

Chapter 2

Introduction to Cognitive Grammar

2.1 Introduction

The purpose of this chapter is the introduction of the framework of *Cognitive Grammar*, a theoretical development within the field of *cognitive linguistics*, whose pedagogical application is the focus of the present work. As a first step, [Sect. 2.2](#) introduces, in a general fashion, the overall area of cognitive linguistics, as well as Cognitive Grammar, one of its major subcurrents, together with its definition of grammar/language. All the subsequent sections present the theoretical and descriptive apparatus of Cognitive Grammar, introducing along the way its most relevant notions, definitions, distinctions, terms, etc. First, in [Sect. 2.3](#), the Cognitive Grammar view of language as essentially meaningful, or, in other words, the theory's symbolic thesis, is introduced and discussed. The introduction to the theory is further effected by explaining in a detailed manner, in [Sects. 2.4](#) and [2.5](#), the above-mentioned definition of grammar/language espoused by Cognitive Grammar. This theory is further introduced through a discussion, in [Sect. 2.6](#), of its view of the role of cognitive abilities in natural language. Finally, [Sect. 2.7](#) summarizes the diverse array of issues treated in the whole chapter, spells out how Cognitive Grammar conforms to the principles of cognitive linguistics and briefly compares this theory with other cognitive approaches to grammar, evaluating, in a preliminary fashion, its pedagogical potential.¹

¹ Although the introduction to Cognitive Grammar offered in the present chapter focuses mainly on the facets of the theory the understanding of which is necessary to properly appreciate its descriptions of the grammatical material taught in the course of the study reported in [Chap. 5](#), it also covers some issues which are not of direct relevance to this study. However, it seems to us that making the scope of this introduction a little broader than perhaps absolutely necessary is at worst harmless and perhaps desirable. There are two reasons for this desirability. First, we feel that there is an acute need to legitimize our turning to Cognitive Grammar in search for ideas potentially enhancing the quality and effectiveness of grammar teaching. This rationalization may come not only from direct arguments included in [Sect. 4.4.1.1](#), but also from the presentation of Cognitive Grammar as a highly coherent and comprehensive view of natural languages. The second reason for the expansion of this introduction beyond absolute necessity is the fact that the book may be of interest to two major groups of linguists: theoretical and applied. While the theory may be familiar to most linguists of the former kind, it is expected not to be so to the majority of the latter, who may therefore welcome some basic information concerning the theory which is not strictly related to the empirical study reported in [Chap. 5](#).

2.2 Cognitive Linguistics and Cognitive Grammar

Cognitive linguistics (CL) is not a single linguistic theory; rather, it is a relatively diverse conglomerate of numerous theoretical proposals and modes of conducting linguistic research which are generally compatible with one another by virtue of being united by a set of common assumptions, concerns and basic guiding principles, the most important of which are (cf. Langacker 1999a, pp. 13–14; Evans and Green 2006, p. 3):

- the cognitive nature of language, where the term *cognitive* is understood in a very specific way that receives an in-depth elucidation below;
- the related belief in the *non-autonomy* of language and grammar;²
- the focus on the *semantic motivation* of most, if not all, linguistic phenomena including grammar;
- the commitment to the *embodied* character of language;
- the commitment to the *usage-based* nature of language, which implies heavy focus on actually occurring linguistic data;
- the linguistic importance of *conceptual metaphor* and other figurational devices.

At present, the most prominent strands of research within CL are *Conceptual Metaphor Theory* (Lakoff and Johnson 1980; Kövecses 2002; Barcelona 2003), *Linguistic Categorization and Image Schemas Theory* (Lakoff 1987; Hampe 2005), *Mental Spaces and Conceptual Blending Theory* (Fauconnier 1994, 1997; Fauconnier and Turner 2003), *Conceptual (Cognitive) Semantics* (Talmy 2003a, 2003b) and *cognitive approaches to grammar* including *Construction Grammar* (Fillmore 1988; Goldberg 1995; Kay and Fillmore 1999; Croft 2001) and *Cognitive Grammar* (Langacker 1987, 1991; for more references see the next section), the last of which is the focus of this book. Despite the relative heterogeneity of these linguistic developments, they still maintain a degree of compatibility and commonality embodied by the above concerns and assumptions, which allows one to place all these research strands under the joint heading of CL.

