Historical Dictionaries and Historical Dictionary Research

Papers from the International Conference on Historical Lexicography and Lexicology, at the University of Leicester, 2002

Edited by Julie Coleman and Anne McDermott

Max Niemeyer Verlag
Tübingen 2004
Supplementary Volumes to the International Annual for Lexicography
Suppléments à la Revue Internationale de Lexicographie
Supplementbände zum Internationalen Jahrbuch für Lexikographie

Edited by
Sture Allén, Pierre Corbin, Reinhard R. K. Hartmann,
Franz Josef Hausmann, Ulrich Heid, Oskar Reichmann,
Ladislav Zgusta

Published in cooperation with the Dictionary Society of North America (DSNA) and the European Association for Lexicography (EURALEX)
AN ANALYSIS OF A SEVENTEENTH CENTURY CONCEPTUAL DICTIONARY WITH AN ALPHABETICAL LIST OF ENTRIES AND A NETWORK DEFINITION STRUCTURE: JOHN WILKINS’ AND WILLIAM LLOYD’S AN ALPHABETICAL DICTIONARY (1668)

Introduction

The Alphabetical Dictionary is part of An Essay Towards a Real Character and a Philosophical Language published in 1668 by John Wilkins as a project for the elaboration of a philosophical and universal language. The collaboration of William Lloyd was essential to Wilkins for the compilation of the Alphabetical Dictionary (1668: cl), a text mainly characterised by the fact that it is not an autonomous work, since it was created as a by-product of a more comprehensive plan. This is the reason for its basic dependence on the Tables of the Universal Philosophy, which are the second of the four parts of the Essay, “Conteining [sic] a regular enumeration and description of all those things and notions to which names are to be assigned” in the universal language proposed by Wilkins (1668: 22).

Wilkins’ purpose in the compilation of the Essay was the creation of a philosophical language, which would be universally intelligible and capable of allowing more precise communication. In order to achieve his aim, he elaborated a device centred on the construction of a classification that would ensure the attainment of an accurate definition of “things and notions”. These defined notions would then be expressed through an artificially elaborated code, planned to express a direct correspondence between every single meaning and its uniquely attributed ‘word-form’.

With the Tables of the Universal Philosophy Wilkins intended to produce a clear-cut delineation and classification of the concrete and abstract elements existing in the world through the representation of their “mental Image” (1668: 20), that is to say their conceptual equivalent as it is known by men. As a matter of fact, in Wilkins’ plan natural language is conceived as a device subsidiary to the hierarchical taxonomy, which is the main and the only trustworthy instrument of definition (1668: a3, 1, 20). Consequently, the classificatory system

---

1 In order to give a more precise reference to the introductory sections of the Essay, numbers (from 1 to 4) will be added to the letters (a to d) marking the unnumbered folio pages.
2 The Essay as a project for a universal system of communication has been studied in recent years especially in the context of what is generally referred to as the ‘universal language movement’. Different analytical foci characterise the works devoted to this topic (cf. Knowlson (1975), Slaughter (1982), Large (1985), Strasser (1988), Subbiondo (1992), Eco (1993), Maat (1999)).
3 In the introductory section to the Tables, Wilkins points out the founding principle of his analysis: “As men do generally agree in the same Principle of Reason, so do they likewise agree in the same Internal Notion or Apprehension of things” (1668: 20). This point is clearly expressed by Wilkins also in another text, devoted to religious matters and published posthumously: “Now as there is an universal agreement in the sensation of outward objects; The Eye and the Ear of all sensitive Creatures, having the same kind of perception of visible and audible things. [...] So must it be with the understandings of men likewise, which do agree in the same kind of Perception or simple apprehension of intelligible objects. Now those kind [sic] of Apprehensions wherein all men do agree, these are called natural Notions” (Wilkins, [1675] 1683: 56–7).
of the Tables has a twofold functional role because, on the one hand, it is the foundation of the artificial language that is supposed to represent the conventional form of a universally shared conceptual scheme; on the other hand, the conceptual definition provided in the hierarchical structure of the Tables is also adopted as the foundation of the lexical definition of the meanings of the English words, alphabetically listed in the appended Dictionary.

