## Contents

*List of Tables and Figures*  
List of Tables  
List of Figures  

*Acknowledgements*  

1 **Introduction**  
   1.1 What is ‘cognitive linguistics’?  
   1.2 Key concepts in cognitive linguistics and their applications to second language learning and teaching  

2 **‘I see less of the surroundings. The story feels different’: Construal and Second Language Learning**  
   2.1 Introductory comments  
   2.2 Attention and salience  
   2.3 Perspective  
   2.4 Constitution  
   2.5 Categorization  
   2.6 Beyond transfer: other cognitive processes that influence the acquisition of L2 construal patterns  
   2.7 The role of explicit teaching in the learning of L2 construal patterns  
   2.8 Concluding comments  

3 **More on Categories: Words, Morphemes, ‘Grammar Rules’, Phonological Features and Intonation Patterns as Radial Categories**  
   3.1 Introductory comments  
   3.2 Individual words and morphemes as radial categories  
   3.3 ‘Grammar rules’ as radial categories  
   3.4 Phonological features as radial categories  
   3.5 Intonation patterns as radial categories  
   3.6 Concluding comments  

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## Contents

4 More about Spinsters and their Cats: Encyclopaedic Knowledge and Second Language Learning  
4.1 Introductory comments 71  
4.2 What is meant by ‘encyclopaedic knowledge’? 74  
4.3 Encyclopaedic knowledge and frame semantics 75  
4.4 Idealized cognitive models 79  
4.5 Clines of encyclopaedic knowledge 85  
4.6 What aspects of encyclopaedic knowledge should be taught? 87  
4.7 How can encyclopaedic knowledge be taught? 89  
4.8 Concluding comments 92

5 ‘Eyebrow heads’ and ‘yummy mummies’: Metaphor and Second Language Learning  
5.1 Introductory comments 94  
5.2 Conceptual metaphor theory 95  
5.3 Conceptual and linguistic metaphor: cross-linguistic variation and implications for language learning 97  
5.4 Recent developments in CMT and their implications for language learning and teaching 99  
5.5 Concluding comments 105

6 ‘You’ll find Jane Austen in the basement’ … or will you? Metonymy and Second Language Learning  
6.1 Introductory comments 107  
6.2 Conceptual and linguistic metonymy 108  
6.3 The relationship between metonymy and metaphor 110  
6.4 The functions of metonymy 111  
6.5 What challenges might metonymy present to second language learners? 116  
6.6 How might language learners be helped to deal with metonymy? 120  
6.7 Concluding comments 124

7 What Have Bees, Macaque Monkeys and Humans Got in Common? Embodied Cognition, Gesture and Second Language Learning  
7.1 Introductory comments 125  
7.2 The role of embodied cognition in grammar teaching 129  
7.3 Embodied cognition and gesture 134  
7.4 Cross-linguistic variation in the use of gesture 137
## Contents

7.5 How do learners benefit from seeing gesture when listening to the target language? 141  
7.6 How do learners benefit from using gesture when working in the target language? 142  
7.7 Concluding comments 146  

8 ‘Loud suits’ and ‘sharp cheese’: Motivated Language and Second Language Learning 148  
8.1 Introductory comments 148  
8.2 Explainable form–form connections 149  
8.3 Explainable form–meaning connections 150  
8.4 Explainable meaning–meaning connections 153  
8.5 Limitations to the teaching of motivated language in the classroom 160  
8.6 Concluding comments 161  

9 ‘Brian sent Antarctica a walrus’: Construction Grammars and Second Language Learning 162  
9.1 Introductory comments 162  
9.2 Goldberg’s (1995) construction grammar 165  
9.3 Relationships between constructions 171  
9.4 Learning constructions explicitly: classroom applications of Goldberg’s theory 174  
9.5 Learning constructions implicitly: Tomasello’s usage-based account of L1 acquisition and its applications to L2 acquisition 178  
9.6 Concluding comments 185  

10 Conclusion 186  

References 191  

Index 209
1 Introduction

1.1 What is ‘cognitive linguistics’?

Cognitive linguistics is a relatively new discipline which is rapidly becoming mainstream and influential, particularly in the area of second language teaching. It embraces a number of closely related theories of language, all of which are based on the following key claims:

- there is no autonomous, special-purpose ‘language acquisition device’ that is responsible for language acquisition and language processing;
- language is ‘usage-based’ in that it is a product of physical interaction with the world;
- a single set of cognitive processes operates across all areas of language, and these processes are involved in other types of knowledge and learning besides language;
- words provide only a limited and imperfect means of expression;
- language is inherently meaningful although grammatical meanings are more abstract than lexical meanings.

