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Arteries and Veins or *Bowels and Vessels* – On Lexical Fixedness in the Eighteenth-Century Medical Texts

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Abstract. The proposed paper aims to conduct a corpus-driven examination of the eighteenth-century English vocabulary used in various types of medical texts such as treatises, recipes, regimens, surgical texts, etc. It is argued that formulaicity in medical jargon depended on the text type. We focus on binomials, defined as "words or phrases belonging to the same grammatical category having some semantic relationship and joined by some syntactic device such as 'and' or 'or'" (Bhatia 1993: 108).

Apart from the investigation into the correspondence between the use of binomials and the text type, the analysis involves exploring their frequency, origin, the type of relationship between their components, and the (ir) reversibility of these elements. The study delves into the purpose of using binomials in the examined texts and addresses such key questions as: to what extent was the medical language of the eighteenth century formulaic, whether lexico-syntactic patterns of binomials were repeated across particular types of texts, and whether there was any stability in the structure of the phrases.

The material used for the analysis is the electronic corpus of *Late Modern English Medical Texts* (LMEMT, Taavitsainen and Hiltunen 2019), containing a representative collection of texts (of over two million words) from a wide range of eighteenth-century medical writings. We adopt the typology and methodology used by Kopaczyk (2013), Mollin (2014), and Kopaczyk and Sauer (2017).

Keywords: binomial, medical jargon, Late Modern English

1. Introduction

Fixedness of word combinations has been the subject of a number of scholarly discussions. Among these, there are studies concentrating on idioms (e.g. Moon 1998, Wray and Perkins 2000, Tabossi et al. 2009), collocations (e.g. Hausmann 2004, Schmitt 2013), phrasal and multi-word verbs (e.g. Claridge 2000, Pamies 2020), lexical bundles (e.g. Arnon and Snider 2010, Kopaczyk 2012), or binomials, which are the focus of the present study. Binomials are commonly defined as "words or phrases belonging to the same grammatical category having some semantic relationship and joined by some syntactic device such as *and* or *or*" (Bhatia 1993: 108). Although in literature one can find alternative labels for these expressions, such as *repetitive word pairs* (Koskenniemi 1968), *tautological pairs* (Leisi 1947), *conjoined phrases* (Tiersma 1999), *word pairs* (Tani 2010), *paired opposites* (Cummings 1980), or *freezes* (Fenk-Oczlon 1989), to name just a few, the term *binomial* will be used in this study. The label was first introduced by Malkiel (1959) and, unlike other terms, is "relatively neutral and leaves the precise formal and semantic relation between the elements of the pair open, thus allowing the inclusion of the maximum number of binomials and drawing attention to peripheral types" (Kopaczyk and Sauer 2017: 7). Earlier terms are less neutral, as they allow for the inclusion of a limited number of possible binomial expressions. For instance, *conjoined phrases* refer to longer lexical units; *repetitive pairs* refer to synonymous pairs only and exclude *paired opposites* that consist of antonyms; moreover, *freezes* and other related terms (*fixed coordinates* or *formulae*) categorize binomials as fixed and formulaic expressions, which can be "good criteria for a binomial" (Kopaczyk and Sauer 2017: 3), but are not the only ones. For instance, Malkiel (1959) and Mollin (2014) point out that although some binomials are irreversible (e.g. *law and order*), the sequence of components in other binomials may differ, depending on the preferences in the use of particular expressions. As illustrated by Mollin (2014: 1), in case of *short and long* and *long and short*, both sequences are equally frequent, whereas *red and green* is much more frequent than *green and red.* Therefore, in the present study, the distinguishing criterion for a phrase to be classified as a binomial will be the frequency of occurrence in the analysed corpus. This will also allow us to exclude examples of "accidental pairings", as Chapman (2017: 42ff) calls them.

Binomials can be divided into categories according to the semantic relations held between their two components. Malkiel (1959: 125ff), for instance, distinguishes five categories of binomials:

a. (near-)synonymous binomials, e.g. *fears and anxieties*, *checks and balances*;

b. antonymous binomials, e.g. *true or false*, *near and remote*;

c. hyponymous binomials, in which one element is the hyperonym of the other, e.g. *face and body*;

d. mutually complementary binomials, in which both constituents share some characteristics, other than the three mentioned above, e.g. *head and shoulders, food and drink*;

e. binomials in which the second element functions as the consequence of the first, e.g. *spit and polish*, *shoot and kill*.

