Cognitive Linguistics Research

# Cognitive Approaches to Lexical Semantics

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(Editors)

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# Preface

The papers in the present volume offer new perspectives on cognitive lexical semantic research. Some were first presented at the "Workshop on Cognitive Approaches to Lexical Semantics", organized by Hubert Cuyckens (University of Leuven) and Dominiek Sandra (University of Antwerp) during the 16th Scandinavian Linguistics Conference held at the University of Turku, Finland, 15 November 1996. These are the papers by Stefan Grondelaers and Dirk Geeraerts, Hanna Lehti-Eklund, Sally Rice, Satoshi Uehara, Christof Vanden Eynde, and Jordan Zlatev. The other contributions (by Jens Allwood, Theo Janssen, Laura Michaelis, Kurt Queller, Augusto Soares da Silva, David Tuggy, Claude Vandeloise) were specially solicited for this volume. While most of the papers have matured over the past few years, all have been updated and revised, some of them several times, and most recently within the last twelve months.

The volume was made possible with the help of a great many people. First of all, we would like to express our thanks to all the authors for their contributions, for their speediness at every stage of the reviewing and editorial process, and for their patience. We would also like to thank all the linguists who acted as anonymous referees. We would like to acknowledge the work of Dominiek Sandra, who acted as co-editor of this volume during its initial stages, but who, unfortunately, had to leave the project. Thanks also goes to Jörg Behrndt for his invaluable work in formatting this volume, and to Anke Beck and Birgit Sievert of Mouton de Gruyter for seeing this project through.

Finally, the first editor would very much like to express his thanks to his co-editors, John Taylor and René Dirven, for their assistance in bringing the volume to fruition.

Hubert Cuyckens (University of Leuven)
René Dirven (University of Duisburg)
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May 2003

# Contents

# Introduction: New directions in cognitive lexical semantic research

John Taylor, Hubert Cuyckens and René Dirven

A central concern of Cognitive Linguistics is that lexical items, as well as word classes and grammatical constructions, are conceptual categories that have to be studied and investigated with respect to their cognitive function (rather than as reflecting purely formal linguistic principles), whereby "*cognitive* refers to the crucial role of intermediate informational structures in our encounters with the world" (Geeraerts 1995: 112–113). As such, lexical as well as grammatical categories constitute a "repository of world knowledge, a structured collection of meaningful categories that help us deal with new experiences and store information about old ones" (1995: 112–113). Importantly, Cognitive Linguistics holds that there is in fact no clear distinction between lexical and grammatical categories. As Langacker puts it, "Lexicon and grammar form a continuum, structures at any point along it being fully and properly described as symbolic in nature ... the difference [between lexicon and grammar] is clearly one of degree, and any particular line of demarcation would be arbitrary" (2000: 18).

In spite of the unification of lexicon and grammar, Cognitive Lexical Semantics has always remained a vibrant field of research in its own right. It became a full-fledged field of cognitive linguistic research in the early eighties, when it was able to successfully transfer important research results in cognitive psychology on the internal structure of categories (prototype structure and family resemblance structure) onto the structure of lexical categories. Prototypically structured lexical categories offered a promising alternative to the "classical" description of word meaning (i.e., in terms of a set of nec-

essary and sufficient features) and were at the same time able to account for the ever-present polysemy in word meaning. In the past two decades, then, research interests in cognitive lexical semantics have directed attention to (i) the internal structure of lexical categories (prototype structure, family resemblance structure, radial network structure); (ii) the polysemous nature of lexical items and the cognitive principles (e.g., metaphor, metonymy, image-schema transformations) motivating the relations between the different senses of lexical items; (iii) larger conceptual structures (e.g., metaphor research, frame semantics). Results in these research areas can be regarded as making up the "common core" of cognitive lexical semantic research. As such, they have also informed the papers in the present volume (Tuggy, Janssen, Allwood, and Zlatev on polysemy; Vanden Eynde, Uehara, and Rice on prototype structure; Queller and Lehti-Eklund on conceptual metonymy; Soares da Silva on image-schema transformation).

