Analysis of Term Definitions: In Search of Domain Genus-Species Structure of Terminology

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Abstract: According to the traditional point of view, generic definition nominates the nearest generic concept for a defined expression (definiendum) and its specific features. This understanding implies that for any generic definition, you can specify one part of the defining expression (definiens) as a wording of the nearest generic concept (for a definiendum), and another part of the same expression – as naming specific difference/differences. However, in practice, parsing any arbitrary definiens into these parts is far from a trivial task. In this article a method of terminology definitions analysis is proposed in order to establish the definiens fragments that nominate the nearest generic concept (Genus Proximum) and its specific features (Differentia specifica). The idea of the most remote generic (for the defined) concept (Genus Remōtum) is introduced, which is opposite to the nearest generic concept (Genus Proximum) and which turns out to be very fruitful for the proposed analysis of generic definitions. The analysis and its results heavily depend on the semantics and syntax of the definiens. In particular, some defining expressions even in the form of substantive phrase do not nominate generic concepts and their specific characteristics, and in this sense, they are not generic definitions. Some definitions, assigned even to a single concept, on the contrary, can be interpreted as nominating several Genus Proximum concepts. Finally, it is demonstrated that the same generic definition can specify an entire hierarchy of generic concepts starting from the nearest generic concept (Genus Proximum) and ending with the most remote generic concept (Genus Remōtum).

Keywords: Term Definition, Concept, Definiens Fragment, Generic Concept, Specific Features

1. Introduction

The role of conceptual analysis in the study, normalization and standardization of terminology is highly appreciated. According to some works, conceptual analysis of terminology is the core of terminological work in general. At the same time, speaking about different methods of conceptual analysis of terminology, the Finnish terminologist A. Nuopponen notes: «These methods as such do not meet all the methodological requirements of academic research without modification and without taking into account the prerequisites of academic research» ([6], p. 4).

In many publications focused on terminology conceptual analysis, the development of terminology definitions is, if not the final, but very much advanced stage of conceptual analysis. It is assumed that the researcher develops a definitional system of terminology as a result of conceptual analysis [5, 7, 12]. Thus, it is tacitly assumed that if the terminology definition system is available, then the conceptual analysis of terms with definitions is self-evident. However, this is not so.

Here we will try to propose some special linguistic procedures of terminology definitions analysis to establish the genus-species relations between terms and, in this way, to detect the whole genus-species hierarchy of terms of a particular domain in case it is supplied with a system of terminological definitions (a good idea of the problems of definition use in different fields of knowledge is given in the collection of papers [8]. Therefore the aim of this article is to present a method of term definition analysis which enables the researcher to identify a hierarchy of generic concepts for

a concept (or terms for a term) to be defined and its specific attributes (characteristics); applied to all concepts and terms supplied with definitions this method yields a profit of clarifying overall genus-species structure of the domain under consideration. Unlike a number of some subject field oriented methods, the method proposed below is independent of the subject field (domain) and hopefully quite applicable to the terminology definition systems in various languages, including the major European languages.

2. Parsing of the Defining Expression

It should be noted that it is quite natural and fruitful to start the description of the conceptual structure of terminology from its genus-species structure for many reasons.

First, being closely connected with the theory of classification and definition theory, the study of generic relations of the objects and concepts of a particular scientific field has a rich tradition running at least from Aristotle, for whom genus was "the essence of things." The study of generic relations between concepts and terms has survived through ages in logic, linguistic semantics and terminology.

Genus-species hierarchy, deeply studied from the formal structural point of view, is also rich enough theoretically, to construct and represent an important part of the structure of knowledge. In particular, genus-species structure is not necessarily a tree structure (by which it is most often illustrated), due to the fact that one species concept (object) can have more than one nearest generic concepts (objects) to it.

