Cognitive Linguistics: A Usable Approach

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ABSTRACT

This inrroducrion first justifies the utility of rhis special issue for English srudies and offers a brief overview of rhe srare of the art in cognirive linguistics. Ir then comments briefly on each of the articles in rhis collecrion, discussing rheir conrriburion ro each of rhe major trends in the field, and ro English srudies in general.. The conclusion highlights the usefulness of rhis approach for a variety of concerns.

KEYWORDS: Cognitive linguistics: overview; intellectual roots; embodied meaning; methodological principles: applications; editor's comments on essays.

RESUMEN

En esta inrroducción. en primer lugar, se justifica la urilidad del volumen para los estudios ingleses y se hace una breve exposición del esrado actual de la lingüísrica cogniriva. A conrinuación se comenta brevemente cada artículo, haciéndose hincapié en su aportación a cada uno de los principales sectores de la lingüística cognitiva y a los estudios ingleses en general. Al final se destaca la indudable urilidad de este enfoque pam una gran variedad de intereses.

PALABRAS CLAVE: Lingüística cognitiva: visión general; raíces intelectuales; significado corporeizado: principios metodológicos; aplicaciones; comentarios del compilador sobre los diversos artículos.

I. AN OVERVIEW OF COGNITIVE LINGUISTICS

I.1. Intellectual roots. Basic assurnptions. The discovery of ernbodied rneaning.

'Cognitive linguistics' is the narne used for a particular approach to the study of language. It refers thus to a theoretical stance, to a general set of assurnptions about what language is, which are its foundations, how it is used, and which are the rnost adequate methodological principles to be observed in its study.

I shall be comrnenting on this set of assurnptions presently. But a few words rnay be necessary to justify the suitability of a rnonograph issue on cognitive linguistics for an

English studies journal, like *Cuadernos de Filología Inglesa.* Most studies in cognitive linguistics have used English as the language of exemplification; in this respect the situation is no different from that in GB (Chomsky's 'Government and Binding') or other generative approaches. However, the fact is that cognitive linguistics still has a minority share in the various disciplines that make up the vast, manifold field of English studies. be it the study of all aspects of the English language, of the literatures in English, or of the cultures shaping and shaped by English: for all these broad areas of research and for their respective component disciplines, cognitive linguistics offers fascinating fresh approaches. new rnethodological principles, and many recent findings. I have no doubt, thus, that a large sector of the English studies community will welcome this collection of essays.

We can now concentrate on the theoretical assumptions in our approach. The main cause for the emergence of what is now known as cognitive linguistics is to be found in the dissatisfaction that a group of linguists experienced in the late seventies with the dominating generative paradigm in linguistics and in cognitive psychology (see Ruiz de Mendoza's interview with George Lakoff, this volume). This paradigm was felt to be excessively concemed with notational formalism at the expense of descriptive adequacy and psychological realism. On the other hand, some of the major assumptions underlying generative approaches to syntax and semantics (particularly the correspondence theory of truth in semantics and the modularity hypothesis in linguistics and psychology) were clearly at odds with a growing mass of experimental data in linguistics, psychology and other fields, and, as Lakoff (1987) pointed out, with some brilliant pages in the philosophy of language (Austin and. rnost particularly. Wittgenstein). The 'rebels' (many of whom had initially worked within the generative approach) then embarked upon one of the most exciting intellectual adventures in linguistics in this century: they set out to revise most of the fundamental assumptions held for centuries about language and the foundations of language. The results of this scrutiny. very often carried out in various, though convergent, directions, have been impressive. Two fundamental tenets have emerged from this revision.

The first one affects the very status of language as a human ability, which is now envisaged from a radically different perspective. Cognitive linguists do not regard the ability to learn one's mother tongue as a unique faculty, a special innate mental module, distinct from other general cognitive abilities. The modularity hypothesis is strongly advocated by generativist theorists (see e.g. Chomsky 1986:18, Fodor 1983) and by other more or less faithful followers of Chomsky, including Jackendoff (see e.g. Jackendoff 1996:96) [1]. Research in anthropological linguistics (Berlin and Kay 1969, Kay 1975, Kay and McDaniel 1978), cognitive psychology (e.g. Heider[2] 1971, 1972, Heider and Oliver 1972, Rosch 1973. 1977, 1978, Rosch and Mervis 1975, Rosch 1983), in cultural anthropology (e.g. Berlin, Breedlove and Raven 1974, Kempton 1981, Holland and Quinn 1987), and, to a lesser extent, in neurology and neurophysiology (Damasio 1994, Edelman 1992), rather seerns to support a very different view.

This view is that general cognitive abilities, like our kinaesthetic abilities, our visual or sensorimotor skills, and above all, our typically human categorisation strategies. especially our tendency to construct categories on the basis of prototypical basic-level subcategories or exemplars (Neisser 1987, Rosch 1983, Tsohatzidis 1990[3]) jointly account, together with cultural, contextual and functional parameters, for the main design features of languages and for our ability to leam and use them. The keyword in this approach is *embodimenr* (Johnson

1987. Lakoff 1987, 1993a; Lakoff and Johnson, 1980 and their forthcorning book). Mental and linguistic categories cannot be abstract, disernbodied, hurnan-independent, categories. Quite the opposite: we construct and understand our categories on the basis of concrete experiences, and under the constraints imposed, first and forernost, by our bodies. Hurnan conceptual categories, the rneanings of words and sentences, of linguistic structures at any level, are not just a cornbination of a set of universal abstract features, of uninterpreted syrnbols. A very large nurnber of these rneanings and structures are more or less directly motivated by experience, in rnany cases, bodily experience[4].

