nurse. B79

Another group of authorial references is of a more descriptive nature with respect to the cases presented, in which the author offers precise information regarding the execution of treatment [METHODOLOGY/PROCEDURES] (6 and 7) and also refers to particular terminology [REFERENCE TO TERMINOLOGY] (8) as well as his professional experience [PREVIOUS PERSONAL EXPERIENCE] (9), with the last instance bearing some features of the author-related examples of authorial presence.

(6) My son gave chloroform, *I made pressure* [METHODOLOGY] upon the subclavian artery where it passes over the first rib, by means of a large door-key well padded with lint. B58

(7) From the hopeless condition of the patient, and the little chance there was of her long surviving, unless something was at once done, *I suggested* [PROCEDURES] removing the tumour. B45

(8) We cannot doubt that this force is adequate to produce the *secondary dicrotic wave*, or, as we might term [REFERENCE TO TERMINOLOGY] it, the *tricrotism*. B1

(9) *Since then I have operated seven times* [PERSONAL PREVIOUS EXPERIENCE]; in all twenty-eight operations of tracheotomy, with the result of ten cures. B14

This group of references also constitutes a textual representation of the changes that medical practice was undergoing at the time. As has been already observed in § 2.1, above, the introduction of new diagnostic methods, as well as increasing medical expertise were reflected in the publications in the form of precise descriptions of bodily changes and particular procedures carried out. It should also be noted that, following Vassileva's (1998) classification, both groups of references discussed, i.e. author-related and more descriptive, include culture-specific and common instances of authorial presence.

Additionally, the combination of the first person pronoun and particular verbs, the evident presentation of the author's views, can also be observed in the choice of particular lexis to describe the matter, in this case exceptionally subjective, referring mainly to the patient's condition. It can be expressed by means of adjectives (10 and 11) as well as a particular metaphor (12):

(10) This *unfortunate individual* was found, after an abstinence of eighteen days, in a grave which he had digged for himself in a wood. B3

(11) M.B., aged 16, *an intelligent and delicately constructed, but otherwise healthy girl,* was seized with *violent bleeding of the nose, and so weakened* thereby as to be compelled to keep her bed. B3

(12) Her body was *wasted to such a degree that she resembled a living skeleton.* B3

4.2.2 Referential behaviour

Similarly to the studies discussed in § 2.6 above, in the current sample, referential behaviour seems comparable and testifies to the fact that the very mentioning of an author's surname is presumed as enough for the readers to identify him (cf. Salager-Meyer 1999; Zabielska 2018). In the selected instances below, one may observe: a reference only to the author (title plus surname) and where he is based (13), a variation of this in (14), where the journal publication is mentioned, yet without any further details, in (15)

the book publication including the title, and, finally, in (16) a rather rare reference is made to alecture as the source. Further, this excerpt includes a verbatim quote, which has been identified as a characteristic feature of reports of the period at hand by Salager-Meyer (1999) and by Zabielska (2018). Also worth noting is the authors' presence and subjectivity in these excerpts, which draw attention even to the fact that a particular publication was read by him (13) and his explicit expression of admiration for another author's intellectual abilities (17).

(13) *Having read a paper on this disease written by the late Dr. Spence of Lerwick*, I had no difficulty in diagnosing the presence of the larva of the CestrusBovis, and, cutting down upon the above-mentioned hard substance, I ejected the intruder. B50

(14) *THE article in a late number of the JOURNAL by Dr. J. Turnbull*, on chorea, has brought forward a subject, on which much has been written, and yet no very precise information rendered respecting the pathology or the treatment of the disease, on both which our knowledge is painfully defective. B12

(15) (…) but I believe it will be found to be due, not so much to a morbid condition of the blood, or a defective state of the capillaries *(Miller's System of Surgery, p. 231)*, as to some lesion or loss of energy of the organic nervous centres, induced; sometimes by blood-poisoning. B54

(16) And to go on quoting from *Dr. Markham's lecture*, "What other remedy do we know of under the sun which is capable of producing off-hand, then and there, such great results in such formidable disease." And yet phrenitis is not an inflammatory disease, "in the course of, or out of which, arise impediments to the play of the heart and lungs." B106

(17) Such a possibility suggested itself to *the ingenious mind of M. Marey*; but the circumstances of his case did not afford means of proof; B1

4.2.3 Patient's presence

In the current sample, a patient's textual presence is marked in a two-fold way. Firstly, it can be marked by direct quotations in quotation marks, where the patient's exact words are seen by the doctor as worth sharing, possibly deemed as best expressing the communicated ideas (18 and 19), or by reported speech, while still attempting to convey the patient's viewpoint

via particular verbs ("complain" in 19 and 21 as well as "burn" in 21), nouns ("pain" in 19, 21, 24 and 25, "sufferings" in 22, as well as "sickness" and "restlessness" in 25), and adjectives ("gnawing" in 19, "great" in 21, "relieved" in 23, and "worse" and "distressing" in 25), expressing the patient's experience of illness. In (24), what particularly draws attention is the very detailed and evaluative description of the patient's condition, which points to the evident subjectivity on the part of the author, who seems to wish to express his sympathy towards the treated. The instances of patients' exact words and of reported speech as well as subjectivity were also identified in the eighteenth-century case reports by Lehto – Taavitsainen (2019) and by Zabielska (2018) in the reports from ophthalmology (only short verbatim quotes). In the case of the former study, these were not only words but also patient's letters to the editor recounting their health problems and requesting advice, patients' testimonies and texts authored by doctors who at some point happened to be patients too. What is more, recent developments of the genre seem to refer to this aspect in the formats where doctors' reports are complemented by sections featuring 1st-person accounts by patients (*interactive* case reports) or offer exchanges between patients and their doctors (*narrative- and evidence based* case reports, Żelazowska-Sobczyk – Zabielska 2016).

(18) *He said, "Don't give me anything, it will make me go raving mad."* B26

(19) *She complained of "gnawing pain"* in the bones of the back, hips, and thighs. B42

(20) (…) although *a strong-minded woman (to use her own words)*, she could not get the glare of the rabbit's eyes out of her thoughts (…) B101

(21) *He complained of great pain* at the root of his penis and in his rectum, and said that the few drops of urine he passed felt *as if they burned him*. B8

(22) *His sufferings were very great*; he had not been able to work for many months. B13

(23) On recovering consciousness, however, *he said he was much relieved*. B25

(24) *He was a thin, withered old man, looked anxious*, and *complained much of pain* about and across the abdomen. B91

(25) Twelve hours afterwards (7 P.M.), he was *worse; the pain, sickness, and restlessness were most distressing*. B107

In the following group of examples, one deals with instances where the reference is still to the whole person of the patient, and not, for instance, to his/her particular body part or element of treatment, but evidently, sentential emphasis is redirected to a particular medical aspect that is found "in" the patient. As has already been alluded to in § 2.5 above, such phrasing is an example of the container metaphor, which contributes to the image of a patient as a vessel, with an in/out orientation and where sometimes this threshold is crossed by the doctor.

(26) I have collected the only instances that I can find recorded of the existence of aneurism *in patients* under the age of 21. B4

(27) This case may claim some attention from the rarity of enchondroma *in so young a child*. B105

The redirection of attention, however, can go even further when the author no longer focuses on the entire patient – as has been the case in the examples so far – but instead wishes to concentrate on a chosen body-part, aspect of diagnosis or treatment. Therefore, while in instances such as "the patient was thin", "he complained of" or "in patients" one is dealing with whole-references, the examples below illustrate part references, in which both "his gums" (28) and "the kidney" (29) metonymically stand for the patient. Yet, it needs to be noted that although in (28) only the possessive pronoun marks the patient's presence more prominently, in the second example, only "the" organ is present. Such instances were also identified in the eighteenth-century case reports by Lehto – Taavitsainen (2019).

(28) *His gums* howed the blue line of plumbism common in his trade. His first symptoms were characteristic pains in the back and belly. B1

(29) In this case, no other *organ of the body* was found diseased *the right kidney*, was healthy. B36

Reference to the patient by means of the word "case" can be considered as an even more depersonalising strategy. Although nowadays the argument against referring to patients as cases has received significant support (Kline 2008; Antic et al. 2013: 428; Joubert – Rogers 2015: 34), this practice can be

observed in the late nineteenth-century case reports, and while in (31) the word refers to an individual instance of a disease in a patient ("her case"), in (30) the word refers explicitly to the patient, as the case eventually "died".

(30) *The second case was bled sparingly, and died*. The third case was largely bled; coma was not continuous, and perfect consciousness returned in twelve hours. B97

(31) With Dr. Habershon's permission, *I communicate the following notes of her case*, which were taken by Mr. Wilson Eager, the clinical clerk. B102

The last instance of patient's presence is lowest on the scale of patient's visibility, i.e. is the most depersonalised, and this is where an account of symptoms as well as diagnostic and treatment procedures are described, but with no textual reference to the patient. Here, the reader may have the impression that particular experiences are narrated about, or that an instructive text about particular medical management is offered, in both cases as if outside the patient's milieu. In the examples below, (32) features a description of a particular mental state of the patient as described by the doctor, (33) presents some bodily changes and symptoms, while (34 and 35) give accounts of procedures carried on the patients. The effect of the impersonal character of the latter two examples is achieved through the use of the passive voice, similarly to the instances identified by Nowell-Smith (1995) in gynaecological case reports of the same period.

(32) This feeling at times increased until, as on one occasion when I was present, tears ran down the face, and faint sounds of suppressed sobbing showed the alteration in the mental vision, and the removal of the "angels ever bright and fair" from the world in which the poor creature existed. B3

(33) There was considerable edema of the legs and thighs, with some ascites. There was short frequent cough and somewhat abundant expectoration of a liquid albuminous matter, mostly airless, mixed with a little froth and a few specks of blood. B5

(34) With great difficulty, in consequence of the rigid state of the jaws, a tube was passed into the oesophagus; and, by the aid of *the stomach-pump*, a quantity of warm water was injected, which returned clear and of apple green colour. B56

(35) In the fourth of the following cases, the bones were removed without being detached from each other, and their extremities were found united together by fibrous bands. B30

Finally, in order to obtain a more complete picture of a patient's presence than individual sentences might generally offer, a longer passage describing a particular patient was examined to parse how the narration of a particular case progresses discursively. As can be seen below, the presence of the patient is marked visibly at the very beginning of the text with whole-references ("patient", "she"), drawing sentential emphasis to the treated person and, as the text progresses, the references change to particular aspects of the patient's condition, i.e. "secretion" or "breathing", standing on their own, only to return full sentential attention to the patient again at the end of the text. Such patient imaging has also been found in modern case reports in larger stretches of texts (Murawska 2014; Zabielska 2014).

(36) Dr. Tindal and I continued to visit *the little patient* daily; but during the first three days *she* was indebted for safety and comfort to the continuous attendance of a number of my senior students, who kindly volunteered their services; so that at no time during day or night was *she* without a skilled assistant at *her* bedside. It is a most important part of the after-treatment to keep the tube clear of any secretion which may be couched up into it. Fortunately, the disease seemed to be checked; for the secretion, instead of becoming viscid, assumed a more fluid consistence, so that it could be readily removed with a feather. The iodide of potassium was continued for two days. *The patient* was nourished with beef-tea, and after the second day with more solid food. Steam was introduced within the bed-curtains by a tube attached to the spout of a kettle which was kept boiling on the fire; and it was noticed that, when any slight difficulty of breathing through the tube occurred, an increase in the amount of steam soon relieved it. The tube was removed on the fourth day; when the respiration was found to be quite free, all symptoms of the disease having passed off. *She* continued to improve daily after the removal of the tube, breathing, eating, and sleeping in a natural way. B14

4.2.4 Themes related to the development of medical practice

As defined by Braun – Clarke (2006: 82), a theme "represents some level of patterned response or meaning within the data set […], identify[ing] and systematis[ing] elements repeating in at least some of the examples" and

these can be broadly understood stories, interviews, etc. Since case reports can generally be viewed as stories about single patients with interesting cases of given diseases, they can also yield themselves easily to such an analysis. The overarching theme of the excerpts studied in this paper is the developing medicine of the nineteenth century, within which smaller themes can be identified, i.e. the presence of new diagnostic tools (see below), etc. Furthermore, changes in medical discourse – e.g. changing the foci of attention – resulted in more detailed descriptions of smaller and smaller fragments of the patient's body and frequent patient depersonalisation (cf. 33-35 above). This can be connected to greater diagnostic possibilities (i.e. via tools, such as the stethoscope) which made it possible to inspect more, thus contributing to the textual presence of certain accounts of bodily changes marking particular dysfunctions.

Like the reference to pieces of equipment in (34) above, references to particular diagnostic tools are present in (37) and (38) below:

(37) *The instrument did two things*. It detected the minor dicrotism (B), and it gave a faithful and permanent record of that and of the major dicrotism (c). B1

(38) *The ophthalmoscope shows* the optic disc to be of a manifestly whitish colour, and its arteries extremely attenuated. B43

The very fact that certain procedures are presented in detail testifies to the new possibilities that became available in medicine during the period. With reference to the already discussed changes in medical discourse (cf. § 2.1 above), since medical knowledge was developing rapidly – partly thanks to the already mentioned diagnostic tools which allowed practitioners to inspect (i.e. hear and see) more – the publications became more detailed, also at the level of vocabulary, e.g. (28) and (33-35). This aspect, however, is not present in the numerous instances of the author's subjective comments, nor in the descriptions – which is the primary feature of the data analysed herein – where what is narrated about is not what was observed but what was believed to be the case, e.g. (20 and 21) and (32) above.

5. Discussion

The aim of the present paper has been to investigate the discourse of the late nineteenth-century case reports published in the *British Medical Journal*. The sample was approached from the perspective of wide-angle,

qualitative analysis and grounded more generally in the historical socio-pragmatic approach which views genres as dynamic entities subject to constant modification, reflecting the changes in the milieu in which the texts function. The results show that the themes appearing in the examined texts and the very nature of the descriptions offered in the reports illustrate the changes medicine was undergoing in the nineteenth century, i.e. new diagnostic and treatment possibilities. Consequently, what was available (visible, audible) to the doctor became narrated about, which additionally testifies to the changes at the level of medical reasoning and thus at the level of discourse. At the same time, despite the innovative thematic elements, the study demonstrates the evidently subjective character of the discourse of case reporting of the nineteenth century, which was ascertained in the case reports from the previous centuries (Smith 1860: 587). This can be observed in such aspects as authorial persona, patient's presence, and referential behaviour, with the case report authors drawing attention to their own personas as well as availing themselves of expressing personal comments about patients' conditions and about other authors, all of which have been confirmed in previous studies. Additionally, in comparison to more modern case reports, the texts still do not display a rigid structure, yet a significant level of depersonalisation in the descriptions of patients, typical of the present-day discourse about the patient, can be noted as well, which points to the fact that the doctors' ability to inspect more seemed to have affected their narration about the treated.

REFERENCES

Sources

B1 Wade, W.F.
1868 "On a case of abdominal aneurism with dicrotic pulse", *British Medical Journal* 1, 4-5.

B3 Barber, H.
1870 "Cases of long-continued abstinence from food", *British Medical Journal* 1, 544-545.

B4 Smith, T.
1868 "A case of aneurism of the common femoral artery in a boy twelve years of age", *British Medical Journal* 1, 280.

B5 Roberts, W.
1868 "A case of aneurism of the ascending aorta communicating with the pulmonary artery", *British Medical Journal* 1, 421-422.