It follows that Wilkins' *Alphabetical Dictionary* – and in particular the typology of its definitions – are basically characterised by being appended to a text which, for a great part, is a conceptual analysis of man's knowledge of the world. This analysis is also intended to become a semantic representation of the linguistic elements used by men both to talk about the world and to understand and conceptualise it. The complete title of Wilkins' and Lloyd's Dictionary clearly reveals the peculiar connection between its lexical definitions and the Tables, as it reads: *An Alphabetical Dictionary, Wherein all English Words According to their Various Significations, Are either referred to their Places in the Philosophical Tables, Or explained by such Words as are in those Tables.*

The particular architecture devised by Wilkins for his *Essay* implies that each meaning of the words included in the *Alphabetical Dictionary* is defined (either directly or indirectly) through the notion corresponding to it in the Tables of the *Universal Philosophy*, where its definition is provided by the place the concept occupies in the relational structure proposed by the author. In this way the defining section of the *Alphabetical Dictionary* ultimately refers to the hierarchical structure in which the concepts are arranged.⁴

The classificatory scheme of the *Essay* can be broadly described as a system allowing a basic three-level definition model, consisting of the hierarchically embedded categories of Genus, Difference, and Species (cf. Hüllen 1999: 250–84).⁵ The arrangement of the Tables in the text reproduces in a linear order the hierarchical systematisation of the classificatory levels: the scheme is broken down into forty main Tables of the Genera which both demarcate the conceptual and semantic fields of the notions classified and show the branching of the co-taxonomic Differences from each Genus.⁶ The forty main Tables are further articulated in 'sub-Tables', one for each subsumed Difference which, in turn, display the branching of the Species at the lowest level of the classification. The scheme illustrated above represents the core of the defining procedure in the *Essay*. Nonetheless, it is necessary to highlight that the complete classificatory structure is articulated in a wider unitary hierarchy, illustrated by Wilkins in the *General Scheme* which introduces the Tables and displays the properties of the forty Genera and their mutual relations (1668: 23; cf. Figure 3 below).

As far as the lexicographic properties of Wilkins' and Lloyd's Dictionary are concerned, the focus of attention in the present paper is mainly centred on the interrelation between the *Alphabetical Dictionary* and the defining Tables, which are a list of words and their corresponding senses, and a taxonomic arrangement of the basic meanings of such words.

---

⁴ The lexicographic value of Wilkins' major work has been analysed from different, but complementary perspectives, by Doležal (1983, 1985, 1994a) and Hüllen (1989: 195–245, 1999: 244–301). Doležal's attention is mainly directed towards the defining methodology of the *Alphabetical Dictionary*, while Hüllen provides an in-depth scrutiny of the defining procedure of the classificatory Tables.⁵

⁵ Capital letters will hereafter be used for the three terms indicating the main defining levels of the Tables of the *Essay* in order to clearly identify their terminological value in the text here analysed, in accordance with Wilkins' practice in the *Essay* (cf. 1668: 22 and passim).

⁶ The notion of 'field' is here intended in its specialized meaning, as introduced in linguistics by Trier (1931); cf. also Lyons (1963, 1977), Geckeler (1971), and Lehrer (1974).
respectively. An example entry will illustrate the way in which meanings are retrievable from a conceptual classification of "things and notions".7

Looking up in the *Alphabetical Dictionary* and the *Philosophical Tables*

The word KNOWLEDGE will be used to exemplify how information about the defining features of an item is displayed in the *Essay* and how it can be obtained by the users of the text through both the structure of the definition included in the Tables and its relation to the alphabetical section of the Dictionary.8 Figure 1 reproduces the entry for the English word KNOWLEDGE in the *Alphabetical Dictionary*:

```
   L A

Knowledge, [Knowing]
[Science,] Ha. V1. 1.
[Experience,] Ha. V1. 4.
Knuckle, PG. V. 7. A.
Know, [Kanot] PP. I. 1. A.
```

Figure 1. J. Wilkins and W. Lloyd, *An Alphabetical Dictionary*.

The words in brackets represent the different meanings of the lemma, which is therefore clearly identified by Wilkins and Lloyd as a polysemous word. The first gloss, KNOWING is intended to give the basic sense of the term. The two sub-lemmas in the indented column indicate the complete conceptual overlapping of KNOWLEDGE with the two items, and the ensuing relation of "absolute synonymy", which, in the perspective of a universal language based on the classificatory Tables, connects the English word KNOWLEDGE with the words SCIENCE and EXPERIENCE respectively.9 In the Tables, the two meanings are two distinct notions, as the

---

7 For a thorough description of the formal devices and of the different defining procedures used by Wilkins and Lloyd in the composition of the Dictionary, Dolezal's works on the topic (1983, 1985) are an outstanding point of reference.
8 The generic terms 'item' and 'element' will hereafter be used for referring to a unit when it is taken into consideration in the classificatory Tables, where concepts are defined. The same unit in the *Alphabetical Dictionary* will be referred to as a 'word'.
9 It is necessary to clarify the use of the concept of 'absolute synonymy' in the present work. In lexicological and lexicographical studies absolute synonymy is considered as extremely rare, or even alien to semantic relations in natural languages (cf. Cruse 1986: 268–70 and 2000: 157–8; Zgusta 1971: 89–90; Landau 1984: 105–6; Hartmann and James 1998 s.v. "synonymy"). Nevertheless, this concept finds its own place in Wilkins' commitment to the creation of an unambiguous artificial language system (cf. 1668: 18). In the *Essay* what can be considered a conceptual-semantic overlapping of the content of different English word-forms is stressed by the absence of any differentiations in the definitions of those words, since neither semantic nor grammatical modifications are specified in the *Alphabetical Dictionary*. But only a gloss is given and/or a code-reference (cf. n. 10) to the same place in the Tables, where one single concept is defined. Consequently, in the artificial language based on the Tables one single form will be used for indicating one single concept,
code-reference shows. The first meaning of KNOWLEDGE, i.e. SCIENCE, will be taken into consideration: the reference given for this item indicates the place in the Tables (displayed in Figure 2):