So concepts, including linguistic concepts, are *grounded in experience* (bodily / physical experience, or social / cultural experience). This is thus in conflict with an axiorn in twentieth century linguistics: that of *l'arbirraire du signe*[5]. The study of conceptual and linguistic grounding has advanced immensely in recent years, especially through the detailed investigation of bodily-based rnetaphorical systerns (see below), and through the investigation of the psychological reality (see Mandler 1992, Neisser 1987 and Gibbs 1995, Ch. 9) and the neural correlates of basic embodied concepts and of their extension to other concepts (for the neural correlates, see the early results of the Berkeley-based L-zero group as reported in Bailey (1997), Narayanan (1997), and Regier (1996)). This insistence on ernbodirnent and rnotivation explains the irnportant role accorded to iconicity in language (Hairnan, 1985)

This view of language as a product of general cognitive abilities is in fact a result of the observance of a yet more basic principle in cognitive linguistics, narnely, «the *cognitive commitment*» (Lakoff 1990): linguistic theory and rnethodology rnust be consistent with what is empirically known about cognition, the brain, and language. Since empirical evidence (especially psychological and linguistic evidence) strongly favours the nonmodularist hypothesis, rnost cognitive linguists adopt this hypothesis; but they would take a modularist position if the bulk of evidence supported it.

The second fundamental tenet is concerned with the theory of linguistic meaning. Most cognitive linguists claim that rneanings do not 'exist' independently from the people that create and use thern, as Reddy brilliantly showed long ago in a now classic essay (Reddy 1993 (1979)). Therefore they reject what both Lakoff (1987) and Johnson (1987) have temed 'objectivism' in linguistics and philosophy, since there is no objective reality which is independent frorn hurnan cognition. And linguistic forms, as Fillrnore, Lakoff, or Langacker say (see Ungerer and Schmid 1996:208-209) are just clues that activate the conceptual structures that we have formed in our rninds, but have no *inherent* rneanings *in* thernselves. Meanings 'reside' in our rninds and our brains (they can be characterised as neural routines). Linguistic forms just activate thern, but the (part of the) rneaning cornplex activated in rny rnind need not be exactly the same as the one activated in sorneone else's by an utterance with the sarne linguistic form, because, as was said earlier, meaning is a result of experience, both collective and individual.

Meanings are not really inherent in linguistic forms, but they are conventionally *paired*, more or less directly, to linguistic forms, which then become 'cues' for the activation of these rneanings. As Lakoff (1987: 583) puts it:

> The prirnary function of language is to convey rneaning. A grammar should therefore show as directly as possible how pararneters of form are linked to parameters of meaning.

This association is very often more or less directly motivated, as we said above. Therefore, the cognitive linguist tends to regard every distinction in form, no rnatter how small, as in principle being linked to a corresponding distinction in meaning (in a very broad sense of 'meaning'). This view is consistent with human rationality: why should linguistic communities develop these formal distinctions if not for the purpose of symbolising distinct (sometimes very subtle) meanings? To put it differently, a cognitive linguist is in principle inclined to be suspicious of claims of synonymy, or of paraphrase relations, which in our view can never be absolute (Taylor 1995:55-57), and to try and discover the *symbolic value* of each linguistic form.

I.2. Methodological principles

These two theoretical standpoints have a number of irnportant consequences for linguistic rnethodology. The perception of our linguistic skills as a product of general cognitive abilities has brought about, on the methodological plane, the rejection of what has long been held as an archetypal 'scientific' requirement in linguistics, namely that all linguistic analytical categories must impose necessary and sufficient conditions for membership in the category. Such a requirement entails, for instance, that there has to be one abstract, general definition (or a structural description) of passive clauses, which every seemingly passive clause conforms to. But such a definition is actually impossible to arrive at: no matter how sophisticated, it would always exclude sorne likely candidates.[6] Another consequence of this traditional requirement would be the need for positing general abstract meanings applicable to all the senses of polysemous lexical items. These senses would be regarded as related to this abstract, 'core' meaning. So the two different senses of *eye* in *She has blue eyes* and in *The eye of the needle* would be considered as related to one general, abstract sense of 'eye' (see Lakoff and Johnson 1980: Ch. 18). The serious problem with this position is that in many cases, especially where the sense extension is due to metaphor or metonymy (see Sweetser 1986), it is virtually irnpossible to identify such an abstract sense, unless we (vacuously) state that this sense is 'circular shape'. How can then 'eye' be distinguished from 'wheel' or 'egg', or ...? What is more, which is the abstract sense covering the senses of 'eye' in the two preceding examples *and* in *He has a good eye for beauzy?*. However, as we shall see presently, all of these senses are related, but not through an abstract default sense included in all of them.