Let us examine each of these claims more closely. By asserting that there is no special-purpose language acquisition device, cognitive linguists directly challenge generative approaches to language, and the concept of Universal Grammar. I refer here to Chomsky (1965) and others (e.g. Fodor, 1983) whose theories about language are based on the conviction that the human mind includes a faculty for language acquisition which is largely ‘walled-off’ from the rest of cognition. Unlike generative linguists, cognitive linguists argue that the cognitive processes governing language use and learning are essentially the same as
those involved in all other types of knowledge processing, or as Croft and Cruse (2004: 2) put it:

the organization and retrieval of linguistic knowledge is not significantly different from the organization and retrieval of other knowledge in the mind, and the cognitive abilities that we apply to speaking and understanding language are not significantly different from those applied to other cognitive tasks, such as visual perception, reasoning, or motor activity.

The language that we encounter every day serves as input from which we can draw inferences about form–meaning relationships, typical patterns and schemata. We constantly modify our mental lexicon in response to the language that we hear and use. There is therefore no distinction between language competence and language performance, as performance equates to usage. Language knowledge and learning are thus usage-based, in that our knowledge of language is ‘derived from and informed by language use’ (Evans and Green, 2006: 111). The fact that we use language in interactive settings, and that we use contextual cues to work out what our speaker is trying to say, is an important part of this process.

The set of key cognitive processes that are thought to be involved in language learning and use include comparison, categorization, pattern-finding, and blending. They operate across all areas of language and are the same as those involved in other areas of cognition. In other words, the processes that we use to make sense of our surroundings are the same as those that we employ when dealing with and learning languages.

The fact that words provide only a limited and imperfect means of expression means that in order to understand what our interlocutor is trying to tell us, as well as attending to the actual words that they utter, we need to draw on our general knowledge of the subject under discussion and our expectations about what our interlocutor might have to say about it. In other words, the words that we read or hear act simply as a trigger for a series of cognitive processes whereby we use our knowledge of the world to fill in the rest of the missing information. For example, if I rang home and said ‘I’m just passing the chip shop and was wondering if we had anything in for dinner’, it would be up to my interlocutor to infer that I was suggesting fish and chips for dinner, and offering to buy them there and then. None of this information is explicitly given in the utterance, but would be inferred, based on his or her general knowledge
of what is available at the ‘chip shop’, the fact that fish and chips constitutes a meal, and so on. The knowledge that we draw on to understand utterances such as these is referred to as **encyclopaedic knowledge**, and is discussed in Chapter 4.

The **centrality of meaning** is a fundamental claim of cognitive linguistics. When new words and phrases enter a language, they tend to do so as ‘content’ words, which means that they have concrete, lexical meanings. Over time, through the process of **grammaticalization** (see Hopper and Traugott, 2003), some of these words and phrases become ‘function’ words; that is to say, they acquire a more schematic, grammatical meaning which is different from, yet related to, their original lexical meaning. For example, the original meaning of ‘going to’ in English refers to movement and travel (Heine et al., 1991). However, over time, this phrase has acquired a much more common grammatical meaning as an indicator of future action. Although the process of grammaticalization occurs in all languages, it does not always follow the same patterns. So, for example, the use of ‘going to’ to indicate future action is not used in Japanese. For native speakers of a language, grammaticalized expressions such as this have often lost their link with their original lexical meanings. However, when we learn a new language, we are exposed to different grammaticalization patterns, and the links to the original lexical meanings of the items often seem more apparent.

One of the contributions that cognitive linguistics makes to second language learning and teaching is to suggest ways in which the relationships between grammatical expressions and their original lexical meanings can be made apparent in the language classroom to enhance learning and memorization. This process encourages learners to explore the deeper meanings of grammatical items, and to think about why the target language expresses things the way it does. According to Langacker (2008: 73), the learning of grammatical usage in this way involves grasping the semantic ‘spin’ that the target language imposes, which, he claims, is ‘a far more natural and enjoyable process than sheer memorization’. Cognitive linguistics thus posits a much closer relationship between form and meaning than more traditional approaches to language, which, as we will see later in the book, has far reaching implications for the way we look at language learning and teaching.

The above claims give rise to a number of key concepts in cognitive linguistics, many of which are of particular relevance to second language learning and teaching. Those concepts which are most relevant to the field are: construal, categorization, encyclopaedic knowledge, metaphor, metonymy, embodiment, motivation, and construction grammar. In
this book, I consider each of these concepts and look at how they relate to second language learning and teaching. As we will see later, some of these concepts give rise to possible new ways of teaching languages, whereas others provide further support for existing methodologies. The potential contribution that each can make to theories of second language learning and teaching is rich and varied, which is why one chapter is dedicated to each.