Second, genus-species conceptual analysis specifies promising in practical applications binary structures of a type «CONCEPT (OBJECT) – IS A – CONCEPT (OBJECT)» and «CONCEPT (the OBJECT) – ITS SPECIFIC features». Each of the structure represents an important assertion (predication) of a particular field of knowledge, and, in case of terminological definitions, this assertion is absolutely true (simply because of its definitional nature). Furthermore, computer modeling of genus-species hierarchy provides a logical inference according to the well known principle of "feature inheritance", which runs: all true for a generic concept (object) is true for all its species concepts (objects) and, thus, every specific concept (object) "inherits" features of its generic concept (object). That is why, as it put it P. Faber and M-C. L'Homme, «Up until now knowledge patterns conveying hyponymic relations have been the most commonly studied since they play an important role in categorization and property inheritance» ([2], p. 144).

Third, genus-species hierarchy of concepts (objects) is a universal, statistically significant structure that permeates any subject domain. Thus, according to some data, in terminology stan-dards genus-species relations make up more than 70% of concept relations between terms in term definitions.

Finally, fourth, the very wording of generic concept often turns out to be an indicator of semantic relations between the term to be defined (Dfd) and other terms of the defining expression (Dfn); subsequently, the semantic relations

identified in that way can contribute to the representation of terminology conceptual structure.

The foregoing explains the persistent appeal of both linguists and terminologists to term definition data and concept relations they testify, in particular [3, 4, 9-11, 13-15].

The language data of our study are terms and their definitions from the field of the terminology, or rather the English part of the normative document «Glossary of terms used in terminology» developed by B. Bessé, B. Nkwenti-Azeh and J. Sager [1]. Here are a few examples from this document, where «en» in square brackets means 'English', and «def» in square brackets means 'defining expression, definiens':

1. [en] compound
[def] A word or term constituted of several words or terms.
2. [en] lexeme / lexical item
[def] The smallest unit of the *vocabulary* of a *language*.
3. [en] abbreviation
[def] A reduced form of a term or word which is produced by the omission of some of its letters.
4. [en] alphabetic ordering
[def] The process and method of ordering the entries of a *reference work* according to the traditional sequence of the alphabet.
5. [en] code
[def] A symbol or *expression* from a closed set of elements which represents information about a *concept* or a term.
6. [en] term
[def] A *lexical unit* consisting of one or more than one word which represents a *concept* inside a *domain*.

We will also make a few comments on document GB / T 15237-1-2000 that clarify some details.

First, we have omitted some elements of the dictionary, namely, references (ex. reference *citation form => canonical form* is omitted) and lexicographic notes (ex. note to the head word *variant Note*: Variants also include reduced and expanded forms of terms – is omitted). Secondly, within the limits of defining expressions (definiens) the terms that have their own definitions are highlighted in bold, cf. in the examples above 1 – 6 the terminological units *reference work, headword, dictionary, lexical unit,* which themselves have their own definitions in the dictionary are in bold. At the same time, in some cases this is not done, although, in our opinion, such highlight would have had to be done, cf. in the example 3 units of *word* and *term*, which have their own definitions seem to be highlighted. Therefore, in the corpus of the definitions under consideration we preliminary highlighted all the terms that occur in the definiens wording, but to distinguish the proposed (slightly modified) version of the dictionary from the original one, we will accentuate in a special way the units that are not highlighted in the original text, ex.:

1. [en] compound
[def] A word or term constituted of several words or terms.
2. [en] lexeme / lexical item
[def] The smallest unit of the *vocabulary* of a *language* (no changes);

3. [en] abbreviation

[def] A reduced form of a term or word which is produced by the omission of some of its letters;

4. [en] alphabetic ordering

[def] The process and method of ordering the entries of a *reference work* according to the traditional sequence of the alphabet (no changes);

5. [en] code

[def] A symbol or *expression* from a closed set of elements which represents information about a *concept* or a term.

6. [en] term

[def] A *lexical unit* consisting of one or more than one word which represents a *concept* inside a *domain.*

7. [en] usage label

[def] On the *terminological record,* a symbol or *expression* for different aspects of the *usage* of a term or word.

In addition, some other term allocations of the same domain that occur within the limits of definiens are singled out in the same way, cf.:

8. [en] canonical form / citation form / stem form

[def] The form in which a word or term appears as a *headword* or entry term in a *dictionary*;

9. [en] thesaurus

[def] A collection of lexical items which is structured according to semantic relations.

