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TERMINOLOGY FOR TERMINOGRAPHERS

Outline
1. Who is a terminographer?
2. What is the nature of a terminographical product?
3. What topics in terminology are relevant to 1 & 2 above?
4. Conclusion

1. Who is a terminographer?

- A terminographer documents information on the specialised concepts used in specific subject areas, and presents them in the form of a terminographical product for an audience to use for intended purposes. Terminographers are very much like lexicographers except that they have different emphases with respect to:

  a) activity: whereas lexicographers only document existing words, terminographers (e.g. in African LL in S.Africa) may in addition need to create words, and somehow persuade people to accept the words created as designations for specific concepts.

  b) scope: terminographers limit their scope to specific subject areas, while lexicographers try to cover a language in general, even though such coverage may be from specific user perspectives (learners, advanced, etc.)

2. What is the nature of a terminographical product?

- Just like lexicographers, terminographers can present the results of their work in forms called by such names as: dictionaries, glossaries, wordlists, computer databases.
- Since terminographers are interested in specific knowledge areas, their products often reflect (in their preparatory or completed phases) some aspect or the other of the description of knowledge/science. Consider the following descriptions, cited in Antia (2000):

  a) a science is concerned with a definite field of knowledge
  b) any body of knowledge labelled science must constitute a coherent whole of interconnected things and their parts that is appropriately ordered. An enumeration of related facts or data, no matter how much each of them may be worth knowing, does not give rise to a science
  c) logical order is an essential requirement of science. The units of knowledge of a science may not be enumerated in an arbitrary way.

Description of science/disciplinary knowledge	Implications for terminographical product
a.	Delimit subject areas
b.	Establish relationships among concepts
c.	Present materials in a structured manner

- It is not surprising that terminographical products, even more than their lexicographical counterparts, are learning materials.

3. What topics in terminology are relevant to 1 & 2 above?

- From the description of the terminographer and of the terminographical product, we can infer the following task list:

  - Create **term**s within…
  - a **domain** that has been **delimited**;
  - **establish relations** among the terms, and
  - present the terms in a **structured** way

This is of course a very short list, but it should serve for this introductory presentation.

- The keywords highlighted above are issues in terminology theory that are usually treated under specific topics, thus:

  - **Terms**: may be treated in the context of sensitization/identification and motivation
  - **Domain/structure**: may be treated in the context of concept systems
  - **Relations**: may be treated in the context of concept relations and definitions
  - **Structure**: also evokes concept systems

- In the sections that follow we consider, therefore, **sensitization to terms/identification and motivation, concept systems, concept relations, and definitions**. Before this, however, we shall examine some basic vocabulary.

4. Basic vocabulary
Here are a few quotes: 'The substance of our knowledge resides in a detailed terminology of a field' (Albert Einstein); 'Who controls the vocabulary controls the knowledge' (George Orwell). There is a useful and freely downloadable glossary of terms used in terminology compiled by Sager, Bessé & Nkwenti-Azeh on the Benjamins website at: www. benjamins.com/jbp/journals/Term/glossary.pdf

  - Sample definitions (following some entailed terms): 1) term: A **lexical unit** consisting of one or more than word which represents a **concept** inside a domain. 2) concept: An abstract unit which consists of the **characteristics** of a number of concrete or abstract **objects** which are selected according to specific scientific or conventional criteria appropriate for a **domain.** 3) characteristic: The semantic element which together with others constitutes the **intension** of a **concept.** 4) object: In terminological theory, an element of observation or introspection, the abstraction of which serves for the formation of **concepts**. Note: The abstracted characteristics of objects constitute the intension of simple concepts. 5) domain: The **subject field**, area of knowledge, discipline, production process, or method in which a **concept** is being used. 6) intension of a concept: The sum of characteristics which constitute a concept and which serve to define it.

Notice some similarity between entailed terms and topics we have chosen to treat.

5. Term: sensitization, identification and motivation

Here are two configurations of the same text:

Configuration A	Configuration B
There are three types of : (i) : along whose are passed into the from or . (ii) *:* along whose are passed out of the to the e.g. or . (iii) : through which are connected to .	neurones: (i) *Sensory neurones*: fibres messages central nervous system sensory cells receptors. (ii) *Motor neurones:* fibres messages central nervous system effector . muscle gland. (iii) *Association neurones*: sensory neurones motor neurones.