<table>
<thead>
<tr>
<th>Chap. VIII.</th>
<th>Habit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI. Those are styled ACQUIRED INTELLECTUAL HABITS VI. ACQUI-</td>
<td>205</td>
</tr>
<tr>
<td>which may be gotten by Industry, and tend to the perfecting of the</td>
<td></td>
</tr>
<tr>
<td>Mind or Understanding. They are distinguishable by their</td>
<td></td>
</tr>
<tr>
<td>Objects; being either</td>
<td></td>
</tr>
<tr>
<td>1. OPERATIONS; furnishing the mind with Due Notions and Conceptions</td>
<td></td>
</tr>
<tr>
<td>concerning the Nature of Things, their Causes, Differences, Relations,</td>
<td></td>
</tr>
<tr>
<td>and Dependencies.</td>
<td></td>
</tr>
<tr>
<td>2. CURiosity;</td>
<td></td>
</tr>
<tr>
<td>IGNORANCE, rude, untaught.</td>
<td></td>
</tr>
<tr>
<td>Active; denoting Skill in men and businesses, whereby we are enabled</td>
<td></td>
</tr>
<tr>
<td>to judge what is fit and convenient, according to various cases and</td>
<td></td>
</tr>
<tr>
<td>circumstances.</td>
<td></td>
</tr>
<tr>
<td>3. WISDOM, Prudence, Discretion, Sapience, wise, Sage, politics.</td>
<td></td>
</tr>
<tr>
<td>&amp; CRAFT, Cunning, Subtility, Shrewd, Policy, Deceit, Quick, Shrewd,</td>
<td></td>
</tr>
<tr>
<td>Fitch, Wise, Trick, as, ground, Knave, Sharp.</td>
<td></td>
</tr>
<tr>
<td>Folly, Foolish, Simplicity, silly, foolish, Imprudence, indiscretion,</td>
<td></td>
</tr>
<tr>
<td>unwise, unwise, absurd, shallow, Noddy, Nanny, dot, infatuated,</td>
<td></td>
</tr>
<tr>
<td>Foppery.</td>
<td></td>
</tr>
<tr>
<td>Effective; implying Skill in those several Operations and Works</td>
<td></td>
</tr>
<tr>
<td>which concern Humane life.</td>
<td></td>
</tr>
<tr>
<td>ART, Skill, Dexterity, Craft, Cunning, Iniquity, Knack, expert, well-</td>
<td></td>
</tr>
<tr>
<td>form, good at, artificial, Workman, Artiff.</td>
<td></td>
</tr>
<tr>
<td>EXCELLENCE, dexterity, shrewdness, husking, juggling, inquiring,</td>
<td></td>
</tr>
<tr>
<td>shrewd, shrewd, ignorant, idle, rude, crafty, jocose, inexpert, un-</td>
<td></td>
</tr>
<tr>
<td>artificial, awkward, Freshman, Novice.</td>
<td></td>
</tr>
<tr>
<td>The manner of acquiring them; whether by</td>
<td></td>
</tr>
<tr>
<td>Our own Observation, and repeated Trials.</td>
<td></td>
</tr>
<tr>
<td>EXPERIENCE, practice, Experient, Knowledge, conversant, versed,</td>
<td></td>
</tr>
<tr>
<td>expert, Experiment, Empery.</td>
<td></td>
</tr>
<tr>
<td>Inexperience, inexpert, raw, to pick, Fanny, Novice, Freshman,</td>
<td></td>
</tr>
<tr>
<td>unwise.</td>
<td></td>
</tr>
<tr>
<td>The Teaching of others, either</td>
<td></td>
</tr>
<tr>
<td>\textit{via\ } book, or \textit{ex\ } script.</td>
<td></td>
</tr>
<tr>
<td>LEARNING, Literature, Scholarship, scholastic, Liberal Science.</td>
<td></td>
</tr>
<tr>
<td>3. Skill, indiscernible.</td>
<td></td>
</tr>
</tbody>
</table>
| UNLEARNEDNESS, illiterate, unlettered, rude, \\
| ignoble. |

Figure 2. J. Wilkins, Essay: 205.

