

Cognitive Linguistics: A Usable Approach

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ABSTRACT

This introduction first justifies the utility of this special issue for English studies and offers a brief overview of the state of the art in cognitive linguistics. It then comments briefly on each of the articles in this collection, discussing their contribution to each of the major trends in the field, and to English studies in general. The conclusion highlights the usefulness of this 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 introducción, en primer lugar, se justifica la utilidad del volumen para los estudios ingleses y se hace una breve exposición del estado actual de la lingüística cognitiva. A continuación 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 utilidad de este enfoque por 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 assumptions. The discovery of embodied meaning.

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

I shall be commenting on this set of assumptions presently. But a few words may be necessary to justify the suitability of a monograph 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 methodological 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 concerned 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, most 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. Heider² 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 seems 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 1990³) jointly account, together with cultural, contextual and functional parameters, for the main design features of languages and for our ability to learn and use them. The keyword in this approach is *embodiment* (Johnson

1987. Lakoff 1987, 1993a; Lakoff and Johnson, 1980 and their forthcoming book). Mental and linguistic categories **cannot** be abstract, disembodied, human-independent, categories. Quite the opposite: we **construct** and understand our categories on the basis of concrete experiences, and under the constraints **imposed**, first and foremost, by our bodies. Human conceptual categories, the meanings of words and sentences, of linguistic structures at any level, are not **just** a combination of a set of universal abstract features, of **uninterpreted** symbols. A very large number of these meanings and structures are more or less directly motivated by experience, in many cases, bodily experience⁴.

So concepts, including linguistic concepts, are *grounded in experience* (bodily / physical experience, or social / cultural experience). This is thus in conflict with an axiom in twentieth century linguistics: that of *l'arbitraire du signe*⁵. The study of conceptual and linguistic grounding has advanced **immensely** in recent years, especially through the detailed investigation of bodily-based metaphorical systems (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 embodiment and motivation explains the important role accorded to iconicity in language (Harnad, 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, namely, «*the cognitive commitment*» (Lakoff 1990): linguistic theory and methodology must 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, most 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 meanings do not 'exist' independently from the people that **create** and use them, 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 termed 'objectivism' in linguistics and philosophy, since there is no **objective** reality which is independent from human cognition. And linguistic **forms**, as Fillmore, 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 minds, but **have** no *inherent* meanings in themselves. Meanings 'reside' in our minds and our brains (they can be characterised as neural routines). Linguistic forms just **activate** them, but the (part of the) meaning complex activated in my mind need not be exactly the **same** as the one activated in someone **else's** by an utterance with the same 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 meanings. As Lakoff (1987: 583) puts it:

The primary function of language is to convey meaning. A **grammar** should therefore show as directly as possible how parameters 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 matter 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.

1.2. Methodological principles

These two **theoretical** standpoints have a number of important consequences for linguistic methodology. 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 some **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** impossible 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 beauty*?. 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 *prototype 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 beauty* 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* lexeme⁷. The study of polysemy and of the networks of senses in polysemous **lexical** items (and of grammatical **constructions**) thus becomes central in a cognitive approach⁸ 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 *construction* (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 important 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 cognitive 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', 'centreperiphery', 'up/down'). 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 track 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 *grammatical 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 grammatical 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 connection between two or more mental spaces, operate on the basis of the conventional 'frame', '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 mappings¹³ 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 alternating 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.

1.3. 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 description 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 contribution 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 (Fillmore and **Atkins** 1994, **Lowe**, Baker and Fillmore 1997¹⁵). 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 Schmid 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 Radwanska-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), religion¹⁷, 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, frames, 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 knowledge 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**, first 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 refreshment'). 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 Western 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 grammatical 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.

II.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 interactionist 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 brilliantly 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 supports 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 certain 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 grammatical 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 grammatical 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 claim 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 grammatical concord, they argue persuasively that *it* cataphorically refers to the scene or frame evoked by the extraposed NP. This analysis is more congenial 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 came 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 experiment 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 between 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 value of prototype theory for semantics.

⁴ We would want to hypothesize, in fact, that the conventional meaning of most morphemes, words, and syntactic structures was partly motivated and not wholly arbitrary, at least in their genesis as symbolic structures at 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 causation or time, or quantity (which underlie the meanings and the form of many linguistic structures) originate (via metaphor) in our bodily experience of spatial relations. This is, of course, a radical version of the embodiment claim. But most cognitive linguists agree that our bodily experience plays a major motivating role in the semantic and syntactic 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 fact, the motivation is no longer apparent to the native speaker. Just think of the word sad: there appears to be no apparent motivation for its present meaning. But historical research may discover this motivation: in this case, the emotional meaning is a metaphorical extension from an earlier bodily meaning ('sated', '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 properties (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 am 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 lexical item. But, if I understood properly Lyons's version of lexical field theory (of

which he is a well-known exponent), he would regard related but different senses of the same lexical item 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 this 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 propensities; 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 polysyemy 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 construction of a prototype sense for 'tree' (Langacker 1987, 373ff).

¹⁰ These less central constructions being furthermore systematically related to prototypical transitive clauses (which themselves have prototype structure) and to prototypical natural event classes and event constructions. 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 Metaphor and Metonymy: State of the Art and Applications to English Studies», organized by Antonio Barcelona, with eleven participants among them Margaret Freeman, Zoltán Kovecses, or Günter Radden; a brief report on the Seminar is shortly to appear in *The English Messenger*, ESSE's newsletter. The other seminar was «Cognitive Stylistics», organized by Peter Verdonck, with some important 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 *trajectory* 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 structure in Langacker 1991:283). Thus, as Langacker says (ibid., 399), «image schemas play an important role in structuring cognitive domains (such as the canonical event model) that support the characterization of basic grammatical constructions».

¹³ Langacker has paid little attention to the metaphorical nature of grammatical categories, but he certainly acknowledges explicitly that many of the cognitive domains invoked by his 'predications' (his semantic description of expressions) are metaphorically structured (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 constructions' (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 Duisburg 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

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of the university of Duisburg).

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