1.2 Key concepts in cognitive linguistics and their applications to second language learning and teaching

In this section, I introduce seven key concepts in cognitive linguistics and briefly say why I think they may be of interest to those who are concerned with second language learning and teaching. In doing so, I provide the outline for the remaining chapters of the book. Although these concepts are separated out for the purpose of writing this book, in many ways they are inextricably linked.

In Chapter 2, I introduce the concept of construal. A key claim in cognitive linguistics is that the words we use to talk about a particular phenomenon can never reflect a purely objective view of that phenomenon. We can only witness phenomena through human eyes and from a human perspective. While there may be default ways of describing situations, there is no completely neutral way of describing them. Because perspective is never neutral, the language we use is not neutral either, rather it reflects certain ways of viewing the world. For example, we can talk about running across a cornfield, but we can also talk about running through a cornfield. Both describe the same event, but with across, the focus is more on the end result, whereas with through, the focus is on the process of running, and maybe makes us think about the height of the corn. Although we do have choices as to how we present our ideas, because of processes, such as grammaticalization, a language often contains ways of conventionally construing phenomena and events which sometimes differ from the way in which they are construed in other languages. Languages are no more and no less ‘logical’ than each other in this respect. They are simply different. The phrases that they contain represent particular ways of conceiving of a given situation. They may categorize things differently, highlight different elements of a situation, look at them from a different angle, or look at them more closely. It is because of these different construal patterns that learners of a second language sometimes comment that speaking the new language enables them to ‘see things in different ways’.
Let us look at some examples of how languages construe things in different ways. We will see in Chapter 2 that there are four main ways in which our construal of phenomena or events affects how we talk about them. These are: attention/salience (the part of the phenomenon that stands out most, or in which we are most interested); perspective (the standpoint from which we view the phenomenon); constitution, (how fine-grained or ‘close-up’ our view of a phenomenon is); and categorization (how we divide phenomena up into categories). All four types of construal reflect differences in the way in which phenomena are viewed, which in turn affects the way they are talked about. For example, in an English park we might be told to keep off the grass, whereas in Japan we would be more likely to be told not to go into the grass.

Of these four areas, the one that has received the most attention from researchers is categorization. Language-specific categories provide a neat explanation for the fact that there are very few one-to-one correspondences between languages, so something we might describe as a bowl in English would not always be described as un bol. Thus, in French it is possible to ‘verser le consommé dans une assiette’ (literally-speaking ‘pour the soup into a plate’) as the word assiette can be used to refer to a wider variety of vessels than the word plate. In other words, the cut-off point between a plate and a bowl is different from the cut-off point between une assiette and un bol. In English it lies more towards the plate end of the continuum, whereas in French it lies more towards the bowl end of the continuum. Categories are said to be radial and to have ‘fuzzy boundaries’. In other words, they have members that can be considered as more or less ‘prototypical’ and they overlap with each other. Early researchers in cognitive linguistics (e.g. Rosch, 1975) found considerable cross-linguistic variation in both of these areas. For example, for most British English speakers, the most prototypical comestible fish is probably cod or haddock, whereas for Spaniards, it is more likely to be hake or sardines. As an example of cross-linguistic variation in terms of where the ‘fuzzy’ boundaries lie, the type of footwear that comes above the ankle would tend to fall into the category of ‘boot’ in English, whereas in French it is more likely to be classified as a ‘chaussure’ (‘shoe’). Categorization systems go beyond the noun, and can account for variation in other parts of speech, such as verbs, adjectives, adverbs and determiners. For instance, in English we divide objects into those that are countable (e.g. houses) and those that are uncountable (e.g. sugar). In Japanese this division does not exist, but objects have different determiners according to whether they are, for example, short and flat, long and thin, animate or inanimate and so on.
The fact that languages differ with respect to the ways in which they construe objects and events leads one to expect that this might well be a source of difficulty for second language learners. Indeed, as we will see in Chapter 2, Japanese learners of English, and English learners of Japanese do experience difficulties in the area of countable versus uncountable, and long thin versus short flat objects, respectively. Different languages conventionally construe things differently, and although we may not be consciously aware of it, it is likely that our cognitive systems will, to some extent, have been ‘primed’ by our first language (L1) in ways which might interfere with our learning of subsequent languages. We may be preconditioned in some ways to pay more attention to, or be more aware of those features of the world that are explicitly encoded in our language, and to be less aware of those that are not. In other words, we may develop ‘cognitive habits’ (Hunt and Agnoli, 1991) as a result of having acquired our first language, which may need to be broken or adapted in order to facilitate the learning of a second language (L2).