B8 Campbell, J.A.
1870 "Note of a case in which severe constitutional effects followed the application of cantharidine blister", *British Medical Journal* 1, 569.
B11 Denton, E.T.
1870 "Case of traumatic tetanus successfully treated by bromide of potassium and hydrate of chloral, etc.", *British Medical Journal* 1, 330-331.
B12 Thompson, J.
1865 "A case of chorea", *British Medical Journal* 1, 137-138.
B13 Morris, E.
1870 "Two cases of complicated lithotomy", *British Medical Journal* 1, 177-178.
B14 Buchanan, G.
1867 "Case of diphtheria saved by tracheotomy", *British Medical Journal* 1, 224.
B25 Steel, S.H.
1865 "Cases of hernia", *British Medical Journal* 1, 271-273.
B26 Cossar, T.
1867 "Report of a case of hydrophobia", *British Medical Journal* 1, 106-107.
B30 Lee, H.
1865 "Cases of resection of joints: With observations", *British Medical Journal* 1, 159-162.
B36 Ikin, I.
1867 "Malignant tumour in connexion with the kidney; and a case of melanosis of the eye", *British Medical Journal* 1, 663.
B41 Hemsted, H.
1865 "A case of ascites, accompanied with ovarian disease, in which paracentesis abdominis was performed fifty-five times", *British Medical Journal* 1, 347.
B42 Tubbs, W.J.
1865 "Case of occluded vagina: Retained menses: Operation: Cure", *British Medical Journal* 1, 85-86.
B43 Samelson, A.
1869 "Ophthalmic cases", *British Medical Journal* 1, 26-27.
B44 Thompson, H.
1865 "Case of phosphatic calculus in the male bladder, with a nucleus of bone: Probably a sequestrum detached from the innominate bone", *British Medical Journal* 1, 6-7.
B45 Page, F.
1867 "A case of multilocular ovarian tumour successfully removed", *British Medical Journal* 1, 450.
B50 Walker, R.
1870 "On a case of parasitic disease produced by the larva of the Œstrus Bovis", *British Medical Journal* 1, 151.

B54 Waterhouse, F.
1870 "Mechanical injuries in a case of congenital purpura", *British Medical Journal* 1, 128-129.
B56 Rogers, R.J.
1865 "Case of poisoning by strychnine", *British Medical Journal* 1, 509-510.
B58 Ewen, H.
1867 "Cases from private practice", *British Medical Journal* 1, 481-482.
B79 Newman, W.
1865 "Case of transmission of secondary syphilis: With remarks", *British Medical Journal* 1, 111-112.
B91 Newman, W.
1867 "Case of hernia: Operation: Intestine adherent to sac: Death: Post mortem examination", *British Medical Journal* 1, 53-54.
B97 Dyce, R.
1868 "On puerperal convulsions", *British Medical Journal* 1, 372.
B101 Graham, T.H.
1868 "Effects of mental shock upon the fœtus in the fifth month of pregnancy", *British Medical Journal* 1, 51.
B102 Hilton, C.F.
1870 "Notes on some feigned cutaneous affections", *British Medical Journal* 1, 151.
B105 Barton, J.K.
1869 "Enchondroma in the hand of a child: Removal of the tumour with two metacarpal bones, the fingers being preserved", *British Medical Journal* 1, 160.
B106 Marshall, W.
1865 "Remarks on venesection in inflammation", *British Medical Journal* 1, 165.
B107 Monckton, S.
1879 "The therapeutic uses of chloral", *British Medical Journal* 1, 330.

Special studies

Antic, Z. et al.
2013 "Writing biomedical research papers in English – a challenge for non-Anglophone authors", *Vojnosanit Pregl* 70 (4), 424-428.
Atkinson, D.
1996 "The 'Philosophical Transactions of the Royal Society of London' 1675-1975: A sociohistorical discourse analysis", *Language in Society* 25 (3), 333-371.
2001 "Scientific discourse across history: A combined multi-dimensional/ rhetorical analysis of the Philosophical Transactions of the Royal Society of London". In: D. Biber et al. (eds.) *Corpus Linguistics:*

Investigating Language Structure and Use. Cambridge: Cambridge University Press, 45-65.

Batrip, P.
1990 *Mirror of Medicine: A History of the British Medical Journal*. Oxford: Oxford University Press.

Bazerman, C.
1988 *Shaping Written Knowledge*. *The Genre and Activity of the Experimental Article in Science.* Madison: The University of Wisconsin Press.

Berkenkotter, C.
2008 *Patient Tales: Case Histories and the Uses of Narrative in Psychiatry.* Columbia: University of South California Press.
2009 "A case for historical 'wide-angle' genre analysis: A personal retrospective", *IBÉRICA* 18, 9-22.

Braun, V. – V. Clarke
2006 "Using thematic analysis in psychology", *Qualitative Research in Psychology* 3, 77-101.

Carciu, O.M.
2009 "An intercultural study of first-person plural references in biomedical writing", *IBÉRICA* 18, 71-92.

Cartwright, F.F.
1977 *A Social History of Medicine*. London: Longman.

Culpeper, J. et al.
2008 "Activity types and discourse types: Mediating advice in interactions between foreign language assistants and their supervisors in schools in France and England", *Multilingua* 27 (4), 297-324.

Dontcheva-Navrátilová, O.
2013 "Authorial presence in academic discourse: Functions of author-reference pronouns", *Linguistica Pragensia* 1, 9-30.

Foucault, M.
1963 [2003] *The Birth of the Clinic. An Archaeology of Medical Perception* (3rd edn.). New York: Vintage Books.

Givon, T.
1990 *Syntax. A Functional-Typological Introduction*. Vol. 2. Amsterdam: John Benjamins.

Gunnarsson, B.-L.
2009 *Professional Discourse.* London: Continuum.

Halliday, M.A.K.
1994 *An Introduction to Functional Grammar*. London: Edward Arnold.

Hurwitz, B.
2006 "Form and representation in clinical case reports", *Literature and Medicine* 25 (2), 216-240.

Hyland, K.
2002 "Authority and invisibility: Authorial identity in academic writing", *Journal of Pragmatics* 34 (8), 1091-1112.

2005 *Metadiscourse: Exploring Interaction in Writing*. London: Continuum.

Joubert, P. – S.M. Rogers

2015 *Strategical Scientific and Medical Writing*. Heidelberg: Springer.

Khan, K.S. – P.J. Thompson

2002 "A proposal for writing and appraising case reports", *BJOG: An International Journal of Obstetrics and Gynaecology* 109, 849-851.

Kline D.P.M.

2008 Editorial: "Elements of a case report", *Foot & Ankle Orthopaedics*, January 3, http://faoj.org/2008/01/03/editorial-elements-of-a-case-report/, accessed August 2012.

Kunt-Akbas, S.

2013 *A Genre Analysis of Medical Case Reports*. Ph.D. Dissertation, http://www.academia.edu/2452076/A_Genre_Analysis_of_Medical Case_Reports, accessed October 2015.

Kuo, C.-H.

1999 "The use of personal pronouns: Role relationships in scientific journal articles", *English for Specific Purposes* 18 (2), 121-138.

Lakoff, G. – M. Johnson

1980 *Metaphors We Live by*. Chicago: Chicago University Press.

Lehto, A. – I. Taavitsainen

2019 "Medical case reports in Late Modern English". In: I. Taavitsainen – T. Hiltunen (eds.) *Late Modern English Medical Texts. Writing Medicine in the Eighteenth Century*. Amsterdam: John Benjamins, 89-111.

Murawska (Zabielska), M.

2014 "Spójność tekstu specjalistycznego a obraz pacjenta w medycznym opisie przypadku". In: M. Kornacka (ed.) *Spójność tekstu specjalistycznego*. Warszawa: Wydawnictwo Naukowe Instytutu Kulturologii i Lingwistyki Antropocentrycznej Uniwersytet Warszawski, 80-89.

Nissen, T. – R. Wynn

2014a "The history of the case report: A selective review", *Journal of the Royal Society of Medicine Open* 5 (4), 1-5.

2014b "The clinical case report: A review of its merits and limitations", *BMC Research Notes* 7, 264-271.

Nowell-Smith, H.

1995 "Nineteenth-century narrative case histories: An inquiry into stylistics and history", *CBMH/BCHM* 12, 47-67.

Phillips, N. – C. Hardy

2002 *Discourse Analysis. Investigating Processes of Social Construction*. London: Sage Publications.

Porter, R.

2003 *Blood & Guts. A Short History of Medicine*. London: Penguin Books.

Ramos, M.J.E.
2006 "Medical terminology across the centuries: Distinctive features of a chronological study in the field of ophthalmology", *IBÉRICA* 12, 111-126.
Rylance, R.
2006 "The theatre and the granary: Observations on nineteenth-century medical narratives", *Literature and Medicine* 25 (2), 255-278.
Salager-Meyer, F.
1999 "Referential behaviour in scientific writing: A diachronic study (1810-1995)", *English for Specific Purposes* 18 (3), 279-305.
Salager-Meyer, F. – N. Zambrano
2001 "The bittersweet rhetoric of controversiality in nineteenth- and twentieth-century French and English medical literature", *Journal of Historical Pragmatics* 2 (1), 141-173.
Salager-Meyer, F. – M. Ángeles Alcaraz Ariza
2013 "The medical narrative from a diachronic perspective (1840-2009): Titling practices and authorship". In: M. Gotti – C. Sancha Guinda (eds.) *Narratives in Academic and Professional Genres*. Bern: Peter Lang, 293-318.
Salager-Meyer, F. et al.
2013 "Titling and authorship practice in medical case reports: A diachronic study (1840–2009)", *Communication & Medicine* 10 (1), 63-80.
Sheldon, E.
2009 "From one I to another: Discursive construction of self-representation in English and Castilian Spanish research articles", *English for Specific Purposes* 28, 251-265.
Skelton, J.
1997 "How to tell the truth in the British Medical Journal: Patterns of judgement in the 19th and 20th centuries". In: R. Markkanen – H. Schröder (eds.) *Hedging and Discourse. Approaches to the Analysis of a Pragmatic Phenomenon*. Berlin: de Gruyter, 42-63.
Smith, T.
1860 "Obstetrical Society of London", *Lancet* 15, 585-587.
Sournia, J.C.
1994 "Les phases évolutives du vocabulaire médical français", *Meta* 29 (4), 692-700.
Taavitsainen, I.
2011 "Medical case reports and scientific thought-styles", *BIBLID* 1133-1127, 75-98.
2014 "Historical (socio)pragmatics at the macrolevel: Genres and the variationist approach." Plenary talk given at the 1st Poznan Historical Sociopragmatics Symposium, Adam Mickiewicz University, Poland, May, 15-16, 2014.

Taavitsainen, I. – P. Pahta
2000 "Conventions of professional writing: The medical case report in a historical perspective", *Journal of English Linguistics* 28 (1), 60-76.
Tang, R. – S. John
1999 "The 'I' in identity: Exploring writer identity in student academic writing through the first person pronoun", *English for Specific Purposes* 18, S23-S39.
Valle, E.
1997 "A scientific community and its texts: A historical discourse study". In: B.-L. Gunnarsson et al. (eds.) *The Construction of Professional Discourse*. Edinburgh: Pearson Longman, 76-98.
Vandenbroucke, J.P.
2001 "In defence of case reports and case series", *Annals of Internal Medicine* 134 (4), 330-334.
Vassileva, I.
1998 "Who am I/who are we in academic writing?", *International Journal of Applied Linguistics* 8 (2), 163-190.
Virchow, R.
1880 *Post-Mortem Examinations, with Especial Reference to Medico-Legal Practice*. Translated by T. Smith. Philadelphia: Presley Blackiston.
Wade, D.T. – P.W. Halligan
2004 "Do biomedical models of illness make for good healthcare systems?", *British Medical Journal* 329, 1398-1401.
Zabielska, M.
2014 *Searching for the Patient's Presence in Medical Case Reports*. Frankfurt am Main: Peter Lang.
2018 ""I then for the first time felt fearful she might not rally…": A discourse analysis of the nineteenth century case reports in ophthalmology", *Scripta Neophilologica Posnaniensia* 18, 239-258.
Żelazowska-Sobczyk, M. – M. Zabielska
2016 "Case reporting as a macro-genre and its metadiscoursal aspects – a review of the literature", *Language and Literary Studies of Warsaw* 6, 77-108.

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Case reporting: A historical discourse analysis of the functional uses of if-conditionals in Medical-Officer-of-Health reports

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ABSTRACT

The Medical-Officer-of-Health (MOH) report emerged from the need to articulate for government officials matters related to poor sanitary conditions in industrialised 19th-century Britain. If-conditionals were used in this genre of case reporting to gain wider acceptance of MOH claims. The twofold aim of this research is to investigate the macro-functions of if-conditionals and their sociohistorical meanings, and to analyse how participants in MOH discourse are represented through if-constructs. A historical discourse analysis of the semantic functionality of if-conditionals was conducted on a diachronic corpus of MOH reports (mid-nineteenth century – early twentieth century) which detail the spread of smallpox infection. The analysis accounts for the context-sensitive functionalities of *if* on the semantic level supported by corpus-assisted discourse analysis. Results highlight the semantic shift in the macro-functional use of *if* across the two subcorpora based on form-to-function mapping, and further underline how the if-operator conveys dynamic representational meaning in the diachronic evolution of MOH discourse.

Keywords: if-conditionals, MOH reports, macro-functions, discourse analysis, discursive representation of social actors.

1. Introduction

The early modern case report has revealed "new ways of constructing knowledge, relying on empirical methods and explanatory principles based on observation and cognition" (Pahta – Taavitsainen 2011: 3). Few

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linguistic studies have, however, investigated this written medical genre from a historical perspective (cf. Taavitsainen – Pahta 2000). Accordingly, the Medical-Officer-of-Health (MOH) report as a historical case-related genre has so far been largely overlooked. In this paper, the MOH report will be considered by examining the functional role played by if-conditionals as a context-sensitive type of rhetorical device in historical medical discourse. This unique genre emerged from the need "to appoint a district medical officer […] to initiate sanitary measures" (Chadwick 1842: 372) against the filthy living conditions and the spread of infectious diseases in rapidly industrialised nineteenth-century Britain. Its origins can be traced in the 1855 British Metropolis Management Act, whereby MOHs were required to report back to their local health boards. MOH reports were thus officially written following the appointment of the first MOH under the 1848 Public Health Act and until the role ceased with the 1974 National Health Service reform.

In general, the MOH report provides a first-hand account of medical-related phenomena similar to the traditional case report. It also draws on inductive reasoning, typical of medical discourse, to advance research claims grounded in experiential information. However, the MOH report differs from earlier case reports as it emerged in the nineteenth century when "the statistical approach changed the epistemological status of individual case reports" such that "a transfer from individual cases to multiple case reports and statistical assessments with probabilities" took place (Taavitsainen 2011: 93). Hence, individual narrative-based case reports can be marked by deontic and epistemic modality to tone down the claims advanced in order to gain wider acceptance within the medical community; MOH reports are featured more by statistical data, but also have a discursive component characterised by professional recommendations and criticisms about local public health needs. Here, if-conditionals have particular historical significance as they appear to reflect the "iffiness" MOHs were forced to face.

A case in point concerns the reports on smallpox, one of the most endemic infectious diseases from which London suffered in the nineteenth and early twentieth centuries due to its overcrowded slums, industrial pollution and lack of sewage disposal. Smallpox was thus more epidemic in London districts with increasing fatal outbreaks in 1860-3,1876-7, 1881, 1884-5 and 1901-2. By the late 1850s, smallpox was "apparently gaining in virulence" and London MOHs "were quick to note the change in the character of the disease" (Hardy 1983: 113-114). Between 1859 and 1864, their efforts were therefore mainly directed at promoting smallpox vaccination, especially as the 1853 Act had made it compulsory. Additional preventive

measures, including isolation and disinfection, were taken following the more stringent provisions of the 1871 Vaccination Act, the establishment of smallpox hospitals and of hospital ships on the Thames during the 1881 epidemic due to the insufficient availability of hospital beds. The marked decline in smallpox mortality led twentieth-century MOHs to argue for more extensive vaccination. Yet, they were accused of failing to "redefine the role of preventive medicine" (Gorsky 2007: 470), especially after the National Health Service was established in 1948. Even earlier, other medical professionals fiercely opposed MOHs, considering them the "Cinderella of the medical profession" (Berridge 2011: 64). As their services were "directed only at the poor and widely detested" and preventive medicine still continued to suffer from medical neglect, MOHs were not accorded "the status of the rest of the profession" (Berridge 1990: 194-195). They further had to grapple with public resistance to vaccination due to the strength of the anti-vaccination movement in the late nineteenth century after the 1898 Act relaxed the law on compulsory vaccination. In other words, MOHs had to struggle to gain a wider acceptance of their "acute and instructive comment and wise counsel" (Jephson 1907: 159).

This study advocates that MOH challenges may be reflected in the discursive construction of if-conditionals, and that their "context-sensitive nature" is likely to be exploited for "both argumentative and speculative purposes" (Carter-Thomas – Rowley-Jolivet 2008: 193). In this light, it analyses the macro-functions if-conditionals serve in construing medical and sociohistorical meanings in a collected corpus of MOH reports on smallpox across London from 1849 to 1950 as the most representative time and place. The study further questions how if-conditionals shape the representation of social actors in MOH discourse, offering insight into its evolution from a diachronic perspective.