It has to be admitted that the name of this general area of linguistics, i.e. *cognitive linguistics*, has a certain potential to mislead. CL belongs to the *functional* tradition of language study (Langacker 1999a, p. 13), which has developed in contrast and opposition to the *formal* tradition (cf. Nerlich and Clarke 2007). However, the formalist-Chomskyan paradigm, as well as some other theoretical strands, have also employed the term *cognitive* for self-description, if not for self-reference (cf. Gibbs 1995; Taylor 2002, p. 4). As a result, the self-christening of the CL movement with the term *cognitive* has been a source of some controversy. Therefore, some clarification of the use of the term in linguistic circles of different theoretical persuasions seems to be in order.

² For an interesting distinction between weak and strong autonomy, see Langacker (2005a, pp. 103, 104; 2009, p. 6).

Although probably every contemporary linguistic theory is and would admit to being cognitive in the sense that it views language as a cognitive phenomenon (cf. Taylor 1996, p. 21ff), beyond this obvious statement linguistic formalism and CL differ with respect to how they understand the term. Taylor (2002, p. 8) provides a succinct discussion of these two respective understandings [a slightly different, and a more detailed discussion of this issue is offered by Geeraerts and Cuyckens (2007, p. 4ff)]. From one perspective, generativism declares itself to be cognitive in the sense that it draws inferences about the mind on the basis of the study of linguistic capabilities. From another, and a radically different point of view, CL attempts to come up with linguistic descriptions that are in accord with what is independently and quite straightforwardly known about cognition. Accordingly, cognitive linguists often speak of general human cognitive abilities and try to fashion their descriptions of linguistic phenomena in such a way that there is a high degree of consonance between them and what is known about the functioning of general cognitive faculties. Thus, even though both generativism and CL may be called cognitive (mentalist) approaches due to their commitment to investigating the psychological reality of language (cf. Evans and Green 2006, p. 744; Kardela 2011) as well as to modeling speaker knowledge (cf. Evans and Green 2006, p. 753), they implement these objectives in radically different ways.

From the perspective of CL as described above, its practitioners recognize, highlight and explore a number of inherent linkages between language and cognition. The major claim is that language is an integral part of cognition rather than an autonomous cognitive module divorced from other mental faculties (cf. Langacker 1987, 1991, 1999b; Fauconnier 1994, 1997; N. Ellis 1999; Evans 2011). In particular, it is asserted that language draws on such facets of cognition as general human cognitive capacities (e.g. memory, perception, categorization), embodied experience, knowledge, cognitive models, and other related phenomena (Radden 1992; Langacker 1999b, pp. 2–3; Langacker 2008a, pp. 34–35, 85, 104). All these aspects of cognition, which are thought to be implicated in language, are also regarded as intimately interconnected with one another (cf. Barsalou et al. 2007). For instance, general human cognitive capacities such as vision, attention and the numerous like, which are possible due to the existence of the human body, give rise to and shape embodied experience, which in turn enables and formatively influences the accumulation of knowledge and the emergence of cognitive models. Given the many interconnections and interdependencies between different aspects of cognition, one of which is language itself, it seems to be quite natural for CL to regard language as inherently linked with cognition in general.

