

**Dirk Geeraerts, Stefan Grondelaers
& Peter Bakema:**
**The structure of lexical variation. Meaning,
naming, and context.**
Berlin–New York: Mouton de Gruyter 1994, 221pp.
(Cognitive Linguistics Research 5)

In a way, *The structure of lexical variation* (henceforth *SLV*) is symptomatic of the dilemma of modern cognitive semantics. Traditionally, the methodology in this field is either borrowed from psychology (as e.g. in Rosch's experiments) or it tends to be vulnerable, because it is based on intuition, introspection and the discussion of made-up examples. This book, which is intended as a methodological model study, is based on a corpus of authentic examples and tries to introduce rigid analytical procedures - but the price is that the authors somehow seem to lose sight of the cognitive dimension of the meaning of words.

The starting-point, and indeed subject-matter, of *SLV* is the idea that the meanings of words are not clearly and rigidly defined but subject to different kinds of variation. Its aim is "to present a descriptive framework for the study of lexical variation: a systematically interrelated set of questions to ask, and a number of analytical tools for answering them" (16). While the questions to be asked are determined by a systematic grid of four types of variation, the authors' principal tool for answering them is a corpus of 9205 (!) occurrences of names of garments in Dutch.

Despite their impressive multitude, the entries in the corpus have all passed very strict terms of admission: lexical items, which were collected from fashion, women's and *Zeitgeist* magazines published in Belgium and the Netherlands, were only accepted into the database if they were accompanied by a picture of the item of clothing to which they referred. This condition allowed the authors to compare all uses of their target words with their extra-linguistic referents. In actual practice, a twofold database was set up: on the side of referents, each picture was analysed into dimensions (e.g. LENGTH, WIDTH/CUT, END OF LEGS, MATERIAL, DETAILS for trouser-like garments), which were specified with values (e.g. 'reaches down to the ankles' on the dimension LENGTH). This means that the referential description was recorded in the form of a componential analysis. On the lexical side, the relevant noun was entered together with its accompanying modifiers into four fields of the database. Pre-modifying adjectives and postmodifying prepositional phrases were specified in fields 1 and 4 respectively, while field 2 contained morphologically simple, and field 3 composite head nouns. The obvious advantage of this ingenious twofold database design is that it permits two perspectives on the material. From the onomasiological perspective, questions in the form 'Given a certain type of referent, what are the lexical items used to refer to this type?' are

possible. From the semasiological perspective the database can answer questions of the type 'Given a certain lexical item, what types of referents are denoted by it?'

Four major types of lexical variation are distinguished. Two of them concern the unstable relationship between words and referents from complementary perspectives: *semasiological variation* involves "the situation that a particular lexical item may refer to distinct types of referents", while *onomasiological variation* involves "the situation that a referent or type of referent may be named by means of various conceptually distinct lexical categories" (3). The other two types are based on different criteria. *Formal variation* focuses on the variation in the choice of lexical items "regardless of whether these represent conceptually different categories or not" (4). And *contextual variation* is used as a cover term for what is usually treated under the labels regional, situational and stylistic variation in sociolinguistics. Although these four types of variation are illustrated with examples and the relationship between them is explained with the help of a diagram in the first chapter, the actual significance of the terms remains somewhat opaque until the reader delves into chapters 3 to 5 which are devoted to semasiological (ch. 3), onomasiological (ch. 4) and formal variation (ch. 5). (The influence of contextual variation on the three other types is discussed in a separate subsection of each chapter.)