Here, the notion is 'structurally' defined as *a Habit, *acquired intellectual (glosses are also available for both the Difference and the Genus), *distinguishable by its objects, *speculative (the characterising features of the item are highlighted here by asterisks).\(^{10}\) In fact, the defining nodes in the Tables of the *Essay* are not limited to a consistent correspondence to the three main classificatory levels. It is true that the layers of Genus, Difference, and Species provide a regular definitional pattern for all the classified items, nevertheless the features given by such a pattern are regularly enhanced by additional properties formally represented in the Tables as

notwithstanding the fact that the English words placed in the same classificatory slot are not complete synonyms (see below).

\(^{10}\) The code-reference (Ha. VI. 1.) is an abbreviated indication of 'Genus HABIT, sixth Difference, first Species'. The table in *An Advertisement to the Reader* that opens the *Alphabetical Dictionary* provides a key to the abbreviations used in the Dictionary. When the full form is hereafter provided, it will be quoted from the aforementioned table.
differential nodes. The following gloss is added to the 'structural definition' of SCIENCE: “[...]
 furnishing the mind with due Notions and conceptions concerning the Nature of things, their
 Causes, Differences, Relations and Dependencies. SCIENCE, Knowledge, Skill, Theory, 
 Learning, Insight”. This example shows an interesting implication of the hierarchical
 organisation of the classificatory structure: in the Tables of the Essay the definiens always
 precedes the definiendum.

The gloss given by Wilkins to SCIENCE illustrates the rationale of his project, since it
 contains the keywords for understanding the principles on which his heuristic and defining
 procedure is based (cf. 1668: 1, 20, 22, 289). Such a procedure determines that information
 about the nature of an item in the classificatory scheme is centred in the locus in which it is
 collocated. Consequently each ‘slot’ in the taxonomical Tables represents a relational node that
 gathers the defining features of the elements included in it.

The network of semantic relations in the Essay

Main distinguishing features

Wilkins’ scheme provides, on the one hand, the direct (or positive) statements about the
 features characterising the classified elements. On the other hand, the architecture of the Essay
 also makes available information, retrievable through an indirect (or negative) line, following
 the diverging nodes of co-taxonomies at the different levels of the classification. The above
 description of the first meaning of the word KNOWLEDGE (i.e. SCIENCE) is focused on the
 positive path of analysis. The negative aspect of the definition will be illustrated later.

In the classification of the Tables, the basic properties of an item are inherited from its
 hypernym or hypernyms (depending on the level of the hierarchy): the Genus inherits its
 characterising features from the relational nodes that determine its position in the global
 hierarchy reproduced in the General Scheme (1668: 23; cf. Figure 3). In turn, the Genus,
 together with the Difference, act as delimitations of the conceptual fields, and transfer their
 properties to their subordinate elements (cf. Hüllen 1999: 255–7, 273–4). Furthermore, specific
 characterising features are added on the three main classificatory levels. The elements included
 in a conceptual field are in a mutual, or network relation; consequently, all the other elements,
 apart from the key one which the focus is centred on, represent an additional source for
 increasing the completeness of the definition.

The general principle of differentiation has a fundamental role in the Essay, where it is
 thoroughly applied from both a procedural and formal point of view, as clearly appears in the
 Table of the Difference proposed above (cf. Figure 2), where braces and indentation show the
 divergence of the relational nodes (cf. Hüllen 1999: 254). Differentiation is implemented in the
 Tables as a relation of conceptual opposition. From a lexical point of view, opposition can be
 identified in the Essay in its different facets: it is possible to find relations of complementarity,
 converseness, gradable oppositions, and so on. But it is necessary to point out that in the

\[\text{11} \text{ Detailed parameters, such as those proposed by Cruse (1986, 2000), are used by Eco (1993: 270–1) to}
\text{ sketch the different kinds of lexical oppositions detectable in the Tables; cf. also Frank (1979: 133–6).}\]
Tables Wilkins does not provide any formal devices for distinguishing these relations, which are generally identified as oppositions. At the Species level, differentiation can involve up to four items, even though this is not the standard (cf. Maat 1999: 144–7); and in the case of oppositions which are not 'single' but “double”, this relation is broadly interpreted by Wilkins as a gradable one, as suggested by the terminology used to define these words in the Dictionary. Affinity is another basic relational principle applied in the structure of the Tables; it characterises one of the concepts placed in the same locus (or relational node) as distinct but not opposed to the other one, as the corresponding definition in the Dictionary points out.

Figure 3. J. Wilkins, Essay: 23.

12 In the above example the node SCIENCE contains also CURIOSITY and IGNORANCE, which are respectively identified in the Alphabatical Dictionary as its “Exceeding extreme” and its “Deficient extreme”; Wilkins also gives a brief explanation of his interpretation and application of the relations of opposition and affinity (1668: 290).

