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# Cognitive Linguistics: Current Applications and Future Perspectives

Gitte Kristiansen, Michel Achard, René Dirven,  
Francisco J. Ruiz de Mendoza Ibáñez  
Editors

Mouton de Gruyter

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*edited by*

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## Introduction

# Cognitive Linguistics: Current applications and future perspectives

*Gitte Kristiansen, Michel Achard, René Dirven and Francisco J. Ruiz de Mendoza Ibáñez*

### 1. General orientation of the volume: towards an empirical revolution

The collective volume *Cognitive Linguistics: Current Applications and Future Perspectives* brings together specific case studies and critical overviews of work in a variety of CL strands. Written by prominent researchers, the chapters of the volume thus provide the scientific community with an updated survey of recent research in Cognitive Linguistics. Most authors furthermore go beyond the more immediate scope of describing or exemplifying state-of-the-art research (e.g. by providing the reader with a generally accessible synthesis or a specialized case study) and explicitly address a number of pressing questions pertaining to future perspectives and future research agendas.

Together with its companion volume *Cognitive Linguistics: Basic Readings* (Cognitive Linguistics Research 34, edited by Dirk Geeraerts), it constitutes a highly informative resource for linguists and scholars in neighbouring disciplines, and in general for any scholar wishing to become familiar with what Cognitive Linguistics is all about. Whereas *Cognitive Linguistics: Basic Readings* offers an introductory survey of the foundational concepts of Cognitive Linguistics, the present volume focuses on more recent theoretical developments, illustrates the many fields of application that CL already covers (both within linguistics and in an interdisciplinary environment), and identifies the future research trends that CL is now heading for.

At the same time, the present volume is the very first issue in the new book series *Applications of Cognitive Linguistics* (ACL). In collaboration with its sister series *Cognitive Linguistics Research*, ACL offers a platform for high quality work which applies the rich framework developed in Cognitive Linguistics to a wide range of different fields of application. These

fields include descriptive linguistics, cultural linguistics, language acquisition, discourse studies, sociolinguistics, visual communication, stylistics, poetics, pedagogical linguistics, computational linguistics, signed language and still many other fields, often within an interdisciplinary framework. The goals of ACL will be summarised in section 3 of this introduction.

First and foremost, however, as the subtitle suggests, the volume overviews and explores the major avenues of the cognitive linguistic enterprise at present and towards the future. Over the last two, perhaps even three, decades, Cognitive Linguistics has gradually but firmly established itself as a complete and innovating discipline, but certainly not one which for these reasons has ceased to evolve, nor to expand. The contributions in this volume testify to the existence of a number of different strands, the most important of which may be summarised as follows. First, a number of basic concepts (cf. the twelve cornerstones of Cognitive Linguistics described and exemplified in *Cognitive Linguistics: Basic Readings*) are currently being critically refined or even challenged. Second, the fact that Cognitive Linguistics is fully committed to the analysis of meaning in all its various facets naturally lends itself to multiple applications in all those areas of human communication where meaningfulness is relevant. Hence, the range of applications is expanding, not only across disciplines, but also within linguistics itself. This volume is a representative, but necessarily non-exhaustive illustration of this trend: while it covers a broader perspective than most other “readers” or “introductions” to Cognitive Linguistics, it obviously cannot reflect all of the many burgeoning applications. And last, but not least, there is a call for increasing methodological depth, to ensure a firm position for CL within Cognitive Science at large.

The volume is structured in six main sections. While the first three sections (chapters 1–8) focus on fundamental theoretical and methodological issues, the last sections (chapters 9–15) either discuss or exemplify the extent to which the cognitive linguistic framework can be applied in a variety of neighbouring disciplines (i.e. interdisciplinary or transdisciplinary applications) or to a wide range of practical language-related phenomena (applied linguistics). The distinction between these two main areas (theory and method vs. interdisciplinary applications and applied linguistics) is not, however, meant as a strictly separated one. On the contrary, application perspectives are legion in the first part, and basic theoretical issues naturally pervade the more application-oriented sections of the second part.

The first section, ‘The cognitive base’, addresses issues which in various ways relate to the basic tenet that Cognitive Linguistics is fundament-

ally usage-based. The section opens with a chapter on linguistic methodology and emphasizes the necessity of an empirical revolution. In the rest of section 1, the mental lexicon is seen as the highly flexible result of numerous usage events, and the various grammar models such as cognitive grammar, construction grammar, and radical construction grammar are revisited in terms of notational variants. The second section, 'The conceptual leap', looks into the embodied basis and nature of conceptual metaphor, the semiotic and indexical basis of conceptual metonymy, and the rhetorical potential of conceptual blending. The third section, 'The psychological basis', exhibits a possible implementation of the empirical revolution advocated in chapter 1 to the area of metaphor research.

