Cognitive linguistics

Internal dynamics
and interdisciplinary interaction

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Internal Dynamics and Interdisciplinary Interaction

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To my mother for her infinite love, sacrifice, dedication, and generosity all the days of my life. To my wife and children for their constant love and support
Francisco J. Ruiz de Mendoza

To Víctor for his patience, cheerful encouragement, and love
M. Sandra Peña

Preface

This volume focuses on the internal variety of Cognitive Linguistics research. Part of this variety arises from the ability of Cognitive Linguistics to interact with other linguistic disciplines and subdisciplines. In this respect, the selection of contributions that this book presents is intended to offer an updated overview of the major attempts to produce such interdisciplinary connections. The editors wish to express their gratitude to all the contributors for taking part in this project in spite of their tight schedules and of their many other editorial commitments.

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Introduction: as strong as its foundations, as wide as its scope

Francisco J. Ruiz de Mendoza and
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"Articulating the dynamic nature of conceptual and grammatical structure leads us inexorably to the dynamics of discourse and social interaction. While these too have been part of CG from the very outset, they have certainly not received the emphasis they deserve. " (Langacker 2000: 376)

1. Preliminary remarks

The present volume gathers together plenary and key lectures delivered at the *8th International Cognitive Linguistics Conference*, held at the University of La Rioja in July 2003, plus other invited contributions dealing with interdisciplinary issues and the internal dynamics of recent developments in Cognitive Linguistics (CL).

In our view, the book testifies to the great tolerance of Cognitive Linguists towards internal variety and towards external interaction with major linguistic disciplines and subdisciplines. Internally, it opens up the broad variety of CL strands and the cognitive unity between convergent linguistic disciplines. Externally, it provides a wide overview of the connections between cognition and social, psychological, pragmatic, and discourse-oriented dimensions of language, which will make this book attractive to scholars from different persuasions. The book is thus expected to raise productive debate inside and outside the CL community. Furthermore, it examines interdisciplinary connections from the point of view of the internal dynamics of CL research itself. CL is rapidly developing into different compatible frameworks with extensions into usage-based domains of linguistic description including discourse, pragmatics, and sociolinguistics, which have only recently been taken into account more intensively in this orientation.

2. Unity in divergence

The Cognitive Linguistics (CL) agenda has always had a clear interdisciplinary concern. However, until very recently cognitive linguists have mostly addressed interdisciplinary issues in terms of the connections between CL and other branches of cognitive science, especially artificial intelligence and the brain sciences, as evidenced by recent work in Embodied Construction Grammar (Bergen and Chang 2002; Chang, Narayanan and Petruck 2002) and the Neural Theory of Language (Feldman and Narayanan 2004; Lakoff and Johnson 1999).

Interdisciplinary efforts internal to the study of language and its textual manifestations, although significant in qualitative terms (e.g. Gavins and Steen 2003; Nuyts 1992, 2001; Panther and Thornburg 2003; Steen 1994), have been rather sparse. In this context, the book aims to make relevant connections between CL and various other approaches to language, more specifically sociolinguistics, psycholinguistics, pragmatics, and discourse studies. The contributions to the book explore areas of convergence between these approaches and the cognitive paradigm, and place emphasis on the nature of possible developments in future work if such connections are taken into account. In a complementary fashion, the book examines to what extent such interdisciplinary issues have a bearing upon the internal dynamics of CL thus giving shape to the major strands that have so far developed. Other developments within Cognitive Linguistics, like cognitive phonology (e.g. Mompeán 2004), cognitive morphology (e.g. Bybee 2001; Geeraerts 2002), or diachronic linguistics and grammaticalization studies (e.g. Blank and Koch 1999; Geeraerts 1997) are not covered in the book since they do not involve any major interdisciplinary effort. Applied Cognitive Linguistics (Pütz, Niemeier, and Dirven 2001), in its turn, although interdisciplinary, falls outside the essentially theoretical scope of the book. Finally, other interdisciplinary enterprises, such as cross-cultural semantics (Wierzbicka and Goddard 2004) and cognitive therapy have not had yet a sufficiently strong impact on the CL framework to generate internal developments.