While these research interests still generate considerable interest, the contributions to this volume give unmistakable evidence of new directions emerging in cognitive lexical semantic research. For one, the widely held view in Cognitive Linguistics that polysemy is the norm for lexical items, especially for those that occur with any frequency, has re-ignited the debate concerning the polysemous vs. monosemous representations of word meaning. The papers by Allwood, Janssen, Tuggy, and Zlatev testify to the fact that "polysemy" is currently a much more contested issue than it was in the 1980s and 1990s. Second, the mechanisms that account for the relations between synchronic senses of a lexical item (e.g., metaphor, metonymy) are now also shown to account for the diachronic development of grammaticalized meanings (see the contributions by Lehti-Eklund and Uehara). Third, as evidenced by Rice's and Vandeloise's papers, acquisition data are brought to bear on the description of word meaning. Fourth, insights on prototypicality are undergoing further refinement; thus, Uehara applies the notion of prototype to parts of speech such as "Nominal Adjective" in Japanese, while Vanden Eynde goes into the relationship between prototypical category structure and hedging. Finally, Cognitive Lexical Semantics is look-

ing into the relationship between lexical and constructional meaning (Michaelis) and between the meaning of words and the contexts in which they are encountered (Queller, Grondelaers and Geeraerts, Lehti-Eklund, Allwood, Vanden Eynde).

Interestingly, these new topics fall out from more general issues in cognitive lexical semantic analyses. These include: (i) the nature of word meanings; (ii) the interplay between the conventionalized resources of a language and the specifics of a communicative situation; and (iii) the relation between word meanings and the meanings of complex linguistic expressions in which they are used. These more general concerns, which have actually given a new impetus to the field of Cognitive Lexical Semantics, are due at least in part to the fact that a number of traditional and well-entrenched views about the lexicon have turned out to be inadequate. One can readily accept – at a pre-theoretical level – that words have meanings, and that these meanings are implicated, in some way or other, in the meanings of the complex expressions in which the words occur. Matters become more complex, however, when we inquire into the nature of word meanings. How are word meanings to be stated? Is the meaning of a word a fixed and determinate entity? In the case of words presumed to be polysemous, just how many different meanings do the words have? What is the relation between word meanings (however we decide to characterize them) and the meanings of the utterances in which the words are used? What is the relation between words and situations in the world which they can be used to denote?

The papers in the present volume assemble a number of current perspectives on these controversial, and largely unsolved issues. In order to appreciate the problematic nature of these questions, however, it is necessary to step back a little, and to enquire more deeply into traditional views of word meanings, and the assumptions on which they are based.

## 1. A traditional view of word meaning

According to a common view of the matter, knowledge of a language can be partitioned into two major components – knowledge of the lexicon and knowledge of the syntax. The lexicon lists the words of the language and states, for each word, its phonological properties, its syntactic category, and its meaning. The syntax comprises the rules whereby elements belonging to certain syntactic categories can be combined into larger configurations. The phonological properties of the complex expressions thus formed can be computed from the phonological properties of the constituent words and the way in which they are combined. Likewise, the semantic properties of the complex expressions can be worked out on the basis of the semantic properties of the contributing words and the manner of their combination. The way sentences are pronounced, and the way they are interpreted, thus depend, ultimately, on the properties of words.

The above paragraph has sketched out what we might call the "standard" view of the lexicon and its role within a broader linguistic theory (cf. Taylor, in press c). The view informs not only the dominant "Chomskyan", and many other formalist and modular views of linguistic knowledge, it is also reflected in popular conceptions of language. Thus, according to a popular conception, the essential reference tools of the foreign language learner are the dictionary and the grammar book.

Many of the papers in this volume challenge the basic assumptions behind the standard view of the lexicon and its role within a broader theory of semantics; others highlight problems and shortcomings associated with the standard view. In the discussion of these shortcomings, some earlier cognitive linguistic approaches to word meaning – in particular, the treatment of polysemous items in terms of the well-known and widely employed radial network model – also come under critical scrutiny.

One aspect, in particular, of the standard view should be highlighted from the outset. This is the assumption that the words of a language are associated with fixed and determinate meanings – more than one meaning, of course, in the case of words presumed to be

polysemous. The very possibility of a dictionary (lexicon) is based on this assumption. A dictionary lists the existing words in a language, and is supposed to state, for each word, its meaning. In the case of words presumed to be polysemous, the dictionary lists for each word its different meanings and attempts a characterization of them. It is these discrete "chunks" of meaning which words are supposed to contribute to the complex expressions in which they occur.