Sections 4 to 6 exemplify a representative selection of fields of application. The first comes to the fore in section 4, 'Go tell it on the mountain,' which focuses on language, culture and thought. It opens with a dialogue between cognitive linguistics and anthropological linguistics, thus emphasizing the cultural core of language and the linguistic core of culture. Another long-established field is second and foreign language education (or 'pedagogical linguistics'), which can boast of a long tradition of empirical research, but which is still in the process of discovering the "motivational" potential of a cognition- and usage-based approach to foreign language teaching and learning. Section 5, 'The verbal and beyond', extends the research on verbal modes of expression to other modes of conceptual self-expression. The cognitive-linguistic approach is applied to the visual modes of expression as exploited in signed languages and in the manipulation of visual metaphors in the media-dominated communication landscape. Similarly, the imaginative realities of poetic text worlds are explored in a cognitive analysis of Robert Frost's poem "Mending Wall", a choice that serves as a symbol and pun for the wall between linguistics and literary studies. In section 6, 'Virtual reality', computer linguistics is looking at cognitive linguistics and lays down the conditions that have to be fulfilled in order to make it testable for computational experimentation.

It must be clear that these fields of application do not exhaust the possibilities for interdisciplinary cognitively inspired explorations. To name just one area, cognitive sociolinguistics is only indirectly represented in the context of cultural linguistics. This issue will be taken up in the last part of this introduction. Let us begin, however, by introducing the fifteen chapters in slightly further detail.

## 2. The various contributions: foundations, applications and future perspectives

### 2.1. The cognitive base

This opening section critically surveys the groundwork of Cognitive Linguistics, whose main ambition it is to be a fully usage-based theory of language. In his chapter entitled “Methodology in Cognitive Linguistics”, **Dirk Geeraerts** examines the methodological consequences of this tenet and weighs the validity of various linguistic research methods leading to the realisation of this ambition. Geeraerts first assesses the actual situation in Cognitive Linguistics and concludes that it is a mixed picture, with a clearly growing interest in empirical methods on the one hand, but still a dominance of traditionally analytic approaches on the other. Adopting a constructive approach, he foresees a growing increase in the empirical demands on linguistics: corpus research, experimental designs, surveys, and the accompanying forms of quantitative data analysis are likely to occupy a more central position than it currently does, gradually raising the standards of scholarship in linguistics in general and in Cognitive Linguistics in particular to such a level that unsubstantiated claims will become unfashionable. Linguistics needs an empirical revolution, and empirical research, Geeraerts argues, does not involve abandoning theory formation in favor of purely descriptive research, but rather trying to provide proof for theories, and from there, refining the theories. Interpretation is thus viewed as but one step within a cycle of empirical and successful research, which, crucially, requires the operationalization of hypotheses.

Many traditional dichotomies such as competence versus performance, or lexicon versus grammar are irreconcilable with a usage-based description of language. In the chapter “Polysemy and the lexicon”, **John R. Taylor** looks at this continuum from the lexicon perspective, and revisits several questions which earlier CL models have treated in the form of radial networks (the extreme polysemy of ‘over’, for example). In the case of ‘over’, Taylor argues that attempts to determine just how many meanings a word has, and what these meanings might be are ultimately based on a particular model, viz. the “dictionary+grammar book” conception of language. Taylor argues that such a conception is undermined by the pervasiveness of the idiomatic and illustrates his claim with an easily repeatable, small-sized corpus-based study of some uses of the expression *all over*. He shows that the expression has a range of uses which cannot be de-

rived on the basis of independently identifiable meanings of its parts, and concludes that knowing a word proceeds through knowledge of the highly flexible usage range of the word, rather than through the association of the word with a fixed number of determinate meanings.

One major application of CL is likely to be in the area of linguistic descriptions of parts or even the whole of grammar, of single languages or, contrastively, across different languages. The third chapter in this section, “Cognitive approaches to grammar”, by **Cristiano Broccias**, outlines the development of CL grammar models and compares three CL grammar models: Langacker’s cognitive grammar (Langacker 2005), and Goldberg’s (Goldberg 1995) and Croft’s (Croft 2001) avenues into construction grammar. Finally, the chapter explores the descriptive complementary potential of mental space theory and blending theory for the representation of conceptual links in grammatical complexity. As Broccias points out, the similarities between the models described are so fundamental that they can be called “notational variants”: they all share the assumption that language must be studied in relation to other cognitive abilities and agree on the fact that language consists of far more than just a syntax plus a lexicon. Rather, language is viewed as a taxonomic hierarchy, where sharp distinctions should not be assumed; language is a “diffuse” network since much in language is a matter of degree.