Among genus-species relations between concepts (and terms) the nearest generic concept (Genus Proximum, further – GP) is, probably, the most famous being widely accepted at least from the time of Aristotle. Actually, using the idea of the nearest generic concept the proper term of genus-species definition could be specified: every genus-species definition should allow to parse its wording into the wording of the nearest generic concept and the wording of its specific characteristics; definitions that do not allow to parse their Dfn wording in this way should be attributed to other types of definitions [13].

Let us now turn to the evidence of terminological definitions 1 – 6. For definitions 1, 2 and 6, clarification of generic concepts for defined terms causes no difficulties.

Respectively, for the first term *compound*, its GP is «a word or term constituted of {some} words or terms» and specific feature is «several» {words or terms} (in curly brackets is the word which syntactically refers to the formulation of the generic concept);

For the term *lexeme /lexical item*, its GP is «the unit of the *vocabulary* of a *language*»

And its specific feature is «the smallest» {unit};

For the term *term* we have «a *lexical unit* consisting of one or more than one word which represents a *concept*» as its GP and its specific feature is «inside a domain» {concept}.

As evidenced by the wordings of definitions the nearest generic concept is syntactically denoted by the main, semantically complete and meaningful component of the phrase, using the terms of the domain under consideration, namely *word, term, lexical unit, concept*. In all cases, the fragment causing the generic concept is the only one, in connection with which the generic concept is the only and therefore the nearest generic concept.

Definitions 3 – 5 exemplify quite a different case. What nominates generic concepts of the defined terms here? It is not difficult to see that for the formulation «a reduced form of a term or word which is produced by the omission of some of its letters» the following three word collocations nominate different generic concepts for the term *abbreviation*:

3a a form of a term or word,

3b a reduced form of a term or word,

3c a form of a term or word which is produced by the omission of some of its letters.

Here the first formulation denotes a generic term for the term *abbreviation*, but it does not, certainly, nominate GP. In fact, the second and the third wordings also express a generic concept for the term *abbreviation*, but this concept is more particular than the one nominated as «a term or word». The wordings of the specific characteristics in nominations 3a – 3c are different: in 3a the specific characteristics of the defined concept are «reduced» and «which is produced by the omission of some of its letters», in case 3b – «which is produced by the omission of some of its letters», in the case 3c – «reduced». Thus, we have two different, but both possible wordings of the GP concept for the term *abbreviation*, i.e. 3b «a reduced form of a term or word» and 3c «a form of a term or word which is produced by the omission of some of its letters». Let us pay attention to the fact that, as in the previous examples, the generic concepts are designated by syntactically superordinate and semantically complete meaningful component of the phrase which includes terms term and word. It is also worth noting that the remaining parts of the defining expression which nominate the specific characteristics of the concept are syntactically subordinate, but semantically complete components of the substantive phrase (cf. «reduced» and «which is produced by the omission of some of its letters»).

Let us now consider example 4. What nominates GP in the Dfn of the term *alphabetic ordering*, namely in the text «the process and method of ordering the entries of a reference work according to the traditional sequence of the alphabet»? It is unlikely that this is the fragment «the process and method», the meaning of which is not complete since it leaves unanswered the question: process and methods of what? Similarly, the same holds true for the fragment «the process and method of ordering», because it remains unclear the ordering of what is meant (ordering of what?). Going on analysing the substantive phrase, we come to the conclusion that generic concept is designated by the fragment «the process and method of ordering the entries of a reference work», and the designation of the specific feature of this concept is the fragment «according to the traditional sequence of the alphabet». Let us agree with this analysis, but again the question arises: is this generic concept the nearest one? From a logical point of view, it should be recognized that the answer to this question is negative. In fact, the substantive phrase «the process and method of ordering the entries of a *reference work* according to the sequence of the alphabet» refers to the concept that is clearly nearer to the

concept of *alphabetic ordering* than the concept designated by the phrase «the process and method of ordering the entries of a *reference work*». Assuming that there exist traditional and non-traditional alphabetic sequences, we get the following analysis of the Df: GP is designated by the word collocation «the process and method of ordering the entries of a *reference work* according to the sequence of the alphabet», and the designation of its specific characteristic is a fragment «traditional».