Contrary to what the above definition suggests, it turns out in chapter 3 (after brief notes of warning on pages 6 and 15) that semasiological variation is not concerned with polysemy, but with various aspects of prototypicality. More specifically, prototypicality effects are discussed in terms of "non-discreteness (involving absence of classical definability and degrees of category membership), and non-equality (involving salience effects)" (45). In chapter 4 on onomasiological variation, the same aspects are discussed from the opposite perspective, which involves the paradigmatic choices offered by lexical fields. Two sets of questions are at stake here. First, do lexical fields have clear external boundaries to other fields and clear internal boundaries between the items making up the field? (The answer is no). And second, what governs the choice of lexical items on different and identical taxonomic levels, i. e. the choice between hyperonyms and hyponyms on the one hand, and between several competing co-hyponyms on the other? (Basically, the answer is given in the following chapter). About two-thirds of the fifth chapter deals with the influence of prototypicality and onomasiological salience on formal variation. It is found that objects are preferably named by categories to which they prototypically belong (rather than by those of which they are only marginal members), and by categories which are more firmly established in the mental lexicon than others. In addition to these (not altogether surprising) findings, the chapter on formal variation is concerned with such diverse issues as the use of premodifying adjectives, the relationship between morphological complexity and onomasiological salience and the use and meanings of diminutive forms. The book closes with "Ten theses about lexicology" (189 ff). Although a number of these theses are formulated as recommendations for the study of lexical variation, their main function is to provide a highly condensed sum-

mary of the authors' argument and their main results. It is emphasized once more that studies of lexical variation should distinguish between the four types of variation outlined above. Non-discreteness of boundaries and non-equality of members are regarded as important features of single lexical items and of lexical fields, both from a semasiological and from an onomasiological perspective. The authors argue that the notion of a basic level of categorization should be treated with caution (for a number of counter-arguments see below). The discussion of formal variation is seen to have produced two sets of results: as far as the choice of lexical items is concerned, language users show preferences for certain lexical items characterised by a high entrenchment value and for those categories of which the referent is a central rather than a marginal member (these points are also taken up below); with regard to the grammatical and morphological structure of expressions, it is claimed that dimensions and attributes intrinsic to a cognitive category are less likely to be expressed as modifiers than accidental ones are, and that highly entrenched cognitive categories have a better chance of being rendered linguistically by morphologically simple nouns than less entrenched ones do. Finally, it is proposed that in the study of contextual variation both user-related and use-related parameters such as the personal characteristics of the speaker, the context and the situation should be taken into account.

SLV is an uncommonly systematic and scrupulous book. It is structured according to a very careful global design. Great pains are taken to safeguard the terminology and argumentation against unwarranted interpretations. Explanations, qualifications and justifications of procedures and results abound. Presumably one reason for the writers' meticulousness (or rather the writer's, since the text of the book was composed by Dirk Geeraerts alone) is their ambitious aim to convince lexicologists of all persuasions of the need to recognize the four types of lexical variation they propose.

A related point is that since the book is meant to cover new methodological ground, the details discussed require a considerable technical depth. While it must be emphasized that even the most technical passages are presented with remarkable lucidity and transparency, it cannot be denied that the reader sometimes has a hard time following the train of thought. In order to demonstrate very briefly how the fine notional and terminological distinctions and the changing perspectives can contribute to confusing the reader, let us assume one wanted to recapitulate on the notion of 'semasiological non-equality'. Consulting the index of subjects one finds no references to pages in the text, but is only referred to the entry on 'Semasiological salience', which in turn refers to the entries on 'Extensional salience' and 'Intensional salience'. Pursuing these references further the reader then finds out that the text passages relevant for the former index entry can be found under the more familiar-sounding entry 'Degrees of representativity', and for the latter under the similarly well-known term 'Family resemblance structure'. What this series of references seems to reflect is the authors' wish to refine the terminological apparatus deemed necessary for the study of lexical variation, but it also gives an indication of the price they have to pay.

The core of *SLV* is a refined version of the prototype theory of categorization. The major aspects of this approach were developed in earlier articles by Geeraerts (1988, 1989) and are outlined again in the second and third chapter (37 ff, 45 ff), accompanied by a strong commitment to a cognitive orientation. However, in spite of the undisputedly cognitive aspects involved in prototype theories of categorization, it is far from obvious where other cognitive facets of the volume are to be found. Major pillars of the research in cognitive linguistics, such as the role of perception, attention allocation, metaphors and image-schemata in the structure of language, are notably absent from the book. The neglect of perceptual phenomena (e.g. the importance of *gestalts* and perceptually salient attributes for cognitive categorization) is all the more astonishing when one considers that the method of the book depends on pictures of objects.

