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Part II Studying and teaching Medical English: Teaching practice and tools

Medical entries in 18th-century encyclopaedias: The lexicographic construction of knowledge

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1. Background and primary sources

1.1. A new approach to real life

The aim of applying new technical and scientific discoveries to benefit mankind is typical of the Early Modern English period and is characterised by a process well established since the 17th century (cf. Jardine 1999; Hunter 1981). The experimental method based on observation, collection of data, reproducibility of phenomena, deduction and application to the world around, with a view to making progress possible, can therefore be considered representative of the principles inspiring 18th-century encyclopaedias.

Their content and form are an evident and perhaps necessary expression of a great change in the interpretation of the world: the research and discovery path has as its ultimate aim 'utility', exempt from any speculative attitude closed within itself. This means that concrete facts should therefore be transformed through language into written texts that everybody can take advantage of (Formigari 1974; Banks 2008; Gotti 2011).

The originality of encyclopeadic reference works, which are strictly bound to previous and contemporary lexicographic tradition (cf. Hayashi 1978; Haiman 1980; Rey 1982; Starnes & Noyes 1991; Green 1996; Béjoint 1994 and 2010; Considine 2008), lies in their effort to shape and systematize the manifold branches of human knowledge, that is to frame in a significant whole the individual entries arranged in alphabetical order (cf. Abbattista 1996; Castagneto 1996; Bradshaw 1981 and 1981a; Kafker 1994a and 1994b). This means that the single micro-texts of the entries are embedded into the encyclopaedic macro-structure and complementary

to it. Cross-referencing is what helps establish this close network of connections: that is, cross-references become the fundamental, indispensable tool for creating a 'continuum' within the whole complex organization of knowledge, made otherwise apparently disparate by the arbitrariness of alphabetical order. They also help and encourage systematic reading.

Making the correspondences plain and unambiguous between knowledge and language is the encyclopaedists' ultimate goal. Cross-referencing is thus a basic and precious tool to make the relationships between the whole and its various parts presented in dictionary form emerge. This should not contribute to the advancement of knowledge rather transmit and teach it.

1.2. British medical context

Alongside the development of the encyclopaedic genre, great changes were occurring in the medical field and in the social approach to medicine as well (French & Wear 1991; Lane 2001; Loudon 1986 and 1992; Riley 1987): new concepts, new processes and new techniques, besides the layman's interest in them, emerged with force. Medical research, which directly go back to the outstanding approaches and discoveries of the preceding century (cf. Lindemann 2010; Wear 1989 and 2000), urged experts and non-experts to develop new communicative strategies both to categorize, organize, describe and discuss advanced issues, and to apply pioneering approaches to well known or unpredictable situations. Medical writing thus became an expanding phenomenon and an essential one to record medical debate and experience, both in Early Modern English (cf. Taavitsainen & Pahta 2011a; McConchie 1997; McConchie & Curzan 2011; Dirckx 1976) and later, particularly after 1750 when the English Medical reform was definitely taking place (Bynum & Porter 1992; Fissel 2007; Warren 1951).

1.3. Sources

The present analysis focuses on the first edition of the three most relevant 18th-century 'dictionaries of arts and sciences': John Harris's *Lexicon Technicum* (*LT*, 1704), Ephraïm Chambers's

Cyclopaedia (*Cy*, 1728), and the *Encyclopaedia Britannica* (*Br*, 1768-1771).

The percentage covered by medical terminology in the *LT*, *Cy* and *Br* (approximately between 8% and 13%) takes on notable significance, considering the high number of branches of knowledge included in the three works. In particular, in the *Cy*, an elaborate tree of knowledge is included in the preface, whereas in the *Br*, the most important branches of arts and science are organized into forty-four treatises (amongst which *MEDICINE* and *SURGERY*). Such a high percentage guarantees a variety of examples testifying to the way compilers handle medical vocabulary and structure medical entries as a whole (for a general survey on this topic, cf. Lonati 2002 and 2007).

