

## **CATEGORISATION IN THE LEXICAL FIELD « THE HUMAN BODY »**

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**Abstract:** The development of Cognitive Linguistics has provided a new scope on linguistic analysis, which at the same time results in a wealth of information on language. The present paper is an application of the principles and methods of Cognitive Linguistics to the traditional object of study of lexicology. It is based on the results of a pilot field study which aimed at exploring the information that the methods of analysis of Cognitive Linguistics could provide in relation to the lexical field the HUMAN BODY.

**Lexicology, Cognitive Linguistics, Human Body, Semantics, Lexical Fields, Metaphor.**

### **0. INTRODUCTION**

The rapid development of Cognitive Linguistics spells a new way of approaching language and has also introduced changes to the way more traditional trends in linguistics understand the system of the language. The aim of the present study is to devise a experiment which is similar to those carried out by cognitivists (Taylor:1989), whose results are, in our opinion, of great help to the study of meaning along the lines of Professor Leocadio Martín Mingorance's Functional Lexematics (Martín Mingorance: 1990, 1984), a model which develops the lexicon component of S. Dik's Functional Grammar. In accordance to this, the present paper describes a field study, the objective of which was to demonstrate how elicited information about different aspects of categorisation can shed light on the structure of semantic fields.

## 1. DESCRIPTION OF THE FIELD STUDY

The informants of the experiment were six native speakers of British English, divided into two groups of three. They belonged to the same cultural background, since cultures differ in the way they categorise reality. Each informant was asked to answer a questionnaire (see appendix), which consisted of five questions.

These questions were based on the HUMAN BODY. This category has been chosen because it demonstrates that the organisation within the same category/lexical domain responds, to a certain extent, to the influence of the human cognitive apparatus. Moreover, the lexical domain the HUMAN BODY is a partonymy, largely but not solely governed by meronymy (part-whole relationships). This is an innovation in experiments of this type, since most of the experiments heretofore have been devoted to taxonomies, that is, lists of exemplars of a general category (a bishop is a MAN) rather than parts of an all-comprising entity (the hand is a part of the HUMAN BODY). It seemed interesting to us to try to find out to what extent the findings in taxonomic categories differ from what we can find with our test. This semantic field is made the more interesting if we consider that one of the main theses defended by Cognitive Theory is that perception is embodied, that is, the way we perceive reality is conditioned by our body, which eventually conditions language (Johnson: 1987).

The first two questions each informant had to answer tested the membership and centrality of different members of the category. Questions 3 and 4 elicited the informants' intuitions as to the goodness of representation of some members of the category. Question 5 concerned polysemy, and it tested whether informants were aware that a single phonological form was related to several meanings and whether lexical context had any influence on the meanings elicited.

## 2. RESULTS OF THE FIELD STUDY

### 2.1 Question 1.

Informants were asked to elicit the first ten words that came to their mind as members of the category the HUMAN BODY. If all members in a category have the same status, there is no reason why some of them should appear more frequently than others. However, in the same way as the experiments of Rosch (Lakoff: 1980), the results of our study demonstrate a preference on the part of the speakers for some parts of the human body as opposed to others.

This question showed that not all lexemes in a lexical field have the same status, but rather that some prototype effects are produced, from which we deduced that the domain is hierarchically structured. Moreover, cognitive information such as the fact that the human body is perceived from the outside to the inside has to be taken into account in the moment of distinguishing subdomains within the domain. The results show that, if we eliminate the taboo words, only four words elicited refer to parts of the trunk, whereas a total of fourteen refer to the head, the limbs, or parts of them. Moreover, out of the ten words mentioned more than once, nine refer to that same group of the head, limbs or parts of them. Thus, another obvious and typical prototype effect arises, a frequency difference in favour of the peripheral parts of the human body, which indicates that they are perceived and considered as better examples of the category than those which are more centrally located.

In our opinion, the reason for this is of a cognitive nature. In order for a part of a whole to be considered as salient, it must be perceived as such. Thus, it should stand out from the whole, have a sensibly different shape and location, as well as being able to move independently<sup>1</sup>. It should also have a clear function of its own. In contrast, it is not easy to distinguish the trunk as a part, for it is not peripheral, its capacity of independent movement is very limited, and it carries out many different functions. The case of the taboo words is different. Sex-related parts of the body are perceptually salient because they are socially salient. It is the fact that they are seen as "forbidden" or socially embarrassing that makes them so, and they therefore appear as answers in the questionnaire with a greater frequency than might be expected.