3. The structure of this volume

The book is structured in four sections. The first section takes up the question of the internal developments within CL. Sections 2 to 4 deal with the connections with other orientations and areas of linguistic enquiry. The

efforts of the contributors to the two sets of sections are highly complementary in their common goal of developing the full explanatory potential of the CL paradigm.

Each of the four sections of the book covers several routes of research. The first section sets the stage for the rest of the book in three significant ways: first, it gives an overview of the main orientations within CL; second, it explores the links between CL and its historical matrix, Functionalism; third, it looks for common ground among some of the major approaches to the concept of grammar within CL itself. Thus, this section allows us to look at CL as part of the more general functional enterprise while highlighting commonalities and differences among its major developments.

Section 2 explores how CL and sociolinguistics may benefit from each other. Two major target areas aimed for in the contributions to this section are these: (i) to bridge the gap between the study of linguistic diversity and the idiosyncrasies of individual conceptual systems; (ii) to understand the way people conceptualize social reality in terms of cultural models concerning language varieties, linguistic groups, and language behavior. This section thus explores the social perspective of issues that will be taken up in the next two sections with different degrees of emphasis on various aspects of their psychological and interactional nature.

The contributions to section 3 place emphasis on the embodied nature of language and thought, studying language use and embodiment from two complementary perspectives: (i) psychological experiments on how language is understood as embodied simulation; (ii) a linguistic study of the cognitive operations involved in the construction of mental spaces and the impact of such operations in conceptual and linguistic construal and communication. While section 2 looks at language use from the point of view of the social dimension of language, section 3 examines how different aspects of language use find their counterparts in embodied thought.

Section 4 follows naturally from section 3 in its exploration of communicative and usage-based issues. The section attributes an especially prominent role to the connections between cognitive model theory (with special emphasis on metaphor and metonymy) and the discourse-oriented approach to language. In this interdisciplinary perspective, metaphor and metonymy are seen as capable of creating discourse coherence through their particularly strong capacity to generate inferences. In a complementary way, this section also deals with discourse units in terms of their conceptual and communicative properties.

As is evident from this brief overview, all sections cover two general topics with wide-ranging implications which are crucial to future developments of research in CL and in linguistics in general: (i) the relationship between the embodied nature of language, cultural models, and social interaction; and (ii) the role of metaphor and metonymy in inferential activity and as generators of discourse links. Then there are a number of more specific topics, which are addressed from different perspectives in many of the contributions: the nature of constructions and the scope of constructional meaning; language variation and cultural models; discourse acts; meaning construction; the relationship between communication and cognition; the argumentative role of metaphor in discourse; the role of mental spaces in linguistic processing; and the role of empirical work in CL research. This feature of the book endows it with internal unity and consistency while preserving the identity of each of the sections and the contributions therein.

4. The chapters in this volume

In the first contribution Dirven surveys the different intradisciplinary and interdisciplinary ramifications of Cognitive Linguistics. Five major strands are grouped into two main orientations according to their roots. On the one hand, the gestalt-psychology-based strand (Talmy, Langacker, Goldberg) and the phenomenology-based strand (Lakoff, Johnson) have been deeply influenced by recent cognitive psychological and philosophical currents. On the other hand, the Cognitive Discourse study, Cognitive Sociolinguistics, and Psycholinguistics are deemed to be rooted in the interaction between CL insights and the linguistically oriented subdisciplines of Pragmatics, Discourse Analysis, Sociolinguistics, and Psycholinguistics. This overview provides the reader with some of the main theoretical insights that have developed from these interdisciplinary efforts. The author discusses the most important contributions made in recent years as well as the criticism to which some of these ramifications, especially Lakoff's Cognitive Semantics, have been subjected. Other developments within CL which are not essentially interdisciplinary (e.g. Cognitive Phonology, Cognitive Morphology, and Historical Semantics) or still others which have not generated a major ramification (e.g. Cognitive Therapy), are not addressed in this chapter. Thus, this survey is an appropriate opening chapter for the rest of the book.