A cognitive linguistic methodology would take a very different path. One of the basic general cognitive abilities reflected in the structure and use of languages is *protozype categorisation:* human categories are normally characterised by having one typical member of a category (the prototype), to which other members are related in a motivated way, these less central members departing from the prototype in varying degrees and along various dimensions (see all the references above to the work by Rosch and others). A cognitive methodology would then identify the prototypical use of *eye* as that referring to a body-part, and would treat the other uses of this lexeme as motivated non-prototypical senses. related in a systematic way to the prototypical sense. In *The eye of the needle* and in *He has a good eye for beauzy* the link is metaphorical; in other senses of 'eye' it may be metonymic. There would be no problem, then, in recognising the fact that the three senses illustrated by these

examples correspond to the same *polysemous* lexeme[7]. The study of polysemy and of the networks of senses in polysemous lexical items (and of gramatical constructions) thus becomes central in a cognitive approach[8] and has been the subject of extensive high-quality research by cognitive linguists (see e.g., Sandra and Cuyckens, forthcoming). Of course this interest in sense networks or meaning chains is not incompatible with acknowledging the role of abstraction in the mental construction of prototypical senses.[9]

Similarly, a cognitive grammarian would recognise a central type of passive *consrrucrion* (typically describing an action by a voluntary agent, with a dynamic transitive verb, an active correspondence, etc.) and a series (a network) of less central passive constructions motivated by the prototype[10]. An imponant point then is that there are seldom any necessary and sufficient conditions in human conceptual categories, including linguistic categories.

A second consequence of the primacy of general cognitive abilities is that no strict distinction can be made between encyclopedic, experienced-based knowledge and linguistic meaning. This means that our large, complex conceptual structures are invoked in language use and comprehension, and that conventional meanings (i.e. strictly 'semantic' meanings) arise on the basis of experience and general knowledge. Hence the commonplace claim in cognitive linguistics that meaning is ultimately pragmatic, and very often holistic, gestalt-like. Such a claim is obviously at variance with the traditions in semantics underlying such constructs as Carnap's meaning postulates or Katz's semantic markers and distinguishers. And if experience-based knowledge permeates linguistic meaning at every level, these levels are themselves open-ended, there being no strict separation between them, especially between symbolic levels, i.e. between lexicon and grammar, or between levels in the organisation of meaning, i.e. semantics and pragmatics. Or between synchrony and diachrony. Functional and cognitive approaches to linguistic change have concluded that there is not a strict distinction between synchrony and diachrony since historical changes very often have the same social, functional and cognitive motivation which is directly observable in contemporary ongoing changes (especially in grammaticalization and lexicalization processes).

This continuum between language and experience explains the fact that the study of *conceptual structures* or *cognitive models* as reflected in language has been an important area of research in cognitive linguistics from its very beginning. Two complementary tendencies are Fillmore's *frames* (Fillmore 1975, 1976, 1982, 1985; Fillmore and Atkins 1992), and Lakoff's theory of *idealised cognirive models* (Lakoff 1982, 1987: 5-157). Cognitive models very often reflect *cultural models* (see below).

A third consequence of this general theoretical position is the essential role of *imagination*, a basic human cognitive ability, normally despised in pretendedly 'scientific' theories of language. We humans 'make sense' of our less directly apprehensible experiences (for instance, of our experience of time, of emotions, or of human interaction), on the basis of more directly apprehensible and more easily describable experiences, which are usually bodily experiences. Thus we often project, for instance, part of our bodily experience of three-dimensional space onto our experience of time and talk about the future being «up». Or we map it onto our experience of happiness and talk about being in «high» spirits, or onto our experience of power and talk about having control «over» somebody (Lakoff and Johnson 1980:15-17). In so doing, we use our imagination. There are two basic imaginative cognitive mechanisms: *meraphor* and *metonymy*. They are not just rhetorical devices, not just a matter

of words. They are complex *mental projections* or *mappings* of our knowledge of one domain of experience to structure our knowledge of a different domain of experience, and they are normally carried out unconsciously and effortlessly. In metaphor we project (part of) of one conceptual domain onto another separate domain, e.g. the *source domain* of temperature onto the *target domain* of emotion, as in *He tried to act cool.* In metonymy the projection takes place within the same domain; an example is constituted by *pars pro toto* mappings, as in *He won three golds*, where the concept 'gold' stands for the concept 'gold medal' (example borrowed from Radden and Kovecses 1996). In many cases the more direct experiences mapped are themselves understood metaphorically or metonymically on the basis of *image-schemas* (Johnson 1987), which are preconceptual structures that we acquire as a result of our earliest bodily experiences (basic conceptual complexes like 'container', 'path', 'centreiperiphery', 'upidown'). Metaphor and metonymy determine a large part of lexical and grammatical meaning and form (Lakoff 1987:462-585, 1993b, Goldberg 1995, Sweetser 1990: 49-149). The past few years have witnessed a steady effort aimed at describing the metaphorical systems in many languages, especially English," and at elucidating in greater detail the nature of metaphor, with important insights like the invariance principle (Lakoff and Turner, Lakoff 1990, 1993a, Jackel 1997, who criticises it), the phenomenon of duality and the 'inheritance hierarchies' in metaphor (Lakoff 1993a).

Metonymy has received comparatively less attention than metaphor by cognitive linguists. However Lakoff and Johnson (1980: Ch. 8) and Lakoff (1987, especially Ch 5-8 and case study 2), stress its importance in categorisation. Taylor (1995), and Fauconnier (1985, 1994) also devote particular attention to it. However some recent studies are beginning to fill this gap: Panther and Radden (forthcoming) will be a fundamental contribution; a particularly useful paper among those that will appear in this collection of essays is Radden and Kovecses 1997. An important area is the interaction between metaphor and metonymy (Goossens et al 1995, Barcelona, forthcoming a, b), especially the conceptual dependency of metaphor on metonymy (Barcelona, forthcoming b).