2. Theoretical framework

The prototypical conditional *if* has been considered for its valuable role in written medical discourse as it hypothesizes, hedges and promotes research claims (Rowley-Jolivet – Carter-Thomas 2008: 40), operates as an argumentative "space builder" (Dancygier 1998: 23), and supports inductive reasoning. The conventional *if P, Q* construct, whereby the protasis (*P*) is the subordinate if-clause and the apodosis (*Q*) the main clause, has been semantically classified in several ways. Dancygier – Mioduszewska (1984),

for instance, propose that *if P* can carry three different meanings, namely "factual", "theoretical" and "hypothetical". Factuality can be found in both *if P* and in *Q*: "a certain result may depend on something being a fact, as well as factuality of one statement may condition the factuality of another". Theoretical meaning, instead, implies that "the speaker either treats the fulfilment of the condition as truly open or does not possess the necessary knowledge". Finally, *if P* holds hypothetical meaning when the speaker "is creating a new situation to be analysed" (Dancygier – Mioduszewska 1984: 128-130). Athanasiadou and Dirven (1997), instead, identify "course of events", "hypothetical" and "pragmatic" as the three main types of conditions. Course-of-events conditionals commonly occur in scientific contexts and are shaped by factual meaning; hypothetical conditionals establish causal dependency relations (*if P, then Q*), while pragmatic conditionals vaguely refer to all those which are not included in the two former categories. These more traditional classifications of if-clauses attribute great importance to syntactic or other conceptual sub-categorizations (e.g. truth-value) and have been amply used to refer to the logical or formal structures of the conjunction through instances isolated from their contexts of use. As these classifications hardly pay any attention to the variety of meanings implicit in the conjunction itself, and thus do not account for the ways in which if-conditionals operate in their natural contexts of use, they seem somewhat unfit to frame the present research.

From this perspective, the current study considers the functional uses of the if-conditional in the naturally occurring texts of MOH reports as one type of "rhetorical device for gaining acceptance of one's claims" (Warchal 2010: 141). The research is therefore theoretically framed by the classification proposed by Carter-Thomas – Rowley-Jolivet (2008: 193-194), which categorises if-constructs according to three potential macro-functions: "factuals", "refocusing" and "discourse management". Factuals refer to if-statements established "about the natural world, by observing regularities and correlations, and by carefully defining the conditions under which the facts hold" (Rowley-Jolivet – Carter-Thomas 2008: 194); grammatically, they correspond to "the category of real conditions (present or past)" (Rowley-Jolivet – Carter-Thomas 2008: 44). Refocusing refers to if-statements which speculate and make suppositions for "the promotion of claims and the confrontation of different viewpoints" by "expanding or contracting the argumentative space" (Rowley-Jolivet – Carter-Thomas 2008: 194); grammatically, this category is often referred to as that of "unreal or 'hypothetical' conditionals", and may include modalised recommendations and concessive uses (Rowley-Jolivet – Carter-Thomas 2008: 45). On the

other hand, discourse management includes non-assertive if-clauses which are meant to guide readers through the text either to introduce new topics (topic-shifting), or "to instruct readers on where to direct their attention" (topic-marking) (Rowley-Jolivet – Carter-Thomas 2008: 45).

The study is further guided by van Leeuwen's framework to analyse how if-conditionals help endow social actors with active or passive roles according to the following criteria:

> *activation* occurs when social actors are represented as the active, dynamic forces in an activity, *passivation* when they are represented as 'undergoing' the activity, or as being 'at the receiving end of it' […] activation is realized by 'participation'[…] but can also be realized […] through 'circumstantialization', that is by prepositional circumstantials […] the passivated social actor can be *subjected* or *beneficialized*. Subjected social actors are treated as objects […] Beneficialized social actors […] positively or negatively benefit from the action (original emphasis). (van Leeuwen 2008: 33)

In addition, activation may occur through "functionalization", when "social actors are referred to in terms of an activity, in terms of something they do"; through "relational identification", which "represents social actors in terms of their personal kinship, or work relations to each other"; or through "overdetermination" when they are "represented as participating, at the same time, in more than one social practice" (van Leeuwen 2008: 42-48).

Furthermore, the study is informed by the principles of corpus-based discourse analysis, whereby "[…] recurrent discursive phenomena that are revealed in […] corpora in the form of keywords […] offer an observable record of the unconscious behaviours through which dominant meanings are discursively reproduced" (Hunt – Harvey 2015: 135).

3. Corpus and methodology

Keyword searches in the *London's Pulse MOH collection* (http://wellcomelibrary.org/moh/) for "smallpox" and "vaccination", as the most significant terms for the study, yielded 48 reports on 31 London districts dating 1849-1950. All raw materials were downloaded and searched manually to discard irrelevant information, including statistical tables and lists of district names. Filtered texts containing if-conditionals were saved as an electronic document in .txt format for subsequent corpus analysis via AntConc 3.5.0 concordance software

(Anthony 2017). The corpus used in the study (10,435 words) was divided for comparative analysis into two subcorpora, respectively labelled "Nineteenth century" (5,460 words) referring to the major epidemic period between 1849 and 1899, and "Twentieth century" (4,975 words) related to the breakdown period between 1900 and 1950. Hence, this diachronic range of texts ensured a better balance of the variety of *if* meanings, and their representativeness. The small corpus was considered to provide relevant and reliable evidence of the use of *if* in specialised discourse (cf. Sinclair 2001), while also allowing qualitative discourse analysis to keep within manageable bounds. The corpus-assisted discourse analysis was driven by a quantitative and qualitative research methodology, which allows quantitative corpus data to be used as the basis for analysing qualitative data from a different perspective and making them more reliable (Mautner 2009: 45). This methodological approach thus also supports a historical discourse analysis, which is here considered as involving the study of how if-conditionals functioning on the discourse level come to function on the semantic level (cf. Brinton 2001: 40). Frequency analysis based on concordance searches was conducted to code the macro-functions of *if*-constructions according to Carter-Thomas – Rowley-Jolivet's (2008) classification. A more fine-grained qualitative analysis was carried out to identify "the variety of values and meanings that if takes on in medical discourse" (Rowley-Jolivet 2007: 176) at the discursive level, based on the criterion of "topical or thematic relevance" (van Dijk 1979: 117). The specificity of dominant macro-functions was annotated also across the subcorpora for potential diachronic semantic changes. Accordingly, the linguistic features and underlying meanings of the conventional *If P, Q* construct and its variations were analysed in-depth. Finally, the functionality of if-conditionals was analysed at the sociohistorical level. An automatically generated corpus wordlist of the main social participants evoked by conditional structures was used to analyse their representational meanings in expanded concordance lines. This was accomplished by drawing on van Leeuwen's (2008) taxonomy of representation of social actors in discourse analysis.

4. Results and discussion

4.1 If-conditionals: Macro-functions in MOH discourse

The concordance search yielded 241 occurrences of if-conditionals covering all three macro-functions, which presented an uneven distribution in the whole corpus as reported in Table 1.

Table 1. If macro-functions: Occurrences and distribution in the corpus

If macro-functions	Occurrences	19th-century subcorpus	20th -century subcorpus
Factuals	81 (33.6%)	46 (33.1%)	35 (34.3%)
Refocusing	**148 (61.4%)**	**86 (61.9%)**	**62 (60.7%)**
Discourse management	12 (5.0%)	7 (5.0%)	5 (5.0%)
Total	241	139	102

The highest frequency of occurrence is recorded for the "refocusing" function (61.4%), followed by the "factuals" function (33.6%) and by a scant occurrence of the "discourse management" function (5.0%). Broadly, the predominance of the refocusing function across the two subperiods suggests that if-conditionals mostly operate to construct argumentative and/or hypothetical claims and that the factuals function is deployed far less than in other medical discourses (cf. Ferguson 2001), probably to construct inductive reasoning more than anything else. However, the fine-grained qualitative analysis of the specificity of these two macro-functions (cf. Table 2) revealed their effective operational purposes according to their historical context of use. Findings show that both functions are semantically driven by what can be labelled as "medical topicality" on the one hand, and as "socio-scientific topicality" on the other. Moreover, these two more general macro-functions can be subdivided into four distinct macro-functions organising MOH discourse: medical factual, medical refocusing, socio-scientific factual and socio-scientific refocusing. The former two functions are grounded in medical topicality, and are specifically found to organise discourses of preventive medicine; the latter two functions pertain to socio-scientific topicality, and particularly govern discourses of social medicine. The following sample if-statements taken from the corpus offer instances of how each of the four functions operates.

Example (1) refers to the medical factual macro-function of the if-operator:

(1) *If* the vaccination marks are of an area of half a square inch, they indicate a better state of protection than *if* their area be at all considerably below this. [Hackney 1900]

In general, the if-operator in (1) moves within the field of preventive medicine with the purpose of establishing a positive causal relation between "vaccination marks" and "state of protection". It thus defines the precise

medical condition ("vaccination marks are of an area of half a square inch") under which the fact of "a better state of protection" holds. The factual status of this macro-function has a truth implication originating from medical evidence which has already been scientifically validated. This truth is structurally represented through the zero-conditional type, marked by "are" and "indicate" as present tense verb; the function is typically expressed through the *if P-present, Q2-present* structure, whereby given the condition that *P* is present, the *Q* fact is also present. Example (1) also shows how the strength of the medical factual function may be further reinforced by activating a process of inductive reasoning centred on the value of *if P*. The second if-operator is, in fact, used to restrict the real medical condition ("their area be at all considerably below this") under an inverse comparison. The restriction allows the truth value of *P* to be weakened so that the premise is now questionable. This inductively leads to the tacit conclusion of "a worse state of protection", which is structurally rendered through the inferred *if not-P, then not-Q* construct.

Example (2) illustrates, instead, the meaning *if* acquires through its socio-scientific factual macro-function:

(2) The Public Vaccinators went through the infected streets and large numbers of children were thus reached *if* parents had been too supine to take them to the operator. [St Giles, Camden 1859]

In this case, *if* operates meaningfully within the field of social medicine governed by the observation of regularities in children's smallpox vaccination. Compared to example (1), where the factual status of the macro-function is grounded in well-established medical knowledge, the factuality of the macro-function in example (2) is based on the less predictable socio-scientific condition of identifying negligent parents ("if parents had been too supine"). This different semantic nuance is structurally represented through the modification of the typical medical factual *if P-present, Q2-present* macro-function in (1). In (2), the *Q-past, if P-past* structure is, indeed, introduced to express the meaning of the socio-scientific factual macro-function. *Q* now occupies the initial position in the statement for the meaningful purpose of attributing authority to "the Public Vaccinators" and to their decisional treatment ("went through the infected streets and large numbers of children were thus reached"); the *if P* condition relevant to this decision is explained only after. While the postposed *P*-clause is also typical of factual conditionals (zero type) relating to treatment decisions in other medical genres (cf. Rowley-Jolivet – Carter-Thomas 2008), its use in MOH discourse connotes

a more socio-scientific meaning reflecting the promotion of vaccination in accordance with the 1853 Act. A historical use of the restrictive function of *if* can also be seen in these examples. In (1), *if* operates as an early twentieth-century "restrictor" to state the precise size of vaccination marks and thereby validate their effectiveness; in (2), it acts as a filter of the nineteenth-century social conditions, which required necessary medical action.

The refocusing function also acquires significance, as shown in examples (3) and (4), where *if* operates respectively as a medical refocusing macro-function and a socio-scientific refocusing one according to the historical context of use:

(3) It is impossible to fix, with precision, the length of this period of highest protection. Though not in all cases the same, *if* a period is to be fixed, it might, we think, fairly be said to cover in general a period of nine or ten years. [Finsbury 1902]

(4) *If* vaccination is no protection against Smallpox (as claimed by the anti-vaccinators), the vaccinated children under 10 years of age in Lambeth ought to have added to the epidemic 195 cases (instead of the 11) and 45 deaths (instead of the 1). [Lambeth 1877]

In (3), the medical difficulty of fixing the precise "period of highest protection" of smallpox vaccination at the turn of the twentieth century creates the context in which the macro-function is allowed to operate. The purpose of *if* here is to open up a hypothetical space, where suppositions about the beneficial duration of smallpox vaccination can be advanced. The condition is thus structured as a matter-of-fact future tense ("if a period is to be fixed"), which points to a somewhat future need for advances in disease prevention. Hedging ("might", "think", "fairly", "in general") of the hypothetical claim of "a period of nine or ten years" denotes scientific uncertainty, which generally characterises medical research. As in other medical discourses, hedging here too plays a critical role in "expressing possibility rather than certainty and prudence rather than overconfidence" (Hyland 2006: 694). In other words, the if-operator clearly points to the state of medical understanding in 1902, and its contextual value is thus typically reflected in the underlying *if P*, *then mQ* construct (where *m* = maybe). In (4), *if* works as a means toward the end goal of promoting the protective value of smallpox vaccination in the wake of the 1871 Act. It is therefore functionally used to build an argumentative space, whereas in (3) its scope is to create a hypothetical space. In detail, *if* manages to expand an argumentative space

under the questionable factual condition that "vaccination is no protection against Smallpox" (*if P*). Authorship of the conditional claim ("claimed by the anti-vaccinators") is overtly signalled to indicate that the argumentative space is open to confrontation with opposing viewpoints. Under these premises, argumentation in the *Q*-clause is cognitively guided by inductive reasoning, and structurally governed by weak modal meaning ("ought to") with the deliberate intent of undermining the propositional force of the "epidemic". This then allows a stronger argumentative status to be ascribed to *Q*, also through the use of the adverbial clause "instead of" and its strategic placement in the final position. Here, it is meant to convey new facts for the purpose of replacing previous ones so that the expected "195 cases" and "45 deaths" are substituted by the unexpected "11" and "1". These new facts acquire additional truth value due to the credibility of the professional source of information. Hence, the new data completely disqualify the truth value of *if P* on the basis of a sound argumentation supported by verifiable facts. The if-operator thus moves within the typical $P \oplus Q$ ($\oplus$ = *either P or Q*) construct of argumentation, whereby *P* and *Q* are mutually exclusive, and *or Q* represents the only truth in (4).

Finally, while the results show that the macro-function of discourse management is not significantly used in MOH discourse, example (5) illustrates how it works to provide a complete picture of the macro-functions:

(5) *If* I could therefore draw attention to what is a most essential feature in vaccination, and that is the having it done thoroughly and as efficiently as possible. [Surbiton 1898]

Although the if-clause does not connote any assertive value here, its meaningful goal is to politely direct addressees to focus their attention on the key aspect of "what is a most essential feature in vaccination". This topic-marking function primarily instructed governmental officials as historical listeners to follow the development of the MOH's topic of interest ("the having it done thoroughly and as efficiently as possible"), but also eases the current reading of the report.

These results reveal that refocusing and factuals are the two dominant macro-functions served by if-conditionals even across the two subcorpora (Table 1), and the instances point to a context-sensitive use of if-constructions. Furthermore, the occurrence of four distinct macro-functions, which construe different medical and socio-scientific meanings, suggests that topicality appears to be a key parameter for identifying potential functional changes in the use of if-constructions from a diachronic pragmatic perspective.

4.2 Diachronic functional changes of if-constructs

Form-to-function mapping, a technique pertaining to historical discourse analysis, and particularly to diachronic pragmatics to disclose potential "changes in the communicative functions of linguistic features" (Taavitsainen – Fitzmaurice 2007: 14), was conducted on if-constructs across the two subcorpora. Analytical results are reported in Table 2.