13 In the Tables considered here an example of this relation is represented by the concept DISPOSITION which is classified as “Affinis” to the Genus HABIT (cf. Figure 5).
The Alphabetical Dictionary has a fundamental role in the delineation of semantic relations, and in particular for the phenomena of synonymy and polysemy, which are reflected through the collocation of word-forms in relation to the corresponding meanings in the Tables. In the taxonomic scheme, the words interpreted as ‘absolute synonyms’ are included in the same locus and the references to the Tables contained in the Dictionary for these words contribute to clarifying the typology of the semantic relation in which they are involved. But no further specification that can help the user to identify the semantic differences between (near-)synonyms is provided (cf. n. 9). Consequently, in the perspective of the universal language proposed, the word KNOWLEDGE represents an example of ‘complete synonymy’ with SCIENCE and EXPERIENCE respectively: in the Tables it is listed after the two items (cf. Figure 2), and in the Alphabetical Dictionary this relation is highlighted by the code-references given (cf. Figure 1). Polysemous words find multiple collocations in the Tables: EXPERIENCE – the second meaning given for the word KNOWLEDGE – is both defined as a HABIT (Ha. VI. 4.) and as a Species under the Genus TRANSCENDENTAL RELATIONS OF ACTION (TA. III. 4. A., i.e. “Affinis” to ENDEAVOURING, under the headword ESSAYING).

Furthermore part-whole relations are occasionally used in the taxonomic scheme as classificatory principles because Wilkins provides specific Tables in order to arrange only the parts of living entities (the Genera in question are: PARTS PECULIAR and PARTS GENERAL of Plants and Animals). But for the other items, meronymic relations are sometimes used as distinguishing features. An example of this kind of relation can be found under the Genus OECONOMICAL POSSESSIONS: the fifth Difference is CARRIAGE, and its subordinate Species are distinguished by being either “considered as Whole” or “considered as Parts” of the superordinate Difference (1668: 257).

After this cursory consideration of the relational principles adopted by Wilkins in the realisation of his classificatory scheme, it is interesting to consider how the complete set of information (i.e. the defining features) of an element can be gathered, both through the hierarchical structure and the wider relational network provided by the Tables. The former gives positive information about what the elements contained in it are, while the latter contributes to determining what an item is not, specifying how it relates to the other elements included in the same conceptual-semantic field, and the way in which it differentiates itself from the others.

The wider relational network

The definition of the term SCIENCE previously mentioned starts from the Genus level, which allows the reader to retrieve the basic conceptual and semantic information about both the concept and the English word. In fact this basic level can be considered as that which gives the main lexicographic definition, as it makes available to the user of the text the meaningful properties characterising and uniquely identifying the item in question. Nevertheless, further meaningful features can be retrieved through the consideration of the complete relational structure of which the notion SCIENCE is a part, as Figure 3 shows.

---

14 A further distinction is represented by the consideration of the “Furniture of the Animals which draw or carry [...]” (1668: 257).
The General Scheme in the Essay precedes the Tables of the Genera and clearly illustrates
the further hierarchy present above the level of the Genus with different degrees of embedment
for the various Genera. In addition to the properties deriving from the relational nodes on the
upper levels of the hierarchy, the concept SCIENCE inherits the features that the Genus HABIT
draws from its co-taxonomic relations, displayed in Figure 4, which illustrates the node from
which the Genus HABIT branches.

CHAP. VIII.

Concerning the Predicament of Quality; the several Genus's belonging
to it, namely, I. Natural Power. II. Habit. III. Manners.
IV. Sensible quality. V. Disease, with the various Differences
and Species under each of these.

Whether many of those things now called quality, be not reducible
to Motion and Figure, and the Situation of the parts of Bodies, is a
question which I shall not at present consider. 'Tis sufficient that the particular
are specified are most commonly known and apprehended un-
der that notion as they are here represented, and are still like to be called
by the same names, whatever new Theory may be found out of the cau-
se of them.

The several Genus's under this Predicament are such kinds of Quali-
ities as are either

\[ \begin{align*}
\text{Innate} & : \text{NATURAL POWER,} \\
\text{Superinduced} & : \text{considered more} \\
\text{Generally} & : \text{styled by the common name of HABIT.} \\
\text{Specially} & : \text{with respect to the customary Actions of men considered} \\
\text{External} & : \text{denoting either (as voluntary MANNERS,} \\
\text{Those more general affections of bodies which are the objects of} & \text{SENSIBLE QUALITY.} \\
\text{Those special impotencies of living bodies, whereby they are disabled} & \text{SICKNESS.} \\
\end{align*} \]

Figure 4. J. Wilkins, Essay: 194.