Although such a division is found in other studies, e.g. by Koskenniemi (1968: 90) and Gustaffson (1975: 85–87), it is possible to identify more types of semantic relations between the elements of binomials. For instance, Kopaczyk (2009: 92) distinguishes seven categories: (i) binomials proper – "the group involving semantic repetition", such as *cling and make clean*, (ii) complementation, (iii) cause and effect, (iv) contiguity (metonymy), (v) hyponymy, (vi) antonymy, and (vii) metaphor.

Another way to examine binomials is to identify motivation for their use. Kopaczyk and Sauer (2017: 11–15) list three sources of motivation for introducing binomials: semantic – to repeat the meaning, phonological – "to achieve a sound effect", and etymological – to explain or translate the meaning of one of the elements. Other scholars (e.g. Koskenniemi 1968, Bhatia 1993, Kopaczyk 2009, Mollin 2017) point out that the choice of binomials might depend on the register (e.g. literary texts, legal texts, sermons) in which they occur or on individual preferences of their authors.

The ordering of the elements in binomials and other coordinated lexical items is another issue discussed in a number of scholarly publications (e.g. Abraham 1950, Malkiel 1959, Cooper and Ross 1975, Szpyra 1983, or Landsberg 1995). According to these studies, various constraints (semantic, phonological, or lexical frequency) might affect the sequence of lexical items within binomials. Semantic constraints, for instance, involve cases of (i) experiential closeness, i.e. "the element which is emphatic to the world view of the virtual prototypical speaker will come first" (e.g. *fear or famine*, *life and death*), (ii) superiority, i.e. "the element which is spatially or hierarchically superior to the other will appear first" (e.g. *chapter and verse*, *languages and dialects*), or (iii) temporal iconicity, which refers to chronology as the ordering factor (e.g. *born and bred*, *cut and paste*) (Renner 2014: 447–448). When it comes to phonological constraints, they determine which elements come as second. For instance, syllable number constraint predicts that longer lexical items, containing more syllables than the first element, follow (e.g. *cops and robbers*). The same applies to items that have more initial consonants (onset constraint) or a longer vowel (nucleus constraint) than the second element, e.g. *meet and greet, stop and go* (Renner 2014: 449–452). Both, semantic and phonological constraints, as pointed out by Cooper and Ross (1975), Sobkowiak (1993), or Birdsong (1995), "tend to place in first position the element which is informationally poorer and therefore cognitively easier to

process" (Renner 2014: 455). As regards lexical frequency constraint, it involves cases in which the more frequent element appears first (Renner 2014: 453).

Most studies (e.g. Leisi 1947; Gerritsen 1958; Yada 1973; Markus 2006; Tani 2008, 2010) suggest that binomials in the English language are more frequently used in the texts representing earlier periods (Old English, Middle English, and Early Modern English), and, as pointed out by Greenough and Kittredge (1920), their use in Present-Day English decreased significantly. This view is challenged, among others, by Mollin (2017), whose study shows that the frequency of binomials is highly register-dependent. In addition, as Kopaczyk and Sauer (2017: 5) observe, there are hardly any studies on the use of binomials in the genres representing particular periods in the history of English. This suggests that there is a need for more studies that would trace the preferences in the use of binomials within the same register.[1]

In the light of the above, the present study aims to conduct a corpus-driven examination of the eighteenth-century English vocabulary used in various types of medical texts. The study investigates into the degree to which formulaicity in medical jargon depended on the text type. Moreover, the analysis involves exploring the frequency of binomials, the type of relationship between particular components, and the fixedness of the two elements composing the binomial. We shall concentrate on the following questions: (i) To what extent was the medical language of the eighteenth century formulaic? (ii) Were lexico-syntactic patterns of binomials repeated across particular types of texts? (iii) Was there any stability in the structure of the phrases?

The results will contribute to the forthcoming larger study of diachronic nature, which aims at a systematic and comprehensive examination of medical terminology and its evolution from the earliest records (i.e. the Old English period) until Modern English.