Table 2. Diachronic functional changes of if-constructs across the subcorpora

If macro-functions	19thc. (N=132)	Recurrent *if* patterns	20th c. (N=97)	Recurrent *if* patterns
Medical factual	9 (6.8%)	=	31 (32%)	*If P-present, Q2-present*
Socio-scientific Factual	37 (28%)	*Q-past, if P-past*	13 (13.4%)	=
Medical refocusing	23 (17.4%)	=	**48 (49.4%)**	***If P, then mQ***
Socio-scientific refocusing	**63 (47.8%)**	$P \oplus Q$	5 (5.2%)	=

Results generally indicate that out of the total of 229 factual and refocusing functions found in the entire corpus, 57.6% (n=132) occur in the nineteenth-century subcorpus and 42.4% (n=97) in the twentieth-century one. A significantly higher occurrence of the socio-scientific refocusing function is recorded in the nineteenth-century corpus (47.8%) compared to the twentieth-century one (5.2%). The recurrent pattern of the $P \oplus Q$ construct was identified, thus revealing an overall argumentative purpose of nineteenth-century reports. At the semantic level, this conditional pattern further shows how two major sociohistorical arguments about smallpox vaccination are constructed. Example (6) offers an insight into the MOH's legislative concern, construed through the conditional structure which carries the sociohistorical meaning of the government's persisting *laissez-faire* approach to the health policy of vaccination:

(6) But *if* the Government Bill were to pass, … an ever-increasing number of persons would exist in our midst, who, being themselves unprotected by vaccination … *would* become the means in any future epidemic of spreading the disease indefinitely. [Kensington 1879]

The adversative marker *but* allows *if* to build a counterfactual space, where a hypothetical situation is envisaged ("an ever-increasing number

of persons … being themselves unprotected by vaccination"). The circumstantial possibility ("become the means in any future epidemic of spreading the disease indefinitely") is modalised by *would*, which expresses objective epistemic meaning based on the MOH's professional expertise. Argumentatively, the counterfactual condition ("if the Government Bill were to pass") thus mutually excludes the control of any future epidemic ($P \oplus Q$). The Bill was "vigorously opposed" by "petitioning the House in deprecation of any relaxation of the law in the direction indicated in the Government measure" and "subsequently withdrawn" (*Report of the Medical Officer of Health for Kensington* 1879: 65).[1]

In (7), the conditional structure is used to emphasise the importance of controlling population health, and thus the MOH's professional commitment in this direction, especially due to the serious smallpox outbreaks even after compulsory vaccination was introduced in 1853:[2]

(7) From this [the recent epidemic], we *may* form some feeble idea of the ravages that this loathsome disease would have created *if* its contagiousness and virulence had not been checked by general vaccination. [Shoreditch 1859]

The "recent epidemic" provides supportive argumentation for the hypothetical claim on the "contagiousness and virulence" of the disease under a negative condition ("if… had not been checked by general vaccination"). The vague idea of the devastating consequences ("the ravages") is modalised by the use of *may*, which conveys deontic meaning deriving from MOH authoritative knowledge, merged with dynamic meaning springing from the factual circumstances ("the recent epidemic"). Hence, "some feeble idea" is mutually exclusive with the real condition of experiencing the terrible effects of the disease ($P \oplus Q$).

On the other hand, a significantly higher occurrence of the medical refocusing function can be observed in the twentieth-century corpus (49.4%) compared to the nineteenth-century one (17.4%). The *if P*, *then mQ* construct was found to be the recurring structural pattern used to build hypothetical medical claims grounded in the real advances made in disease treatment in the twentieth century, as shown in (8) and (9):

1 https://dlcs.io/pdf/wellcome/pdf-item/b1982421x/0

2 For further discussion on the vaccination debate in the eighteenth century, see Taavitsainen (2019).

(8) There can be no doubt that early recognition and isolation has been the secret of our success in Finsbury. *If* it had not been for this, it is certain that the epidemic *would* have been more widespread. [Finsbury 1902]

The if-conditional in (8) reinforces the successful outcome of "early recognition and isolation" as progressive medical steps ("if it had not been for this"), allowing dynamic meaning related to the real circumstances of "the epidemic" to be expressed through the modal verb *would*. The hypothetical medical claim ("would have been more widespread") expresses absolute certainty ("it is certain") springing from medical knowledge, and thus establishes truth value. Hence, under the conditions of early recognition and isolation, the epidemic is then certainly less widespread (*if P, then mQ*).

(9) The Medical Officer asserts advisedly – and his assertion is based on his intimate knowledge of Small Pox – that such figures are lamentable, and that *if*, unfortunately, this disease should again attack the borough with any virulence, it *will* be found that large numbers of people *will* die, and that the sufferers for the most part *will* be children, as it was in pre-vaccination days. [Islington 1919]

Due to the low vaccination rates ("such figures are lamentable") reported in (9), the MOH foresees the likelihood ("again") of an attack of the disease, envisaging a hypothetical catastrophic situation. The modalisation of the verbs "found", "die" and "be" through the use of *will* expresses a high possibility of lethal consequences under the circumstance of a new attack (*if P, then mQ*). The argumentative force of the hypothetical claim is further strengthened by the MOH's "intimate knowledge of SmallPox".

On the whole, these results highlight the semantic shift from the nineteenth-century $P \oplus Q$ construct to the twentieth-century *if P, then mQ* construct, thus pointing to the polysemous nature of the if-operator in MOH discourse under the evolving sociohistorical conditions of smallpox epidemics, vaccination and its legislative regulations.

4.3 If-conditionals: The representation of social participants

A total of 132 if-conditionals (54.7% of all the 241 instances) conveying representational meanings of social actors was recorded. The corpus wordlist yielded the presence of five groups of social participants in MOH discourse. Results on their frequency (f) and percentage of occurrence (f%) are reported in Table 3.

Table 3. If-conditionals representing the five groups of social actors in MOH discourse

Social participants (N=132)	f	f%
1. child/children	55	41.6
2. patient(s)	24	18.2
3. conscientious objector(s)	20	15.2
4. parent(s)	18	13.7
5. medical officer/doctor	15	11.3

The results show that child/children is consistently the top category represented in MOH discourse on smallpox vaccination (41.6%), and that all if-statements significantly contribute to endowing this social group with representational meanings of passivation (van Leuuwen 2008), as shown in examples (10a-d):

(10) (a) *If* deaths of *children* arise in this parental neglect, they ought to be considered in the same light as when they arise in the neglect to feed or to clothe. [City of London 1850]

(b) *If* a parent has been once adjudged to pay the full penalty of twenty shillings, or twice adjudged to pay a smaller penalty, no farther conviction can be obtained, and the unfortunate *child*, or *children*, must remain unvaccinated. [Kensington 1870]

(c) *If* isolation were impossible, and a number of *children* of different families inhabited the same house, I caused the healthy *children* to be vaccinated, and removed them into the country. [St. Saviour's 1882]

(d) *If*, in consequence of vaccination, a *child* requires medical attention, it should be the public vaccinator's concern to provide such attention without cost to the parents. [City of Westminster 1930]

In (10a), the if-clause carries historical meaning referring to the rise of smallpox mortality among children in mid-nineteenth century London ("deaths of children arise"), and attributes the cause to "parental neglect", whereby children become subjected social actors. Subjectification is further reinforced in the main clause through the conceptual meaning that *neglect* acquires on the grounds of the parent-child "relational identification"(van Leuuwen

2008: 43). Hence, parents' duty to vaccinate their children is equated with their obligation to feed and clothe them. Accordingly, the modal verb *ought to* acquires historical discourse value as it expresses deontic meaning stemming from the MOH's expertise, merged with epistemic meaning deriving from his authority. In (10b), instead, the if-clause serves the purpose of introducing the legal aspect of parents' refusal to vaccinate their children ("adjudged to pay"). As a result of parents' sociolegal "relational identification", dependent on the external legislative circumstance, the child/children are represented differently as subjected actors ("unfortunate"). Subsequently, the verb *must* is used to merge deontic and dynamic meanings to objectively report the result of "unvaccinated" children further subjected by the external fact that "no farther conviction can be obtained". While both if-clauses introduce negative parental conditions, the semantic shift in their use points to the legislative changes which took place at the time. Although provision for free vaccination was made under the 1840 Vaccination Act, parents doubted its effectiveness and safety; the 1853 Act made vaccination compulsory for all three-month old infants, and defaulting parents were liable to a fine or imprisonment.

Examples (10c) and (10d) show, instead, how positive causal links are created between the actions of medical practitioners and children, who are therefore represented as beneficialized social actors. In (10c), in spite of the difficult conditions introduced by the if-clause, propositional content in the main clause connotes positive outcomes thanks to the MOH's "functionalization" (van Leuuwen 2008: 42), or what he does ("I caused, removed"); in (10d), on the other hand, the if-clause considers the possibility of vaccine side-effects so that propositional content in the main clause is modalised by the verb *should* to reasonably indicate the medical practitioner's deontological obligation of providing free care. Historically, these if-conditionals reflect a shift from the more preventive measures taken by MOHs by the late nineteenth century to reduce child mortality toward the twentieth-century concern for ensuring that children with vaccine side-effects received proper costless treatment from the Vaccination Officer, formerly appointed under the 1871 Act. Overall, these results reveal that, while the conditional structure contributes to shaping the representation of child/children as being "at the receiving end" (van Leuuwen 2008: 33), the use of if for their passivation is strongly dependent on the active social agents involved.

As for the social representation of patients, these are depicted by the if-conditional through passivation. Unlike the representation of children,

however, patients are mainly portrayed according to the broad category of inclusion and exclusion (van Leuuwen 2008) with specific reference to the semantic field of medical diagnosis, as illustrated in (11):

(11) [The routine adopted by the Metropolitan Asylums Board is to take each *patient* (when notified) first to the Shelters or Observation Wards at Rotherhithe (South Wharf)]. From these the *patient*, *if* found suffering from Smallpox, is sent in one of the river ambulances to the Hospital Ships, which are moored at Long Reach (the mouth of the Thames). Here the *patient* is again medically examined, and *if* still thought to be suffering from Smallpox (but not otherwise), is admitted on to the Ships. [Lambeth 1902]

The if-operators in (11) portray the patient as a social actor subjected to diagnostic processes ("found suffering from smallpox", "still thought to be suffering from smallpox"). These procedural premises lay the grounds for inclusion in medical treatment ("is sent … to the Hospital Ships", "is admitted on to the Ships") or exclusion ("but not otherwise") in the main clauses. Moreover, the if-statements are embedded with evident historical meaning, particularly rendered through nominal elements ("river ambulances", "hospital ships"), which acquire contextual value resulting from "the routine adopted by the Metropolitan Asylums Board". This routine refers, in fact, to the practice of using old wooden warships (the Atlas and the Endymion) for more bed space and for better isolation at "the mouth of the Thames" at the time of a smallpox epidemic. Discursively, the context-sensitive nature of *if* is confirmed by the fact that all the 24 instances of "patient(s)" occurring in the corpus refer to MOH reports dated 1881-1903, after which land-based smallpox hospitals were built and the ships became redundant.

Unlike children and patients, "conscientious objectors" are represented as active social actors, as shown in (12a-d):

(12) (a) *If* the *conscientious objector* is allowed to increase and multiply, this is owing to the laxity of this Act [Vaccination Act of 1898]. [Surbiton 1898]

(b) *If* there has been a decline in the proportion of *conscientious objectors* during a year when Small-pox is epidemic, this is some indication of the little faith the average anti-vaccinationist attaches to his own teachings when face to face with the disease. [City of London 1902]

(c) *If* the number of *conscientious objectors* is increasing, this is doubtless due to the Vaccination Act of 1907, which is a direct encouragement to persons not to take advantage of a means which is known reduces the susceptibility of their children to an attack of small-pox. [City of London 1913]

(d) Yet the same *conscientious objectors*, who place no barrier in the way *if* their relatives are seriously ill, obstruct, at every opportunity, the adoption, during health, of similar methods which would prevent the occurrence of such illness. [East Ham 1927]

In (12a) and (12c), the if-operators present conscientious objectors as active behavers participating in a dynamic process of expansion ("is allowed to increase and multiply", "is increasing"). Their activation is specifically realized through "circumstantialization" (van Leeuwen 2008: 33) in the main clauses, where the circumstantial expressions "owing to" and "due to" respectively refer to the Vaccination Act of 1898 and that of 1907 as the main causes. While both refer to the "Conscience Clauses", the expressions charge the if-statements with historical significance: the 1898 Act allowed conscientious parents to claim exemption ("laxity"), frequently rejected by many magistrates; the 1907 Act forced them to grant it ("a direct encouragement"). In (12c), the circumstantial representation of conscientious objectors, generically defined as "persons", further helps build argumentation ("… not to take advantage of a means"), strengthened by the passive voice "is known" to stress the MOH's knowledgeable certainty of vaccination benefits. In (12b) and (12d), instead, the social actors are pictured as participating in both pro- and anti-vaccine practices through "overdetermination" (van Leeuwen 2008: 48). In (12b), the if-clause particularly destabilizes "conscientious objectors" through the real condition of "decline", which weakens their values ("little faith... own teachings") when directly faced with the disease; in (12d), "conscientious objectors" are represented through "inversion" as "a form of overdetermination" (van Leeuwen 2008: 48) as they not only participate in more than one social practice at the same time, but engage in two opposing ones ("obstruct at every opportunity" vs. "place no barrier in the way"). Here, the if-operator jointly functions with the adversative discourse marker *yet* and the qualifier *same* to emphasize this contrasting behaviour. On the whole, these results point to the dynamic meanings the if-operator attributes to the concept of conscientious objection following the Vaccination Acts, which appeared to favour the proliferation of the nineteenth-century anti-vaccination movement.

Consistently with the passivation of children (see examples 10a-b), the category of parent(s) is always endowed with activation expressed through relational identification. Interestingly, this kind of representation appears to provide tangible evidence of how the if-construct undergoes changes in its communicative functions according to the evolution of MOH discourse, as illustrated in (13a-c):

(13) (a) The death of a child by small-pox would in most instances call for a verdict of "homicide by omission" against the *parent if* you consider that he had *neglected* daily opportunities of giving it immunity from that disease by the simple process of vaccination. [City of London 1849]

(b) *If* this Bill were to become law, any *parent* who may *object* to vaccination will be enabled, at the cost of a few shillings, to escape the performance of what is by most reasonable persons regarded as a duty to his own offspring. [Kensington 1879]

(c) The nation is exposing itself to an absolutely unnecessary chance of an epidemic of smallpox on a huge scale, *if* individual *parents* are not acting in the best interests of the future of their children. [Paddington 1913]

In (13a), *if* operates on the grounds of parental neglect, shaping the representation of parents based on "kinship" relational identification. This allows the conditional statement to harshly condemn negligent parents ("a verdict of 'homicide by omission'") in the historical period of the mid-nineteenth century when the death toll from smallpox epidemics was huge. In (13b), instead, the functional purpose of *if* is strictly related to the concern about parents' legal objection to vaccination under the late nineteenth-century circumstance of potential law enforcement. A "sociolegal" relational identification thus builds the representational meaning of any parent, who is potentially allowed to pay a small penalty ("a few shillings") to escape parental responsibility. In (13c), the conditional structure expands on parents' relational identification to include not only the "kinship" relation ("best interests of their children") characterizing (13a), but also to establish a "collective" relational identification, grounded in the twentieth-century social concern of exposing the entire nation to the risk of a devastating smallpox epidemic.

Finally, doctors/medical officers are referred to in terms of their professional actions, or "functionalization" (van Leeuwen 2008: 42), as indicated in (14a-c):

(14) (a) *If* the all-complacent *Doctor* believes in vaccination, let him do it as he knows it should be done. But it is another matter *if* he conceives he has done his duty by his countrymen and women. [He thereby assists very materially in bringing discredit on vaccination in the eyes of the ignorant and unthinking as a protective against smallpox]. [Surbiton 1898]

(b) In Lambeth, the *Medical Officer* of Health acted as expert and consultant for the Borough, and this arrangement was found to work well, *even if* much extra work devolved in consequence upon such officer. [Lambeth 1902]

(c) The *Medical Officer* of Health knows very well that *if* the views held on this subject by many people are really conscientious, there are hundreds who oppose vaccination, especially women, only because of the trouble and inconvenience caused by the infant for a short while after vaccination. [Islington 1919]

The above examples show how different representational meanings of the doctor/medical officer are shaped across the timespan of two decades. While the if-statement in (14a) depicts the "doctor" as a professional who is self-satisfied with his vaccination practice ("all-complacent"), it exhorts him ("let him do it"), nevertheless, to properly perform his duty according to required professional ethics. This obligation is marked by the deontic meaning of *should* and by epistemic knowledge ("as he knows"). The adversative *but*, however, introduces a subjective condition ("if he conceives he has done his duty"), which acquires important historical significance as it acts as a space-builder for argumentation against "bringing discredit on vaccination". In (14b), instead, the MOH is propositionally represented as a knowledgeable professional ("expert and consultant") under the concessive conditional "even if", which offers an insight into "the manifold duties occupying [the MOH] fully" (Wohl 1999: 610). In (14c), *if* introduces the real condition of a "conscientious" community as a lead-in to the argument of vaccination opposition. While the generic representation of "hundreds" signals the fact that MOHs were historically exposed to "openly hostile vestries" (Wohl 1999: 610) in the early twentieth century, the prototypical opponents are clearly

identified as "women". These gain dynamic representational meaning only when their initial social role is "reallocated" (cf. van Leeuwen 2008: 32) through a "mother-child" relational identification, marked by "the infant" and the side-effects it experienced as the primary cause of vaccine aversion.