HABIT is one of the five elements identified as "Qualities", distinguished from the others by
a series of features which characterise it: HABIT is "Internal" rather than "External", as are
SENSIBLE QUALITY and SICKNESS; it is also "Superinduced" rather than "Innate", this feature
differentiating it from NATURAL POWER, and it is considered "more Generally", rather than
"more Specially", as is the case with MANNERS. These traits of the Genus, together with the
information provided by a gloss, added to define it, are inherited by its subordinate
Differences. Furthermore a relation of affinity is underlined for the Genus HABIT which
diverges from the concept DISPOSITION, placed in the same locus, as it is a "Quality" of more
perfect degree (cf. Figure 5).

Figure 5 displays the Table of the Genus level, representing how the subordinate
Differences branch from it. In this Table, the hypernymic Difference of the Species SCIENCE, is
more specifically identified as one of the "Kinds of vertuous Habits", this property
distinguishing it from the other Differences under the same Genus that are characterised
instead as being either “States or Conditions of life” (namely ENDS OR REWARD OF VERTUE and INSTRUMENTS OF VERTUE) or “Qualifications” (i.e. AFFECTIONS OF VERTUE, either INTELLECTUAL or MORAL). SCIENCE is further labelled as an ACQUIRED INTELLECTUAL, not INFUSED HABIT.

200  Habit.  Part. II.

OF HABIT.

§ II. Such superinduced qualities, whether infused or acquired, whereby the natural faculties are perfected, and rendered more ready and vigorous in the exercise of their several acts, according to the more or less perfect degree of them, are styled by the name of

§ Habit. Endowment, capacity, quality, Gift, Talent.

§ DISPOSITION. Propensity, Produciveness, Proverbial, Inclination, readiness, given to, disposition, fitness, aptitude.

To the more general consideration of Habit may appertain

§ Those States or Conditions of Life which either reward or enable men for vertuous Actions; comprehending the

§ ENDS OR REWARD OF VERTUE. I.

§ INSTRUMENTS OF VERTUE. II.

§ Those Qualifications, which, though they are not properly Vertues, yet do prepare for, and dispose unto, and in other respects, circumstance Vertue it self, both in the Habit and Operations of it, and are therefore styled AFFECTIONS OF VERTUE, either

§ INTELLECTUAL. III.

§ MORAL. IV.

§ The Kinds of vertuous Habits, whether

§ INFUSED, both Intellectual and Moral. V.

§ ACQUIRED INTELLECTUAL. VI.

Figure 5. J. Wilkins, Essay: 200.

In the Tables of the Essay the above-mentioned structure (cf. Figure 5) precedes the definition previously illustrated (cf. Figure 2) for which only the positive line of characterisation of the notion SCIENCE has been mentioned; but if the relations completing the principle of inheritance are pointed out as well, the item SCIENCE is further identified by being more specifically distinguishable by its “Objects”, rather than by “The manner of acquiring them”, being “Speculative”, as different from both “Active” and “Effective”.

All the elements included in the same Table – or conceptual/lexical field – and depending on the other branches of the hierarchy, contribute to establishing the nature of the concept considered, since they allow the reader to have a complete image of the domain in which the key element is included and from which it receives its content. The display of clear-cut relations among the elements in a field plays an important role in the reader’s understanding of the meaning of its members.\(^\text{15}\)

Moreover, a further relational pattern is provided in the Essay for the items listed after many of the headwords in the classification. In the taxonomic Tables only a selection of simple "things and notions", called "Radicals" by Wilkins, has been classified and given the place of headwords in the different loci (1668: b4, 20, 22, 295). The reason for this choice is the need for a quantitative limitation of the elements to be included in the classificatory Tables imposed by the method devised by the author. This method, on the one hand, allows a uniform and economical defining procedure but, on the other, also determines a programmatic decision to define, through the hierarchical structure, only the elements "à Priori" identified as "simple" (1668: b4).

The remaining items, added to the Tables after a consideration of the inventory of words resulting from the compilation of the Dictionary (1668: b4), are defined through their reduction to the headwords, or "Radicals" which, as a consequence, acquire also a role of semantic basis for the words associated with them and placed in the same classificatory locus. Consequently each locus becomes a semantic 'sub-field', since the non-Radical words included in the text are either 'complete synonyms' of the headword to which they are connected – as they express the same concept – or they are semantically subordinated to it, and are defined in the Alphabetical Dictionary in terms of their grammatical and/or semantic relation to the "Radical" (cf. 1668: 290). The definition of these items consists in a reference to the headword to which they are related, with the addition of grammatical and/or semantic modifiers, defined by Wilkins respectively as "Grammatical" and "Transcendental Particles" (cf. 1668: 298, 304, 318). The value of these Particles, established by the author, is indicated in the section of the Universal Grammar, but the definition of the 'sub-species' items is not provided in the Philosophical Tables, as clearly appears from the page of the Essay previously presented (cf. Figure 2).16 In fact, the complete information about these elements can be retrieved only from the lexical definitions in the Alphabetical Dictionary, which directly contributes to clarifying their semantic and conceptual analysis.