In such a context, cross-referencing is one of the (discourse) strategies much more widely used to establish cohesion within individual works: it is almost systematic in the *Cy* and the *Br*, less common in the *LT*. Indeed, it is only via the cross-references that the compilers give all the possible correlations between the different subjects, and parts of the same topic, to create an efficient global view, since discussion of one problem interweaves and overlaps with others, opening innumerable routes for investigation. Each entry may thus be predisposed for an explosion of meanings, endlessly expanding its ramifications and possibilities.

1.4. Aims

The general aim is to investigate, exemplify and discuss medical headwords and medical entries, alongside their basic constituents, in the three works. The analysis focuses on the linguistic strategies exploited by the compilers in organizing, categorizing and communicating medical knowledge in a lexicographic framework.

1.5. Methodology

The original corpus covers about a quarter of the headwords included in each encyclopaedia, selected among letters A-H-I / J and P (cf. Lonati 2002 and 2007); whereas the examples have been chosen according to their typology among all the medical entries included in such a corpus. In other words, the entries analysed and

discussed are significantly representative of how medical contents were set and classified in a changing and developing lexicographic structure. Definitions and definitional patterns within the micro-structure of the single entry are at the core of the study. The term DEFINITION is a general one encompassing "a wide range of means for helping readers to understand and to use a term" (McConchie & Curzan 2011: 77ff., particularly symptomatological defining), such means include lexical definitions (focussing on word meaning), equivalents (translational or explanatory; cf. Zgusta 1971 and 1987; Adamska-Sałaciak 2010), cross-references, and encyclopaedic descriptions (extra-linguistic reference).

2. Definitional patterns in the three encyclopaedias: a survey

2.1. Approaching medical knowledge: the shortest entries

This section is completely devoted to the exemplification and discussion of the most relevant definitional strategies exploited in the three encyclopaedias. The entries under scrutiny here have been further distinguished into sub-sections: the first includes the shortest entries, variously characterised by the presence of basic definitions (the most concise, focussed on lexical meaning) and slightly expanded ones, besides equivalents and cross-references; whereas the second examines more elaborate encyclopaedic descriptions (cf. § 2.2., here the reference to the real world of medical experience is definitely substantial). Any single aspect of the discussion is treated for the three works altogether, highlighting some differences if necessary.

Basic definitions. In general terms, definitions are practically always present, they are the first set of information given on the topic of discussion, except in some cases where they are preceded or followed by equivalents and/or cross-references and, in the *Cy*, by etymology (cf. *AGONY* below). In the shortest and simplest typology, definitions usually overlap with the entry itself. However, some specific features in the three works are worth emphasizing: the *LT* is mostly characterised by minimal – even meagre – definitions, sometimes slightly expanded by expressions like

'accompanied with, attended with', etc. (without detracting from the extreme concision); the *Br* itself prefers condensed definitions as the main part of the medical entries (generally two or three column lines), in prevalence the approach is that of a language dictionary without giving meta-linguistic information; the *Cy* usually starts with concise and basic definitions, frequently – but not always – followed by subsequent explanations and lengthy encyclopaedic expansions. The examples below highlight the basic lexicographic treatment of medical terminology:

Group A: basic definitions

Lexicon Technicum

ACOSMY, is an ill state of Health accompanied with the Loss of the natural florid Colour of the Face.

ANTHRACOSIS OCULI, is a corrosive scaly Ulcer in the Eye, attended with a general Tumor, especially of the Parts about the Eye.

HAELOSIS, according to some, is a reflected inversion of the Eye-lid.

HAEMORHAGIA, is a Flux of Blood from the Nostrils, Mouth, or Eyes, &c.

Cyclopaedia

AGONY, *AGONIA*. The Extremity of Pain, or a Disease; when Nature makes her last Effort, or Struggle, to throw off the Evil that oppresses her. See PAIN, DISEASE, and DEATH. The word is formed from the *Greek* […] *Certamen*, Combat; this being a kind of Strife, between Life and Death.

HEMICRANIA, in Medicine, a species of *Cephalalgia*, or *Head-Ach*; wherein the Hemisphere, or half of the Head is affected. See CEPHALALGIA and HEAD-ACH.