5. Conclusion

Although the MOH genre is characterised by multiple case reports featuring statistical assessments of diseases, the discursive component offers valuable insight into their sociohistorical contexts. If-conditionals as context-sensitive rhetorical devices play a key role in reflecting the evolving nature of local public health, the diverse efforts MOHs made and also in marking the beginnings of epidemiological reporting (Gorsky 2007), as highlighted in the present study. Results generally show how refocusing is the dominant if-conditional macro-function in MOH discourse throughout the corpus, thus suggesting the officers' common interest in making important recommendations based on the promotion of their scientific claims. The more fine-grained diachronic analysis shows a functional variation driven by the parameter of topicality across the two subcorpora: if-constructs operate according to a distinct socio-scientific refocusing function in the nineteenth-century subcorpus, whereas they are characterised by a predominant medical refocusing function in the twentieth-century one. The recurrent use of the structural $P \oplus Q$ pattern in nineteenth-century conditionals is a clear indicator of their argumentative purpose, which mirrors MOH concerns about smallpox vaccination both from a legislative viewpoint and from that of stressing the importance of regulating population health; the prevailing *if P*, *then mQ* construct in twentieth-century conditionals underlines its use for building hypothetical medical claims grounded in the real advances made in disease prevention. Although these results are by no means conclusive as they need to be tested on a larger MOH corpus including other British areas, they offer thought-worthy insights into the polysemous nature of if-conditionals in historical medical texts. They point to the historical diversity of MOH reports determined not only by individual authorship, but more significantly by sociohistorical changes across the timespan considered even for the same districts, as suggested by the reports covering the City of London and Lambeth districts.

Moreover, findings shed light on the dynamic representational meanings of if-conditionals and their contribution to the diachronic evolution of

MOH discourse. Representations of children as the main social participants shift from the Victorian portrayal of mortality and filthy living conditions to that of free medical care; those of patients show how if-constructs operate in the context of smallpox epidemics, offering a historical view of the use of hospital ships. Finally, parents, conscientious objectors and medical officers/doctors as the other three social groups represented through if-conditionals all point to the rise and proliferation of the anti-vaccination movement, which has been rejuvenated in recent years (cf. Plastina – Maglie 2019).

REFERENCES

Sources

Anthony, L.
2017 AntConc (Version 3.5.0) [Computer Software]. Tokyo, Japan: Waseda University, http://www.laurenceanthony.net/, accessed February 2017.

Chadwick, E.
1842 *Report on the Sanitary Condition of the Labouring Population of Great Britain*, vol. xxvi. London: W. Clowes and Sons.

MOH reports
1848-1972 *London's Pulse: Medical Officer of Health Reports 1848-1972*, http://wellcomelibrary.org/moh/, accessed March 2017.

Special studies

Athanasiadou, A. – R. Dirven
1997 "Conditionality, hypotheticality, counterfactuality". In: A. Athanasiadou – R. Dirven (eds.) *On Conditionals Again*. Amsterdam: Benjamins, 61-96.

Berridge, V.
1990 "Health and medicine". In: F.M.L. Thompson (ed.) *The Cambridge Social History of Britain 1750-1950*, vol. 3. Cambridge: Cambridge University Press, 171-242.
2011 "The development of the health professions". In: V. Berridge et al. (eds.) *Public Health in History*. Maidenhead, UK: Open University Press, 58-73.

Brinton, L.J.
2001 "Historical discourse analysis". In: D. Schiffrin et al. (eds.) *The Handbook of Discourse Analysis*. Oxford: Blackwell, 138-160.

Carter-Thomas, S. – E. Rowley-Jolivet
2008 "If-conditionals in medical discourse: From theory to disciplinary practice", *Journal of English for Academic Purposes* 7 (3), 191-205.
Dancygier, B.
1998 *Conditionals and Prediction*. Cambridge: Cambridge University Press.
Dancygier, B. – E. Mioduszewska
1984 "Semantic-pragmatic classification of conditionals", *Studia Anglica Posnaniensia* 17, 121-134.
Ferguson, G.
2001 "If you pop over there: A corpus-based study of conditionals in medical discourse", *English for Specific Purposes* 20 (1), 61-82.
Gorsky, M.
2007 "Local leadership in public health: The role of the Medical Officer of Health in Britain, 1872–1974", *Journal of Epidemiology and Community Health* 61 (6), 468-472.
Hardy, A.
1983 "Smallpox in London: Factors in the decline of the disease in the nineteenth century", *Medical History* 27 (2), 111-138.
Hunt, D.– K. Harvey
2015 "Health communication and corpus linguistics: Using corpus tools to analyse eating disorder discourse online". In: A. McEnery et al. (eds.) *Corpora and Discourse Studies: Integrating Discourse and Corpora.* London: Palgrave Macmillan, 134-154.
Hyland, K.
2006 "Medical discourse: Hedges". In: K. Brown (ed.) *Encyclopedia of Language and Linguistics*. Amsterdam/Boston: Elsevier, 694-697.
Jephson, H.L.
1907 *The Sanitary Evolution of London*. New York: Arno.
Mautner, G.
2009 "Corpora and critical discourse analysis". In: P. Baker (ed.) *Contemporary Corpus Linguistics*. London: Continuum, 32-46.
Pahta, P. – I. Taavitsainen
2011 "An interdisciplinary approach to medical writing in Early Modern English". In: I. Taavitsainen – P. Pahta (eds.) *Medical Writing in Early Modern English*. Cambridge: Cambridge University Press, 1-8.
Plastina, A.F. – R. Maglie
2019 "Vague language in the MMR vaccine controversy: A corpus-assisted discourse analysis of its functional use", *Lingue e Linguaggi* 29, 93-119.
Rowley-Jolivet, E.
2007 "A genre-study of if in medical discourse". In: K. Fløttum (ed.) *Language and Discipline Perspectives on Academic Discourse*. Newcastle: Cambridge Scholars Publishing, 176-201.

Rowley-Jolivet, E. – S. Carter-Thomas
2008 "When practice belies 'theory': Form, function and frequency of if-conditionals in specialised discourse", *ASp* 53-54, 39-61.
Sinclair, J.
2001 "Preface". In: M. Ghadessy et al. (eds.) *Small Corpus Studies and ELT: Theory and Practice*. Amsterdam: John Benjamins, vii-xv.
Taavitsainen, I.
2011 "Medical case reports and scientific thought-styles", *Revista de Lenguas para Fines Específicos* 17, 75-98.
2019 "Professional and lay medical texts in the eighteenth century: A linguistic stylistic assessment". In: I. Taavitsainen – T. Hiltunen (eds.) *Late Modern English Texts: Writing Medicine in the Eighteenth Century*. Amsterdam/ New York: Benjamins, 173-197.
Taavitsainen, I.– S. Fitzmaurice
2007 "Historical pragmatics: What it is and how to do it". In: S. Fitzmaurice – I. Taavitsainen (eds.) *Methodological Issues in Historical Pragmatics*. Berlin: Mouton de Gruyter, 11-36.
Taavitsainen, I. – P. Pahta
2000 "Conventions of professional writing: The medical case report in a historical perspective", *Journal of English Linguistics* 28 (1), 60-76.
van Dijk, T.
1979 "Relevance assignment in discourse comprehension", *Discourse Processes* 2 (2), 113-126.
van Leeuwen, T.
2008 *Discourse and Practice: New Tools for Critical Discourse Analysis*. Oxford: Oxford University Press.
Warchal, K.
2010 "Moulding interpersonal relations through conditional clauses: Consensus-building strategies in written academic discourse", *Journal of English for Academic Purposes* 9 (2), 140-150.
Wohl, A.
1999 "Unfit for human habitation". In: H. Dyos – M. Wolff (eds.) *The Victorian City: Images and Realities*. Vol. 2. New York: Routledge, 603-624.

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From "dying well" to "inducing a good death": Euthanasia in the British press (1864-1949)

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ABSTRACT

Proposed here is a terminological review of the term *euthanasia* and the concepts related to a practice that has been in use since the dawn of history, in order to see what changes have occurred in the 1850-1950 ca. period, and what social and historical events prompted them. The timeline ideally follows the four Geneva Conventions of 1864, 1907, 1929 and 1949, a period in which a reflection on death as a mass phenomenon emerged due to unprecedented large-scale wars, and spurred the adoption of humanitarian standards as laid out in the Geneva treaties. The study adopts the perspective of Western culture and draws materials from the British newspapers *The Times* and *The Manchester Guardian* from the years 1864-1949. This paper offers a critical reflection on the changes which the term and concept of euthanasia underwent, in light of the historical moment, the social and ideological context, and the role of the media.

Keywords: euthanasia, discourse analysis, medical terminology, news media, popularisation.

1. Background

1.1 Euthanasia: The term and concept in history

End-of-life related practices have been in use, legally or illegally, approved of or disapproved of, since the dawn of humanity. Indeed, while there is widespread agreement about the term 'euthanasia' having changed its meaning in the course of history, the concept that lies behind it, even in its current acceptation, remains more than elusive.

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The 'good death' referred to in classical times had nothing to do with terminating one's life by means of removing vital support or injecting a lethal drug, to report a rough but realistic idea of what most laypeople in Western societies would picture when faced with the notion of euthanasia. It literally denoted a quiet and calm death, and often one that fulfilled a person's (good) life, such as employed by Suetoniusin *De Vita Caesarum* (A.D. 121, book 2, chapter 99), when describing Augustus's passing, reportedly the first use of the word in ancient literature: "Nam fere quotiens audisset cito ac nullo cruciatu defunctum quempiam, sibi et suis *εὐθανασίαν* similem – hoc enim et verbo uti solebat – precabatur" (Schuckburg 1896: 171).

This notion remained unchanged throughout the decline of the Roman Empire and the Middle Ages, although of course the advent of Christianity moved the general attitude on suicide and mercy-killing, which "were common acts in classical antiquity because fundamentally they did not conflict with the moral beliefs of the time" (Dowbiggin 2005: 8), toward steady resistance to and condemnation of suicide as a form of self-murder, a new attitude supported by Church Fathers such as Augustine and Thomas Aquinas.

During medieval times, the meaning of 'euthanasia'persisted as that of setting the right context for a peaceful passing, to the point that a whole "devotional literature known as the *ars moriendi*" (Dowbiggin 2005: 18) was developed for that purpose.

It was only much later, in the early modern era, that the term became associated with medical practice. Popular sources usually quote Francis Bacon as the first author to have used the term in such a way, in his *De dignitate et augmentis scientiarum* (1623, book 4, chapter 2): "Hanc autem Partem, Inquisitionem de *Euthanasia exteriori* (ad differentiam eius *Euthanasiae*, quae Animae praeparationem respicit) appellamus, eamque inter *Desiderata* reponimus" (Bacon 1623 [1624: 201]). This is possibly correct, with the caveats that he did so in one of his Latin-language writings, and that, "albeit with a physician now at the centre of the picture[,] Bacon's use of the term in this new sense seems to have been completely isolated" (Kemp 2002: 7). To see the word used in the English vernacular, one has to wait until Joseph Hall employed it in 1646, according to the *Oxford English Dictionary* (*OED*); however, the acceptation was still the classical one of a calm and peaceful death.

The age of Enlightenment, with its renewed focus on rationalism and on the individual, started to bring back the debate about suicide as an expression of personal freedom. David Hume was possibly the most notable

intellectual supporting this position, which he exposed in his essay *Of suicide* of 1777, published posthumously two years later (Hume 1779).

It was not until the end of the nineteenth century, however, that the current meaning of 'euthanasia' was introduced, according to the *OED*, s.v. EUTHANASIA, *n.* 3, by William E.H. Lecky in his *History of European morals* (1869). Since the inception of the current acceptation of euthanasia in the late 1860s, this has become the most prominent, supplanting the first two *OED* meanings except as regards classical usage.[1] This should not be surprising, considered that the Victorian era saw a significant combination of improvements in medicine, such as the introduction of antisepsis, anaesthesia, the stethoscope and X-ray; the change of hospitals from places where one went to die to institutions where one received care and compassion and possibly left in a healthier state; and the founding of occupational organizations of physicians, with journals and common standards for medical schools (Dowbiggin 2005: 42-43). All these were only the first among the recent scientific and technological developments that made it possible for humans to improve their chances of prolonging life, but concurrently raised the question of whether, in certain circumstances, to end it.

1.2 The contemporary acceptation

Kemp (2002), still an excellent and very specific resource on the history of euthanasia in Britain, begins his account precisely in the 1870s, when the term acquired its contemporary meaning of mercy-(self) killing. After its

[1] The current entry for EUTHANASIA in the *OED* includes three acceptations: 1. "A gentle and easy death", first attested in 1646, with five further illustrative quotations up to 1875, and two figurative uses dated 1813 and 1844; 2. "The means of bringing about a gentle and easy death. Also *transferred* and *figurative*", first attested in 1742, with four further quotations up to 1851; and 3. "In recent use: The action of inducing a gentle and easy death. Used *esp.* with reference to a proposal that the law should sanction the putting painlessly to death of those suffering from incurable and extremely painful diseases", whose first quotation "An euthanasia, an abridgement of the pangs of disease" is from the above mentioned Lecky's book (1869) and is followed by two excerpts from as many newspaper articles by L.A. Tollemache.

Interestingly, the *OED* entry mentions two derivatives, both of them labelled as "*rare* or *nonce-words*" and semantically related to the third acceptation, i.e. EUTHANASIAN "*adj.* of or pertaining to euthanasia)" and EUTHANASIAST "*n.* one who advocates euthanasia", with illustrative quotations dated 1873 and 1884 respectively.

It is to be highlighted that a note in the *OEDOnline* webpage for EUTHANASIA says that "This entry has not yet been fully updated (first published 1891)". It was in 1891 that the fascicle including the entry under scrutiny here was published.

insurgence at the end of the nineteenth century, the public debate on the issue remained in the background until the 1920s. The First World War, with its tragic count of deaths, especially among the younger members of society, was possibly one reason for the discussion of euthanasia having subsided during that period, although for the same reason the notion of mercy-killing might similarly have been very topical. In 1920, Karl Binding and Alfred Hoche's notorious book *Permitting the Destruction of Life not Worthy of Life* was published in Germany, giving voice to the eugenics movement that was also to inform the Third Reich. The decade that it inaugurated was for Germany one of "economic vicissitudes […] [that] had fostered a considerable increase in the asylum population, which in turn placed a heavier burden upon the state" (Kemp 2002: 125). Even in Britain, eugenic claims "were instrumental in providing the basis for the campaign to legalise voluntary sterilisation for mental defectives" (Dowbiggin 2005: 72) and, "while most experts in the field of mental deficiency felt unable to support the mercy-killing of hopeless defectives, there were occasional exceptions" (Dowbiggin 2005: 73). Moreover, "in Europe secularizing trends that predated the outbreak of World War I gathered momentum in the 1920s. In Britain and Germany, secularization helped pave the way for the first signs of an organized euthanasia movement" (Dowbiggin 2005: 76-77). This promptly emerged, in Britain, in 1935, with the foundation of the Voluntary Euthanasia Society (VES). Whereas the VES's motives often flirted dangerously with eugenic ideals during the 1930s (Kemp 2002: 73-79), the uncovering in the following decade of the horrors perpetrated by Nazi racial programmes caused the VES to distance itself expressly from that dubious association, although the toll of the Second World War also made the public consider any notion of killing, even if motivated by mercy, in a much colder way. As a consequence, the debate on voluntary euthanasia in Britain did not begin to gain momentum again until the 1960s. In the period considered here (ca. mid-nineteenth to mid-twentieth century), two attempts were made at legislating on euthanasia in the UK. The first was the 1936 Voluntary Euthanasia (Legalisation) Bill, proposed by Lord Ponsonby and defeated in the House of Lords 35 to 14; the second was a motion to discuss the legalisation of voluntary euthanasia, put forth in 1950 and withdrawn without a division by its proponent, Lord Chorley, due to fierce opposition.