A brief scrutiny of the information given in the Alphabetical Dictionary for the words listed after SCIENCE ("Knowledge, Skill, Theory, Learning, Insight") illustrates some of the relations present at the 'sub-species' level.17 "Skill" and "Insight" are identified as 'complete synonyms' with the headword; "Learning" is nested in the Dictionary under the entry "Learn" and reveals one of the formal irregularities of the text, because the reference given is only to a different locus of the same Table (Ha. VI. 5.) where it appears as headword, but no mention is made of the first Species. As far as "Theory" is concerned, one of its defining references gives, in abbreviated form ("sp. adj. a. Science (apt.)" [sic]), the following information: "especially adjective active [of] aptitude or pronoeness to Science", where both grammatical and semantic modifications are indicated by the components of the definition.18

---

16 It is beyond the scope of this paper to go into the necessary details related to the nature and method of application of the Particles provided in the Essay because, since they depend on Wilkins' theory of a philosophical language, their treatment would imply a wider and more exhaustive analysis (for a thorough scrutiny of the Particles in the Essay cf. Frank 1979: 190–227; Dolezel 1983: 72–82; Hüllem 1995: 339–42 and 1999: 268–73; Maat 1999: 187–91).

17 The consideration will be limited here to the relations pointed out in the Dictionary between these words and the headword SCIENCE.

18 In this definition "adj." and "a." are grammatical markers, while "aptitude, or pronoeness" is one of the Transcendental Particles.
Conclusion

The illustration of the relational structure of the concept SCIENCE and of some of its related items – in particular the word KNOWLEDGE, which has triggered the present analysis – shows the lack of coincidence between the English words and the concepts they indicate. This is the basic assumption that originated Wilkins’ project (1668: 19–21), which is structured so that the conceptual and the semantic analyses are made possible by the combined roles of the network of the Tables and the Dictionary. On the one hand, in the Advertisement to the Reader that introduces the Alphabeticall Dictionary, Wilkins points out the distinct natures of the two components of the Essay considered in this paper, writing that: “The Design of the Philosophical Tables is to enumerate and describe all kinds of Things and Notions: And the Design of this Dictionary, is to reckon up and explain all kinds of words, or names of things”. Nonetheless, in the illustration of the parts composing his Essay Wilkins also highlights the dependence of the Dictionary definitions on the conceptual analysis brought about in the Tables, stating that the last part consists in “[…] a Dictionary of the English tongue, in which shall be shown how all the words of this Language, according to the various equivocal senses of them, may be sufficiently expressed by the Philosophical Tables here proposed” (1668: 1–2). This ‘reconciliation’ of the two sections is consistent with what is declared in the title of the Dictionary itself quoted above.

In the Essay “things”, “notions” and “words” are in a kind of complex mutual relationship in spite of the fact that with his work Wilkins intended to simplify and make their interrelation clear (1668: a2–a3). As far as the lexicographic aspect of the Essay is concerned, this topic appears particularly problematic since the very concepts of ‘definition’ and of ‘object of definition’ are affected by the possible interpretations that can be given to the defining principles applied by the author through the joint activity of the hierarchy of the Tables and the procedures implemented in the Dictionary. In fact two distinct basic methods are used by Wilkins for the definition in the Essay: in the Tables the items classified as headwords are structurally defined through the hierarchy – with the occasional addition of descriptive glosses mainly providing encyclopaedic information; and the words used to identify these items have the status of labels for the corresponding concepts (or “mental notions”, 1668: 20). While the words in the Tables have the function of mere conceptual labels, the ones listed in the Alphabeticall Dictionary are actual English words for which various kinds of defining procedures are used (Dolezal 1985: 58–93); nonetheless they are eventually defined through the concepts classified in the Tables (Hülleen 1999: 250–84), where their core specific meaning is identified and ‘delimited’ by the place they occupy, as the author also stresses in the title of the Dictionary. It is possible to identify a double status for both the Dictionary and the Tables, since each of them can be submitted to independent consideration; but if their interrelation is analysed, they acquire a sort of additional value, as they mutually enhance each other’s potential (Leonardi 2002: 170-95; Leonardi 2003).

The Alphabeticall Dictionary, as a list of the English word-forms whose meanings are defined through the Tables of the Universal Philosophy, represents a sort of analytical index of the elements classified in the Tables, since it contains regular references to the locus where every single concept – labelled by a corresponding English word – is arranged in the

---

19 This question has been analysed by both Dolezal (1994b) and Hülleen (2000: 16–17).
taxonomy. In the meantime, if the focus of attention is on the *Alphabetical Dictionary*, the structure that characterises it also shows an autonomous status, which implies an ancillary role for the defining section. Nonetheless, in Wilkins’ *Essay* the organisation of meaning definitions overlaps with the definition of ‘universal’ concepts; as a consequence the particular structure of the lexicographic defining system heavily depends on the notional analytical hierarchy contained in the Tables of the *Universal Philosophy*. For the majority of the lemmas in the Dictionary – mainly those not corresponding to “Radical” items – what can be considered a ‘lexical’ definition is given; but an ultimate reference to the ‘conceptual’ definition in the Tables is nevertheless implied. In addition, the latter kind of definition is the only one available for the words corresponding to the items classified as headwords.