Encyclopaedia Britannica

ACH, or *ACHE*, in medicine, a term used for any severe pain, as head-ach, tooth-ach, &c. See Medicine.

> ***PARAPHROSYNE***, a word used by medical writers to express a delirium, or an alienation of mind in fevers, or from whatever cause.
>
> ***PARESIS***, in medicine, is defined to be a palsy of the bladder, wherein the urine is either suppressed, or discharged involuntarily.
>
> ***PAROXYSM***, in medicine, the severe fit of a disease, under which it grows higher, or exasperates, as of the gout, &c.

The defining technique here implies some basic considerations: first, the headwords are generally given in Latinate form and, even when they are anglicised versions, the register is so specialized that the context is almost bilingual. This means that the strategies exploited to build up the correspondence between the headword and its lexical and/or encyclopaedic content are comparable to those of a bilingual dictionary in which a foreign headword (here the Source Language) is generally followed by an equivalent (or a series of equivalents) in the Target Language (TL, here English); whereas in monolingual dictionaries the headword is usually defined (sometimes alongside synonyms and/or hyponyms, etc.). The situation here is in-between the two approaches because of the need to find an equivalent – either translational, or explanatory – both for Latinate terms and for anglicised or English (difficult) terms, alongside the need to define the specialized lexical items in English. Obviously enough, this implies for the compilers to start from the core lexical meaning.[1]

The second consideration is that the distinction between lexical definitions and explanatory equivalents is not always clear-cut (this mostly depends on the conciseness of the entry itself and the general context in which the equivalent / definitional expression is embedded), as not clear-cut is the difference between explanatory equivalents and highly-explanatory translational equivalents (Zgusta 1971 and 1987; Adamska-Sałaciak 2010). In any case, since the linguistic situation as regards medical terminology – as

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[1] *Oxford English Dictionary* (http://www.oed.com) *acosmy* > disorder, chaos; *anthracosis* > coal, carbuncle; *haelosis* > to roll; *haemorhagia* > to break blood; *agony* > mental struggle and physical suffering; *hemicrania* > pain in one side of the head; *paraphrosyne* > delirium; *paresis* > slackening of strength, relax; *paroxysm* > to sharpen, render acute.

well as the lexicographic techniques in compiling encyclopaedias – is so fluid at the time, it is not possible at all – not even useful, and certainly not the aim of this paper – to categorize such differences. The discussion of the examples above clarify the complex defining mechanism, besides highlighting their interchangeable nature of equivalent vs. definitional expression in similar vs. different contexts:

1. ANTHRACOSIS OCULI and HAEMORHAGIA are followed by *Ulcer in the Eye* and *Flux of Blood* respectively. The two expressions may be considered as highly-explanatory translational equivalents glossing the original lexemes, they are actually perceived as completely lexicalized because of their specificity (they point to a specific medical event, even though with a different register);

2. ACOSMY, AGONY, ACH or ACHE, PAROXYSM are followed by too vague and general meanings (*ill state of Health*, *Extremity of Pain*, *any severe pain*, *the severe fit of a disease*, respectively) to be considered as efficient and actual equivalents of specific illnesses. They are indeed – or they seem to be – concise definition of the term (cf. note 1);

3. a third case is represented by PARAPHROSYNE, whose translational equivalent is *delirium*, then followed by its own definition *an alienation of mind in fevers*: the distinction of the two functions seems here more definite.

Equivalents. Things become clearer when the definitions expand a little, as in examples from Group B (and later in Group D) below. In the following extracts, translational equivalents are easily discernible because they are included in a larger context and defined themselves in turn. Some are preceded by a general definition (as under ILIAC, preceding *Iliac Passion* and *Miserere*), some others are directly followed by one or more equivalents and then defined (cf. ANTHRAX > *carbo*, *pruna*, *carbunculus*; ICTERUS > *jaundice*; ANOREXY > *anorexia*, *inappetency*):

Group B: equivalents

Lexicon Technicum

ANTHRAX, *Carbo*, *Pruna*, or *Carbunculus*, is defined to be a Tumor that arises in several Places, […].