Comparing the respective construal patterns of a learner’s L1 and L2 may thus get us some way towards predicting the types of problems that second language learners are likely to encounter. Indeed, it has been suggested (e.g. Taylor, 1993) that one of the main contributions that cognitive linguistics can make to theories of language learning and teaching is in the area of contrastive analysis. Under the contrastive analysis hypothesis (Wardaugh, 1970), which was popular in the 1970s, comparisons were made between the grammatical systems of different languages in order to predict the types of errors that language learners might make. The hypothesis fell out of favour, partly because other factors were found to influence L2 acquisition besides the nature of one’s first language, and partly because of its over-emphasis on syntax. Taylor’s point is that cognitive linguistics has a different view of language, in which ‘meaning’ rather than ‘syntax’ is central, and that cognitive linguistic tools such as construal and categorization provide us with better, more flexible tools that can be used for identifying important differences between languages. These differences can then be used to predict areas that are likely to present difficulties to language learners. Findings from cognitive linguistics can thus complement and extend earlier approaches to contrastive analysis which were much more static, and which relied upon more traditional ‘grammar rules plus lexis’ views of language. Indeed, findings from cognitive linguistics probably do have a great deal to contribute to contrastive analysis, and as we will see in Chapter 2, the construal patterns in a learner’s first language can affect their ability to learn a second language. But cognitive
linguistics can also address the remaining issues that were not covered by the contrastive analysis hypothesis. In other words, because of its focus on usage-based learning (which involves intention reading and pattern finding) it can tell us more about how other cognitive processes, such as noticing, over- and under-extension and probabilistic reasoning, play a key role in determining both the ‘what’ and the ‘how’ of second language learning.

Chapter 3 looks at the construction of radial categories (e.g. Lakoff, 1987; Taylor, 2003) in which categorization and related concepts, such as family resemblance, are applied to other linguistic phenomena, such as polysemy. Under this view, the various senses of particular words are also viewed as radial categories, with the more concrete, physical senses lying towards the centre of the category and the more abstract, metaphorical senses lying towards the periphery. The different senses are thought to be related through metaphor and metonymy. I explore the implications that this has for language learning and teaching. Then I go on to look at other areas of language that have been found to operate within radial categories, such as grammar rules, phonological features, and intonation. I explore whether and how flexible categories might be appealed to when teaching these areas of language. I argue that if teachers present language features as flexible categories they will give their learners a more accurate picture of how language really works and help them to understand why the ‘rules’ they may have learned have so many exceptions. A second aim of this chapter is to use corpus data to test some of the claims that have been made by cognitive linguists about the nature of radial categories, and to see how these claims stand up in the light of authentic language data.

In Chapter 4, I look at L2 vocabulary learning in more depth, focusing on encyclopaedic knowledge. The information we store in our minds extends well beyond the basic or ‘denotative’ meanings that words have, and includes all the connotations that have come to be associated with those words and expressions over the period during which we have been exposed to them. For example, the English words bachelor and spinster mean much more than ‘unmarried man’ and ‘unmarried woman’. The word bachelor may connote ideas of freedom and licentious behaviour, whereas the word spinster may connote ideas of old age, a possible lack of desirability, and for some people it may even include idiosyncratic associations, such as the possession of a large number of cats. In recent years there have been attempts to reclaim the word spinster so that it has the free and independent sense of bachelor (see, for example, Weedon, 1999). Advocates of this reclamation object to the fact that the
Applying Cognitive Linguistics to L2 Learning and Teaching

The connotations of the word *spinster* clearly reflect society's inherently sexist and misogynist attitudes towards unmarried women. Despite their dubious provenance however, these positive and negative connotations are, for many people, as much part of the meaning of these words as the state of being unmarried, and thus will often form part of a person's 'encyclopaedic knowledge' for these words. In the terminology favoured by cognitive linguists, words and phrases act as 'access nodes' into a complex knowledge network (Langacker, 1987: 163). Thus, instead of thinking of them as expressing separate 'concepts' it is more appropriate to think of them as tools that cause listeners to 'activate' certain areas of their knowledge network, with different areas activated to different degrees, in different contexts of use. The encyclopaedic knowledge that is likely to be triggered by a particular word or phrase in a particular context is built up through repeated exposure to it in different contexts. The fact that we have encyclopaedic knowledge has huge implications for vocabulary teaching, and while the idea of encyclopaedic knowledge has been broadly taken on board in language learning contexts, cognitive linguistics has more to offer in this field. In this chapter I look at different types of encyclopaedic knowledge and at studies of word association patterns in the L1 and the L2 in order to gain a fuller picture of how encyclopaedic knowledge develops in the language learner and how teachers can help promote it.