As the example illustrated in this paper is intended to show, this assumption does not invalidate the defining potential of the *Essay*, since the definitions resulting from the overall structure of the Tables supply the semantic content of the English words listed in the Dictionary. The conceptual and semantic layers are not neatly distinguishable in the *Essay* since ‘concepts’ are intended by Wilkins as the mental contents (1668: 20) – obtained through the joint activities of the senses and the intellect (cf. Wilkins, [1675] 1683: 2–3, 55–6) – that find their expression through a formal linguistic system: the identification of notions and meanings ultimately originates from the intention of the author to analyse notions in order to obtain their precise linguistic expression.

The distinguishing features of the *Alphabetical Dictionary* can be explained by the fact that Wilkins’ main concern is not so much the form of natural language as the communicative effectiveness of language. Consequently, his linguistic speculation is centred, as he states in the *Epistle Dedicatory* of the Essay, on “things”, “real knowledge” and “the good of mankind”, as opposed to “words”, “elegancy of speech” and the good of particular countries or nations, to which in Wilkins’ view the Académie Française and the Italian Accademia della Crusca appeared prone in their “Work of Dictionary-making”, as he defines it (1668: a3). This is the reason why he considered the compilation of a Dictionary a “minor” undertaking when compared with a project, endowed with a philosophical foundation, like the one he developed.

Wilkins’ stance on natural and philosophical languages is responsible for both the assets and the shortcomings of the *Alphabetical Dictionary* which, on the one hand, lacks many of the typical components of an entry – e.g. it does not display any information on pronunciation or etymology nor are the morphological or syntactic features of the lemmata given. On the other hand, the treatment of semantic relations and especially of the relations of polysemy and synonymy in the *Alphabetical Dictionary* can be considered unprecedented in English monolingual lexicography, especially if its wide coverage of ordinary words is taken into account (Dolezal 1985: 2, 57). Furthermore, the *Alphabetical Dictionary* provides fixed expressions and multi-word combinations; these are the only usage information available in Wilkins’ and Lloyd’s Dictionary. As a result, this work displays the deep concern of its authors with the semantic value of lexical units rather than with the formal properties of English lexemes. But the most outstanding characteristic of the *Alphabetical Dictionary* is undoubtedly the organisation of its defining structure, which has no parallel in its contemporary lexicographic theory and practice. This architecture is the device that allows Wilkins and Lloyd to point out the single lexical units and to produce an accurate analysis of each of them.

In fact, many of the features characterising the *Alphabetical Dictionary* appear unrelated to the contemporary lexicographic tradition and can be explained only by their dependence on Wilkins’ main purpose in the elaboration of the *Essay*, that is to say the creation of a universal and philosophical communication system which was to be free from ambiguity, and which
consequently required a clear enumeration and description of the "things and notions that fall under discourse" (1668: passim).

The network definition structure used by Wilkins in the Universal Philosophy, and consequently in the Alphabetical Dictionary, follows the tradition of knowledge representation schemes and heuristic devices, and it can be interpreted in this perspective (cf. Hüllen 1999). In fact, this kind of analytic procedure is well known in the traditions of classical logic and of the elaboration of knowledge thesauri, from Aristotle's Organon to Bacon's Novum Organum. Nonetheless, Wilkins does not limit its application to the analysis and ensuing representation of "things and notions": with the artificial language, and above all with the Alphabetical Dictionary of the English language he extends this analysis to linguistic meanings. This operation elicits a double characterisation for the Tables of the Universal Philosophy as both a conceptual and a semantic analysis.

References

(a) Cited Dictionaries

Wilkins, J. & W. Lloyd (1668): An Alphabetical Dictionary, Wherein all English Words According to their Various Significations, Are either referred to their Places in the Philosophical Tables, Or explained by such Words as are in those Tables. – London, Printed by J. M. for Samuel Gellibrand and John Martin [bound together with Id., Essay].

(b) Other Literature


—— ([1675] 1683): Of the Principles and Duties of Natural Religion: Two Books. By the Right Reverend Father in God, John late Lord Bishop of Chester. To which is Added, a Sermon Preached at his Funeral, by William Lloyd, D.D. Dean of Bangor, and Chaplain in Ordinary to His Majesty. – London, Printed for T. Basset [...] ; Joanna Brone [...] ; R. Chriswel [...].