2. Corpus and methodology

The primary source for the collection of data was the electronic version of the corpus of *Late Modern English Medical Texts* (LMEMT, 2019) containing over two million words from a wide range of eighteenth-century medical compilations. It is the third corpus of a series that began with *Middle English Medical Texts* (MEMT, 2005) and continued with *Early Modern English Medical Texts* (EMEMT, 2010), covering the period from 1500 to 1700. The texts included in LMEMT represent three main categories: (i) specialized texts, (ii) remedies, and (iii) surgical texts. The first category is further subdivided into (a) general treatises and textbooks

1 In the present study, register is understood as "a general kind of language associated with a domain of use, such as legal register, scientific register" (Biber, Connor, and Upton 2007: 8).

containing texts written for didactic purposes, whose aim was to disseminate current medical knowledge to both laypeople and students of medicine; (b) specific treatises,[2] which focus on specific topics, such as diseases, methods of medical diagnosis and treatment, therapeutic substances, and midwifery; and (c) treatises on public health that concentrate, among others, on the idea of hygiene, on medical institutions or societies, on the status and position of medical practitioners, or on legislative issues within medical practice. The next category of texts – remedies – contains recipe collections which instruct people on how to prepare and use medicines, and regimens which provide advice on how to prevent illnesses and improve the quality of life. As regards surgical treatises, this category includes texts on anatomy, case studies and descriptions of specific surgical procedures. According to the editors of LMEMT, the distribution of the texts over the 100-year time is relatively even. The material included in the corpus reflects the contemporary textual reality as closely as possible. *Table 1* below shows the total number of words in each collection and the number of texts scrutinized for the present study. Since there is a disproportion in the size of the text collections, whenever the data derived from the examined material is compared, normalized values per 10,000 words will be referred to.

Table 1. *The size of the analysed material*

	Word count	**No. of texts**
General treatises and textbooks (Gen.Treat./Txtbk)	173,389	20
Specific treatises (Spec.Treat.)	587,488	70
Public health (Publ.Health)	198,792	30
Recipes (Med.Rec.)	191,672	21
Regimens (Regim.)	134,503	15
Surgical and anatomical texts (Surg./Anat.Txt)	179,206	18
TOTAL:	**1,465,050**	**174**

In order to compose the database of binomials for the present study, first, all the occurrences of *and*, *&*, and *or* were automatically extracted from the corpus, giving the total number of 60,889 units. Next, we searched through the results manually to select coordinated phrases which consisted of the same part of speech, e.g. noun and/or noun, verb and/or verb, etc. We have disregarded cases which do not agree in terms of the part of speech, represent a complex type of

2 This subcategory includes two scientific periodicals (*The Philosophical Transactions* and *The Edinburgh Medical Journal*) and a general periodical (*The Gentleman's Magazine*). We have decided to exclude these from our analysis, as our aim was to concentrate on textbooks rather than journals that represent different genres.

coordination (e.g. a phrase on either side of the conjunction), numerals (e.g. *the first and second*), days of the week and months (e.g. *April and May*), coordinated pronouns (e.g. *you and I*), proper nouns (personal and place names), and repetitive phrases (e.g. *more and more*, *less and less*) (cf. also Bator 2021). In addition, all the examples of "possible false positives" (Mollin 2017: 283), i.e. coordinated phrases broken by a punctuation mark (*slice, or cut the ingredients* or *Basil, and the flowers of Feverfew*), were discarded. Also, we have limited the study to word pairs, thus excluding longer strings, such as *vile frauds or perfidious neglects*, *the advice or probation of the Physicians*, and lists of words, e.g. *wine, spirits and water*, *cough, hoarseness and consumption*, or *inflammations, scalds, or burns* (cf. Bator 2021: 119). Moreover, we decided to include only those pairs which were found at least three times and in more than one text. This resulted in a corpus of 414 phrases, including 348 *and*-phrases and 66 *or*-phrases. To facilitate the discussion of the material, the examples were grouped according to (i) parts of speech, (ii) text type, (iii) reversibility, and (iv) semantic categories. In order to identify the meaning relations between the two constituents of examined binomials and to divide the phrases into general and medical ones, we have consulted the *Oxford English Dictionary* and a number of medical dictionaries (such as Norri 2016,[3] *Dorland's Medical Dictionary online*, *Merriam-Webster Medical Dictionary online*), which were especially helpful in terms of the right identification of the strictly medical senses of some lexemes. Since we have been working with historical material, sometimes a thorough reading of the texts was necessary in order to establish the right meaning of the particular examples.