Again, as well as in the previous examples, GP concept is denoted by syntactically superordinate and semantically complete meaningful phrase component, including the term *reference work*. As above, the remaining part of the defining expression, which nominates specific features of the concept, is syntactically subordinate, but semantically complete component of the substantive phrase, namely, in example 4 is simply «traditional».

As soon as we turn to example 5, again, it turns out unexpectedly that the number of the GP concepts that can be obtained from a single definition is more than one. Thus, the considerations and criteria, quite similar to the presented above, lead to a different analysis of definition 5 of the term *code*:

5. [en] *code*

[def] A symbol or *expression* from a closed set of elements which represents information about a *concept* or a term.

In one way of the analysis it is possible to get the following wording of a generic concept:

5a – a symbol or *expression* (with its specific characteristic «from a closed set of elements which represents information about a concept or a term»);

in another way of the analysis it is possible to get the following wording of a more special generic concept:

5b – a symbol or *expression* from a closed set of elements (with its specific characteristic «which represents information about a concept or a term», the wording of which is syntactically related to the word «set»);

In one more, third, way of parsing Dfn we get one more special generic concept nominated as follows:

5c – a symbol or *expression* from a set of elements which represents information about a *concept* or a term (with its specific characteristic "closed", the wording of which is syntactically related to the word «set»).

Thus, two different wordings of GP concepts for the term code could be presented: 5b «a symbol or expression from a closed set of elements» and 5c «a symbol or expression from a set of elements which represents information about a concept or a term».

Summarizing the material considered, it is possible to present the following chains of genus-species relations:

1. *compound* – a word or term constituted of words or terms – a word or term;
2. *lexeme / lexical item* – the unit of the *vocabulary* of a *language*;
3. *abbreviation* – a reduced form of a term or word – a form of a term or word, *abbreviation* – a form of a term or word which is produced by the omission of some of

its letters – a form of a term or word;
4. *alphabetic ordering* – the process and method of ordering the entries of a *reference work* according to the sequence of the alphabet – the process and method of ordering the entries of a *reference work*;
5. *code* – a symbol or *expression* from a closed set of elements – a symbol or *expression*, *code* – a symbol or *expression* from a set of elements which represents information about a *concept* or a term – a symbol or *expression* which represents information about a *concept* or a term – a symbol or *expression*.

The invariable characteristic of the presented illustrative material is that the GP concept is nominated by means of syntactically independent (main) and semantically accomplished com-ponent of the phrase, including the term or combination of terms within its limits, when all the remaining syntactically dependent parts are be syntactically correct (they nominate specific features of the concept). In connection with the above, we could articulate a general rule for the establishment of the nearest generic concept and its specific features in the course of grammatical (semantic-syntactic) definition analysis.

2.1. Rule 1

The fragment of the text of the defining expression (Definiens, Dfn), which denotes the nearest generic concept of the defined term (Dfd), is its main, syntactically independent, semantically complete, maximum extended (different from the whole defining expression) part, including the term (or free combination of terms) if the remaining syntactically subordinate part is syntactically correct (or, if there are several of them, all the remaining syntactically subordinate parts are syntactically correct).

The remaining parts of the defining expression (Definiens, Dfn) represent a specific characteristic (if they syntactically relate to one word) or a combination (conjunction) of the specific characteristics (if they syntactically relate to several different words).

If Definiens (Dfn) does not include any term of any area of knowledge, then the analyzed definition is not a genus-species one. If Dfn includes a term, but the correspon-ding analysis exhausts Dfn entirely and does not leave any linguistic means of expressing specific features of the generic concept, then the definition is not a genus-species one either.

The idea of this rule is that the formulation of the GP concept can be specified by syntactic analysis of the Dfn and looking for the entry of one or another term within the limits of the Dfn. Here, since the nearest generic concept is sought, it is necessary to select the most widespread and syntactically complete ("maximum") formulation in the Dfn. As soon as such a wording is found, it is declared to nominate GP concept, and the remaining syntactically correct subordinate part (part) is accepted as the exponent of the specific feature (features) of the GP concept.

Let us now examine in more detail how Dfn of the terms *abbreviation, alphabetic ordering* and *term extraction* could

be analyzed according to the proposed rule, marking transition from one stage of analysis to another by means of the arrow →.