There are a number of other observations which contribute to the impression that the cognitive tendency of the book is less pronounced than the authors themselves seem to feel. To begin with, it is explicitly mentioned in the first chapter that the onomasiological perspective involves "the choice of a *conceptual category* for identifying or describing the referent" (7; emphasis added). However, when it comes to discussing onomasiological variation in greater detail, the cognitive or conceptual system does not seem to feature prominently. Of course it could be argued that all manifestations of variations that are discussed in the book ultimately concern this mediating system. Yet if this is what the authors intend to convey, their purpose is sadly concealed by the flood of scores and numbers representing comparisons between configurations of extra-linguistic features and occurrences of lexical items.

In this connection it is also worth drawing attention to the conspicuous absence of the term *attribute*. As is well known, the notion of attributes has been part and parcel of descriptions of cognitive categories since Rosch's work in the seventies. In *SLV* the term *attribute* is only used in a reference to Rosch's original studies (91). As for the preferred terms *dimension*, *value* and *feature*, it is rightly emphasized that the componential analysis employed has a referential status and must be "accepted as a preliminary but methodologically indispensable step of the semantic analysis" (38). However, the question then remains as to how the cognitive categories (which should have pride of place in a prototype theory of word meaning) are characterized, when only so-called "definitions" of lexical items (e.g. 61, 73 f, 78 ff) are offered for their description.

Two further points which are controversial from a cognitive-linguistic perspective, but also of interest to lexicologists in general, require a slightly more detailed discussion. First, the authors opt for a "*relativization of the basic level hypothesis*" (145, emphasis original). Although the basic level idea is perhaps less well known than the notion of prototypes, it will be recalled that in work by Berlin et al. (1974) and Rosch et al. (1976) it was claimed that things are preferably named by categories on a middle or generic level in taxonomies, where the largest numbers of attributes co-occur. Leaving aside quantitative details, one can describe the authors' case for a cautious interpretation of this hypothesis as a series of three steps:

- Firstly, the source of basic level effects is traced back to their notion of onomasiological salience, which in turn is equated with Langacker's notion of *entrenchment* (1987: 590- A lexical category is onomasiologically more salient, or entrenched, if it is more frequently chosen as a name for a particular type of referent than a competing category. For example, the category *car* is more entrenched than its superordinate *vehicle* on the one hand, or its subordinate *convertible* on the other. In the corpus of pictures and names of garments, entrenchment can be measured by comparing the frequencies of referents to those of lexical items, and vice versa.
- Secondly, it is argued that the basic level hypothesis implies two claims: first, among the different levels in a taxonomy, it is always the basic level that scores the highest entrenchment values; and second, the entrenchment values of categories on one level within a taxonomy should be roughly the same.
- And thirdly, both these claims are shown to be false. On the vertical axis in the taxonomy, the category *jeans*, which is considered a subordinate, boasts a higher entrenchment value than its superordinate basic level category *broek* ('trousers'). And on the horizontal axis, the subordinate category *rokje* ('short skirt') scores an entrenchment value which is ten times as high as that of its co-hyponym *klokrok* ('flared skirt').

In spite of its apparent conclusiveness, the author's argument should be treated with caution. To begin with the horizontal axis, the claim made in the second step that "the basic level hypothesis suggests that co-hyponyms should have entrenchment values of the same magnitude" (146) is not warranted by the original work in this field, but represents the authors' own interpretation of this research. In fact, it seems to be a rash reversal of the (authentic) claim that entrenchment values on different levels in taxonomies should differ (cf. 137). If, for example, we imagine someone wearing a short skirt which is also flared, it is hardly surprising that the lacking length of the skirt attracts the attention of the observer more readily than the unusual width. Taking the cognitive view of language seriously, one would expect the lexical items *short skirt* or *miniskirt* to be chosen more frequently in reference to such an article of clothing than the item *flared skirt*. (These reflections also show how the analysis could have profited from a consideration of aspects related to visual perception and attention allocation.) The problem on the horizontal axis, then, is that the premise of the whole argument seems unfounded.