ICTERUS, the Jaundice, is a changing of the Skin into a Yellow Colour, from an Obstruction of the *Ductus Choleodochus*, or the Glandules of the Liver, thro' Weakness, Obstruction, or a *Schirrus* of the Liver; […]. The *Latines* called it, *Regius Morbus*, the Kingly Disease […].

Cyclopaedia

ANOREXY, **ANOREXIA**, in Medicine, an Inappetency, or Loss of Appetite. See APPETITE. *Anorexia* is properly a longer continuance than is natural, without a desire to eat. See FOOD, FASTENING, DISTASTE, &c. […]

ILIAC, a Term in Physick, applied to a violent and dangerous Disease, called the *Iliac Passion*, or *Miserere*. […]

There are not many equivalents in the *Br*. Headwords usually have one single form, which can be either Latin or English: ABIGEATUS, or ABACTUS; ALTERANTS, or ALTERNATIVE MEDICINES; HAEMORRHOIDS, or PILES; INCUBUS, or NIGHT-MARE, etc. These are among the few cases where variants are confirmed. All the others – practically the entirety – are regularly to be found in one of the two languages. Latin and/or Latinate forms are still widely used but a comparison with *LT* and *Cy* shows a more systematic usage of English forms. This fact also suggests that medical terminology in the second half of the century has acquired a high degree of acceptability, appropriateness and 'currency', at least from an orthographic and morphological viewpoint.

Cross-references. The widespread usage of equivalents and their different distribution in the three works is also highlighted by cross-referencing whose main function is to establish connections among the manifold entries within the single encyclopaedias. In other words, this means that the nature of cross-references may be different, at least twofold: on the one hand, cross-references may be

equivalents (or even graphic variants) whose entries expand and develop a given topic; on the other hand, cross-references are frequently complementary or even independent topics, sharing some similarities and/or differences with the original headword-topic.

Cross-referencing is not systematic in the *LT*, is widespread in the *Cy* and less frequently exploited in the *Br* (just a third of the entries include cross-references); it is widespread both in the shortest entries that simply refer one elsewhere, and in more complex ones.

Group C: cross-references

Lexicon technicum

ANCHYLOPS, the same with *Aegylops*: Which see.

PESSULUS, the same with *Pessary*. PESSUS. The same.

HYPOCHONDRIACA AFFECTIO. See *Hypochondriacus Affectus*.

JAUNDICE. See *Icderus*.

PANARITIUM. Vid. *Paronychia*.

ANCYLOBLEPHARUM, […]. *Tunica Cornea* […] *Albuginea* […].

HAEMALOPS, […] *Blue-Eye*. […] *Blood-Shotten Eye*.

PASTILLS, *Tablets*, or *Trochiscks* […], *Tragacanth*.

PHLOGOSIS, […] *Ophthalmy* […].

In the *LT*, the headword, often in Latin, may be directly followed by a cross-reference. The definitions following equivalents, if present, are basic and clearly leave room for cross-references expanding and completing the information. There are some cases where the cross-reference is understood, in that there is no textual introductory expression explicitly inviting the reader to follow up the subject under associated topics or entries pertinent to the given headword

(such as *which see*, *see*, *vid.*, etc.): for example ANCYLOBLEPHARUM, HAEMALOPS, etc. above.

In the *Cy*, cross-referencing tends to be explicit and is usually introduced by *see*: "*AERUGO Aeris*, in Medicine, &c. See *VERDEGREASE*." The structure exemplified is the simplest in which cross-reference can appear. This quite widely used structure is more often enriched by equivalents and explanations: "*AEGILOPS*, a Tumor, or rather Ulcer, in the great Canthus or Angle of the Eye, by the Root of the Nose; either with or without an Inflammation. See *EYE*, *TUMOR*, and *ULCER*. […]."

In other cases, the cross-reference is implicit, the equivalent in italics suggesting further reading: "*ACANTABOLUS*, or *ACANTHABOLUS*, a Surgeon's Instrument; call'd also *Volsella*. […]"; "ISSUES, in Physic, are small artificial Apertures in a fleshy part of the Body, […] *Issues* are very useful in many Distempers, […] as an *Hydrocephalus, Opthalmia, Old Ulcers*, &c." So the structure can expand by continual addition of elements that make the entry ever more complex and full of information, in which the cross-reference is a constant.