## 2.2 Question 2.

This question tested which lexemes are good examples of the category. The subjects were asked to say whether the 30 items in the list they were issued were or were not a part of the human body. These 30 items included clear-cut members, border-line members and non-members.

The results of question 2 showed that a lexical domain is not a static entity with clear-cut boundaries, but it is open and its lexemes have graded membership. This gradient of membership must be reflected in the hyperonymic-hyponymic structure. All the terms which were unanimously considered parts of the human body are perceived as sharing what might be called the perceptual characteristic of *permanence*. If a part of the body is *permanent*, it is perceived as innately and inseparably united to the human body, so that its removal requires some kind of surgery or causes pain or damage to the body. This is the case of *stomach*, *tooth*, *fist*, or *marrow*, for example. The fact that it took some informants more than one second to decide whether words like *blood* or *lap* referred to parts of the human body is due to the fact that they do not so clearly match the criterion we have labelled as *permanence*. However, in the rest of the cases, (*organ*, *marrow*, and *toe*), it seems to be due to the fact that they represent a more specific level of the taxonomy, and are therefore, according to some theories, more difficult to retrieve from the mental lexicon (Aitchinson: 1987). All the words which refer to parts of the body which can be easily removed from the body without pain or damage (*sweat*, *wart*, *wrinkle*, *ponytail*, and *nail*) caused at least one speaker to take longer to give an answer or even exclude them as parts of the human body.

The results of this question show that there are grey areas and overlappings in our categorisation as represented by lexical domains. However, this does not make it impossible for the lexicologist or the researcher of meaning, in general, to come up with clear criteria, in many cases cognitively based, to discriminate between clear cases of membership and non-membership and to explain where those grey areas are and why they exist.

## 2.3 Question 3.

This question tested the relative appropriacy of different lexemes referring to the same extralinguistic reality, in order to discover what we have labelled here as *basic level* of representation in a category, following the cognitivist terminology of *basic level categories* (Taylor: 1989). Informants were given nine lexemes, differing in some cases in their

<sup>1</sup> There is a close connection between movement and perception, since that which moves is more easily perceived.

appropriacy for representing extralinguistic reality, or in other cases, in register or specificity. They were then asked to say which terms were good words, poor words, or bad words to refer to a *dead person*. Question 3 showed that there is also a gradient in the level of goodness of representation that lexemes have when they refer to the same extralinguistic reality, as well as the existence of a *basic level of representation*. It also showed that the difference in that level of goodness of representation is based in the way our mind perceives and constructs reality. All this must be taken into account when analysing the inner hierarchical structure of the lexical field, especially when deciding which lexeme has the more general use and can therefore be attributed the hyperonymic character in a pair of lexemes designating the same extralinguistic reality.

#### 2.4 Question 4.

This question was also aimed at trying to identify which are the most basic terms to refer to an entity in the world, when there are several possibilities. Informants were given 20 pairs of lexemes, each of which referred to the same extralinguistic reality, and differing in register or specificity. Informants were asked to say which item had the most general meaning or use.

From the results of this question we learnt that whenever a pair of lexemes designates the same extralinguistic reality, it is the least technical one that is understood by speakers to have a more general meaning and a more extended use. Moreover, in spite of the fact that some lexemes are usually labelled as *taboo* in most dictionaries, they turn out to be considered by speakers as being more general than more euphemistic or polite terms (Allan: 1990). All this must lead the lexicographer to consider whether the way he uses usage labels reflects the way the speakers feel about the language.

#### 2.5 Question 5.

This question had a different character, since it did not deal primarily with categorisation, but with polysemy and homonymy. A list of 16 polysemic and homonymic words belonging to the semantic field of the HUMAN BODY were given to the informants, who were then asked to give the first two meanings associated with those words that came to their minds. Both the senses thus elicited and the order of elicitation were taken into account for the analysis. The first group of informants was given this question after they had answered the other four, which were all related to the human body. The second group saw this question before any of the other four, so that the notion of human body had not been presented to them. This enables us to study the importance of the context and the phenomenon of *semantic priming*, by a comparing the results from both groups.