Nuyts' chapter is an attempt to cast light on the complex status of the relationships between Cognitive and Functional Linguistics. He notes that

the complexity of the comparison is partly due to the fact that both orientations are internally heterogeneous. This calls for a selection of major tendencies of divergence rather than a superficial survey of convergences and divergences. The chapter first focuses on the question of shared concerns between Cognitive and Functional Linguistics (e.g. dealing with language use), which makes the two approaches complementary, while the differences arise when applying the basic orientation in specific analyses of language. Nuyts suggests that if functionalists should take the cognitive import of their analysis seriously, they would be able to add important new insights into the nature of human conceptualization. Nuyts illustrates this point by exploring 'tense-aspect-modality' marking. Thus, he argues that categories qualifying states of affairs (e.g. evidential, epistemic, deontic) are not only linguistic but also conceptual and that the level at which the qualification is conceived is prior to the level at which lexical structure is introduced, which points to a non-verbal conceptual level of representation for them. He then contends that a layering system which assigns each qualification a position in terms of their potential scope (e.g. evidential>epistemic> deontic) is also conceptual, since conceptual qualifications can have a fairly variable effect in different expression types both within a language and across languages. Finally, the discussion brings up another issue that threatens to divide CL and FL, viz. the matter of the 'construction model' versus the 'process model' of a grammar. In the former, the link between form and meaning is represented in one unit; in the latter, the same basic relationship is implemented through mapping rules or procedures. In this respect, Nuyts argues that the FL perspective should certainly be taken seriously in CL, especially if linguists work under the assumption that in actual communicative situations there is a time lag between the application of conceptual meaning and linguistic form. In any event, this issue brings with it important metatheoretical differences between the two orientations – concerning the division of labor between neuroscientists and linguists – that will have to be addressed before an acceptable degree of convergence takes place.

Langacker's contribution is a comparison of the three main formulations of Construction Grammar – i.e. those by Goldberg (1995), Croft (2001), and the author himself (Langacker 1987, 1990, 1991, 2000). In view of potential terminological confusion, Langacker uses the phrase "Construction Grammar" to refer to any non-derivational framework that describes constructions (understood as form-meaning pairings) rather than rules, where lexicon and grammar form a continuum, inheritance relationships are specified, composition is effected by unification, and well-formedness

is seen in terms of simultaneous constraint satisfaction, among other characteristics. Goldberg's Construction Grammar, Croft's Radical Construction Grammar, and Langacker's Cognitive Grammar are constructional in this sense. The discussion is then focused on three crucial issues: the question of the putative autonomy of syntax, of which there is a strong and a weak version (the latter usually subscribed to in cognitive and functional orientations), the nature and theoretical status of some basic grammatical constructs (subject, object, noun, verb), and the relationship between lexicon and grammar. In the Cognitive Grammar approach, in contrast to what is the case in the other two approaches, grammar is symbolic in the sense that it pairs semantic structures just with phonological structures – the "form" in form-meaning pairings does not include category labels or reference to grammatical relations. Thus grammar does not symbolize semantic structure but rather incorporates it, residing in schematized patterns of symbolization. In this way Cognitive Grammar avoids a vestige of the strong autonomy thesis, namely the postulation of unanalyzed grammatical primitives. It defines such universal constructs as noun, verb, subject, and object in the form of semantic characterizations at the prototype and schema levels. Langacker also points out that Cognitive Grammar, just like Construction Grammar and Radical Construction Grammar, posits hierarchies of constructions (i.e. networks of symbolic assemblies) where there is a continuum between lexicon and grammar. However, in Construction Grammar a construction is only recognized if it is unpredictable from its component parts or from another construction, while in Cognitive Grammar an assembly is considered part of the language to the extent that it is psychologically entrenched and conventional in a given speech community. All in all, Langacker's chapter serves to clarify these and other related issues central to the CL enterprise while making a solid case for the CL understanding of grammar.

The sociolinguistic section opens with Geeraerts' chapter concentrating on the growing interest within the CL community in empirical models of linguistic analysis and on a heightened awareness of the social nature of language. It is argued that 'Cognitive Sociolinguistics' is a natural development within the general CL framework which arises both from the growing tendency to use empirical research methodologies and the emergent interest in the social nature of language. In Geeraerts' view, if CL is to be regarded as an eminently usage-based approach, then it needs to investigate actual language use as attested in corpora of non-elicited language behavior, so as to come to terms with the reality of social variation in language. Similarly, if CL encompasses a social conception of language, it

should not restrict itself to an intuitive methodology, but it should adopt the observational approach that comes naturally with the use of large textual corpora. Geeraerts addresses these issues from an epistemological standpoint and comes to the conclusion that the alliance between quantitative, variational corpus analysis and CL is not only desirable but also inevitable as a way of accounting for the dialectic interaction between individual knowledge and collective norms. The argumentation proceeds in two steps. The first step involves the claim that an empirical, usage-based approach in Cognitive Linguistics cannot evade the study of language variation. The second step (which takes the form of a fundamental discussion with the epistemological views of Esa Itkonen) reverses the perspective, and argues that if one accepts the essentially social nature of language, an empirical methodology is inevitable.