The change in the commonly understood meaning of the term *euthanasia* that occurred starting from the 1870sis clearly evidenced in a number of specialised lexicographic sources published around the mid-nineteenth to mid-twentieth century period. For example, both Douglinson's

Medical Lexicon, from 1842, and Gould's *Illustrated Dictionary of Medicine*, from 1894, still define euthanasia as "An easy death" (Douglinson 1842) and "An easy or calm death" Gould (1894), i.e. in ways consistent with the classical notion thereof. Stedman's very popular *Practical Medical Dictionary*, however, starting from its 1911 first edition, features a much longer and more complex entry, stating it to be, firstly "A quiet, painless death", but then also "A popular term for the alleged practice of putting an end to life by artificial means in cases of incurable and painful disease" (Stedman 1911). This shows how it was not until scientific discoveries and their applications in technology made life supporting systems dramatically more efficient, especially nearing the end of the twentieth century, that euthanasia started to acquire a layered meaning depending on its realisation, becoming a word heavily pre- and post-modified accordingly (cf. Grego – Vicentini 2019). Indeed, contemporary lexicographic resources, such as ten Have's *Encyclopedia of Global Bioethics* (2016), acknowledge the existence of different types of euthanasia, based for instance on the type (inward / outward, voluntary / involuntary / nonvoluntary, direct / indirect, active / passive), or on the procedure (withholding [treatment], withdrawing [treatment], sedating, administering [a lethal drug]). Other sources may employ slightly different definitions, but the multi-layered understanding of the current idea of euthanasia is the same: as the possibilities of prolonging life offered by contemporary medicine develop, so does the notion of how to voluntarily put an end to it.

2. Aims

This is a study within a research project titled "The discourse of medically-assisted death",[2] which looks at contemporary end-of-life issues from a discourse analysis perspective. Previous research within this project (Grego – Vicentini 2019) has found that, when analysing the use of terminology related to an end-of-life issue (such as *advance decision**, *assisted death*, *assisted dying*, *assisted suicide*, *end of life*, *euthan**, *mercy kill**, *resuscitat**, *refus* treatment*, *withdr* life*), the term *euthanasia* clearly stands out for its long history and eclectic usage. It seems only reasonable that even a contemporary review of the discourse of medically-assisted death should start from analysing the historical development of this term. As such, this paper, following the

[2] Funded in 2017 by the Department of Studies in Language Mediation and Intercultural Communication of the University of Milan.

perspective of Western cultures, aims to look at the term *euthanasia* in the British press from the mid-nineteenth century through the first half of the twentieth century (see § 1.2). The exact timeline set for reference follows the four Geneva Conventions of 1864, 1907, 1929 and 1949, a period in which a reflection on death as a mass phenomenon emerged due to unprecedented large-scale wars, and spurred the adoption of humanitarian standards as laid out in the Geneva treaties. Since the Second World War, reflection on the humanitarian aspects of death has continued to the present day, having adapted to a time of relative peace, wherein people enjoy longer life expectancy, yet fall victim to mass conditions such as cancers and neuro-degenerative diseases that often result in prolonged end-of-life spans. Specifically, this paper proposes a terminological review of the term *euthanasia*, to see what changes have occurred in the period considered and what social and historical events prompted them.

3. Corpus

Two quality British newspapers were considered for the study, *The Times* and *The Manchester Guardian*. *The Times*, founded in 1785 and soon turned into Britain's most influential source of information, with an educated, upper class, and tendentially traditional readership (Morison 1935-1952), had a circulation that went from 38,000 in 1850 to 210,000 in 1913 (Chalaby 1998: 38). The *Manchester Guardian*, started in 1821 as a weekly serving the North of England, became a daily in 1855 and opened offices in London in 1868; by the late 1880s, it sold about 40,000 copies a day, mostly to an educated, business readership (Ayerst 1971). A total of 327 articles from the 1 Jan. 1864 – 31 Dec. 1949 period[3] was retrieved from *The Times Digital Archive* (1785-1985) and *The Guardian Digital Archive* (1821-2003), 161 and 166 texts respectively.

4. Methods

The subcorpora were qualitatively analysed to establish (a) when the recent acceptation of the term *euthanasia* was first employed and (b) when the

[3] Although the First Geneva Convention took place in August, the event has been selected rather as a signpost for historical orientation than as a precise chronological indication; therefore, the search was set to calendar standards to include texts from 1 January that year till 31 December of the last year considered.

public debate on the concept began, as reported in the press. As references, the acceptations recorded in the *OED* and in the specialised dictionaries mentioned in § 1.2 were considered, to fill in gaps in the description of the concepts considered and evaluate the interaction between popular and specialised terminology, in the light of the social impact of these issues.

The findings were additionally interpreted from the perspective of Critical Discourse Studies. In particular, to place the diachronic variation in context, Reisgl's Discourse-Historical Approach was followed, in its socio-diagnostic critique form, which is

> both epistemic and deontic […,] aims at exposing manipulation in and by discourse, […] [and] focusses on discrepancies between discursive and other social practices and functions as a form of social control [...] [relying] on social, historical and political background knowledge. (Reisgl 2018: 51)

The notion of class was also analysed, based on Block's (2018) model for determining social stratification, heavily drawing from Bourdieu (1977, 1984), in turn inspired by Marx (1867 [1990]) and Weber (1922 [1968]). Although Bourdieu's work focused on understanding class in the late 20th century, Block's elaboration, which puts together

> a constellation of interrelated dimensions model to capture the long list of dimensions that index class: in different ways in different contexts, cultures and societies […] [and] consists of five general categories […]: Economic resources, Sociocultural resources, Behaviour, Life conditions, Spatial conditions, (Block 2018: 349)

could also well apply to the British society from the late 19th century to the mid-20th century, as considered in this study.

Media, finally, were considered in Phelan's (2018) terms, especially the suggestions he makes about scope and ideology, e.g. that

> critical discourse studies needs to clearly position itself as a field that addresses all four analytical tiers of the media studies totality of production, representation, distribution and reception, and extends its analysis to entertainment media and popular culture. (Phelan 2018: 290)

and that

> media discourse researchers need to reinvigorate our commitment to ideology critique by reengaging with the concept of ideology in media studies (Phelan 2016) and the status of the 'critical' in critical discourse studies (van Dijk 2015). (Phelan 2018: 292)

5. Findings

5.1 *The Times*

The Times returned 161 texts mentioning *euthanasia* that appeared between 1 Jan. 1864 and 31 Dec. 1949. The qualitative analysis revealed that in this subcorpus, between 1864 and 1920, the search term was used almost exclusively in the classical sense featured in the acceptation recorded in the *OED* (s.v. EUTHANASIA, *n.*1), in Douglinson (1842), in Gould (1894) and in Stedman (1911) (s.v. EUTHANASIA, 1), unless when referring to animals, as in veterinary euthanasia. In this field, the idea of mercy-killing a beast when it was deemed necessary clearly did not pose any ethical problems or prove debatable in any respect, as it was described quite neutrally by Stedman (1911). This obviously goes back to the medieval notion that animals, although subject to suffering, do not possess a soul.

For instance, the very first mention of the word in the subcorpus is found in a report of parliamentary notices, used by a Mr White to talk about discontented government officials, in a metaphorical way:

(T1) Make a man a Government servant and you made him a discontented man for the rest of his life; and yet these places were such objects of ambition that people were always to be found struggling for what they thought the euthanasia of a Government employment. ("House of Commons, Friday, July, 22", 23 Jul. 1864, p. 9)

On the occasion of the assassination of US President Abraham Lincoln, *The Times* reports on a meeting of Americans to commemorate him. Here the word is used in the same classical acceptation, but figuratively and, for obvious reasons, not literally:

(T2) […] Abraham Lincoln fell. His euthanasia is complete. For him we ought not to mourn. His work was done; he had fought the good fight; he had finished his course. ("The assassination of President Lincoln", 2 May 1865, p. 7)

An interesting case is from 1874. In a letter-to-the-editor by a "medical man", the writer comments on the tragic death of people in a fire, providing his opinion that at least the victims had probably not suffered, unconscious as they ought to have been when their end arrived:

(T3) […] in all probability, those deaths were really painless, and that a merciful unconsciousness to suffering attended the explosion of those casks of petroleum – an euthanasia even in the midst of that burning fiery furnace. ("Anaesthesia By Petroleum", 16 Apr. 1874, p. 12)

Here, the usage is between the specialised and the figurative, since it is made in medical terms, although it by no means discusses a voluntary or even involuntary termination of a suffering person's life. Also interesting is the use of the "an" allomorph of the indefinite article, as opposed to its alternative, which is the one currently employed.

A curiosity that emerged from the search was the frequent appearance (4 times) of the key term in 1884. A manual examination revealed that Euthanasia was the name of a female racing horse of the time.

The fifth mention of the term from 1884 was still to do with animals, though not with Mr Beaumont's champion horse. It was also its first appearance in a headline, in1884; in fact, it just features in the title, a single-word one, which was seemingly enough to explain all there was to it, at least as far as veterinary matters were concerned:

(T4) Euthanasia – The Royal Society for the Prevention of Cruelty to Animals may, in common with all humane persons, feel gratification that the long-continued experiments by Dr. Richardson for the painless extinction of animal life, have been brought to a successful termination. ("Euthanasia", 20 Sept. 1884, p. 11)

The first occurrence of the term in the *OED*'sthird and contemporary acceptation (the second one in Stedman's 1911 dictionary) seems to be from 1889, and it is actually both a surprising and an interesting datum, worth discussing. On 14 January 1889, in the classified advertisements' miscellaneous section, there appeared a notice of quite an enigmatic nature, which read:

(T5) ROSE MARY CRAWSHAY, Bwlch, Breconshire, can still SUPPLY PRIZE ESSAYS (Byron, Shelley, Keats) with conditions of current

> competition, 1 s.; On Lady-helps, 1 s.; Euthanasia, by S.D. Williams, with preface and thesis by R.M.C., 1 s. ("Miscellaneous", 14 Jan. 1889, p. 1)

The information condensed in these few lines is, however, vast and valuable for the subject at stake, for a variety of reasons. Firstly, this is because the Rose Mary Crawshay from Bwlch, Breconshire (Southern Wales), advertising in *The Times*, was the Rose Mary Yeates born in 1828, who married Robert T. Crawshay, the wealthy owner of a Welsh ironworks company, and who became a well-known educationist, supporter of the feminist cause and a philanthropist, who established her own literary prize fund.[4] Secondly, the essay for sale for 1 shilling mentioned after the Byron, Shelley and Keats ones, *On Lady-helps*, is in all probability (*Portland Guardian* 1877) the abbreviated title of Mrs Crawshay's own pamphlet *Domestic Service for Gentlewomen* (1874), on the benefits of this type of female employment, which she supported personally by hiring such domestic helps at her own Welsh mansion, in a sort of social labour experiment. This adds to the understanding of the socio-political stance of the advertiser, and of the cultural and ideological circles in which she moved. The third and most intriguing aspect of the classified ad (T5) is, of course, the presence of the search term *euthanasia* itself. Here it appears as the title of the last essay for sale, authored by an S.D. Williams and prefaced, with a thesis, by an "R.M.C.". This happened to be not just one essay but the essay that

> effectively introduced this ethical conundrum into popular discourse [in Britain], and was responsible for defining many of the parameters of the ensuing debate. Its significance is such that it deserves to be rehearsed in some detail. (Kemp 2002: 12)

It was the work of a middle class educator, Samuel D. Williams, belonging to the progressist Birmingham Speculative Club, "a small society of professionals and businessmen who met periodically in the British midland city to discuss the problems of the day"(Lavy 2005: 41); the reported author of its preface with a thesis, "R.M.C.", was none other than Rose Mary Crawshay herself (Williams 1870 [1873]). This 1870 document indeed inspired the creation of a pro-euthanasia movement and sparked the first public debate on the issuein Britain, perhaps precisely because the call came from representatives

[4] "The Byron, Shelley, Keats In Memoriam Yearly Prize Fund", now the "Rose Mary Crawshay Prize", https://www.thebritishacademy.ac.uk/rose-mary-crawshay-prize.

of a social class that was significantly developing not only in size but also in its wealth, education and new social awareness. This, combined with the emerging power of the press as the first mass medium of contemporary times, made the influence of Williams's *Euthanasia* so immensely relevant for the issue that even historians leaning toward a more pro-life position – like Dowbiggin, in spite of calling him an "obscure schoolteacher" (2005: 49) and the society he belonged to "equally obscure" (2005: 50) – admit that "Williams' article quickly became the most influential defense of active euthanasia or mercy killing since classical antiquity" (2005: 50). It seems relevant to underline that (a) news of the article, although "quoted at length and favorably reviewed in a variety of journals" (Dowbiggin 2005: 50) locally between 1870 and 1873, only reached a main national conservative newspaper almost twenty years after its publication; and that (b) when that happened it did so in anindirect, almost incidental way, hidden away in a miscellaneous section classified ad advertising the sale of "prize essays".

After a hiatus due to the First World War and its aftermath, in 1921 the term *euthanasia* was eventually first used to mean "mercy killing", in a non-metaphorical, non-veterinary sense, and intended as performed on a human being:

(T6) The Coroner read a letter from the husband […]. "I want you to know that although my dear wife had desired death above all things, yet she dies unwillingly. The doctor gives euthanasia to hopeless agony. The soldier spares a thrust or shot to a writhing comrade. Any decent man shoots his womenfolk to save them from dishonour. For two years now my wife has lived in hourly torment. Her condition grows daily worse. I am at the end of my resources. I can do nothing more for her. My will to live and win is broken. […] However human law may regard the matter, my conscience justifies me". ("Husband's pity for mad wife", 19 May 1921, p. 7)

Incidentally, the homicidal husband, who also took his own life afterwards, was, similarly to Samuel D. Williams, "a retired schoolmaster, aged 55".

The first occurrence in a *Times* headline of the *OED's* third and Stedman's second acceptation of *euthanasia* had to wait for ten more years, when it appeared in the phrase "voluntary euthanasia", as used by Dr C. Killick Millard, Medical Officer of Health for Leicester, in his presidential address to the Society of Medical Officers of Health ("Legal voluntary euthanasia", 17 Oct. 1931, p. 9). Millard, who was the first medical professional to air his

pro-euthanasia opinion from the pages of *The Times*, was also to become the founder and secretary of the newly established Voluntary Euthanasia Legislation Society (VLES) in 1935. The event was duly reported on 11 Dec. 1935 ("The right to die. Aims of euthanasia society", p. 18), and the account specified that a variety of figures, such as "clergymen, doctors, and social workers" spoke in favour of "easy death".

Almost two years into the Second World War, after two decades of talks about eugenics, yet long before its horrific Nazi applications were to become publicly known, another curious if instructive use of the word was made in 1941, when *The Times*'s crossword puzzle featured, as clue number 29 down, the statement:

(T7) It finishes in euthanasia (4). ("Crossword puzzle", 27 Aug. 1941, p. 6)

This proves that in 1941 the popularisation of the term – in either its classical or (more likely) its contemporary sense – was complete, at least for the educated middle-of-the-range readership that the newspaper had at the time.

The final mention of the term worth reporting, if only for the notoriety of the author, is from March 1945. On that day, *The Times* published George Bernard Shaw's famous letter-to-the-editor, in which he advocated an unspecified form of euthanasia as a humane version of capital punishment for those sentenced to death:

(T8) Surely it is possible nowadays to derive some form of euthanasia more civilised than the rope, the drop, and the prison chaplain assuring the condemned that she has only to believe something she obviously does not believe, and she will go straight to eternal bliss in heaven. ("Sentence of death. The State and the murderer", 5 Mar. 1945, p. 5)

At the same time, echoes of eugenics-supported views are quite evident in his words:

(T9) […] as the necessary work of "weeding the garden" becomes better understood, the present restriction of liquidation to murder cases, and the exemption of dangerous lunatics (who should be liquidated as such, crime or no crime), will cease, and must be replaced by State-contrived euthanasia for all idiots and intolerable nuisances, not punitively, but as a necessary stroke of social economy. ("Sentence of death. The State and the murderer", 5 Mar. 1945, p. 5)

As hinted in § 1.2, news of the Nazi eugenic programmes that were implemented during the Second World War would eventually dispel references to non-voluntary euthanasia from all moderate movements supporting end-of-life laws in Britain in future decades.

5.2 *The Manchester Guardian*

As regards *The Manchester Guardian*, 166 texts were retrieved and analysed. Again, some occurrences are definitely worth commenting upon, in chronological order.