- Questions I: Sensitization
    - What kinds of words do you have in configuration A, and what kinds in B?
    - If you were a doctor or a biologist and were asked, 'What is this text about?', which configuration would allow for the most intelligent answer?
    - What does this tell us about the role of terms in specialist texts?

- Questions II: Identification
    - What hypotheses can you formulate on the grammatical category of words considered 'terms' and of words that appear just before these terms? (It does not matter if your hypotheses will not always turn out to be correct).
    - From text C below (still on the same subject as the one from which A+B above were derived), identify which term is used in the same way as:
        - Messages (of A+B) =
        - Association neurones (of A+B) =
        - Central nervous system (of A+B) =
        - Neurone (of A+B) =

Text C

There are three types of neurons. **Sensory neurons** carry information from a sense organ to the brain or spinal cord. **Motor neurons** take instructions out of the brain or spinal cord to muscles or glands to make the body work. In the brain or spinal cord there is a third kind of nerve cell, the **connector neuron**.

- What does this tell you about terms? They can have _____

Text A/B

There are three types **of** neurones:
(i) *Sensory neurones*: along **whose** fibres messages are passed into **the** central nervous system **from** sensory cells **or** receptors.
(ii) *Motor neurones:* along **whose** fibres messages are passed out of **the** central nervous system to **the** effector **e.g.** muscle **or** gland.
(iii) *Association neurones*: through **which** sensory neurones are connected **to** motor neurones.

- Questions III: motivation/formation
    - How many of the terms in Text A/B are made of just one word, how many of several words?
    - Note: Compounds have heads and modifiers. English is right-headed. Now ...
    - …what is the motivation for the following compound terms in text A/B?
        - sensory neurone: what does modifier say of head   =
        - motor neurone: what does modifier say of head   =
        - connector neurone: what does modifier say of head   =

_____

Characteristics

_____

- So, the characteristics of a concept often provide the basis for naming concepts or creating terms. There are many types of characteristics some of which are more important than others in specific situations. Composition, function for instance may be more important characteristics than shape, size, colour, origin, weight, etc.

- A system of terms can arise from a consistent application of a characteristic while naming: sensory N, motor N, connector N.

6. Domains/concept systems

- A domain in terminography can be the outcome of two relational systems: a thematic system and a concept system. A thematic system is a set of themes whose interconnections are somewhat loose. This has to do with the fact that a theme comprises possibly hundreds or thousands of specific concepts, and the relations linking one theme to the other do not derive from each of the hundreds/thousands of constituent concepts. A concept system, on the other hand, is based on specific concepts, whose intensions reveal the fundamental relations existing among them. A concept system has been defined as 'a set of concepts whose structure reflects the basic relations among the concepts involved and illustrates the unique position of each concept within the system' (ISO/CD 704.2 1995).
- A thematic system is a good starting point for arriving at a concept system, which then reveals the structure of the domain.
- To do a terminographical project on a part of the human body, it makes sense to start with a thematic system such as Diagram A below, showing the various systems that form the human body. We then choose a given system (e.g. nervous system) and begin to obtain a picture of how this system is structured, as in Diagram B. A detailed view of the structure of a branch in B (somatic ns) can be seen in Diagram C, which lists specific concepts. Thus, for our terminographical project, the domain 'nervous system' is constituted by Diagram B and the detailed elaboration of its branches as Diagram C begins to do.
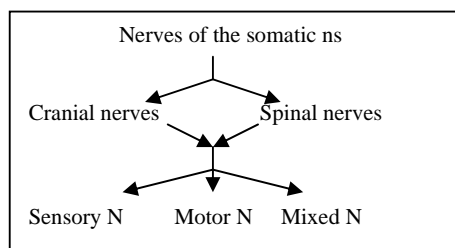
The three diagrams below illustrate increasing degrees of detail, starting from a thematic system.
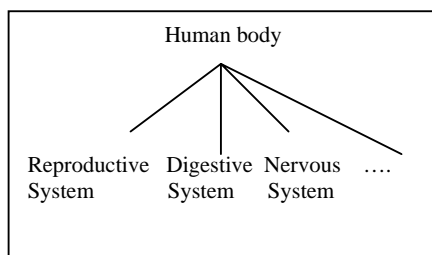
A
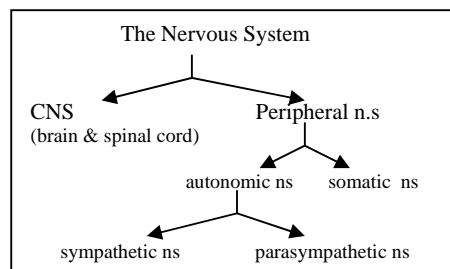
B