In the same vein as Geeraerts, Bernárdez advocates the necessity of integrating social factors into a sound analysis of the data in CL. Bernárdez addresses this issue from two complementary perspectives: language variation and linguistic typology. He first argues that typological studies can have and in fact should have a cognitive orientation that would allow us to understand better the universals and the varieties of human cognition. Then, he discusses the need for a neutral standard for comparison or *tertium comparationis* other than English since English, like any other language, is culturally loaded and it is a typologically rare language whose constructions are extremely infrequent cross-linguistically. Granularity or the detail of analysis is a related issue. As Bernárdez notes, most linguists will perform fine-grained analyses of English to make their points, while neglecting to do so with other less-known languages. This way of acting leads to incorrectly ranking some phenomena as on a par in different languages. Here, Bernárdez argues for a neutral *tertium comparationis* where granularity is just a matter of the detailed investigation of a given construction in particular languages. Given these observations, typological research is to focus on usage-based grammar, which is also the natural ground for variation studies. This usage-based focus is compatible with recent work in CL that points to the collective nature of human cognition. In it, linguistic activity is seen as essentially collective, and language as a direct consequence of its social aspect. Furthermore, language use is thought to determine linguistic form through entrenchment processes in the individual's mind. In this perspective, we do not have to explain why language variation exists, but rather why something does not show interlinguistic variation, if this happens to be the case. In much the same way, typological studies need to compare not just simple linguistic forms or pairings of form and mean-

ing, but the whole system of form-meaning conditions of use. This proposal is in full consonance with state-of-the art knowledge about coordinated animal behavior and our own neural makeup.

In the section on psycholinguistics and cognitive processing, Gibbs argues in favor of the embodiment of cognition, and consequently of meaning, since language is regarded in CL as an essential part of cognition. The chapter emphasizes the importance of whole-body action in the genesis and development of perception, cognition, and language use, and suggests that human thought and language, most generally, must be studied and understood in terms of the interaction between the mind, the body, and the world. In his proposal, Gibbs certainly broadens previous work in CL where it is taken for granted that conceptual and linguistic representations (i.e. image-schemas) are derived from bodily experience to become a stable part of our conceptual systems. In the author's view, such representations are created on an ad hoc basis as part of people's embodied simulations of meaning, as they are ever again activated from long-term memory. Gibbs provides support for this claim by describing three psycholinguistic experiments that investigate the way in which understanding metaphorical language is related to real and imaginary bodily action. On a final note, Gibbs sees the work described in this chapter as additional evidence in support of the "cognitive commitment" within CL, according to which explanations of linguistic structure and behavior have to be in agreement with contemporary empirical findings about human cognition from cognitive science.

With an eye on cognitive processing, Ruiz de Mendoza and Peña examine Turner and Fauconnier's well-known blending theory. Blending (or conceptual integration) is a widespread cognitive mechanism which applies over many areas of conceptualization, including metaphor and metonymy. According to Turner and Fauconnier's theory, the understanding of some metaphorical expressions involves the activation of at least two input spaces, a generic space, and a blend. Turner and Fauconnier argue that in this process emergent structure may be created which is not present in any of the input spaces. They also claim that emergent structure is the result of a number of irregularities in the mapping process, such as the existence of asymmetries and non-correspondences between source and target. In contrast to this hypothesis, Ruiz de Mendoza and Peña present what they call the *combined input hypothesis*. In their view, there are no irregularities in the mapping process. Instead, conceptual integration is the result of the principled combination of a number of partial source and target inputs, which have all the structure necessary not only for cross-domain mappings to take place but also for other cognitive operations such as domain expan-

sion and domain reduction (related to metonymy), strengthening and mitigation (related to the loose use of scalar concepts and to hyperbole), saturation, and counterfactual reasoning, among others. In this account, there is a projection space that is constructed on the basis of these operations.