Both metaphor and metonymy are viewed in cognitive linguistics as largely unconscious, automatic correspondences between experiential domains. **A** result of this conception is that the number of experiential domains which can be claimed to be understood on their own terms has been shown to be dramatically smaller than normally admitted by more traditional theories of categorisation and of metaphor and metonymy. For instance, apparently 'literal' expressions like *He found the answer* can be shown to be ultimately understood in terms of complex metaphorical models of ideas as objects and of understanding as vision, which also motivate a vast number of other linguistic expressions like e.g. *I tried to convey the idea to you*, or *He has clear ideas.*

A recent tendency in cognitive linguistics which subsumes metaphor and metonymy as special cases of more general mental mapping mechanisms is the theory of 'blending' or conceptual integration, which is an extension of Gilles Fauconnier's earlier work on mental spaces (Fauconnier 1985, 1994) and has been developed by him and Mark Turner (Fauconnier, forthcoming, Fauconnier and Turner 1996, Turner and Fauconnier 1995). This new theory seems to explain how speakers and hearers keep tract of referential values and other factors in the conceptual mappings occurring throughout a discourse, often by constructing new, provisional conceptual domains or 'blends'. This work, and related work on recursive metaphorical chains (see, e.g. Rohrer, forthcoming), also seems to put in a new

perspective the common claim in cognitive metaphor theory that metaphorical mappings are unidirectional, i.e. that they move only from the source to the target domain, and points to the existence of multiple projections, though not in the way predicted by interactionalist theories of metaphor, like Black's (Black 1962).

The emphasis upon the symbolic character of language (the second basic tenet discussed above) results in the methodological relevance given to detailed descriptions rather than to Post mles (mathematical formulae developed by Emil Post) or to other formal systems whose generative or predictive power has then to be constrained by artificial 'filters'. In generative approaches, it is these abstract, formal structures and mles that are supposed to be closer to psychological reality than the morphosyntactic configurations (constmctions) which are claimed to be their output, and which are regarded in these approaches as mere epiphenomena. By contrast, in cognitive linguistics the detailed analysis of *grammarical constructions* as conventional pairings of form and meaning (including pragmatic meaning) becomes of prime interest (Fillmore 1988, Fillmore, Kay and O'Connor 1988, Goldberg 1995 Lakoff 1987: 462-586, Langacker 1987, 1991). The same spirit is applied to the study of the lexicon, as we have seen, and to the study of phonology (Taylor: 222-239).

All of these methodological principles and the specific theories that they have brought about interact in various ways. The cognitive theories of conceptual structures (idealised cognitive models or ICMs, frames) and the lexical and grarnrnatical networks based on them assume, as basic mental mechanisms in concept formation and organisation, prototype categorisation and (especially in Lakoff's theory of ICMs) mapping mechanisms like metaphor, metonymy and mental spaces. In fact many cultural cognitive models are metaphorically structured (for two recent approaches see Palmer 1996 and Shore 1996). On the other hand, most conventional metaphors and metonymies, or the comection between two or more mental spaces, operate on the basis of the conventional 'frarne', 'ICM' (or part thereof) of the experiential domains connected. For instance, the metonymic mapping of the food consumed onto the customer which underlies expression like *The cheeseburger has left wirhour paying* works against the background of the conventional restaurant frame or ICM. If image-schemas are basic to cognition, they are doubtless instrumental in the construction of frames or ICMs and in metaphorical or metonymic mappings (Johnson 1987, Lakoff 1990, 1993a). Talmy (e.g. 1978, 1988, 1996) and Langacker (e.g. 1982, 1987, 1991, 1995) have produced extremely illuminating analyses of a vast array of grammatical phenomena understood on the basis of spatial image-schemas and the profiling or foregrounding of parts of them.[12] Construction grammars in general take into account image-schemas and conceptual mappings[13] as an essential ingredient in their description of the meaning and the form of many of these linguistic phenomena. Finally, Fillmore and Kay's Construction Grammar is designed specifically to interact with frame semantics (Valenzuela 1996).

Of course, not everyone that can be regarded as a cognitive linguist necessarily agrees in every detail on all of these methodological principles. A good example might be Anna Wierzbicka, who despite her outspoken criticism of the cognitive theory of metaphor and metonymy (Wierzbicka 1986) and her mistrust of unwarranted prototype-based analyses (Wierzbicka 1990), can and should be regarded as a cognitive linguist because she professes the 'cognitive commitment' that characterises every cognitive linguist: in the absence of decisive evidence against her theory of universal semantic primitives, she has firmly maintained her leibnizian conception of linguistic meaning, and done extensive descriptive

research to support it. Another interesting example might be Langacker's postulation that speakers often use abstract schemas for many concepts altemating with prototype categorisation (Langacker 1987: 373ff).