Between 1864 and 1911, *euthanasia* was used almost exclusively as in the *OED's* and Stedman's (1911) first acceptations, and as in Douglinson (1842) and Gould (1894), unless when referring to eugenics. The very first occurrence of the term, dated as early as 1873, well before the Nazi deeds, is indeed one such mention of eugenics:

(G1) The *Fortnightly Review* maintains its reputation for audacity by an article entitled "The New Cure for Incurables", which advocates euthanasia, or in other words, the quiet extinction of incurable invalids whose continuance in life can only be burdensome to themselves and devoid of profit to others. Euthanasia, it is argued, is no more an interference with the natural course of events than are thousands of other contrivances for the alleviation of human misery. Life is indeed sacred, but only for the uses to which it may be put; and when those uses are over the life may be lawfully extinguished. […] Again, physicians in cases where hope is abandoned often administer narcotics, which deafen the suffering of the patient, but at the same time make him succumb to his disease a little sooner than he otherwise would have done. What is this but a modified form of euthanasia? ("Literature. Principal articles in the magazine", 5 Feb. 1873, p. 7)

This is a report of another publication's article, and not the *Manchester Guardian*'s own view. In fact, the magazine in which this article was published is said to have a "reputation for audacity", and the doctrine of double effect – according to which, trying to alleviate a patient's pain may paradoxically shorten his or her life – is simply but effectively put forward as to be considered among the arguments for and against euthanasia. Interestingly, yet perhaps not too surprisingly, the author of the incriminated *Fortnightly Review* article was the rationalist philosopher Lionel Tollemache, who quoted Samuel D. Williams's essay in it and whose article "New Cure for

Incurables", together with Williams's *Euthanasia*, is acknowledged as having laid the foundations for the initial debate on the issue in the 1870s.

In May 1905, in a miscellaneous section, an anecdote was reported, one which described a terminological formation that history nonetheless did not prove viable, when an eminent Professor of Medicine from the US took up a position at Oxford and, during a public address, jokingly proposed that at sixty a man's work is done and as such

(G2) he should be granted euthanasia by chloroform. This "proposal" was reported under scare heads and earnestly discussed by press and public. A new verb, "to oslerise,", nearly gained currency. At the farewell banquet this week Dr. Osler was very appropriately presented by his fellow-physicians with a copy of Cicero's "De Senectute". ("Miscellany", 6 May 1905, p. 7)

The verb "to oslerise" may have suffered an early gentle death, but example (G2) provides a vibrant picture of the growing power and effect that the printed matter had on the public at the turn of the century, even in the United States and, especially, of the self-awareness that newspapers had of their own influence.

As stated, the first mention of the public debate over euthanasia in the *Manchester Guardian* is from a 1911 editorial by the Liberal politician and intellectual George W.E. Russell:

(G3) When the advocates of Euthanasia seek a justification for their doctrine, they generally look for it in the unbearableness of the pain. […] Moral pain, such as the pain of despair or the pain of remorse – even perhaps the pain of shame, – is to a finely-touched nature far more terrible than anything which can befall the body; and yet the advocates of Euthanasia seem to hold that this kind of pain must be endured. ("Pain", 19 Aug. 1911, p. 5)

The not-exactly-positive stance of the author about voluntarily ending a patient's life may, however, be explained by the fact that this editorial was less concerned with the euthanasia debate than with the notion of pain in general, of which Russell apparently had good knowledge, suffering as he did from a debilitating disease such as myelitis (Russell 2018: 55). In any event, by mentioning the "advocates of Euthanasia", Russell first reported in this newspaper on the existence of a movement in favour of the practice.

Like *TheTimes*, *The Manchester Guardian* ("Happy extinction", 19 May 1921, p. 6) also first used the term *euthanasia* to mean "mercy killing", as applied to humans and not animals, when referring to the same episode reported in *The Times* in 1921 (cf. T6 above), on the retired schoolmaster mercy-killing his sick wife. It nonetheless employed the word *euthanasia* in a headline two years before *The Times* did, i.e. on 14 Mar. 1929. Surprisingly, though, it is one of the few texts in both subcorpora openly arguing against the practice, one text having been penned by a doctor, i.e. an authoritative professional:

(G4) Finally, there is the very curious class who believe in what one might term vicarious euthanasia: they cannot understand why we try to prolong the patient's life. ("Patients never wish to die", 14 Mar. 1929, p. 12)

Some significant space was, on the contrary, allowed to Dr Millard to plead in favour of euthanasia, although only ten years afterwards:

(G5) "The very serious increase during recent years in the mortality from cancer has definitely increased the proportion of painful deaths." he said. […] I refer to voluntary euthanasia (easy death) […] "This, we submit, should be regarded not merely as an act of mercy but as a matter of elementary human right. […]." The procedure for administering euthanasia would be governed by regulations […]. ("Incurables' right to die", 17 Oct. 1931, p. 14)

This occurrence is important not only in itself, but also for its mentioning the terms "human right" (previously reserved, until that moment, for the plights of people such as slaves) and "cancer"[5] in connection to voluntary euthanasia, i.e. in terms that are still topical to this day.

The first mention of the Voluntary Euthanasia Legislation Society (VLES) in *The Manchester Guardian* is, like in *TheTimes*, from the year of its creation, 1935:

(G6) The society for legalising euthanasia, which has already found distinguished support, should bring the question into the field of

[5] "As the cause of death due to infectious diseases fell, the rate of mortality due to chronic diseases such as cancer rose sharply. In England and Wales, the incidence of deaths per millions [sic] from cancer went from 800 in 1900 to 1,376 in 1927" (Dowbiggin 2005: 66).

> public discussion. The aims are simple: to make it lawful for an adult sufferer from an incurable and painful disease, after consultation with near relatives, to apply, under proper safeguards – chiefly the production of certificates from two medical men, one a Government referee, – for the administration of a swift and painless death. To give a chance for second thoughts a statutory period of delay between the receipt of permission and the carrying out of the euthanasia would be enforced. ("Merciful Death", 26 Oct. 1935, p. 12)

A review of Dr Harry Roberts's book *Euthanasia and Other Aspects of Life and Death* shows that the issue was dealt with in various genres, and that essays on euthanasia could become popular readings to be advertised and reviewed, if only for an educated audience:

(G7) A Doctor's Essays. *Euthanasia and Other Aspects of Life and Death*. By Harry Roberts. Constable. Pp. vii 278 7s. Gd. Dr. Harry Roberts is, it seems, a medical man and, like all good medical men, a pertinacious student of human nature. […] The ethics of suicide, sex and population, crime and punishment, the education of children, eugenics and sterilisation, self-expression and self-control – these titles between them cover most of the substance of this book, which consists of over thirty short papers, reprinted mostly in substance from various periodicals. ("A doctor's essays", 6 Oct. 1936, p. 6)

In the same year, *The Manchester Guardian* granted emphasis to the rejection of the bill on the legalisation of voluntary euthanasia supported by the VLES:

(G8) Lord Ponsonby moved the second reading of the Voluntary Euthanasia (Legalisation) Bill, which legalises, under certain conditions, the administration of euthanasia to persons desiring it and who are suffering from illness of a fatal and incurable character involving pain. ("Euthanasia bill rejected", 2 Dec. 1936, p. 7)

It should be highlighted that the formulation of the bill provided only for voluntary requests of persons with fatal conditions and severe pain, i.e. in terms already very close to how similar bills are worded in the present day.[6]

[6] The latest Assisted Dying Bill introduced by Robert Marris and defeated in the House of Lords in 2015 so defined the main actor of the proposed law: "a person

A short note of 1939, only a few months before Britain went to war against Germany, reports George Bernard Shaw as having been made one of the vice presidents of the VLES:

(G9) Mr. George Bernard Shaw is among the new made vice-presidents of the Voluntary Euthanasia Legalisation Society. ("Court and personal", 21 Apr. 1939, p. 10)

A reference to Nazi eugenics eventually appeared in 1946, in a report straight from Nuremberg:

(G10) Who could doubt that the Reich Cabinet knew of the euthanasia used to conserve the physical resources of Germany for war? It was beyond question that the High Command and General Staff passed on those orders which were all reduced in the end to plain murder. ("Trade in murder", 30 Aug. 1946, p. 8)

The words are a direct quote from a peroration by Sir David Maxwell Fyfe, British chief prosecutor. The shock at the discoveries made after the war must have still been great; the tone is stern and not in any way condoning of the killings carried out – in this case on the very German population, "to conserve the physical resources of Germany for war" – or their brutality.

On the other hand, several years after the end of the Second World War, not strictly related to euthanasia, but nonetheless coming up as a result when searching for *euthanasia* as a key term, an article on the bill proposing the suspension of the death penalty, rejected in 1948, mentioned the debate on mercy killing in relation to capital punishment (which was abolished only in 1965 and completely as late as 1998):

(G11) The Lord Ch ancellor (Lord Jowitt) moving that the House should agree with the Commons "compromise" amendment to clause one – on the death penalty – said that everybody in the House no doubt would adhere to the doctrine of the sanctity of human life. That was why suicide was regarded as wrong and why we were opposed to what were called mercy killings or euthanasia or the killing of idiots. ("Peers reject death penalty clause by 99-19", 21 Jul. 1949)

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who is terminally ill may request and lawfully be provided with assistance to end his or her own life.", https://publications.parliament.uk/pa/bills/cbill/2015-2016/0007/cbill_2015-20160007_en_2.htm.

The final example worth mentioning is possibly one from 1949. Although, as specified above, hanging for murder was eliminated only in 1965, a debate about more humane conditions for executions had been ongoing, possibly also as the result of the huge death toll of the early 1940s and Europe's renewed view on matters of life and death. The Royal Commission's discussion of the issue was reported in *The Guardian*:

(G12) Sir Ernest: There is, I believe, in this country, a society called the Euthanasia Society, whose aim is to promote legislation so that people suffering from incurable disease who want to be lethally put away can be. If that came about, you not expect hanging to be the method adopted? – No.
In that case you would find some different and more appropriate method? – In that case the patient may wish for death.
Do you think that that makes all the difference? – Yes.
You attach value to the deterrent effect of the death penalty? – Yes.
("Prison doctors would raise age for execution", p. 4, 5 Nov. 1949)

Again, the topic of the article – raising the age for execution from 18 to 21 – was not related to mercy killing, but the word (and the concept) nonetheless came up while discussing the various methods of execution, as if voluntary euthanasia could hardly be totally separated from its involuntary counterpart – hence the connection that Sir Ernest, the Commission's chairman, made with capital punishment and that he put to the doctors in the commission.

6. Critical concluding remarks

6.1 Lexicographic development

This investigation proposed a terminological study of the term *euthanasia*, to observe the changes in acceptation it underwent between the mid-nineteenth century and the mid-twentieth century, what historical and social events drove them and what social actors were involved. As regards the three acceptations of the term *euthanasia* recorded in the *OED*, the two listed in Stedman (1911) and those in Douglinson (1842) and Gould (1894), the selection of texts studied for this purpose confirms the shift in the word's meaning from the phenomenon (that of dying a natural "gentle and easy death") to the practice (of "inducing a gentle and easy death"), thus from (medical) science to technology and the means to ease the passage from life

to death. It also shows how lexicographic resources might certainly have taken longer, at that time, than the media in picking up new connotations but, when these became stable enough, they were eventually willing to record them – although applying some cautious hedging, cf. Stedman using evaluative adjectives: "A *popular* term for the *alleged* practice […]" Stedman (1911, emphasis added).

6.2 Discourse-historical and class considerations

Historically, the pro-euthanasia debate may be divided, from the mid-nineteenth century to the mid-twentieth century, into three waves: the 1870s, the 1920s and the 1930s.

From the texts collected and considered for this study, the 1870s debate emerges as a bottom-up initiative, promoted by non-medical yet often professional proponents from the middle class, educated and frequently involved in other progressive causes such as female suffrage. These labels, however, should not be taken to be universally clear-cut. Block (2018: 346), according to whom "where CDA can help in class analysis is in the analyses of class as culture, as meaning-making, as (re)presented reality and so on", suggests looking at descriptors like economic and sociocultural resources, behaviour, life and spatial conditions in order to determine "social class"; this refers to the present day, but can easily be applied to the British society of the period considered here. Using these descriptors, "class" would cease to appear such a monolithic concept, and a euthanasia supporter like Rose Mary Crawshay – rich but from entrepreneurial money, elite but from marriage, an upper middle class spokesperson but a woman, a feminist but a landowner and an employer, a national figure but acting from a peripheral country manor – could equally fit and not fit the label of "nationally-known middle-class feminist suffragette". The 1870s debate also appears as overlooked by the press, or at least as if it did not reach the two publications considered, although it did reach others, cf. Tollemache (1873) in the *Fortnightly Review*, see (G1). It did filter through in *The Times*, however, in the 1889 classified ad by Rose Mary Crawshay (T5) discussed above.

After the WW1 hiatus, the 1920s debate was also bottom-up, but it had expanded to become a larger movement, which this time received the support of a number of medical professionals, e.g. as evidenced in (G4), and also did start to be backed at the political level, in a sort of beginning of the negotiations on the issue between various social groups.

The 1930s debate can be seen, from the perspective of Critical Discourse Studies, in the light of socio-diagnostic critique, which "aims at […] revealing ethically problematic aspects of discursive practices […] [and] includes the critique of […] the ethos of social actors" (Reisgl 2018: 51). Indeed, by the 1930s, the debate had become political and academic, the initial bottom-up requests by mere citizens and later by professionals had been shaped into a bill, giving rise to a hybridised type of language containing elements typical of the medical, legal, political, philosophical, religious discourses – already impressively close, in many respects, to the contemporary debate on end-of-life issues, cf. (G8) and (G11).

6.3 Social actors in the media

Speaking of social aspects, the corpus of articles analysed here chronicles the process of popularisation and democratisation undergone by Britain and Western countries in general in the period considered. An example is the co-occurrence of the terms *euthanasia* and *human rights* (G5): the latter collocation initially used to refer to "others" from a Eurocentric, male and upper class viewpoint (i.e. slaves, "the cruel treatment of slaves in the south", cf. (T2)); then, it began to indicate "closer" groups of others (e.g. women and children, with reference to the death penalty, as in (G12)); finally, it came to mean a generalised, all-inclusive "us", e.g. when the focus turned to voluntary euthanasia for the suffering, and this was understood as a universal condition (G8).

The changing role of the media into a key social actor is also clearly evidenced in the articles from the corpus. In the period considered, not only scientific knowledge but even the debates surrounding it did start being spread among the masses by and through newspapers, which proved a very democratic and even economically accessible information tool: examples are the 1849 classified ad (T5), or the review of a book on what contemporaries would call "bioethical" issues (G7). The democratising function that newspapers enjoyed at the time did not have to be openly visible, as in propaganda press (cf. *The Fortnightly Review*, (G1)); in fact, a newspaper like *The Times* was and is to this day quite conservative and pro-establishment. However, the mere fact of chronicling a public debate on socially-relevant issues, even if with a negative or cautious approach, means to contribute to its popularisation, somehow confirming that, back in the late nineteenth century as in today's world, the analysis of media discourse should be viewed as "a discursive category of political life – one equally

pertinent to the media politics of bringing a new social order into being as it is to critiquing the existing order" (Phelan 2018: 295).

Literacy, therefore, emerged as a medium for personal and social advancement and a privileged way to access knowledge and the freedom of decision – for example on one's life and death options – that comes with it. Among the literate middle-class, women, in particular, and the suffrage movement that dominated the decades between the 19th and 20th centuries, stand out as especially active in spreading knowledge, and as powerful social actors in popularising, stirring and conducting a public debate – that on euthanasia in its contemporary declinations – which continues to arouse passionate views well into the present day.

REFERENCES

Sources

The Manchester Guardian. Articles (166) retrieved from *The Guardian Digital Archive* (1821-2003), https://theguardian.newspapers.com, using *EUTHANASIA* as a search term, 1 Jan. 1864 – 31 Dec. 1949. Accessed March 2019.

The Times. Articles (161) retrieved from *TheTimes Digital Archive* (1785-1985), https://www.thetimes.co.uk/archive/, using *EUTHANASIA* as a search term, 1 Jan. 1864 – 31 Dec. 1949. Accessed March 2019.

Special studies

Ayerst, D.
1971 *Guardian; Biography of a Newspaper*. London: Collins.

Bacon, F.
1623 [1624] *Opera Francisci Baronis de Verulamio, Vice-comitis Sancti Albani, Tomus primus: Qui Continet De Dignitate & Augmentis Scientiarum, Libros IX*. London: Haviland.

Binding, K.L.L. – A. Hoche
1920 *Die Freigabe der Vernichtunglebensunwerten Lebens*. Leipzig: Meiner.