In the *Br*, the cascade of cross-references in *Cy* is replaced by more moderate use of this instrument for connecting the various parts of the encyclopedia. Almost all terms have one single cross-reference, a few have two: "*ABAPTISTON*, or *ANABAPTISTON* […] See Surgery, and Trepan"; "*ANTIMONIALS*, […] See Antimony, and Chemistry"; etc. Fewer than half refer to isolated, different entries: "*ABEVACUATION*, […] See Evacuation"; "*ABRUPTION*, […] See Abduction; *ACHE*, […] See Ach"; "*AGON*, […] See Agony; ALBUMEN, […] See Egg"; "*INFECTION*, […] See Contagion"; "*POTENTIAL*, […] See Cautery"; etc. Most give the cross-reference "See Medicine", sometimes alongside "Surgery". A restricted group of examples follows: "*ACH*, or *ACHE*, […] See Medicine"; "*AMAUROSIS*, […] See Medicine"; "*HAEMOPTOSIS*, *HAEMAPTYSIS*, or *HAEMOPTOE*, […] See Medicine"; "*PARAPLEGIA*, […] See Medicine p. 97"; "*PERIPNEUMONY*, […] See Medicine p. 91"; etc.

Since cross-references are not omnipresent, as they are in the *Cy*, they do not play the same part as for Chambers. Nevertheless, their presence is and contribute to the work's cohesiveness, especially since a good proportion of the connections are via

MEDICINE (treatise). This confirms the compilers' intention to give the specific treatises the most important part of the encyclopaedic information.

Elaborate definitions. In this kind of entries, encyclopaedic information is included as a concise expansion of preceding or following lexical definitions (variously introduced by *is defined*, *a term applied to*, under ANTHRAX and ANODYNE; or nothing specific, as under IDIOPATHY, or INCORPORATION). Here external reference is definitely established and the encyclopaedic load clearly emerges

[1] **as a concise series of symptoms** (as under ANTHRAX > *surrounded with*, *accompanied with*, *but without ever being*) alongside the course of the illness and its more or less direct effects (*when…it spreads*, *it burns*, [it] *throws off…when it is rotten*, *leaves…as if it had been burnt*);

[2] **as a series of equivalents**, under ANTHRAX > *carbo*, *pruna*, *carbunculus*, (meaning coal / burning pain > tumor) or INCORPORATION > *impastation*;

[3] **as a series of examples**, under ANODYNE > *such as the anodyne balsam made of Castile soap*, *opium*, *camphire*, *saffron*, *and spirit of wine*, and under INCORPORATION > *thus pills, boles, troches, and plasters are made by incorporation*;

[4] **as a categorizing principle based on hyponymy**, under ANODYNE > *relaxing remedies*, *diluters*, *medicines which* […] *destroy acrimony*, […] *compound medicines*;

[5] **as an organizing principle based on antonymy-oppositeness**, under IDIOPATHY > *idiopathy* (*proper to some particular Member*, *or Part of the Body*) vs. *sympathy* (*the Indisposition takes its Rise from a Disorder in some other Part of the Body*), *idiopathic* (*when it happens purely thro' some Fault in the Brain*) vs. *sympathic* (*when it is preceded by some other disorder*):

Group D: elaborate definitions

Lexicon Technicum

ANTHRAX, *Carbo*, *Pruna*, or *Carbunculus*, is defined to be a Tumor that arises in several Places, surrounded with hot, fiery, and most sharp Pimples, accompanied with acute Pains, but without ever being separated; and when it spreads it self farther, it burns the Flesh, throws off Lobes when it is rotten, and leaves an Ulcer behind it, as if it had been burnt with an Iron. *Blanchard*.