So, for the term *abbreviation*, we have the following Dfn analysis procedure:

A reduced form of a term or word which is produced by the omission of some of its letters → A form (meaning of the fragment is incomplete: a form of what? the analysis is to be continued) → A form of a term (meaning of the fragment is complete, but the rest part of the Dfn is not syntactically correct: or word is produced? the analysis is to be continued) → A form of a term or word (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, but the fragment including terms of the domain (term and word) is not maximum extended, the analysis is to be continued) → reduced form of a term or word (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, the fragment including terms of the domain (term and word) is maximum extended, the analysis procedure is over) → the result is:

GP: A reduced form of a term or word;

DS: which is produced by the omission of some of its letters {form} (the text in curly brackets is a part of the generic concept formulation to which the species attribute relates).

Another quite possible result could be the following:

GP – A form of a term or word which is produced by the omission of some of its letters;

DS: reduced {form}.

For the term *alphabetic ordering* we have the following Dfn analysis procedure:

The process and method of ordering the entries of a *reference work* according to the traditional sequence of the alphabet → The process (meaning of the fragment is incomplete: what process? the analysis is to be continued) → The process and method (meaning of the fragment is incomplete: The process and method of what? the analysis is to be continued) → The process and method of ordering entries (meaning of the fragment is incomplete: The process and method of ordering entries of what? the analysis is to be continued) → The process and method of ordering the entries of a *reference work* (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, but the fragment including term of the domain is not maximum extended, the analysis is to be continued) → The process and method of ordering the entries of a *reference work* according to the sequence (meaning of the fragment is incomplete: sequence of what? the analysis is to be continued) → The process and method of ordering the entries of a *reference work* according to the sequence of the alphabet (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, the fragment including term of the domain is maximum extended, the analysis procedure is over) → *the result is*:

GP: The process and method of ordering the entries of a *reference work* according to the sequence of the alphabet;

DS: traditional {sequence of the alphabet}

For the term *term extraction* we have the following Dfn analysis procedure:

The process of assembling from a *corpus* the terms and the information necessary for their description → The process (meaning of the fragment is incomplete: what process? the analysis is to be continued) → The process of assembling (meaning of the fragment is incomplete: assembling what? the analysis is to be continued) → The process of assembling the terms (meaning of the fragment is complete, but the rest part of the Dfn is not syntactically correct: and the information necessary for their description? the analysis is to be continued) → The process of assembling the terms and the information (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, but the fragment including term of the domain is not maximum extended, the analysis is to be continued) → The process of assembling from a *corpus* the terms and the information (meaning of the fragment is complete, the rest part of the Dfn is syntactically correct, the fragment including term of the domain is maximum extended, the analysis procedure is over) →*the result is:*

GP: The process of assembling from a *corpus* the terms and the information,

DS: necessary for their description {terms and the information}.

Another quite possible result could be the following:

GP: The process of assembling the terms and the information necessary for their (terms and the information) description,

DS: from a *corpus* {assembling}.

Below are the results of a similar Dfn analysis for terms *complex term* and *thesaurus*.

[en] *complex term*

[def] A term consisting of a terminologised and syntactically linked sequence of terms and words, which designate a single *concept.*

GP: A term consisting of a terminologised and syntactically linked sequence of terms and words.

DS: which designate a single *concept.*

[en] *thesaurus*

[def] A collection of lexical items which is structured according to semantic relations.

GP: A collection of lexical items which is structured according to {some} relations.

DS: semantic {relations}.

Let us pay attention to the fact that until now it dealt only with the nearest generic concepts and fragments of the texts that nominate them, the fact explained by their role in the history of logic and the theory of classification. Actually, in the above examples, we have put the problem of specifying a part of the Dfn nominating GP and the solution to the problem was illustrated by examples of definitions of the terms *compound, lexeme / lexical item, abbrevia-tion, alphabetic ordering, term, term extraction, complex term, thesaurus.*

However, from the linguistic, terminological and informational point of view, other generic concepts,

nominated in the same definiens, namely, the most general concepts (Genus Remōtum, then – GR), play no less, and perhaps even more important role. The problem to specify GR, which is also expressed by the same genus-species definition, is solved by rule 2.