That words have the above properties – i.e., that they have determinate meanings, and that these meanings are contributed to complex expressions – would appear to be self-evident, even axiomatic. It seems a matter of common sense that the words *cat*, *steal*, and *hat* have meanings, and that these meaning are implicated, in a fairly transparent way, in the fact that *The cat stole the hat* means what it does. As Sweetser put it:

> Linguists all agree, and so does the average lay person, that the reason *The cat stole the hat* means something different from *The cat ate the hat* is that *stole* and *ate* make different contributions to the interpretation of the whole, and that those contributions are systematically related to the usual conventional ranges of interpretations of *eat* and *steal* in other possible uses by English speakers. (Sweetser 1999: 132–133)

In spite of its apparent obviousness, the standard view brings with it a number of problems and paradoxes.[1] Consider, for example, the fact that users of a language are rarely required to confront the issue of word meanings. If asked to state the meanings even of very ordinary words in their language, most speakers find it hard to give satisfactory answers (Johnson-Laird 1987). From one point of view, this

1. We might note that Sweetser's example of the cat stealing the hat is not quite as unproblematic as she suggests. In the "usual conventional" uses of *steal*, as when we say that someone "stole my car radio", we attribute criminal intent to the thief – a person takes something which they know does not rightly belong to them. But do we want to attribute criminal intent to a cat? Does a cat have knowledge of which things rightly belong to which individuals? Presumably not. The possibility of predicating "steal the hat" of a cat – and the fact that hearers are easily able to give an interpretation to a statement that "the cat stole the hat" – is just a small example of the problems of word meaning alluded to here.

may not be at all surprising. Language users encounter meaning primarily as a property of utterances, not of decontextualized words. On the other hand, most utterances are unique occurrences. The question then arises, how is it possible for language users to "work out" the meanings of complex expressions if they are unable to state the meanings of the parts from which the expressions are composed. One might, to be sure, respond that language knowledge may well be, for the most part, unconscious, and not easily accessible to introspection. The fact that a lay person may not be able to state the meaning of a word does not entail that the word does not have a meaning, nor that speakers of a language do not have a mental representation of that meaning. Yet it is noteworthy that it is not only lay people who have difficulties stating the meanings of words. Determining the meanings of words is in fact a perennial issue in lexical semantics. In the case of words presumed to be polysemous, there is the additional issue of determining just how many distinct meanings the words are supposed to have. In order to appreciate that these are very real issues, even for professional linguists, we need look no further than to the literature on the lexical item *over*. Brugman's pioneering work (Brugman 1981) spawned a veritable cottage industry of *over*-studies (Lakoff, 1987; Vandeloise, 1990; Deane, 1993; Dewell, 1994; Kreitzer, 1997; Queller 2001; Tyler & Evans 2001, to mention just a few[2]). Recurring themes in this, by now very substantial literature have been, first, the question of how many distinct meanings of *over* need to be postulated, and, second, how these meanings, once identified, should be characterized. The issues are by no means settled, even after more than two decades of discussion.

In the following sections, we suggest that a good many problems in lexical semantics may be traced back to the very conceptualization of word and sentence meanings which frame the standard view.[3] Se-

2. Brugman (1981) also inspired a number of studies of the translation equivalents of *over* in other languages. See Bellavia (1996) and Dewell (1996) on German *über*, Geeraerts (1992) on Dutch *over*, and Taylor (1988) on Italian *su* and *sopra*.
3. On the role of 'cognitive models' in the framing of semantic theories, see Taylor (in press a, in press b).

mantic theories, whether traditional or more recent, are often based in metaphors of the nature of language, its use, and its structure. These metaphors have been taken over, mostly, from folk conceptions of language. It is therefore not a coincidence that expert and folk views on the role of the lexicon (or dictionary) and the syntax (grammar book) should correspond so closely. Since the metaphors are so deeply engrained, their entailments are rarely questioned. On the contrary, the entailments have been taken to be self-evident facts, almost with the status of theorems. Yet, as many contributions to this volume demonstrate, the metaphors may be ultimately misleading, or, at best, unhelpful.