**Chapters 5 and 6** focus on two concepts which lie at the heart of human thought and communication: metaphor and metonymy. In very basic terms, metaphor draws on relations of substitution and similarity, whereas metonymy draws on relations of contiguity. In metaphor, one thing is seen in terms of another and the role of the interpreter is to identify points of similarity, allowing, for example, Romeo to refer to Juliet as 'the Sun'. In metonymy, an entity is used to refer to something that it is actually related to, allowing us to utter and understand statements such as: 'The White House has released a statement', where the White House stands metonymically for the American Government. Jakobson (1971) famously argued that metaphor and metonymy constitute two fundamental poles of human thought, a fact which can be witnessed through their prevalence in all symbolic systems, including language, art, music and sculpture. More often than not, metaphor and metonymy work together and are so deeply embedded in the language we use that we do not very often notice them. However, languages vary both in the extent to which, and the ways in which, they employ metaphor and metonymy, and this can have important ramifications for those endeavouring to acquire a second language.
Chapter 5 looks at the cognitive view of metaphor and its possible applications to second language learning and teaching. It then goes on to look at some recent developments in conceptual metaphor theory, such as the concept of primary metaphors and the relationship between phraseology and metaphor. I then move on to linguistic metaphor and the challenges it presents to language learners. I close the chapter with a discussion of the potential advantages and limitations of cognitive linguistic approaches for helping learners to meet these challenges.

Chapter 6 looks at the less widely studied area of metonymy, beginning with a discussion of cross-linguistic similarity and variation in linguistic and conceptual metonymy, and the challenges and opportunities that this presents to second language learners. I then go on to examine the functions of metonymy in discourse. In particular, I focus on its ability to serve as communicative shorthand, its use in building cohesion within discourse communities, and the role it plays in evaluating, hedging, relationship-building, distancing, and simplifying. Finally, I look at the role of shared knowledge in metonymy comprehension, and examine its contribution to vague language (Channell, 1994) and indirect speech acts. The discussion thus moves more towards pragmatics, as I look at how metonymy serves to reduce the directness or assertiveness of an utterance, or to prevent the speaker from sounding too pedantic. Despite its clear importance, and because there have been very few studies of the ways in which language learners understand, learn and use metonymy, I close the chapter by outlining some possible directions for future research.

Chapter 7 deals with embodiment (sometimes referred to as embodied cognition), which allows us to understand abstract concepts by relating them directly to our physical experience. Through embodiment, ‘people's subjective, felt experiences of their bodies in action provide part of the fundamental grounding for language and thought’ (Gibbs, 2006: 9). I begin by looking at the role of embodiment in understanding and learning a second language and then go on to look at the related area of gesture and at its role in second language learning and teaching. If language is truly embodied then one would expect the gestures that accompany it to be very closely related to the semantic and pragmatic content of the messages. Research has shown that this is indeed the case, but languages vary in terms of the way they use gesture. This variation makes for powerful arguments for paying increased attention to gesture in the language classroom. I examine the different communicative functions of gesture, and assess the extent to which the use of
Applying Cognitive Linguistics to L2 Learning and Teaching

Chapter 8 looks at a concept which is very closely related to embodiment: linguistic motivation. Linguistic motivation is concerned with the non-arbitrary aspects of language form and structure. According to cognitive linguists, many aspects of language are ‘motivated’ in that they are explainable in terms of how they relate to our everyday experience of the world, a fact that has clear applications to language learning and teaching. In this chapter, I evaluate the effectiveness of teaching methods that exploit linguistic motivation through language play and related techniques. The chapter is structured around three types of motivation that have been identified by Boers and Lindstromberg (2006) as being of potential use to language teachers. These are: form–form motivation, form–meaning motivation, and meaning–meaning motivation. Form–form motivation refers to the fact that some words and expressions are salient, noticeable and thus learnable by sheer virtue of the fact that they alliterate or assonate. For example, students seem to be particularly good at remembering expressions such as nitty gritty, mind your manners and tea for two. Form–meaning motivation refers to the fact that the actual sounds of words can sometimes provide clues as to their meaning. For example, most learners would be able to hazard a pretty good guess at the meanings of stodgy cake, a lump of clay or a flimsy dress. Meaning–meaning motivation relates to the radial category structure of polysemy, and is concerned with how, through concepts such as metaphor and metonymy, abstract senses of words relate back to their more basic senses. So, for example, we can see that there are metaphorical relationships between the different senses of under in the following examples (1)–(3) from the Bank of English corpus. (The Bank of English, http://www.titania.bham.ac.uk/, is a 450-word English monitor corpus, jointly owned by HarperCollins Publishers and the University of Birmingham. It contains a representative selection of written and spoken English and is regularly updated to provide a permanently up-to-date record of current English usage.)

(1) …others who live under their regime.
(2) Today it stands at under thirty.
(3) If I’m under pressure…

and the more basic sense of under in (4):

(4) My son was rolling…under the chair (also from the Bank of English)
A substantial amount of research has already looked at the ways in which meaning–meaning motivation can be exploited for language teaching purposes, and more recently researchers have started to explore the potential of the other types of motivation mentioned above. In Chapter 8, I assess the benefits and drawbacks of exploiting all three types of motivation in the language classroom.