3. Discussion

3.1. The structure and frequency

Similar to other studies on binomials, *and*-phrases dominate with 84.1% of the cases, the remaining 15.9% being *or*-phrases. Among the 414 potential binomials (= types) selected from the corpus, almost 70% are noun phrases (243 *and*-phrases and 39 *or*-phrases), which was anticipated. Additionally, adjectival coordination represents one fifth of the phrases (22.7%). The other parts of speech are rather infrequent and neither exceeds 5%, with adverbs amounting to over 4%, verbs almost 3.5%, prepositions slightly more than 1%, and a single phrase (0.2%) is composed of demonstratives.

3 Although this dictionary includes vocabularies from the Middle English medical texts, many of them were used in later medical compilations, e.g. *caul*, *fluid*, *mithridate*, etc.

Table 2. *The number of potential binomials (= types) representing particular parts of speech*

Part of speech	***and*-phrases**	***or*-phrases**	**TOTAL:**
nouns	243	39	282 (68.2%)
adjectives	77	17	94 (22.7%)
verbs	11	3	14 (3.4%)
adverbs	13	5	18 (4.3%)
prepositions	4	1	5 (1.2%)
demonstratives	0	1	1 (0.2%)
TOTAL	348	66	**414**

Table 2 illustrates the ratio of different binomials representing respective parts of speech. When it comes to the frequencies with which particular phrases occur throughout the corpus, the most common pairings are among nouns: *morning and evening* (67 tokens), *night and morning* (57 tokens), *animal and vegetable* (24 tokens), *meat and drink* (21 tokens), or *day and night* (20 tokens). However, not only phrases representing the general language were repeated, as there are a few binomials representing the medical jargon, which were quite numerous in the corpus, e.g. *arteries and veins* (43 tokens), *stomach and bowels* (42 tokens), *physician and surgeon* (35 tokens), *stomach and intestines* (31 tokens), *salt and sulphur* (27 tokens), *body and mind* (25 tokens), etc.

Among the other parts of speech, the adverbial *now and then* prevails; with 61 tokens, the adjectival *solid and fluid* has 34 occurrences, and the verbal *eat and drink* has 18 tokens.

Within the *or*-phrases, *more or less* reappears 134 times. Apart from this adverbial phrase, as well as *internal or external* (11 tokens), *good or bad* (14 tokens), *greater or less(er)* (21 tokens), *seldom or never* (11 tokens), and *sooner or later* (15 tokens), no other *or*-binomial exceeded ten occurrences.

29 pairs were found with both *and* and *or* conjunctions (see *Figure 1*), which indicates a certain degree of flexibility of these pairings. Many of them display preference towards one of the conjunctions, the other one being used less frequently. For instance, *and* prevails in binomials, such as *solid and fluid* (34 tokens) vs *solid or fluid* (3 tokens), *stomach and bowels* (42 tokens) vs *stomach or bowels* (4 tokens), *animal and vegetable* (24 tokens) vs *animal or vegetable* (8 tokens). *Or*-phrases are more numerous in the cases of *internal or external* (11 tokens) vs *internal and external* (10 tokens), *malignant or pestilential* (7 tokens) vs *malignant and pestilential* (5 tokens). These differences, however, are too insignificant to claim dominance of *or* over *and* conjunction. Most of the phrases recorded with either conjunction display (close to) equal distribution, e.g. *mouth and/or throat* (3 tokens each), *nature and/or art* (4 tokens each), *sea and/or land* (3 tokens each). Additionally, three phrases (*intestine or omentum*,

malignant or pestilential, right or left) were found as *or*-phrases only in one text, elsewhere being used with *and*, which may testify to an author-specific choice of the conjunction.