Cyclopaedia

IDIOPATHY, a Disease or Indisposition proper to some particular Member, or Part of the Body, not caused by any other Disease, or preceding Affection, nor having any thing to do with the rest of the body. It is opposed to Sympathy, which happens when the Indisposition takes its Rise from a Disorder in some other Part of the Body. Thus a Cataract in the Eye is an *Idiopathy*: an *Epilepsy* is either *Idiopathic* or *Sympathic*; *Idiopathic* when it happens purely thro' some Fault in the Brain, *Sympathic* when it is preceded by some other disorder. The word is derived from the *Greek* […], *proper*, *particular*, and […] *Passion*, *Affection*.

Encyclopaedia Britannica

ANODYNE, in pharmacy, a term applied to medicines which mitigate pain.

Among anodynes may be reckoned all relaxing remedies, diluters, and medicines which by any means destroy acrimony, or expel wind, together with the compound medicines of the shops, which pass under this name; such as the anodyne balsam made of Castile soap, opium, camphire, saffron, and spirit of wine.

INCORPORATION, in pharmacy, is much the same as impastation, being a reduction of dry substances to the consistence of a paste, by the admixture of some fluid; thus pills, boles, troches, and plasters are made by incorporation. Another incorporation is, when things of different consistences, are by digestion reduced to one common consistence.

As the examples show, the structure of entries is not particularly complex: complexity obviously regards more extended encyclopaedic descriptions. What is relevant here (and in Group B above) are the strategies used in expanding extra-linguistic content and in clustering details to make the discussion proceed. Lexical definitions alternate with equivalents, hyponyms and antonyms, all of which are defined in turn. This recursive pattern establishes a sort of 'definitional chain' which becomes the chief constituent of the entry itself, as well as the communicative device underpinning discourse. This typology is further expanded and developed in multi-layered constructions (cf. 2.2. below).

2.2. Expanding medical knowledge: encyclopaedic descriptions

This sections discusses a single example of encyclopaedic description, among the many that can be found in the three works. It is taken from the *Cy*, for two main reasons: on the one hand, this work was issued in-between the *LT* and the *Br*, the *LT* representing the background of later encyclopaedic experience, the *Br* instead the outcome of previous encyclopaedic practice (particularly the *Cy*); on the other hand, it represents a milestone in 18th-century British encyclopaedic production as a whole because of both its multi-disciplinary inclusiveness and its variety in knowledge-building approaches. As a result, in the *Cy* a wide range of combined lexicographic tools and techniques to define and describe the topic-headword are exploited. This does not mean that the example below directly mirror all the entries in the three works, but that it can be representative of some compiling strategies for medical content. In more general terms, it is relevant and interesting because it highlights, within an average-length entry structure, the basic components of larger information networks which go beyond the limits of any single medical entry. The extract follows (numbering and square brackets are mine):

Cyclopaedia

[1] *AGUE*, a periodical Disease, consisting in a cold shivering Fit, succeeded by a hot one; and going off in a Diaphoresis, or Sweating. See Disease.

[2] If the Coldness and Shivering be inconsiderable, and only the hot Fit felt; the Disease is called an *Intermitting Fever*. See Fever.

According to the Periods or Returns of the Fits, the Disease is either a *Quotidian*, *Tertian*, or *Quartan Ague*, or *Fever*. See Quotidian, Tertian, Quartan, &c.

[3] The next Cause of Agues, seems to be an obstructed Perspiration, or whatever by overloading the Juices, retards their Motion, or occasions a Lentor in the Blood.—The Symptoms are Heaviness and Reaching; a weak, slow Pulse; Coldness, and Shivering, felt first in the Joints, thence creeping over the whole Body; Pain in the Loins, and an involuntary Motion of the under Jaw.

[4] A *Vernal Ague* is easily cur'd; but an *Autumnal* one is more obstinate, especially in aged and cachectical Persons; is complicated with a Dropsy, Peripneumony, &c. dangerous.—When an Ague proves fatal, it is usually in the cold Fit.

[5] The Cure is usually begun with Emetic of Ipecacuanha, an Hour before the Access; and completed with the Cortex Peruviana, administer'd in the Interval between two Fits; and continued at times, to prevent a Relapse. See Cortex.