2.2. Rule 2

The fragment of the text of the Definiens (Dfn), which denotes the most general generic concept of the defined term (Dfd), is its main, syntactically independent, semantically complete, minimum extended (different from the whole defining expression) part, including the term (or free combination of terms) if the remaining syntactically subordinate part is syntactically correct (or, if there are several of them, all the remaining syntactically subordinate parts are syntactically correct).

The remaining parts of the defining expression (Definiens, Dfn) represent a specific characteristic (if they syntactically relate to one word) or a combination (conjunction) of the specific characteristics (if they syntactically relate to several different words).

If Definiens (Dfn) does not include any term of any area of knowledge, then the analyzed definition is not a genus-species one. If Dfn includes a term, but the corresponding analysis exhausts Dfn entirely and does not leave any linguistic means of expressing specific features of the generic concept, then the definition is not a genus-species one either.

Actually rule 1 and rule 2 differ only in one paragraph and only in one word: in rule 1 the nearest generic concept is nominated by means of maximum extended part of the Dfn, and in rule 2 the most general generic concept is nominated by means of minimum extended part of the Dfn. After what has been said, it is not difficult to see how to specify generic concepts and what the most general of them are for the same terms *abbreviation, alphabetic ordering, code, term, term extraction, thesaurus* and what their specific characteristics are.

Here are the GRs for these terms:

abbreviation – a form of a term or word, *alphabetic ordering* – the process and method of ordering the entries of a *reference work*, *code* – a symbol or *expression*, *term* – a *lexical unit, term extraction* – the process of assembling the terms and the information, *complex term* – a term; *thesaurus* – a collection of lexical items.

Of course, GR, if it does not coincide with GR, is more general than GP, cf. sequence from generic concepts of a lower level to generic concepts of increasingly higher levels:

abbreviation – a form of a term or word;

alphabetic ordering – the process and method of ordering the entries of a *reference work* according to the sequence of the alphabet – the process and method of ordering the entries of a *reference work*;

code – a symbol or *expression* from a set of elements which represents information about a *concept* or a term – a symbol or *expression* from a set of elements – a symbol or *expression,*

term extraction – the process of assembling from a *corpus* the terms and the infor-mation – the process of assembling the terms and the information;

complex term – a term consisting of a terminologised and syntactically linked sequence of terms and words – a term;

thesaurus – a collection of lexical items which is structured according to {some} relations – a collection of lexical items.

We now turn our attention to the definitions 10 – 14:

 10. [en] classification

[def] The process of attributing a *concept* to a *category*;

 11. [en] terminology 1

[def] The study of terms, *concepts*, and their relationships;

 12. [en] terminology 2

[def] The set of practices and methods used for the collection, description, and presentation of terms;

 13. [en] vocabulary 1

def] A set of words or terms.

 14. [en] copyright

[def] The exclusive right to commercialise a literary work.

Their Dfn are substantive phrases as well as in the previous definitions. However, from our point of view, they cannot be treated as genus-species definitions. In fact, the Dfn of the definitions 10 – 14 cannot be parsed into superior and subordinate syntactic components so that the superior, syntactically independent component should have been semantically completed and syntactically subordinate component should have remained syntactically correct. he matter is that either there is no term of the same domain within the limits of the Dfn or this term takes the lowest syntactic position and the rest syntactic component of the Dfn does not remain complete and meaningful without it. In this regard, it is impossible to specify fragments of these Dfn that nominate full-weight generic concepts, and fragments that nominate corresponding species, cf. "the process of attributing a concept" (to what?, no semantic completion), "the study of terms, concepts" (the remaining expression "and their relations" as syntactically subordinate fragment is not correct), etc. (definitions with the Dfn like this [Shelov 2003] are qualified as nonspecific). They require quite a different approach, which does not imply genus-species analysis of defined concept.

The same holds true for the definitions whose Dfn has no special term at all, cf. definition 14; definitions like this are classified in [Shelov 2003] as general because these definitions do not specify any special generic concept of a particular domain.