In Chapter 9, I introduce the concept of construction grammar, which concerns the tendency of words to group together to form ‘constructions’ that have meanings of their own. These meanings relate to everyday experience and exist in radial categories. For example, the meanings of the three sentences in (5), (6) and (7), all of which are taken from the Bank of English, can be seen as being somehow related, despite the fact that none of them contain the same words:

(5) He called me names and pushed me into the wall
(6) His own mother backed him into a corner
(7) They laughed him out of the door

This is because they all reflect the same underlying construction; in this case the ‘caused motion’ construction.

In first language acquisition, knowledge of constructions is acquired through interaction, and the language data that this interaction provides are thought to be analysed through pattern-finding and intention-reading skills. Although the data available to second language learners are different from those available to infants learning their first language, this usage-based account of language acquisition is likely to be of some relevance. In this chapter, I discuss the potential applications of construction grammars, and the theories as to how they are acquired, to second language learning, in both classroom-based and more naturalistic settings.

In Chapter 10, I provide an overall evaluation of the different ways in which findings from cognitive linguistics might be used in second language learning and teaching, and outline some of their limitations. I identify a number of areas where more research is needed, and conclude with a number of research questions concerning the relationships between language, thought and embodiment, and the implications these have for second language learning.

A criticism that has been levelled at cognitive linguistics is that it relies too heavily on artificial data and made-up examples, a practice which undermines some of its arguments. This book attempts to address this criticism by referring throughout to naturally occurring data from a wide
variety of settings, ranging from language classrooms, learner corpora, university lectures, and workplace settings where native and non-native speakers have to engage in authentic interaction to communicate their ideas and accomplish their tasks. I use this data to examine carefully some of the claims made by cognitive linguists. At times, I show how some of these claims may need to be moderated or revised in the light of findings from real data. Unless otherwise stated, all the examples used in this book are taken from language corpora.
Index