C

- For terminography, a concept system is an important structuring device, both for delimiting the scope of the given dictionary and for presenting entries. A structured

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presentation of data on the nervous system might follow the branches in Diagram B, descending to levels as detailed as in Diagram C.
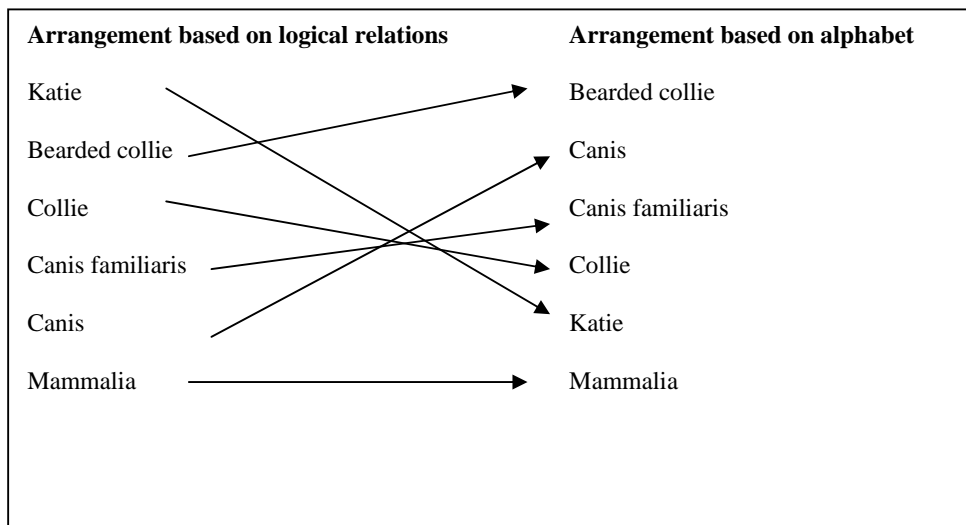
- It is inattention to the idea of concept systems that a view such as the following (cited in Antia 2000:115) remains current:

    It is not uncommon to find terminological collections that are simply inventories of terms that are presented alphabetically. Without a clear-cut methodology, it is impossible to determine whether all the concepts in a subject field have been recorded. Furthermore, terms from outside the subject field are frequently included (Arntz & Picht).

7. Concept relations

As was seen, concept systems can be created because there are relationships existing among concepts. Reading the three diagrams above in reverse shows how. There can hardly be a fixed number for the ways in which one concept may be related to another. It is customary in Terminology to speak of three major categories of relations:

- Logical relations are relations of inclusion, transitivity. Here, the intension of a broader concept is included in that of a narrower concept. An important marker of this relation type are the two words '… IS A …'. My dog Katie IS A bearded collie. A bearded collie IS A collie. A collie IS A canis familiaris. A canis familiaris IS A canis. A canis IS A mammalia. …..

Arrangement based on logical relations	Arrangement based on alphabet
Katie	Bearded collie
Bearded collie	Canis
Collie	Canis familiaris
Canis familiaris	Collie
Canis	Katie
Mammalia	Mammalia

- Ontological relations are relations of contiguity in time and space. Time or temporal relations would relate to the sequencing of actions, events, etc. Spatial relations would refer for example to the link between a whole and its parts: Computer – monitor, CPU, keyboard, etc. HAS_A, or IS_PART OF are expressions that often identify these spatial or partitive relations.

- Pragmatic relations form a much more loose set of relations. It is something of a bag for dumping relation types that cannot be accommodated elsewhere. Ex: Trade Union – Strike. (Strike is an activity typically associated with unions in some environments).

8. Definitions

- They give expression to concept relations. The so-called 'terminological definition' is an equation of a definiendum and a definiens in which the former is related to its

closest superordinate. The function is to identify the position of the definiendum in the given knowledge structure. Thus,

> A sensory neurone is a type of neurone that conducts impulses towards the central nervous system.

I will revisit the issue of definitions in another presentation, but to introduce the perspective I will be adopting, here is an exercise.

- From the definitions in the Basic Vocabulary presented at the beginning, use the relations expressed to construct the relevant knowledge structure.

9. Conclusion

We have identified and discussed a few points of terminology relevant to the descriptions, terminographer and terminographical product. What new terms have you learnt (not from the basic vocabulary)?

- List them.
- Represent graphically the relations obtaining among them
- To what extent can you define each simply on the basis of information suggested by the relations