One of the criticisms sometimes levelled against cognitive linguistics, as contrasted with e.g. generative approaches, is that its 'rigour' suffers very much from its frank rejection of hitherto accepted formal notational systems. A cognitive linguist would reply that notation is just a shorthand for concepts and phenomena that have to be clearly understood first, and that generative theories have all too often used sophisticated mathematical machinery to ***represent*** ill-understood linguistic phenomena. Cognitive linguists prefer to ***understand*** linguistic facts in depth, i.e. both in their phenomenological and cognitive complexity and only then face the secondary problem of formal representation. By following this strategy, they have extended the range of linguistic phenomena for which realistic, usage-based descriptions and explanations are now possible, which may in turn lead to more accurate formal representations of some (but probably not all) aspects of language structure and use.

I.3. Applications

The immediately preceding paragraph takes us to the issue of applications. I shall mainly consider those directly connected with English studies. One of them has been a more realistic, thus more accurate descnption of large sectors of English grammar and of its lexicon. Historical linguistics has been put in a new perspective, as we saw above. Another important application of cognitive linguistics has been its contnbution to a better understanding of the human mind, since language is one of our major windows into its workings, just as the study of mind has improved our understanding of language (Lakoff 1987, Gibbs 1995, Lakoff and Johnson, forthcoming). A similar case of cross-fertilisation in recent years has been the relation between cognitive linguistics and the scientific study of cultural models, normally carried out by sociologists and anthropologists (e.g. see the references above to Holland and Quinn, Palmer, Shore, and those in Martín Morillas's paper in this volume).

The application to and cooperation with artificial intelligence has already yielded some important results, in particular computational implementations of some cognitive theories (e.g. Martin 1989)[14] and connectionist studies of some image-schematic and metaphorical conceptualisations (e.g. Bamden 1991-94 or the results of the Berkeley L-zero group quoted above). We could also add interesting cases like the Cog project at MIT, whose team is building a robot with 'embodied' artificial intelligence (Brooks and Stein 1993). All of this experimental, 'high-tech' research has taken seriously Lakoff and Johnson's claims about embodied cognition.

Cognitive linguistics in general has been instrumental in renewing lexicology (Geeraerts, Grondelaers and Bakema, 1994) and lexicography (Geeraerts 1990, Lewandowska-Tomaszczyk 1990). Frame semantics in particular has been shown to have important computational lexicographic applications (Fillrnore and Atkins 1994, Lowe, Baker and Fillmore 1997[15]). Cognitive linguistics has led to a better understanding of first language learning processes (see e.g., Bowerman 1997). And though little has been done yet in this

direction, there is no doubt that cognitive linguistics can also contribute usefully to second language learning research (see e.g. Correa 1989) and that language teaching methodology will benefit by contact with cognitive approaches (Ungerer and Schrnid 1996:267-274); there is today a serious interest in pursuing this line of research.[16]

The study of literature and other art forms has benefited enormously by the cognitive theories of metaphor and metonymy and has been shown to be extremely useful as a window into human cognition (see e.g. Hiraga and Radwànska-Williams 1995, Lakoff and Turner 1989, Turner 1987, 1991, 1996).

Even such fields as the study of politics (Lakoff 1992, 1996), ethics (Johnson 1993), law (Winter 1989), science (Boyd 1993), religion[17], philosophy (Lakoff and Johnson. forthcoming), and many others have benefited from the methodology developed in cognitive linguistics, most particularly, for the study of metaphor and cognitive models.

This brief review of the main tenets, themes, methodological principles and applications of cognitive linguistics is by no means exhaustive. There are many other important aspects in our approach that I have not been able to mention, but I hope that the preceding pages will have been sufficiently informative for interested members of the English studies community, as a general account of this recent tendency in linguistics.

II. THE ARTICLES IN THIS VOLUME

The articles in the present volume constitute a fair representation of the trends in cognitive linguistics discussed above. I would like to stress the fact that the large number of articles included is a consequence of the massive response that our call for papers received from various parts of the world, though most of the contributions are from scholars working in Spain. Most of the contributions received were high-quality ones and most of those that were rejected were turned down simply because their topics lay outside the scope of this volume. This large collection of papers is thus evidence both of the ever growing relevance of cognitive linguistics for English studies and of its vitality in Spain.

The classification of the papers, which is reflected in their serial arrangement in the volume, is not meant to be absolutely accurate, since a substantial part of them could have been placed in more *than* one group. It simply tries to highlight the main focus of each paper, in the editor's view.

II.1. The interview with George Lakoff

The interview with George Lakoff done by Francisco Ruiz de Mendoza wonderfully sets the scene for the rest of the volume. This is the reason why it appears right after this editorial article. It elaborates on many of the topics discussed here and in the papers, and it touches on many other themes with George's characteristic brilliance, sparked off by the interviewer's intelligent, incisive questionnaire. It is also a fascinating narrative, by one of the leading figures in cognitive linguistics, about the socioacademic and intellectual origins and vicissitudes of the cognitive movement.

II.2. Conceptual structures

The first group of papers deals with what we have generically called above conceptual structures, i.e., cognitive models in general, cultural models, schemas, frarnes, etc. The article by José Manuel *Martín Morillas* is a bright, stimulating presentation of what he calls the 'cognitive-cultural model' (C-CM), a complex, many-sided conceptual structure that packages and schematises a rich mass of socially shared information and knowledpe about a field of experience. The meanings of words are to be interpreted as relevant to such a model. Martín Morillas illustrates his presentation with an outline of the C-CM of the categories World and Self. The papers by Celia Wallhead and Encarnación Hidalgo investigate the functioning of conceptual structures in the creation and reception of the literary work. Wallhead's article analyses how Salman Rushdie re-tells the story of the relationship between Columbus and Queen Isabella of Spain, fust by triggering up in the reader the conventional cultural models or schemas that would fit the historian's account of the facts, and by later destroying them by means of the intrusion of other conventional schemas, which leads to the construction of new, unconventional schemas ('schema refreshrnent'). Hidalgo's essay applies a reinterpretation of Alan Garnharn's theory of mental models which takes into account Quinn and Holland's notion of cultural models, to explain the rejection of Synge's The *Playboy* of the Westem World by conservative Irish audiences at the beginning of the 20th century, as a clash between conflicting mental models.