Abstract thought, 98
and experiential grounding, 127
Access node, 8, 74
Acculturation, 140
Alliteration, 105, 149–50
Analogy, 100–1, 136, 180
Assonance, 105, 149
Attention, 5–6, 9, 13–17, 34, 49–51,
66–7, 90–5, 120–1, 137, 156, 179
learned attention, 36, 39, 49
learned inattention, 34–6, 48, 53
Attentional system (in Talmy’s model), 156
Attitude (towards the target language community), 66, 140
Attractor states, 27–8, 65
Australian Questioning Intonation (AQI), 68
Backgrounding, 15, 156, 166; see also foregrounding
Basic sense, 10, 41–6, 51–2, 57, 95,
106, 123, 154, 169,
and radial categories, 42, 169,
and language learning, 57, 95, 106,
123, 154,
Bilingualism, the bilingual lexicon, 31, 87
Blending theory, 104–5, 136
and emergent structure, 105
and gesture, 136
and metaphor, 104–5
Boers, Frank, 10, 73, 121, 145–6,
149–50, 156, 160
Boundary, 31, 50, 155
Bounded and unbounded utterances, 155
Broca’s area, 126
Categorization 5, 26–33, 38–9, 41–69,
190; see also radial categories
and category knowledge, 50, 56
and fuzzy boundaries, 5, 27, 62, 68
Centrality of meaning, 3, 189
Chinese, 98, 119–20,
Chinese learners of English, 23, 67,
122, 138
Chomsky, Noam, 1
Universal grammar, 1, 33
Clines of encyclopaedic knowledge,
85–7, 92
generic to specific, 85,
intrinsic to extrinsic, 85–6
conventional to unconventional, 86
characteristic to non-characteristic,
86–7
Co-construction of meaning, 145
Cognitive flexibility, 29, 32, 39, 46,
103, 188, 190
and sorting tasks, 25
Cognitive habits, 6, 20, 35, 187
Cognitive processes, 1–7, 14, 33–7,
166, 190
Collocation, 49, 59, 72, 82–5, 90
Communicative intention, 115,
156
Comparison, 2, 63, 110,
Complex systems theory, 37–9, 78,
103
Conceptual metaphor, 95–6
and blending theory, 104–5
and complexity theory, 103
and embodied cognition, 100
and creativity, 100–2
and linguistic metaphors, 97–8, 102
and phraseology, 102
cross-cultural variation in, 97–9
recent developments in, 100–5
Conduit metaphor, 97, 135, 138
Configurational structure system, 156
Comnotation, 7–8, 71, 76–9, 88–90,
104, 151
Constitution, 5, 14, 25–6, 39
Construal, 13–40, 46, 127, 146, 155–9,
176–80, 188–90
Constructions, 162–85
caused-motion construction, 162–3
the ditransitive construction, 171–2
and corpus linguistics, 170–1,
and pattern grammar, 163–4
Constructions — continued
explicit teaching of, 174–7
implicit learning of, 178–84
inheritance links between, 172–3
instance links between, 173
the resultative construction, 172–3
Content words, 3
Contingency learning, 34, 36, 52, 63, 180–3
Contrastive analysis, 6–7, 33, 90, 186
Corpora, 12, 55–7, 102, 143, 149,
The Bank of English (BoE), 10, 15,
22, 42–3, 45, 55, 58–61, 96, 104,
111, 113–18, 170, 174
The British National Corpus (BNC),
15, 56, 76
The International Corpus of Learner
English (ICLE), 35
The Michigan Corpus of Academic
Spoken English (MICASE),
47–50
The Reference Corpus of
Contemporary Spanish (CREA),
44, 56
Countable and uncountable items, 26
Creativity, 88, 144
Cue validity, 180–4
Culture, 11, 50, 53, 73, 80–6, 89–91,
137–41, 177
cultural keywords, 88–92
cultural models, 80
cultural scripts, 89–93, 117
world knowledge, 34, 71–2
Data-driven learning, 56, 149
Definite article, 36, 62, 177
Denominal verbs, 56, 143, 149
Disambiguating function of context,
76, 165
Discourse community, 61, 68, 88, 103,
111–12, 117
Dynamic systems, 27, 104–5, 130
Edinburgh Word Association
Thesaurus, 81, 85–6, 91
Ego-centricity in language, 22
Ellis, Nick, 34–7, 52–3, 62–5, 188
Embodied cognition, 125–46
and gesture, 134–45
and grammar teaching, 129–33
Embodiment: see embodied cognition
Encyclopaedic knowledge, 71–92
how to teach, 89–91
when to teach, 87–9
English as a lingua franca (ELF), 92
Enhanced input, 90, 185
Entrenchment, 16, 34–5, 53
Evans, Vyvyan, 2, 13, 45, 54, 85,
130–3, 154
Fictive motion, 45, 55, 127
Figure, 13, 15, 166–7, 179
in Talmy’s attentional system, 156
Speech learning model (Flege’s), 66
Force dynamics system (Talmy’s), 129,
157–8
Foregrounding, 133, 166; see also
backgrounding
Form-focused instruction, 38
Form–meaning relationships, 2, 84,
122, 182, 187
Formulaic sequences, 69
Frame semantics, 75
Frames, 75–9, 87–92, 169
French, 5, 27, 31, 59, 73, 88, 140, 177
Function words, 3
Genre, 60, 102–3
German, 29, 65–7, 118, 122, 138,
152–3, 159, 178
Gesture, 134–45
and blending theory, 136
cross-cultural variation in, 137–41
and embodied cognition, 134–6
functions of, 134–7
and language teaching, 141–5
Goldberg, Adele, 162, 164–5, 166–8,
171, 173–4, 180–3; see also
constructions
Grammar rules, 6–7
as radial categories, 57–64
teaching of, 62–4, 129–33, 160, 178
Grammaticalization, 3–4, 57, 153
Grammar patterns, 162
Ground, 157, 166–9, 179
in Talmy’s attentional system, 157
Idealized cognitive model (ICM),
79–84
image schema ICMs, 79, 83–4, 97
metaphoric ICMs, 79
metonymic ICMs, 79, 83–4
Index