Block, D.
2018 "Class and class warfare". In: J. Flowerdew – J. Richardson (eds.) *The Routledge Handbook of Critical Discourse Studies.* Abingdon and New York: Routledge, 345-358.

Bourdieu, P.
1977 *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
1984 *Distinction*. London: Routledge.

Chalaby, J.K.
1998 *The Invention of Journalism*. New York: St. Martin's Press.
Crawshay, R.M.
1874 *Domestic Service for Gentlewomen*. Self-published pamphlet.
Dowbiggin, I.
2005 *A Concise History of Euthanasia*. Plymouth: Rowman & Littlefield.
Dunglison, R.
1842 *Medical Lexicon: A New Dictionary of Medical Science, Containing a Concise Account of the Various Subjects and Terms; with the French and Other Synonymes, and Formulae for Various Officinal and Empirical Preparations*, &c. Philadelphia: Lea and Blanchard.
Grego, K. – A. Vicentini
2019. "Terminal terminology. ESP in the discourse of assisted dying in British newspapers". In: I. Simonnæs – Ø. Andersen – K. Schubert (eds.) *New Challenges for Research on Language for Special Purposes*. Berlin: Frank &Timme.
Gould, G.M.
1894 *An Illustrated Dictionary of Medicine, Biology...* Vol. 1, A-L. Philadelphia: P. Blakiston, Son & Co.
Hume, D.
1779 "Of Suicide". In: D. Hume *Dialogues Concerning Natural Religion*. London: n.p.
Kemp, N.D.A.
2002 *Merciful Release: The History of the British Euthanasia Movement*. Manchester: Manchester University Press.
Lavy, S.J.
2005 *The Modern Art of Dying: A History of Euthanasia in the United States*. Princeton: Princeton University Press.
Marx, K.
1867 [1990] *Capital: A Critique of Political Economy*. Vol. 1. Harmondsworth: Penguin.
Morison, S.
1935-1952 *The History of* The Times. London: Harper Collins.
Nicolai, J. – F. Sylvius – C.R. Billurat – C-J Drioux (eds. andtrans.)
1880 *S. Thomae Aquinatis Summa Theologica* (12th edn.). Vol. 4. Paris: Bloud.
Oxford English Dictionary Online (*OEDOnline*), http://www.oed.com/, accessed March 2019.
Phelan, S.
2016 "Reinvigorating ideology critique", *Media, Culture & Society* 38 (2), 274-283.
2018 "Critical discourse analysis and media studies". In: J. Flowerdew – J. Richardson (eds.) *The Routledge Handbook of Critical Discourse Studies*. Abingdon and New York: Routledge, 285-297.

Portland Guardian
1877 "Domestic service for gentlewomen", *Portland Guardian* Tuesday 24 April, 4.
Reisgl, M.
2018 "The Discourse-Historical Approach". In: J. Flowerdew – J. Richardson (eds.) *The Routledge Handbook of Critical Discourse Studies*. Abingdon and New York: Routledge, 44-59.
Russell, G.W.E.
2018 *Fifteen Chapters of Autobiography*. Frankfurt: Outlook Verlag.
Schuckburg, E.S.
1896. *C. Suetoni Tranquilli Divus Augustus*. Cambridge: Cambridge University Press.
Stedman, T.L.
1911 *A Practical Medical Dictionary*. Baltimore, MD: W. Wood and Company. (further edns. 1930, 1936, etc.).
ten Have, H.
2016 *Encyclopedia of Global Bioethics*. Cham: Springer International Publishing.
Tollemache, L.
1873 "The cure for incurables", *Fortnightly Review* 19 (February), 218-230.
van Dijk, T.A.
2015 "Critical discourse studies". In: D. Tannen et al. (eds.) *The Handbook of Discourse Analysis*. Oxford: Wiley Blackwell.
Weber, M.
1922 [1968] *Economy and Society*. Vols. 1 and 2. Berkeley, CA: University of California Press.
Williams, S.D., jun.
1870 [1873] *Euthanasia. Reprinted from Essays by the Members of the Birmingham Speculative Club. Fourth Edition, with Preface and Thesis by Rose Mary Crawshay*. London and Edinburgh: Williams and Norgate.

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ORCID code: http://orcid.org/0000-0002-8980-3656.

K. Aaron Smith and Susan M. Kim, *This Language, A River: A History of English*, Peterborough, Ontario: Broadview, 2018, 360 pp.
(Reviewed by Felicia Jean Steele, The College of New Jersey, USA)

K. Aaron Smith and Susan M. Kim of Illinois State University have made a significant contribution to the inventory of the History of English Language (HEL) textbooks, especially for institutions where HEL is the only linguistics course taken by future teachers of English or "Language Arts" in K-12 schools. Smith and Kim have composed one of the best accounts of diachronic morphosyntax accessible to undergraduate students. The treatment of phonology and the lexicon, though, may impede instructors more accustomed to more traditional HEL textbooks, particularly Baugh and Cable or Brinton and Arnovick. Additionally, the organization of the first five chapters also complicates the teaching of foundational concepts and terms. Despite these two issues, the book's clarity of prose, affordability, and clear articulation of its audience recommend it for use in HEL courses.

Smith and Kim clearly identify the audience for their textbook, presenting it as "a history of the English language that will provide students with fundamentals both for future study and for the teaching of English in secondary schools" (2018: 11). With that audience in mind, Smith and Kim preface their narrative of the history of the English language with a forty-page chapter on "Grammar Fundamentals" (2018: 21-62). The authors acknowledge that "this chapter will be a review of material" for some students while "for others this chapter will be a first introduction to terms and concepts like 'subject' and 'relative clause'" (2018: 21). This chapter presents a comprehensive review of terms used in traditional grammar and necessary for the discussion of changes to the syntactic and morphological systems of English across historical periods. In future editions, the authors would be well-served to ensure that more grammatical and linguistic terms, particularly those more abstract in nature, such as *deictic*, also appear in the glossary.

Although Chapter Two discusses and reviews terms related to traditional grammatical terminology, other descriptive linguistic terminology, particularly that related to phonology, morphosyntax, and the lexicon appear after Chapter 3, "Before English." Smith and Kim separate their treat-

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ment of Proto-Indo-European, the comparative method, and the reconstruction of Proto-Indo-European grammar from their discussion of the First Consonant Shift. The intervening chapter, "An Introduction to Phonetics," provides a clear account of articulatory phonetics for the beginning student, but includes a number of idiosyncracies that make the use of publicly available resources, particularly those developed to conform to International Phonetic Association standards, more challenging. Smith and Kim appear to be following Daniel Jones's conventions for representing the diphthongs of American English rather than those of A.C. Gimson more typically used in most HEL textbooks (Crystal 1996: 237). For example, Smith and Kim represent the primary PDE diphthongs as [oi], [ɑi], and [ɑu] rather than as [ɔɪ], [ɑɪ], and [ɑʊ] (2018: 90). In addition, they invert the voiceless/voiced order found in typical IPA charts so that voiced sounds always appear at left. As a result, students may have difficulty using resources available from the IPA, the University of Victoria, and the University of Iowa as they learn these sound/symbol relationships.

The authors' practices for the representation of the Great Vowel Shift (GVS) also may cause difficulties. The vowel quantities for the GVS are represented just as they are in typical descriptions, but the spatial metaphors for the breaking of high vowels are radically different. Most accounts of the GVS follow the characterization that Minkova and Stockwell describe as "center drift" or the "diphthongization, centralizing, and lowering of [i:] and [u:] to some variant of [ay] and [aw]" (Minkova and Stockwell 2008: 34). Smith and Kim represent the breaking of the high vowels into positions outside the typical formulation of the vowel space.

The authors' treatment of the English lexicon is not as robust as that found in other textbooks, but the absence of protracted discussions of borrowing in each period of the language may be one factor that allows the authors to keep the text relatively concise and affordable. If future editions were to add exercises that led students through use of the *Oxford English Dictionary*, the *Middle English Dictionary*, or the Lexicons of Modern English Project, the book would be enriched.

Nevertheless, Smith and Kim provide a substantially more theorized discussion of morphosyntax than most other HEL textbooks. Their sustained attention to periphrastic constructions throughout the history of English provides a significant corrective to treatments of syntax that neglect the topic until Early Modern English. Smith and Kim also introduce interesting material that allows for instructors to model the development of research projects for undergraduate students. For example, their description of the loss of the 2nd person singular verbal inflection *-st* in EME would provide

just such an opportunity for instructors and their students: "The loss of the inflection *-st* is an especially interesting problem in the history of English because the sounds that make up that inflection were not vulnerable to loss" (2018: 240). Smith and Kim encourage instructors and students to consider the complex interplay of phonotactics and morphosyntactic change in introductory courses.

This Language, A River provides brief samples of literature written in each historical period of English, including samples from Bede, *Beowulf*, *The Canterbury Tales*, and Samuel Johnson's *Dictionary.* It is an affordable and highly usable contribution to the inventory of HEL textbooks available to instructors, although it might be most useful for instructors who already use a variety of online resources or who pair the book with a reader, such as Burnley's *History of the English Language: A Sourcebook.*

REFERENCES

Baugh, A.C. – T. Cable
2012 *A History of the English Language* (6th ed). London: Routledge.
Brinton, L.J. – L.K. Arnovick
2017 *The English Language: A Linguistic History* (3rd ed). Oxford: Oxford University Press.
Burnley, D.
2014 *The History of the English Language: A Sourcebook* (2nd ed). New York: Routledge.
Crystal, D.
1996 *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press.
Minkova, D. – R. Stockwell
2008 "Phonology: Segmental Histories". In: H. Momma – M. Matto (eds.) *A Companion to the History of the English Language*. Oxford: Blackwell, 29-56.
International Phonetic Association
1999 *Handbook of the International Phonetic Association.* Cambridge: Cambridge University Press.
University of Iowa, "Sounds of Speech", http://soundsofspeech.uiowa.edu/index.html#english, accessed November 2018.
University of Victoria, Linguistics, "Multimedia IPA Chart", https://www.uvic.ca/humanities/linguistics/resources/ipa/chart/index.php, accessed November 2018.

Julia Schultz, *The Influence of Spanish on the English Language since 1801: A Lexical Investigation*, Newcastle upon Tyne: Cambridge Scholars Publishing, 2018, xi + 314 pp.
(Reviewed by José A. Sánchez Fajardo, University of Alicante, Spain)

The complexity of language contact is linked to the interconnection of at least two different linguistic codes, in which the investigation of loanwords represents the innermost notion. When English is one of these languages in contact, the influence that it exerts on the other is much higher due to historical and sociopolitical reasons. This explains why a significant amount of present-day research is devoted to the study of anglicisms. Julia Schultz's *The Influence of Spanish on the English Language since 1801*, however, centers on "the opposite direction of lexical borrowing, which has as yet been comparatively neglected in existing analyses of the language contact situation between Spanish and English" (2018: x). Besides, some prior publications in the field seem to agree on the historical influx of words that has gone along with the social and political changes undergone in English-speaking countries, particularly in the US (Rodríguez González 1996; Cannon 1994; Algeo – Algeo 1991). This, together with the need for descriptive and/or lexicographical works of hispanicisms in English, corroborates the book's academic relevance.

The book begins with Part 1 (Schultz 2018: 2-33), devoted to the revision of prior studies (Chapter 1), and to a description of the aims and methodology used in the extraction and analysis of the data (Chapter 2). The former chapter reviews some relevant sources in the study of Spanish loanwords, in which a special emphasis is made on their limitedness. The objective of the latter is twofold: (a) to show readers some detailed information about the data-compilation phase, such as the number of lexical units extracted (1,355) and the usefulness of OED Online in the annotation of these lemmas; and (b) to define some basic terminology that could be of interest to guarantee a conceptual coherence throughout the book, e.g. *lexical item*, *categories of semantic change*, *stylistic function*, *varieties of loan influence*, *grammatical terminology*, to name a few.

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Part II (2018: 34-237) is by far the most valuable section in the book as it contains all the data extracted from the OED Online, neatly arranged by semantic fields, e.g. 'technology', 'leisure and pleasure', 'the fine arts and crafts', 'gastronomy', etc. This part is also divided into two chapters, which are intended to group words in analogous but chronologically dissimilar subsections: 'Subject Fields and Spheres of Life Influenced by Spanish in the Nineteenth Century' (Chapter 1), and 'Subject Fields and Spheres of Life Influenced by Spanish since 1901' (Chapter 2). The presentation of the data is nothing but a clear and user-friendly revision of the Spanish loanwords. Although the author could have presented the list of words in a glossary format, the choice of describing many of the lemmas in a natural and coherent manner allows for a better understanding of the cultural and linguistic impact of Spanish on English. Such description consists of specific stylistic variation, interesting etymological facts, grammatical markers ('noun', 'adjective', etc.), semantic shift, and contextual information. The documentary evidence extracted from the corpora should help readers follow the types of semantic and stylistic changes more easily, and correlate their paradigmatic characteristics with their stylistic functions in authentic, corpus-based texts. For example, the use of *plateresque* (<*plateresco*<*platero* 'silversmith') in a scholarly context on ornate Spanish churches (2018: 62) provides readers with some general insights into language use and register.

The last section of the book, Part III (2018: 238-307), includes a quantitative and qualitative summary of the findings, conveniently presented through graphs, diagrams, and tables. This is intended to show a more comprehensive picture of the influence of Spanish on English through the examination of Spanish loanwords as to "their chronological distribution, sense development, stylistic function, and pragmatic-contextual use in English" (2018: 238). Some conclusive remarks corroborate that EFL dictionaries are not sufficient enough to show some of the aforementioned traits, and further compilation from descriptive dictionaries (e.g. OED) and corpora (NOW, COCA, etc.) was necessary to trace the nature of these variations in contemporary English. The classification of loanwords by semantic fields leads to a more accurate description of the mutable evolution of the words' denotational plane.

My only complaint about the published study is the absence of a brief account on some historical and macro-sociolinguistic features of the Spanish language. As the book also concerns the chronological evolution of the process of borrowing and loanwords since 1801, there should also be some explicit comments or references to the historical singularities of the linguistic inflow

of Spanish and English that has come about in bordering territories such as South America, Cuba, Puerto Rico, Gibraltar, or the Philippines. In addition, readers, especially those unaware of the process of language contact between Spanish and English, would certainly appreciate a few more clarifications on the dialectal differences between the Spanish spoken in the peninsula and in the Americas, and the socio-political role played by the US in the area. In particular, an in-depth review of the phenomenon of *Spanglish* in the US as a source of Spanish loanwords in American English is highly advisable. I would venture to say that some of the words extracted from the corpora are associated with the emergence of dialectal *Spanglishes*, such as Floridan or Californian ones, which have contributed greatly to the importation of lexical units from the foreign system into the native one. Take for example *paladar*, referred to as "an acquisition from Cuban Spanish" (2018: 199), which is in fact used by the English-speaking Cuban community in southern Florida to designate a restaurant in which typical Cuban food is offered. Therefore, Floridan *Spanglish*, or Cuban-American Spanish, has been the immediate source language, which, as seen in the quote provided in the book (2018: 199), has had an impact on the gastronomical jargon in the US.

The foregoing, however, weighs very little when the values and contributions of the book are taken into consideration. Its most exceptional merit, besides bridging the academic gap in this domain, lies in the clarity of the justifications and examples, making it highly accessible to all kinds of readers. Thus, this work should prove to be a fundamental tool not only for empirical researchers in general, but also for any reader who is interested in the phenomena of interculturality and lexical borrowing between Spanish and English.

REFERENCES

Algeo, J.– A. Algeo (eds.)
1991 *Fifty Years Among the New Words. A Dictionary of Neologisms, 1941-1991*. Cambridge: Cambridge University Press.

Cannon, G.
1994 "Modern Spanish-based Lexical Items in English", *Dictionaries: Journal of the Dictionary Society of North America* 15, 117-131.

Rodríguez González, F. (ed.)
1996 *Spanish Loanwords in the English Language. A Tendency towards Hegemony Reversal*. Berlin, New York: De Gruyter.

Token: A Journal of English Linguistics focuses on English linguistics in a broad sense, and accepts both diachronic and synchronic work, grammatical as well as lexical studies. That being said, the journal favors empirical research. Jan Kochanowski University (Kielce, Poland) publishes *Token* once annually, and all submissions are double-blind peer reviewed. The journal's website, where published articles are freely accessible, is at http://www.ujk.edu.pl/token/.