II.3. Polysemy and semantic change

The second group of papers is concerned with various aspects of lexical and grarnrnatical semantic change in polysemous structures, in a cognitive linguistic framework. Iraide Ibarreche studies the cross-linguistic regularities in the metaphorical extensions of the perception sense of verbs of smelling into mental or emotional domains like 'liking', 'suspecting', 'guessing', etc. in English, Basque and Spanish. Her results challenge Sweetser's claim that what Kovecses (1995) would call the metaphorical scope of this perception domain is weaker than that of others like sight or hearing. Enrique Palancar's excellent, carefully documented paper traces the emergence of the agentive sense of by in passive clauses as an extension from the instrumental sense present in the initial radial semantic network of the preposition. This claim disproves Langacker's earlier proposal, which had skipped the instrumental link.

11.4. Metaphor and metonymy

The third set of contributions, by far the largest one, is devoted to various aspects of the cognitive theory of metaphor and metonymy and its applications. Two of these papers study theoretical issues. Judith Ferenczy applies the cognitive theory of metaphor to study the systematic networks of conventional metaphors («meta-metaphors») employed in three well-known theories of metaphor, including Lakoff and Johnson's. The revealing result is

that the metalanguage employed by an interactionalist like Black and a pragmatist like Searle is shown to be itself evidence of the correctness of the cognitive theory of metaphor! *Francisco Ruiz de Mendoza* discusses brillliantly some nuclear areas of the theory of metonymy: he demonstrates convincingly that metonymy is not crucially differentiated from metaphor in 'terms of 'domain highlighting' vs. 'domain mapping' (as Croft claims); he explores some previously unnoticed similarities between metaphor and metonymy that seem to point to a continuum between both mechanisms; he offers some evidence that metonymy is not distinguished from other cases of polysemy in terms of intrinsicness (as Croft asserts), but in terms of centrality of mappings, and finally argues for the complementarity of the cognitive theory of metonymy with relevance theory.

Four papers in this group are case-studies of particular metaphors or specific metaphorically-structured conceptual domains. *Valentina Apresjan,* in her highly suggestive article, attempts to explain the cross-linguistic recurrence of a certain set of emotion metaphors on the basis of the type of source domains, i.e. physiological, cultural, or 'cognitive', and suppons her proposal with a vast array of examples drawn from English and Russian. *Laurence Erussard* applies cognitive metaphor to the study of St Matthew's passage «you are the salt of the earth». It is an exercise both in cultural and religious history and in cognitive semantics that brings together the full complexity of the cultural ingredients that must have come into play in the understanding of this passage by Jesus' contemporaries and near contemporaries, the universal and persistent bodily motivation of the basic gustative metaphor having been kept intact through time. *John Newman*'s paper is an insightful, carefully documented case study of the metaphorical scope of the prototypical conceptual domains of eating and drinking in English, which he shows to be mapped onto domains as diverse as breathing, the mind, ideas, life, possessing, physical destruction, and others. *Michael White* shows how a small set of metaphors, with just two general source schemas (the weather and living organisms), are recurrently used by three very different British newspapers in their reponing of a currency crisis in the European Monetary System. It is also an interesting analysis of the cohesive role of cenain pivotal metaphors in discourse, which is hardly surprising, given the fact that metaphors often structure the reasoning processes materialising in discourse (Lakoff and Johnson, 1980).

The last two papers in the group study the function of cognitive metaphor in literature. *Pilar Alonso* offers a penetrating analysis of Lakoff and Turner's proposals for the metaphorical analysis and interpretation of literary texts, warning us about the danger of global interpretations whose justification rests *solely* on an appeal to the system of conventional metaphors in the language in question, without due consideration given to context, macrostructural formal text structure, and microstructural co-text. In her paper, *Lorena Pérez Hernández* makes explicit the ultimately spatial, image-schematic basis of George Lakoff's theory of the metaphorical conceptualisation of the self, by analysing it systematically in terms of Mark Johnson's spatial image-schemas. This enriched version of Lakoff's theory is then used as a tool for showing how spatial metaphors guide the writer's construction of character and how it can guide a plausible interpretation of the meaning of the novel: the behaviour and language of each of the three protagonists are claimed to be somehow 'diagrammatic' with respect to each of the metaphorical constituents of the self, and the novel can be read symbolically as the story, not of three people, but of one disintegrated person.