We draw attention to two metaphors which have been particularly influential in shaping semantic theories. One of these is the conduit metaphor, according to which linguistic expressions are "containers" which allow their "contents" (that is, their meanings) to be "conveyed" from speaker to hearer. The second is the building block metaphor, according to which word meanings are semantic "building blocks" which are put together in the construction of more complex meanings. First, however, we give some brief remarks on the cognitive linguistic approach to metaphor in general.

## 2. Metaphor in Cognitive Linguistics

The study of metaphor has been a central topic in Cognitive Linguistics. The basic insight has been that metaphor is not just a manner of speaking. Metaphor cannot therefore be regarded simply as a rhetorical embellishment of an otherwise predominately "literal" mode of expression, and which is restricted in the main to the creations of poets and orators. On the contrary, metaphor is an important means whereby more abstract, intangible domains of experience can be conceptualized in terms of what is more concrete and more immediate. Symptomatic of its role in conceptualization is the fact that metaphor is ubiquitous, both in everyday language and in expert scientific discourse. In our informal day-to-day talk, we need to make reference to such abstract concepts as time, personal relations, and life itself, and

we do so, mostly, in metaphorical terms. Scientific research, by its very nature, needs to go beyond observed phenomena and to theorize about underlying essences, processes, and causes. Very often, expert discourse elaborates the very same metaphors as those which permeate everyday talk. On the other hand, theoretical breakthroughs may consist in the subverting of folk metaphors, and replacing them with metaphors that are perceived to be more insightful to a study of the domain in question. The relation between metaphor and experience is therefore a dynamic one. While metaphor may facilitate the conceptualization of a domain, the "logic" of a metaphor might bring with it entailments which are difficult to reconcile with our experience. If applied uncritically, the metaphor might even inhibit the scientific investigation of the domain. In such circumstances, a reconceptualization of the domain, possibly in terms of alternative metaphors, may be called for.

One of the most intangible, yet ever-present aspects of our life is the phenomenon of language itself, and its role in our mental life and in our interpersonal relations. Perhaps the most mysterious, yet most distinctive aspect of language is its "meaningfulness". We readily attribute "meanings" to linguistic expressions, yet it is by no means obvious what meanings are, nor how it is that complex expressions, newly created by a speaker, come to have the meanings that they do. Meaning, as a property of language and of linguistic expressions, is one of those abstract phenomena which demands an understanding in terms of metaphor.

Some well-known and well-researched examples of metaphorical construals concern the conceptualization of time, life, theories, and arguments (in the sense of "disputes"). Thus, time is commonly conceptualized (and hence spoken about) in spatial terms; life is construed as a journey and difficult episodes in one's life are spoken of as obstacles along the journey; intellectual theories are construed as buildings, and like buildings, they may have secure (or, as the case may be, insecure) foundations; participants in an argument attack each other, they withdraw, and defend positions, just like they were opponents in a military conflict, and so on (Lakoff & Johnson 1980, 1999). As the above remarks will have suggested, the focus of atten-

tion in metaphor studies is not primarily on the actual metaphorical expressions themselves, but rather on the "conceptual metaphors" which make possible, or sanction, the specific expressions. It is the conceptual metaphor which construes life as a journey which sanctions specific expressions such as *My life isn't going anywhere*, *You've come a long way*, *He's still got a long way to go*, *We're going round in circles*, and countless more.

A conceptual metaphor maps elements from a source domain onto elements of a target domain. Most times, the correspondences between the two domains are not perfect. Consequently, it may not be possible to map every element of the source domain onto some element of the target domain, neither can every element of the target domain be put into correspondence with some element of the source domain. Moreover, the "logic" of the source domain – the entailments which it gives rise to, for example – do not always carry over to the target domain. The points can be illustrated on the example of the conceptual metaphor which construes time in spatial terms. In terms of the metaphor, time is construed as linear and directional, the present being a point on the time line, the future lying in front, and the past being behind. The present moment ("now") moves forward along the time line (or, according to a slightly different version of the metaphor, future events come towards a static "now", they pass by, and then recede into the past).[4] It will be evident that not all aspects of the spatial domain are mapped onto time. Most obviously, space is three-dimensional, whereas time is one-dimensional. Moreover, people can (within obvious limits) select their location in space, and they can re-occupy a spatial location. On the other hand, my present location on the time line is established by the properties of the time domain itself; I am not free to choose when "now" is, nor can I re-occupy, or return to, a location on the time-line. In other respects, too, the "logic" of the spatial domain does not quite map onto the time domain. As mentioned, the future is construed as lying ahead,