The results from this question demonstrated that context plays an important role in meaning construction, since informants from the first group elicited more meanings related to the HUMAN BODY. In the second place, the fact that metaphorisation, and therefore polysemy, is constructed from the literal to the abstract (Lakoff and Johnson : 1980) was also sustained by the data. This is of the uttermost importance, given that metaphor is one of the most controversial areas in Linguistics. It was also demonstrated that the boundaries between different verbal categories are not so strong that speakers cannot move from one category to the other when it is necessary for a linguistic task.



### 3. CONCLUSION

The main point proven along this study, and especially in this conclusion, is one already suggested by P. Faber (1994 and 1990). It is the idea that, whatever the theoretical problems that uniting the information from more formalistic approaches to language, such as Functional Lexematics, and Cognitive Linguistics may present, and it does represent a theoretical conflict, no linguistic approach to the facts of language will be complete unless it includes some sort of cognitive component to its explanation of those facts.

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## APPENDIX: THE QUESTIONNAIRE

### QUESTION 1

Please name the first 10 words referring to parts of the human body that you can think of.

### QUESTION 2

Do the following words refer to parts of the human body?

#### List no1

- |                   |                   |                    |                   |
|-------------------|-------------------|--------------------|-------------------|
| 1.- wrinkle _____ | 2.- watch _____   | 3.- tumour _____   | 4.- stomach _____ |
| 5.- scarf _____   | 6.- scab _____    | 7.- ponytail _____ | 8.- organ _____   |
| 9.- nose _____    | 10.- marrow _____ | 11.- limb _____    | 12.- leg _____    |
| 13.- fist _____   | 14.- condom _____ | 15.- blood _____   |                   |

#### List no2

- |                      |                     |                    |                    |
|----------------------|---------------------|--------------------|--------------------|
| 1.- wart _____       | 2.- trunk _____     | 3.- tooth _____    | 4.- thigh _____    |
| 5.- sweat _____      | 6.- soul _____      | 7.- nail _____     | 8.- toe _____      |
| 9.- lap _____        | 10.- head _____     | 11.- hand _____    | 12.- glasses _____ |
| 13.- diaphragm _____ | 14.- dandruff _____ | 15.- cuticle _____ |                    |

### QUESTION 3

Which of the following words do you think better represent a **dead person**? Classify them in order of preference ( 1-3= good words; 4-6= poor words; 7-9= bad words)

**body, cadaver, carcass, corpse, ghost, loved one, organism,**

- |     |     |     |
|-----|-----|-----|
| 1.- | 2.- | 3.- |
| 4.- | 5.- | 6.- |
| 7.- | 8.- | 9.- |

### QUESTION 4

In the following pairs of words, underline for every pair the word you think has a more general or extended use and meaning.

- |                      |                         |                       |
|----------------------|-------------------------|-----------------------|
| 1.- trunk/torso      | 2.- buttocks/bum        | 3.- abdomen/belly     |
| 4.- nape/scruff      | 5.- collarbone/clavicle | 6.- oesophagus/gullet |
| 7.- stomach/tummy    | 8.- breastbone/sternum  | 9.- innards/guts      |
| 10.- penis/dick      | 11.- windpipe/trachea   | 12.- testicle/testis  |
| 13.- testicles/balls | 14.- vagina/fanny       | 15.- phlegm/snot      |
| 16.- urine/piss      | 17.- piss/pee           | 18.- excrement/shit   |
| 19.- shit/faeces     | 20.- boobs/breasts      |                       |

# QUESTION 5

Think of two meanings for the following words:

- |             |                   |
|-------------|-------------------|
| 1.- face    | 2.- pupil         |
| 3.- bridge  | 4.- appendix      |
| 5.- guts    | 6.- nerve         |
| 7.- blemish | 8.- <i>fringe</i> |
| 9.- cell    | 10.- nail         |
| 11.- trunk  | 12.- crown        |
| 13.- temple | 14.- head         |
| 15.- gum    | 16.- organ        |

THANK YOU FOR YOUR HELP.