II.5. Grammar and phonology

The fourth group of papers is concerned with grammar and phonology, i.e. with linguistic form. *Palancar's* paper could also have been included in this group, too, but his essay is more directly devoted to the semantics of a gramatical lexeme ('by'). If, as we said in our overview of cognitive linguistics earlier in this article, the main principle in cognitive linguistics is the cognitive commitment, then a cognitively adequate gramatical theory has to be psychologically adequate. In his article, *Javier Martín Arista* explores the psychological adequacy of Givon's Functional Typological Grammar (FTG). He elaborates a number of adequacy criteria on the basis of Givon's own principles and of those of another two functionalist schools (Dik's Functional Grammar and Halliday's Systemic Functional Grammar) as a gauge to evaluate the psychological adequacy of FTG. It is claimed that this theory satisfies most of the criteria, thus qualifying as a cognitive theory, but its bottom-up orientation flouts the 'processing adequacy meta-criterion', and its maintenance of tree-diagram, phrase-structures and transformations seems inconsistent with the emphasis on constructions in most cognitive theories.

Joseph Hilferty applies Goldberg's version of construction grammar to explain the incorrectness of a common assumption in some pedagogical grammars, namely that *been* is a past participle of *go* in expressions such as *I have been to Paris*. He examines the kinds of constructions *go* enters into to refute this wrong assumption by showing that *been* is not an allomorphic variant of *gone*, but *been to* is a special idiomatic construction, with its own syntax and semantics. The brief but insightful paper by *Javier Valenzuela* and *Joseph Hilferty* challenges Michaelis and Lambrecht's clairn that *it* in what they call nominal extraposition (as in *It's amazing, the claims they make*) is devoid of meaning because it is not coreferential with the head *(claims)* of the extraposed NP. Showing first that coreferentiality is independent from gramatical concord, they argue persuasively that *ir* cataphorically refers to the scene or frame evoked by the extraposed NP. This analysis is more congenia1 with the cognitive linguistic maxim that form is in principle semantically motivated.

Juana Man'n Arrese's very well-documented, carefully argued article unveils the systematic connection of a series of marked, non-prototypical morphosyntactic constructions in English and Spanish (some *be-* and *ger-* passives, motion adverb constructions, Spanish *se*, etc.), to our conceptualisation of events. On the basis of Croft's accounts of the prototypical event, of natural event chains, and of the natural profiling of aspects of events as coded by verbs, she studies marked constructions in the area of transitivity and voice as syncretisms of various kinds of deviation from the natural profilings or construals of events, and displays their interconnections at three levels on a synoptic semantic space chart, which is also an image of the extensional pathways followed in the appearance of these syncretisms. Finally *Javier Díez Vera* attempts to provide a partial explanation for one of the sound changes that made up the Great Vowel Shift (the raising of ME long *a)* in approximate cognitive terms. His detailed study suggests that the change carne about partly as the result of a cognitive process triggered off in listeners by the misunderstandings due to cross-dialectal communication in 16th century London.

II.6. Foreign language learning

The last two articles in the volume exemplify the value of a cognitive perspective in attempts at explaining processes in foreign language learning. Both papers adopt a cognitive perspective in a broad sense. The paper by ***Piedad Fernández*** and ***Flor Mena*** studies the role of the inference of the meaning of unfamiliar lexemes in the comprehension of texts by learners of English as a second (and as a foreign) language. This inference is shown to be facilitated by the prior acquisition of the related conceptual structures, the accuracy rate of the reader's 'guesses' being dramatically heightened as a result. Some pedagogical guidelines are suggested on the basis of these observations. The article by ***Ana Rojo*** interprets the results of her own experirnent with a set of British speakers learning four Spanish conjunctions, in terms of Bialystock's 'processing-continuum model', which emphasises the role of automatization (which she claims to be parallel to Langacker's notion of 'entrenchment') in foreign language learning. Although some of the predictions of the model about variability in task performance are not confirmed by the experiment, her conclusions confirm the validity of most of Bialystock's claims.

NOTES

[1] A brief exchange of views berween the generative (Victoria Fromkin) and the cognitive (Timo Haukioja) camps was published in *Cognitive Linguistics* 4-4: 395-407.

[2] Eleanor Heider began publishing under the name Eleanor Rosch after 1973.

[3] Tsoharzidis (1990) is an interesting collection of essays with various views on the vaiue of protorype rheory for semantics.

[4] We would want to hypothesize, in fact, that the conventionai meaning of most morphemes, words, and synractic stmctures was partly morivated and not wholly arbitrary, at least in their genesis as symbolic stmcrures ar some stage in the development of a given language or of its parent languages (see Heine 1993, who proposes three basic bodily-spatial semantic schemas as the motivation for grammatical categories; see also Goldberg 1995). According to Lakoff (1990, 1993a), most (if not all) basic abstract concepts, such as causarion or time, or quantity (which underlie the meanings and the form of many linguistic structures) originate (via meraphor) in our bodily experience of spatial relations. This is, of course, a radical version of the embodiment claim. But mosr cognitive linguists agree that our bodily experience plays a major motivating role in the semantic and synractic structures of languages.

Of course this is not to say that total motivation is the rule in linguistic forms or meanings. In many cases, in facr, rhe motivation is no longer apparenr ro rhe mtive speaker. Just think of rhe word sad: there appears to be no apparenr motivation for its present meaning. But historical research may discover this motivation: in rhis case, the emotional meaning is a metaphorical extension from an earlier bodily meaning ('sared', 'full'), on the basis of a basic metaphor that regards the person as a container for emotions (Barcelona 1986, Kovecses 1990).