propositional ICMs, 79–85
symbolic ICMs, 79, 83–4
Idioms, 172
Implicit and explicit knowledge, 63–4
Implicit and explicit learning and teaching, 33–8, 174–84
Indirect speech acts, 9, 115, 121–4
Information and communications technology (ICT), 39
Information packaging hypothesis, 145
Input enhancement, 183–90
Intention-reading, 33, 165, 179–80
Interference, 34–5, 53
Intonation, 67–9, 77, 116, 157, 180, 184, 187
Japanese, 5–6, 20, 22–8, 30, 36, 46, 64, 66–7, 88, 95, 123, 138–40, 150–1
Korean, 15–16, 20, 67, 80–2
Langacker, Ronald, 3, 8, 74, 131, 154–8, 164
Langacker’s system of word classes, 154–8
Language learning strategies, 137
Languages for specific purposes (LSP), 61
Learning style, 21, 33
Lexical contrast, 179
Linguistic context, 179
Linguistic motivation, 148–61
form–form motivation, 149–50
form–meaning motivation, 150–3
meaning–meaning motivation, 153–60
Linguistic relativity, 19
Literature, use of in the language classroom, 90
Loanwords, 123
Local prototypes, 47
Manner-of-movement verbs, 16–20, 25, 36, 139, 145
in satellite-framed languages, 17, 19–21
and total physical response (TPR)/total physical response storytelling, 145
in verb-framed languages, 17, 20–1, 49
teaching of, 145
Meara, Paul, 71–2, 78, 91
Mental lexicon, 2, 72–4, 79–85
Metalinguistic awareness, 90, 170
Metaphor, 94–105
and blending theory, 104–5
conceptual and linguistic, 97–9
and dynamic systems, 103–4
and metonymy, 94
and phraseology, 102
creative, 100–101
Metaphor from metonymy, 111
Metaphoric thinking, 98
Metonymy, 3, 7–10, 41–8, 56, 94, 107–24, 148, 186–90
functions of, 111–15
and language learning, 116–23
linguistic and conceptual, 108–9
and pragmatic inferencing, 121–2
relationship with metaphor, 111
and synecdoche, 110
Mirror neurons, 126
Modality, 129–30
deontic, 130–2
epistemic, 130–2
teaching of, 132–3
More form is more meaning principle, 150
Motivated language, 148–61, 187, 189
Motivation: see motivated language
Multicompetence, 21
Network building, 72, 87, 91
Network knowledge, 72, 92
Nominal predication, 154
Nominalization, 150
Non-verbal communication: see gesture
Noticing, 7, 29, 36–8, 66, 120–1, 183
Over- and under-extension, 7, 34–5, 39
Paradigmatic and syntagmatic relationships, 83, 85, 92
Parts of speech, 5, 7, 27, 41, 167
Passive voice, 45, 156

PROOF
Index

Past tense, 132–3
and psychological distancing, 123–33
Pattern finding in infants, 7, 11, 33, 179
Pattern grammar, 163–4, 185
Perceptual learning, 34, 37, 66, 82
Perceptual magnet effect, 65
Perceptual salience, 37, 67, 118
Perspective, 4–5, 14, 20–4, 37–9, 157, 179
Talmy’s perspectival system, 157
Phonesthemes, 151
Phonology, 64–6
Phrasal verbs, 49, 54–5, 99, 132, 154, 189
Phraseology, 9, 45, 102, 163, 174, 189
Poetry, 187
Polysemy, 7, 10, 36, 40, 149, 170, 186
Prepositions, 30–1, 35–6, 53, 154
Primary metaphor, 100
Probabilistic processing, 36
Prototypicality, 5, 27, 42, 45–9, 53–5, 63–8, 78–9, 133, 144, 159, 163, 170, 178, 180–9
Radial categories, 41–70
and grammar, 57–64
and intonation, 67–8
and phonology, 64–7
and vocabulary, 41–57
psychological reality of, 47
Relational predication, 155
Retention, 55, 57, 99, 121, 132, 143–5, 148, 187
Rich instruction, 88
Root analogies, 100
Schemata, 2, 83–4, 133
event schemas, 80
image schemas, 97, 83–4, 130–3, 153, 156
scene schemas, 80
schematic image, 51
schema refreshment effect, 90
Semantic categories, 27, 51
Semantic networks, 72, 91; see also mental lexicon
Semantic space, 29–31, 35, 39
Sensitivity to naturalness, 29
Skewed input, 165, 180–2, 185
Slobin, Dan, 16–20, 32
Soft-assembled meaning, 136, 151
Sound discrimination, 64
Source domain, 96–7, 102–4
Spanish, 17–19, 24, 30, 36, 45, 56–7, 67, 122, 139, 144–5, 149
Speaker intention, 74, 115–16, 156
Stereotypical narrowing, 58–62
Syllabus design, 53–4
Synaesthesia, 152–3
Williams’ hierarchy of, 153
Talmy, Leonard, 17, 129–33, 154–8
Talmy’s model of the conceptual structuring system, 154–8
Target domain, 96, 104–5, 110
Tense, teaching of, 129, 132–3, 189
Thinking-for-speaking hypothesis, 16–20
Tolerance of ambiguity, 188
Tomasello, Michael, 33, 165, 178–9, 183–4
Trajector, 50–2
Transfer, 21–39, 49–53, 66, 95, 97, 105, 114, 120, 122, 137, 151, 153, 171, 184, 189
transfer to nowhere principle, 37
Transitivity, 58–61
Turkish, 24–5, 139–40
Underspecification, 74, 79
Universal grammar, 1, 33
Usage-based knowledge, acquisition and learning, 1–2, 7, 11, 33–4, 49, 63, 133, 145, 178
Vague language, 9, 115, 117, 124
Vocabulary
breadth, 71
depth, 41, 71
network, 78, 85, 92
Word association networks, 72–5, 86–92, 187
Word meaning, 41, 48, 82, 87, 94, 101–2, 188
Yucatec, 25