The Appendix below presents the results of the Dfn analysis of more than 30 terms and their definitions proposed in the glossary [Bessé, Nkwenti-Azeh, Sager 2000] (terms are selected more or less randomly). The analysis is performed according to the rules 1 and 2, it provides definitions of these terms as they are presented in the glossary mentioned and identifies their GP and GR as well as their specific features. Some definitions, as could be seen, are not genus-species; in this case they obtained the note NGS (non genus-species).

3. Conclusions

The reader may have his own view of how the results of the proposed analysis match his intuitive ideas about parsing Dfn into fragments that nominate generic concepts, on the one side, and their species features, on the other side. Summing up the results of the study, we should like to state the following.

1. We have presented a method of terminology definitions analysis in order to establish the Dfn fragments that nominate generic concepts and terms (including the GP and GR concepts) and their specific features (Differentia specifica).

2. This analysis and its results heavily depend on the semantics and syntax of the Dfn. In particular, some definitions expressed by the Dfn substantive phrase, on the one hand, do not nominate generic concepts and their specific characteristics; in this sense, they are not generic-specific definitions. On the other hand, other definitions, assigned even to a single meaning of a single term, on the contrary, can be interpreted as nominating several GP concepts.

3. Using the procedure of term definitions analysis proposed above we could establish the whole generic hierarchy of concepts (and terms) in strict accordance with their definition system.

Appendix

Some Terms of Terminology, Their Generic Concepts (Genus Proximum et Genus remōtum) and Specific Characteristics.

(Source: Bessé Bruno de, Nkwenti-Azeh Blaise, Sager Juan C. 1997. Glossary of terms used in terminology. *Terminology* 4 (1): 117–156).

Abbreviations and legends

[en] –English,

[def] – Definiens in English,

GR – Genus Remōtum (most remote generic concept),

GP – Genus Proximum (nearest generic concept),

DS – Differencia specifica,

GR: = GP – GR wording completely coincides with GP wording,

NGS – Not Genus-species (definition),

{} – includes syntactically superordinate word or word collocation to which the subordinate word or word collocation pertains, i.e. complex {term}, from the French language {borrowed}, geographical {area of usage} etc,

(+) – there exist also some other formulations of the nearest generic concept and its specific characteristics (which are not given due to lack of space).

[en] abbreviation

[def] A reduced form of a term or word which is produced by the omission of some of its letters.

GP: A form of a term or word

DS: 1. reduced {form}

2. which is produced by the omission of some of its letters {form}

GR: = GP

DS: = DS

[en] alphabetic ordering

[def] The process and method of ordering the entries of a *reference work* according to the traditional sequence of the alphabet.

GR: The process and method of ordering the entries of a *reference work*

DS: according to the traditional sequence of the alphabet {ordering the entries}

GP: The process and method of ordering the entries of a *reference work* according to the sequence of the alphabet.

DS: traditional {sequence of the alphabet}

[en] canonical form / citation form / stem form

[def] The form in which a word or term appears as a *headword* or entry term in a *dictionary*.

GR: The form in which a word or term appears

DS: as a *headword* or entry term in a *dictionary* {appears}

GP: The form in which a word or term appears as a *headword* or entry term (+)

DS: in a *dictionary* {appears} (+)

[en] classification

[def] The process of attributing a *concept* to a *category*.

NGS

[en] code

[def] A symbol or *expression* from a closed set of elements which represents information about a *concept* or a term.

GR: A symbol or *expression*

DS: from a closed set of elements which represents information about a *concept* or a term {symbol or *expression*}

GP: A symbol or *expression* from a set of elements which represents information about a *concept* or a term (+)

DS: closed {set of elements} (+)

[en] complex term

[def] A term consisting of a terminologised and syntactically linked sequence of terms and words, which designate a single *concept*.

GR: A term

DS: consisting of a terminologised and syntactically linked sequence of terms and words, which designate a single *concept* {term}

GP: A term consisting of a terminologised and syntactically linked sequence of terms and words, which designate a *concept* (+)

DS: single {*concept*}(+)

[en] compound

[def] A word or term constituted of several words or terms.

GR: A word or term

DS: constituted of several words or terms {word or term}

GP: A word or term constituted of words or terms

DS: several {words or terms}

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