[6] Dr. *Quincy* endeavours to account for the Effect of the Bark, from the Irregularity, asperity, and Solidity of its Particles, which fit it to break those Viscidities in the Juices whereby the Capillaries were obstructed, and to draw up the Solids into a Tension, sufficient by the vigorous Vibrations ensuing thereon, to prevent any future Accumulation thereof.—The first Intention, he observes, is answer'd, by giving the Blood a greater Momentuum; and the second, by its corrugating the Nerves, and rendering the Contractions of the Vessels more brisk and forcible.—Hence also its Effects upon such as are apt to sweat immoderately.

The entry may be divided into six short sub-sections, each of them emphasizing complementary definitional patterns (cf. 1.5.):

1. **introduction** > general definition of the disease emphasizing the general course of illness, both a prestigious Latinate equivalent and a familiar English one, alongside a general cross-reference, follow;

2. **expansion** > further symptomatic categorization > further equivalents and cross-references > linguistic (hyponymy) and disciplinary narrowing;

3. **symptomatological defining pattern** (cf. 1.5.) > here, a very concise listing and/or clustering of the main disease symptoms, organized in nominal groups / nominalized expressions (*heaviness*; *reaching*, *weak and slow pulse*; *coldness and shivering*; *pain in the loins*; *involuntary motion of the jaw*);

4. **environmental medicine** > the course of the illness is also due to environmental conditions > the description opens to the

world outside medicine and introduces alternative and/or complementary approaches to the disease;

5. **remedy section** > the curative process is displayed (*cure is usually begun*, *and completed*, *administer'd in*, *and continued at times*) as in medical dictionaries and/or no-lexicographic medical works (such as compendia, observations, remedy books, etc.);

6. **quotation** > the last sub-section is devoted to further development in medical debate, a kind of 'disease discussion forum' in which physicians and medical professionals are quoted as an authority: *Dr. Quincy endeavours to account* […] *he observes*. The compiler helps spreading contemporary innovative approaches and medical experience directly within 'up-to-date' encyclopaedic works, trying to make them as useful as possible.

As it can be seen, the basic constituents and definitional patterns of the previous entry are the same which may alternatively be found in shorter and less complex structures, as examined in § 2.1. The main difference stands out as the combination of such constituents. The 'definitional chain' actually exceeds the single entry to expand in different directions and (re)produce, at a higher level, the cycle of medical knowledge.

3. Concluding remarks

Medical science is shown as a greatly considered area in the three most important 18th-century English encyclopaedias: some entries are very concise, without explicit connections between the different areas of medical science, nor do the explanations go beyond the normal size for lexical dictionary entries, whereas others are expanded to include detailed information and to establish connections with complementary medical topics.

Cross-references are rare in Harris, and most often implied, making it impossible to create the solid network of relationships necessary for cohesion in dealing with medical science in all its complexity. Generally, the headword is in Latin and may be

followed by equivalents in the same language or in English; such equivalents may also act as implicit cross-references.

Chambers' choices are very different and therefore the situation shown in the *Cy*: in general, the entries are well constructed and include more or less extended explanations, cross-references, and equivalents. This demonstrates the great desire of the compiler to be exhaustive and to be so treating the medical material consistently and coherently.

The *Br* discusses instead the principles of the most important branches of science in monothematic treatises, amongst which *MEDICINE* and *SURGERY*. The dimensions of these two treatises are significant and the topics multifarious; whereas the single entries in alphabetical order basically consist of two elements: the headword and the (lexical) definition. This is generally very short, sometimes it merges with a concise explanation; at other times it is followed by more detailed expansions. Cross-referencing, when included, does not function to cohere parts with the whole as in the *Cy*: what is missing here, as in the *LT*, is circularity of possible route. The entries are only for giving essential information since everything is discussed elsewhere.

In any case, definitions (whether lexical or expanded to include encyclopaedic information), equivalents and cross-references establish an articulate structure, a kind of 'definitional chain' in which any new item is defined in turn, thus making the description or the discussion progress. They ultimately act at discourse level within the single individual entry and across entries.

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