The discourse section opens with Steen's chapter on discourse acts. Steen proposes, develops, and discusses the notion of basic discourse act as consisting of an illocutionary act, a proposition, a clause, and an intonation unit. Basic discourse acts may be thought of as utterances in the full behavioral sense of the term, that is, as verbal acts requiring production and comprehension in speech or writing. However, since the notion of utterance is too closely associated either with pragmatics as opposed to discourse analysis, or, within discourse analysis, with conversation analysis as opposed to text analysis, it is preferable to coin a more neutral term. Basic discourse acts are the basic units of discourse conceptualized from a discourse-psychological point of view. In language production and comprehension, people engage in a multi-dimensional activity. Concepts require words and constructions for their formulation, words in constructions require sounds or written signs for their material realization, and the combination of concepts, words, and sounds or written signs functions as an important instrument for performing a communicative act directed at some addressee. Basic units of discourse are an important tool for language users when they have to break up continuous text and talk into equivalent segments for cognitive processing. It is the major function of basic discourse acts to make it easier for addressees to reconstruct during the on-going event of listening, reading, or interacting what the sender is saying, implicating and doing. This requires that basic discourse acts be studied in terms of their internal structure as well as their links to each other in encompassing discourse structures.

Barcelona's contribution is devoted to the detailed discussion of a number of case studies on the way metonymy functions in authentic texts. One of the findings of these case studies is the realization that two or more metonymies regularly occur at the same or different analytical levels in the same utterance, and that they tend to chain to each other. According to the author, metonymy can occur at all grammatical analytical levels. It is a major factor in the motivation of constructional form (especially non-prototypical constructional form) and constructional meaning.

On the other hand, the regular co-occurrence and chaining of metonymy in utterances and texts plays a crucial role in pragmatic and discourse inferencing, which makes metonymy, particularly metonymic chaining, a key inferential mechanism in language use. The contribution provides evidence

of the pervasiveness and frequency of metonymy in discourse. The author argues that discourse-pragmatic inferencing is often activated, or "guided" (to use the author's own term), by chains of "active" (as opposed to "dormant") metonymies, which seem to constitute the "backbone" of inferential chains. Thus Barcelona provides ample evidence for his claim that the inferential function of metonymy is its primary function, its motivational and referential functions being derived from this primary function.

A further finding is that metonymic chains respond to a set of general patterns identified in terms of the criteria of function, directness and crossing of analytical level. Metonymic chains are normally mixed chains in terms of these criteria.

In his contribution, Panther explores some basic semantic and pragmatic functions of conceptual metonymy. He contends that metonymies provide natural-inference schemas constantly used by interlocutors in the construction and interpretation of meaning. Metonymy is seen as a contingent relation between a source meaning and a target meaning, i.e. as a reasoning pattern that is in principle defeasible. Nevertheless, the degree of entrenchment of the metonymic link and contextual features may constitute an effective barrier to cancellation. The property of defeasibility metonymy shares with conversational implicature and explicature. Panther views metonymy as a device for meaning elaboration where the source of a metonymic relation is expanded into a more complex conceptual structure that "contains" the content of the source. In his view, conceptual metonymies occupy an intermediate level of conceptual relations between, on the one hand, very abstract inference-guiding principles and heuristics à la Sperber and Wilson and Levinson and, on the other, specific ad hoc inferences employed in the derivation of particularized conversational implicatures. In prototypical metonymic relations the target concept is conceptually prominent, which makes target meanings not only accessible but also available for further elaboration in discourse. Metonymies are ubiquitous on the referential, predicational and illocutionary levels of speech acts. They also perform important functions in resolving semantic conflicts between lexical meaning and constructional meaning and in shaping certain grammatical properties of anaphoric proforms. Finally, the author demonstrates that metonymies are, to a certain extent, organized in taxonomic systems, a property that is illustrated with the various submetonymies of the EFFECT FOR CAUSE metonymy.

Finally, Nerlich's chapter is an illustration of the argumentative use made of the metaphors and images used in the scientific and industrial debate about agriculture and the environment. These metaphors have received