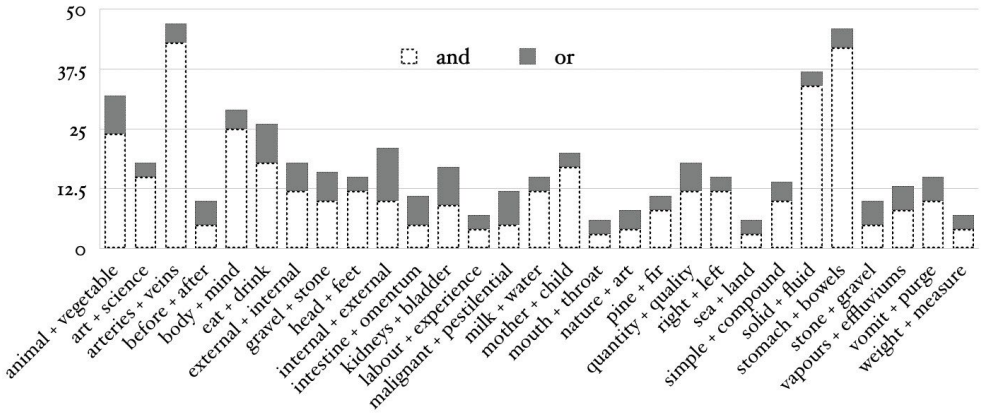

Figure 1. *The list and frequencies of the phrases with a variable conjunction*

3.2. The text type

As mentioned earlier, we have excluded from the corpus those coordinated phrases which occurred only in one text (e.g. *ascites and anasarca, bolster or compress, gut or caul, quacks and apothecaries, trachea and bronchae, vinous or acetous, water and blood*), assuming that they might be author-specific combinations rather than potential binomials. The majority of the pairings included in the analysis were found not only across various texts but also within different text types. That is, 64% of *and*-phrases and 54% of *or*-phrases were found at least in two different types of texts; the remaining 36% and 46%, respectively, were found within different texts representing one text type. For instance, *acid and alkali* (Spec.Treat. and Med.Rec.), *acute and chronic* (Spec. Treat., Gen.Treat., and Publ.Health), *cause and cure* (Spec.Treat. and Surg./Anat. Txt), *chorion and amnion* (Spec.Treat. and Surg./Anat.Txt), *inflammation and abscess* (Spec.Treat. and Surg./Anat.Txt), *kidneys and/or bladder* (Spec.Treat. and Surg./Anat.Txt), *simple and compound* (Gen.Treat. and Med.Rec.). Among the binomials found in different texts representing a single text type are such phrases as *child and afterbirth* (Spec.Treat.), *disease and casualty* (Publ.Health), *stomach and digestion* (Regim.), *thorax and abdomen* (Surg./Anat.Txt).

As illustrated in *Figure 2*, the majority of *and*-binomials representing the general language were found in general treatises and textbooks, regimens as well as surgical and anatomical texts. The representation of the medical jargon

across the text types is very much similar, with the majority of types found in the surgical and anatomical texts and a slightly smaller variety of *and*-phrases found in general treatises and textbooks as well as specific treatises.

Within the *or*-phrases, the variety of types is much smaller; however, the distribution among text types resembles that of the *and*-phrases. That is, the greatest variety of types were found in general treatises, textbooks, and in regimens, both in terms of the general and medical language. It should be borne in mind, however, that the differences in numbers are tiny.

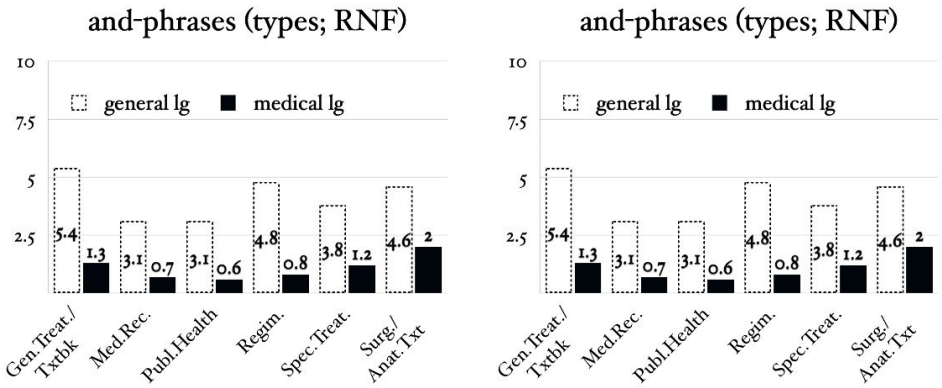

Figure 2. *Normalized frequencies (per 10,000 words) of the binomial types found in the particular text types*