4. That the spatial metaphors of time are not just manners of speaking, but influence speakers' conceptualization of time, has been elegantly demonstrated by Boroditsky (2000) and Boroditsky, Ramscar and Frank (2002).

the past as behind. Thus, we "look forward to" the future, we "go into" the future, we "look back" on the past, we put things "behind us", and so on. It will be apparent that this way of talking about time conflicts with our experience of directed motion. We can see what is in front of us, but we cannot see what is behind us. Yet the future is unknown, while the past can be remembered. A strict application of the "logic" of the source domain to the target domain would lead to the absurd inference that we can readily "see into" the future, but only by making a special effort to turn our heads can we "see" (that is, have knowledge of) the past. In this case, to be sure, the incompatibilities between the source and target domains are so crass, that no one is likely to believe the metaphorical entailment that one can "see into" the future simply by looking ahead! Sometimes, however, the power of a metaphor is such that it can indeed induce a false understanding of the target domain. This is the case, we suggest, with some of the metaphors which we use to talk about language.

## 3. The conduit metaphor

One of the earliest studies of conceptual metaphor – and it is interesting to note that its first publication (1979) predated the appearance of Lakoff and Johnson's *Metaphors We Live By* (1980) – was Michael Reddy's paper, "The conduit metaphor" (Reddy 1979 [1993]). In his paper, Reddy drew attention to a cluster of metaphors which motivate a substantial amount of our talk about language and about the role of language in communication. In terms of the conduit metaphor, linguistic expressions are containers, meaning is their content, expressing oneself involves putting contents (i.e., meanings) into containers, communication is the sending of the containers, together with their contents, along a conduit to a hearer, understanding is the receiving of the containers and the retrieving of their contents. Thus, we speak of "putting ideas into words", of "getting ideas across" to an audience, we "extract ideas" from a piece of prose, and words which do not "convey" much meaning to us are said to be "empty". Reddy (1993: 189–197) cites well over 100 common expressions and

expression types which, he claims, elaborate at least some facets of the conduit metaphor. These expressions far outnumber those which are based on other conceptual metaphors of language and linguistic communication, or which are, at best, "neutral" with respect to their metaphorical allegiance.[5]

The conduit metaphor maps elements from a source domain (in this case, our experience of putting goods into containers, sending the packaged goods to a recipient, who then unpacks the containers and retrieves the goods) onto a target domain (the act of verbal communication). While the conceptual metaphor may appear to give us a handle on some aspects of the target domain, it will be apparent that the correspondences between the two domains are at best imperfect. For example, if I send an object to someone, that person ends up having the object while I lose possession of it. But if I "give someone an idea", that person may end up "having" the idea, as per the metaphor, but I do not thereby "lose" the idea. Here, the clash between the source and target domains is so evident that, as with the time-line example mentioned above, no one is likely to be misled by it.

Other aspects of the metaphor are likely to impede or, at best, defer a clear understanding of the communication process. Consider, for example, our talk about "putting ideas into words". The image here is of a person putting objects, such as small gifts, into containers, such as boxes. According to the metaphor, this is just about all there is to the speech production process. Yet how, precisely, are we to understand this crucial step in the process of verbal communication? Should we infer that the containers (i.e., words, phrases, etc.) are initially empty (i.e., that they lack meaning), but can be filled by any contents of the speaker's choosing? On this view, a linguistic expression could mean just about anything that a speaker wanted it to mean – which is manifestly not the case. Are the ideas which speakers put into words to be taken as well-defined, pre-existing objects, each of which is inserted into the appropriate container? The

5. The question naturally arises, whether the metaphors discussed by Reddy are of universal validity, or whether they are peculiar to English and to other Western (and Westernized) languages. For hints that Japanese may employ different metaphors of verbal communication, see Ikegami (2003).