[6] Which syntactic or semantic properties do sentences like ***'Cash has been replaced by credit', 'Cash has been replaced with credit', 'The computer was smashed by Mike' and 'I am very surprised to see you'*** have in common? Every experienced grammarian knows their syntactic propenies (including their potentiality for active counterparts) are very different, not to mention their semantic ones. Saying that all passives are characterized by containing a ***be+past participle*** group will not do, because the third sentence can (more accurately) be described as containing ***be*** and an ***adjective phrase*** (notice the presence of ***very***, which is a typical modifier of adjectives and adverbs).

[7] I ams using the term 'lexeme' in much the same way as Lyons (1977: 19, passim) i.e. as an abstract label for all the forms of a lexicai item. But, if I understood properly Lyons's version of lexicai field theory (of

which he is a well-known exponent), he would regard related but different senses of the same lexical irem as belonging to different lexemes, which would be included in different lexical fields. In my usage of the term 'lexeme' all the (related) senses of the same lexical item are also part of the same lexeme. So in my usage of rhis technical term, 'eye' is a lexeme whose (written) forms can be ***eye, eyes*** and in rare cases ***eye's*** or ***eyes'***, whose spoken forms are /ai/ or /aiz/, and which has a number of related senses (and morphosyntactic propenies; just think of the verb '(to) eye'), most of which are normally listed by dictionaries.

[8] See e.g, Brugman (1988), Herskovits (1986), Langacker and Casad (1985), and Vandeloise (1991), on the polsysemy of prepositions, and the studies on the metaphorical polysemy of emotional terms by Kovecses (1986, 1988. 1990), and on that of modal verbs by Sweetser (1990:ch 3). An early attempt at characterizing lexical network analyses was Lakoff and Norvig (1987).

[9] See Langacker's speculation on the possible constmction of a prototype sense for 'tree' (Langacker 1987. 373ff).

[10] These less central constmctions being furthermore systematically related to prototypical transitive clauses (which themselves have prototype stmcture) and to prototypical natural event classes and event constmals. See Marin Arrese's illuminating discussion in this volume.

[11] As an example of the growing interest in metaphor by Anglicists we may quote Kovecses (1986, 1988, 1990), Turner (1987. 1991, 1996), Lakoff and Turner (1989), collection of essays like Hiraga and Ranwanska-Williams (1995), or the two recent, highly successful seminars organized last September as part of the 4th Conference of the European Society for the Study of English (ESSE), held at Debrecen (Hungary): «The Cognitive Theory of Meraphor and Metonymy: State of the An and Applications to English Studies», organized by Antonio Barcelona, with eleven participants among them Margaret Freeman, Zoltàn Kovecses, or Günter Radden; a brief repon on the Seminar is shonly to appear in ***The English Messenger,*** ESSE's newsletter. The other seminar was «Cognitive Stylistics», organized by Peter Verdonck, with some imponant studies of metaphor (especially by Donald Freeman and Peter Stockwell).

[12] The spatial semantic configurations claimed by Talmy and Langacker to be at the core of grammatical meaning and form are similar to the image-schemas of Johnson 1987 and Lakoff 1987. which were in fact inspired by them, especially by Langacker's work: both use typical 'langackerian' notions like *trajector* and ***landmark.*** But the image schemas of Johnson or Lakoff are cognitively fundamental pre-conceptual abstractions from everyday experience. These are often elaborated or combined in Langacker's (or Talmy's) configurations (e.g, the 'force' image schema merges with the 'source-path-goal' image schema in the conception of an 'action chain', which is basic for describing numerous aspects of clause stmcture in Langacker 1991:283). Thus, as Langacker says (ibid., 399), «image schemas play an important role in stmcturing cognitive domains (such as the canonical event model) that support the characterizattion of basic grammatical constmcts..

[13] Langacker has paid little attention to the metaphorical nature of grammatical categories, but he cenainly acknowledges explicitly that many of the cognitive domains invoked by his 'predications' (his semantic description of expressions) are metaphorically stmctured (Langacker 1991:8) and has sometimes pointed out possible cases of the metaphorical extension of grammatical constructs (1991:274-276, 309-310, 399). But he has paid special attention to the use of metaphor by linguistic theories (1987:452ff; 1991:507-510). On the other hand, he has studied in detail a number of metonymic grammatical phenomena, like 'reference-point constmctions' (ibid.: 351; 1993) or his 'active zones' (1987: 271, 1991: 453-457). The central role of conceptual mapping in grammar has recently been demonstrated by Fauconnier and Turner 1996, and by the essays in Fauconnier and Sweetser 1996.

[14] David M Powers organized a theme session during the latest International Cognitive Linguistics Conference (ICLC) called 'Computer Models in Cognitive Linguistics' . The papers presented in it will probably be made available electronically from the organizer (powers@ist.flinders.edu.au).

[15] The Framenet project by Fillmore and his collaborators is at an advanced stage. For information visit its homepage in WWW (http://www.icsi.berkeley.edu/~framenet/index.html).

[16] Susan Niemeier and Renè Dirven organized a theme session on this subject at ICLC last July, and she intends to set up an international network of researchers in the field.

[17] See the symposium organized last April at Duisbug by René Dirven and Ralph Bisschops on metaphor and religion, with numerous papers by cognitive linguists and theologians sympathetic with this approach. The papers will be published in three volumes. Initial versions have been published by L.A.U.D. (Linguistic Agency

Cognitive Linguistics: A Usable Approach

of rhe üniversity of Duisburg).

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