3.3. Semantic categorization

It is of no surprise that the most frequently encountered *and*-binomials represent complementary binomials of the two components, that is, the two elements share some common property, different from synonymy, antonymy, or hyponymy, e.g. *acid and alkali, anatomical and physiological, appetite and digestion, child and placenta, coats and humours, embryo and secundines, fibres and vessels, glands and vessels, intestine and omentum, learning and experience, quantity and velocity, stomach and guts, taste and smell*, or *temper and disposition*. Almost 30% of these binomials belong to the medical jargon rather than general language. Such a dominance of complementation is in agreement with the previous studies, such as that by Gustafsson (1975), who suggested that this semantic relation might account for most binomials within English; or Bator (2021), who analysed the technical vocabulary within the field of life sciences. The other relations are mostly visible within the general language, the medical jargon being underrepresented. Some examples representing these semantic relations are: *broken and dissolved*, *calculus and tartar*, *care and attention*, *changes and alterations* (synonymy); *above*

and below, *ancient and modern*, *ascent and descent*, *backward and forward*, *cold and hot*, *fluids and solids*, *male and female* (antonymy); *army and navy*, *body and limbs*, *chyle and lymph*, *face and body* (hyponymy). The percentage of the four semantic relations is illustrated in *Figure 3* below.

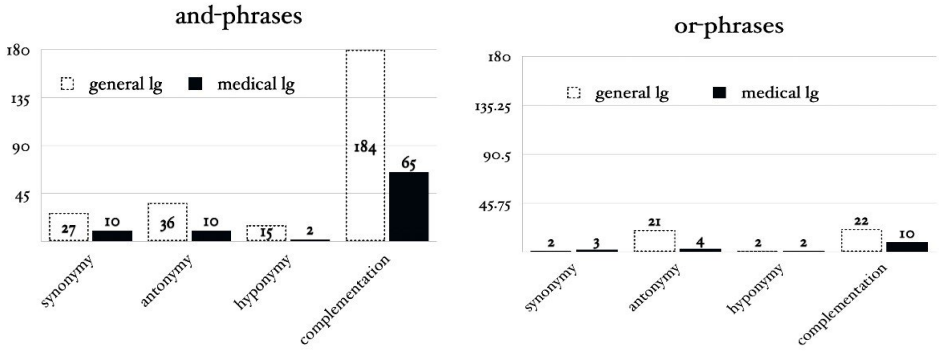

Figure 3. *The percentage of binomials (types) representing the respective semantic relations*

In the case of the *or*-phrases, the two relations which were found in the corpus are complementation (e.g. *effluvium or vapours, intestine or omentum, kidneys or bladder*, *mouths or throats*, *poison oak or sumach*) and antonymy (e.g. *external or internal*, *fluid or solid*, *good or bad*, *longer or shorter*, *midwoman or midmen*, *right or wrong, solid or fluid*). Both are more prominent in terms of the general language than in the medical jargon. Only single cases representing synonymy (e.g. *nubecula or urine-cloud*) or hyponymy (e.g. *burn or scald*) were attested.

3.4. Reversibility

The majority of the selected binomials seem to have a fixed structure, as they occur with the same ordering of the elements throughout the corpus. There are only 32 phrases which allow for a change in the component sequence. In most of these cases, however, one of the orders is dominant, the other being recorded only a few times, e.g. *animal and vegetable* (24 tokens) vs *vegetable and animal* (7 tokens), *arteries and veins* (43 tokens) vs *veins and arteries* (8 tokens), *body and mind* (25 tokens) vs *mind and body* (5 tokens). As a rule, the prevailing structure follows the alphabetical order principle.

Ten of the pairings recorded with two possible structures occur in both configurations with approximately equal frequency; however, these are low frequencies, not exceeding 5 tokens, e.g. *arms and hands* vs *hands and arms* (4 tokens each), *art or nature* vs *nature or art* (4 tokens each), *cold and hot* (3

tokens) vs *hot and cold* (4 tokens), *experience and observation* vs *observation and experience* (5 tokens each), *fluid or solid* (adj.) vs *solid or fluid* (adj.) (3 tokens each).