The same problem emerges on the vertical level, but this time the misleading premise can be located in the third step of the argument. As explained above, the authors are led to their criticism of the basic-level hypothesis by their finding that the alleged subordinate category *jeans* has a higher entrenchment value than the alleged basic level category *broek*. Basically, however, there is nothing wrong with this finding. After all, entrenchment values are meant to measure onomasiological salience, and therefore the obvious conclusion is that *jeans* is more entrenched, or 'basic', than *broek*. The reason why the authors eschew this interpretation of their results is that the allocation of categories to taxonomic levels is carried out a priori on purely logical grounds:

in terms of class inclusion, it is of course true that all jeans are trousers, but not vice versa. In applying the principle of class inclusion, however, the authors overlook the highly significant fact that our cognitive system is not only governed by logical principles, but much more by cognitive abilities such as perception, attention-allocation and the formation of mental images. (See Ungerer & Schmid (in press: chapter 2) for a more cognitively-minded approach to the notion of basic level categories.)

This brings us to the second point to be discussed before this review comes to a close. In chapter 3.2, the authors maintain that the lexical category *legging* is amenable to a classical definition in terms of necessary and sufficient criteria, while at least some of the items *jack* ('informal jacket'), *colbert* ('formal jacket worn by men'), *blazer* ('formal jacket worn by women') and *vest* ('cardigan') are not. As before, they rely on considerations of a logical rather than a psychological nature, discussing the generality and distinctiveness of definitions and the need to take lexical relations like partial synonymy and hyponymy (which are operationally defined by means of the corpus) into account. Although the evidence seems to be presented in a convincing and stringent way, one may perhaps still approach the issue with naive common sense and ask why it is that *legging* turns out to be a classically definable category, while the various types of jackets do not. (Despite its obvious importance, this question is not raised in the book.)

The material for answering this question is provided in *SLV* itself, though in a different section of the book. In discussing salience effects on word meanings in chapter 3.4, the authors examine the conceptual structure (or "semasiological structure" to be precise) of *legging* as compared to the jacket-like categories. Here it turns out that the category *legging* has an extremely consolidated structure which is dominated by the co-occurrence of the four distinctive attributes 'reaching down to the ankles or the calves', 'tight-fitting', 'made of elastic material' and 'without fastening on the end of the legs'. Out of the 110 examples of *legging* in the database, no less than 99 (i.e. 90%) concur with this set of attributes. The conceptual structures of the four jacket-like categories, on the other hand, are much more complicated and diversified. For example, for *colbert* and *blazer* not more than 46.1% and 24.7% respectively of the occurrences make up the prototypical core of the category which exhibits a maximal overlap of relevant attributes. The rest of the examples are distributed across other combinations of attributes in a decidedly scattered manner. In plain terms, what all this comes down to is that examples of leggings vary less than examples of colberts and blazers, and therefore it seems quite plausible that the lexical item *legging* lends itself more easily to a definition in terms of necessary and sufficient conditions than the items *colbert* and *blazer*. (Incidentally, one may doubt the validity of the procedure testing the classical definability after all, when one realizes (cf. Figure 3.2(1)) that the word *legging* is also recorded in the corpus in reference to three items which reach down only to the knees and six items which are neither tight-fitting nor loose and are made of cotton rather than elastic material. These incompatibilities are ruled out by two argumentative steps called "quantitative and qualitative rein-

terpretation" (58 ff), which, sensible as they certainly are from a cognitive point of view, put into doubt the strict methods applied in the corpus analysis and elsewhere.)

In sum, the impression prevails that the approach proposed in *SLV* is less cognitive in its foundations and orientations than the academic biographies of its authors and their explicit commitment seem to suggest. As far as the impact of *SLV* on lexical semantics as a whole is concerned, there can be no doubt that it represents a major step forward. The systematic account of lexical variation, the substantial corpus and its use as an operational testing device for notions more or less widely accepted in semantics are great achievements. Anyone involved or interested in lexical semantics will certainly profit considerably from reading this book. Whether its content will have a lasting effect on lexicological theory will largely depend on the (questionable) transferability of the method to other fields of research and on the willingness of readers to follow the authors in their multi-perspectival *tour de force* through the jungle of lexical variation.

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