## 2.2. The conceptual leap

This section surveys the various ways in which human thought manages to explore and conceptually structure the experiential world of man by means of mainly three cognitive operations: conceptual metaphor, conceptual metonymy, and conceptual integration or blending, probably based to different degrees on underlying pre-conceptual building stones such as image schemas. The chapter by **Tim Rohrer**, “Three dogmas of embodiment: Cognitive linguistics as a cognitive science” critically reviews a series of recent approaches to another fundamental cornerstone in Cognitive Linguistics, namely the assumption that conceptual structure is “embodied”. Rohrer argues against any non-socially and non-culturally based conception of embodiment which envisages it as if it were (a) an eliminativist project (i.e. one which places the main or sole emphasis on brain structures and neurons, to the detriment of the role of socio-cultural factors), (b) a static or fixed model (as opposed to a temporally flexible and dynamic model, as well in ontogenetic, in historical as in phylogenetic terms), and (c) ultimately compatible with methods of con-

scious introspection. In this respect, Rohrer highlights the importance of findings resulting from cross-disciplinary empirical and experimental methods, and, like most contributors to the volume calls for empirical methodological approaches which will place Cognitive Linguistics more firmly within the broader experimentally-oriented community of Cognitive Science.

In his chapter, entitled “Metonymy as a usage event”, **Klaus-Uwe Panther** examines the interrelation between metonymy and metaphor, arguing that the hardly distinguishable notions of ‘domain’, ‘subdomain’, ‘single domain’, and ‘separate domains’, which since 1980 have often been used as definitional criteria for differentiating metonymy from metaphor, are unclear and unreliable because they are cover terms for heterogeneous concepts and conceptual relations. Instead, Panther returns to the semiotic approach advocated by C. S. Peirce according to which the difference between metaphor and metonymy resides in the type of semiotic relation between their respective source and target: metaphor is an *iconic* relation and metonymy an *indexical* relation. In consonance with this idea, metonymy is a kind of meaning elaboration whose result is a conceptually prominent target meaning, an integrated whole that contains the backgrounded source meaning and novel meaning components resulting from the process of elaboration. Panther explores the role of context in the interpretation of metonymy in usage events in two detailed case studies and concludes that one important function of metonymy is to provide generic prompts, serving as inputs for additional pragmatic inferences that flesh out the specifics of the intended utterance meaning.

How do the cognitive operations of metaphor, metonymy and blending relate to each other and to the world of thought? In her chapter entitled “Conceptual blending in thought, rhetoric and ideology”, **Seana Coulson** first introduces the reader to the framework of conceptual blending theory and provides an example of a rhetorically motivated blend. Then she goes on to describe the commonalities and differences of conceptual blending and conceptual metaphor. Coulson exemplifies these by means of humorous blends and suggests that processes of conceptual blending mediate the exploitation of stable conventional mapping schemes in order to adapt shared cultural models to the idiosyncratic needs of individuals. In her section on “Persuasive absurdity,” a number of examples of persuasive texts and discourse are analyzed to highlight the point that the creative elaboration and accommodation of cultural models relies heavily on conventionalized mapping and blending schemes. In the concluding



section, Coulson briefly also touches on the relationship between the meaning of sentences and the meaning of utterances, i.e. between the standard default meanings explored by linguists and the idiosyncratic meanings speakers derive in situated instances of language use.

### 2.3. The psychological basis

Research into the psychological basis of linguistic processing is the proper field of psycholinguistics, a vast area from which two domains are represented: metaphor processing and language acquisition. In their chapter “The contested impact of cognitive linguistic research on the psycholinguistics of metaphor understanding”, **Raymond W. Gibbs Jr.** and **Marcus Perlman** discuss some of the most important criticisms of cognitive linguistic studies on metaphor. The authors argue that linguistic analyses alone are unable to determine what putative conceptual metaphors underlie the use of particular linguistic expressions and call for experimental research providing independent evidence for such structures. They question CL assumptions that (a) there should be a direct, or motivated, relationship between systematicity in language and people’s underlying cognitive functions (including their unconscious mental representations and brain structures, cf. Dodge and Lakoff 2005), and (b) that the complexity of metaphorical meanings requires equally complex cognitive processes to create or understand these meanings by ordinary language users, as in conceptual blending theory (Fauconnier and Turner 2002). According to Gibbs and Perlman, the challenge for cognitive linguistic research is to frame hypotheses in a falsifiable way, and in this respect they briefly outline a number of steps that cognitive linguists could adopt to deal with some of these problems. The authors conclude that despite its success, cognitive linguistic research will continue to be contested by scholars in different neighbouring disciplines until it addresses some of its methodological weaknesses in a systematic way.

The second chapter in this section, entitled “X is like Y: The emergence of similarity mappings in children’s early speech and gesture” also examines the psychological reality of basic constructs. **Şeyda Özçalışkan** and **Susan Goldin-Meadow** first discuss simple analogical mappings in terms of one of the earliest metalinguistic abilities which children master and which thus constitute the stepping-stones for the development of metaphorical thinking. The authors then present the results of research which investigated the emergence and later development of similarity mapping abilities (X is like Y) in spontaneous speech and gesture, using longitudi-