Among the irreversible pairings, the semantic and phonological constraints prevail in terms of the principles which govern the ordering of the components. Following Cooper and Ross (1975), the semantic criteria are superior to the phonological ones. We have taken into consideration a number of criteria and found the following constraints applied in the examined material:[4]

a. alphabetical order, e.g. *above and below, blood and humours, brain and nerves, clear and distinct*;

b. male before female, e.g. *male and female, masters and mistresses, men and women*;

c. animate before inanimate and human before non-human, e.g. *animal or vegetable, child and placenta*;

d. the superior or positive first, e.g. *mother and child, good or bad, increased or diminished, right or wrong, sympathy and antipathy*;

e. closeness hierarchy, e.g. *here and there, now and then, this or that*;

f. temporal hierarchy, e.g. *ancient and modern, before and after, cause and cure, cause and effect, disease and casualty, morning and evening, prevention or cure, receive and return, young and old*;

g. food and drink hierarchy, e.g. *eat and drink, food and drink, meat and drink*;

h. lexical fixedness, e.g. *appetite and digestion, body and limbs, stomach and bowels, stomach and intestines, vomit or purge*;

i. morphological principle, e.g. *art and science, changes and alterations, ladies and gentlemen, simple and compound*.

4. Conclusions

The present paper has investigated the use of binomials in the eighteenth-century medical writings with the aim to verify the degree and character of formulaicity in Late Modern English medical texts (on the basis of LMEMT 2019). The collected examples of binomials (414 phrases, including 348 *and*-phrases and 66 *or*-phrases) were grouped according to (i) their structure, (ii) text type, (iii) semantic categories, and (iv) (ir)reversibility of components.

The majority of binomials within the analysed corpus are *and*-phrases, mostly in the form of nominal pairs. Although several pairs (29 examples, 7% of all types) are found with both linking elements (*and*/*or*), their insignificant frequency allows us to conclude that the structure of the examined binomials was considerably stable. Similar conclusions can be derived from the analysis

4 It should be borne in mind that some of the examples might follow more than one criterion.

of the ordering of particular components within the scrutinized binomials. Only 32 phrases (which is less than 8% of all the types) allowed for the reversibility of their components, whereas the remaining examples were found with a fixed ordering of the composing elements.

As regards the semantic relations between binomial components, the instances of complementation prevail (with 30% of strictly medical pairings), which is a common practice in English texts (cf. Gustaffson 1975, Bator 2021). These results are against our initial expectations, as a higher number of synonymous pairings was anticipated. This initial expectation originated from the assumption that medical texts, similarly to legal or other scholarly texts, contain technical vocabulary which might require some clarification and explanation (especially in the group of remedy collections which were also aimed at lay users, with no or little medical knowledge). And yet, the instances of synonymous binomials in the eighteenth-century medical corpus were very rare (cf. *Figure 3*).[5]

If we consider the distribution of binomials in the three major groups of texts: (i) specialized texts, (ii) remedies, and (iii) surgical texts, their frequency within each group is quite comparable, which further contradicts our initial assumption that the ratio of binomials would rely on the text type. This is also in disagreement with Mollin's (2017) study, who concluded that the use of binomials is highly register-dependent. In addition, it should be noted that the analysed texts contained binomial phrases representing both the general language and medical jargon.

To sum up, the medical language of the eighteenth-century medical texts was to a certain extent formulaic, but their fixedness did not depend on the text type (at least in the context of binomials). The examined word pairings were roughly evenly distributed within all the text types included in the analysis.

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5 Studies on medical vocabulary in earlier English medical writings (e.g. Middle English) reveal that the use of synonymous word pairings, such as explicatory techniques, was a common practice. Readers of medieval medical texts often encountered unfamiliar words or expressions. Therefore, writers or translators of medical compilations often facilitated the meaning of new or more technical vocabularies by pairing them with more common words, e.g. *dolor or payne*, *consumpcioun and wasting, purgaciouns and vomytes, caterysatif and brennyng* (cf. Norri 1992, Sylwanowicz 2018).

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