It should be stressed that the above assumptions, although perhaps not explicitly, do include the interrelationship between language and such aspects of human experience as culture, society, emotions and communication (cf. Rudzka-Ostyn 1993, p. 1). It is so because humans experience, know about, store in memory and categorize, among a multitude of other things, different facets of their social status and relations, their emotional states, and their communication activity. In other words, society, culture, emotions and communication figure prominently in cognition by virtue of being part and parcel of “the world” experienced and

processed by homo sapiens on an everyday basis (cf. Langacker 1994, 1999a, p. 16). CL, recognizing the mutual influence between cognition and language, naturally accords these crucial aspects of human life, and thereby cognition, their share of reciprocity with language. It should be conceded, however, that CL relates language with the sociocultural, emotional and interactional with heavy emphasis on the conceptualizational interface by means of which these phenomena are processed, which may distinguish CL from other functionalist linguistic enterprises (cf. Nuyts 2005).

The conviction that language and cognition are inextricably linked has one important consequence for the nature of language inquiry done cognitive-linguistics-style. From the assertion of the inseparable interconnectedness between language and cognition it follows that large portions of the former cannot be accurately and revealingly explained without reference to the latter (cf. Radden 1992). If it is accepted that multiple aspects of cognition all contribute to shaping language, a conclusion follows that they must be studied or at least referred to as part of linguistic analysis. This is actually the case in CL and will be repeatedly illustrated by the ensuing introduction to Cognitive Grammar as well as by the more detailed descriptions of specific elements of English in [Chap. 3](#). For now, it will suffice to be noted that CL and Cognitive Grammar feel no compunction about evoking certain aspects of general cognition for the proper description of numerous (if not all) linguistic elements. Rather, a strong urge to do so is the norm in these linguistic enterprises.

It should be granted, though, that in CL and Cognitive Grammar the relationship between language and cognition is considered to be dialectic; not only does human cognitive functioning tell us something about the language faculty, but also our insight into language provides important clues to understanding cognitive processes. Although this claim is reminiscent of the formalist understanding of the term *cognitive* as used with reference to language study, in CL this term is, as has just been explained by referring to the formative linguistic role of cognitive processes, understood much more broadly (and therefore differently).

The focus of this book is the pedagogical application of one of the major theoretical and analytic frameworks within CL that from the very beginning of this linguistic movement has been one of its formative currents: Ronald Langacker's Cognitive Grammar (Langacker 1987, 1991, 1999b, [1991] 2002; Taylor 2002; Langacker 2008a, 2009). Cognitive Grammar—CG for short—shares all the basic assumptions of CL mentioned in the previous section. Allegiance to most of them, with the exception of the commitment to the importance of metaphor and figuration, which is recognized by CG but is not central to the theory due to its different focus, will be substantiated by this introduction to CG.

CG has been developing rapidly since around the mid-1970s. In the process, it has undergone a change of name, since originally it functioned under the appellation of *Space Grammar* (cf. Langacker 1982). A more significant result of the process of development has been the transformation of CG, along with its “mother” movement of CL, from interesting but infrequently discussed proposals to their present-day status as firmly established and (more and more) widely recognized

and practiced modes of thinking about language and doing linguistic research. Attesting to the successful expansion of CG is the fact that since its inception it has been profitably applied to a multitude of phenomena in numerous languages. In addition to the whole body of work applying CG to various aspects of English (e.g. Lindner 1981; Langacker 1991; Taylor 1996; Langacker 1999b; Brisard 2005; Langacker 2009), there have also been numerous endeavors to apply it to a number of other, often genetically and typologically different languages and to contrastive analyses thereof. Some examples include Polish (Kochańska 1996, 2002; Góralczyk 2009), Cora (Casad 1981, 1982; Casad and Langacker 1985), Finnish (Leino 2005), Croatian (Belaj 2008), Czech (Janda 1993), Russian (Janda 1993), Polish and English (Turewicz 1994, 1997; Kochańska 2004), and German, Dutch and English (Mortelmans 1994). Despite the plethora of CG research now being conducted and published, it is worth noting Langacker's (2008a, p. viii) conviction that "even after 30 years—research in CG is only starting," meaning that CG has certainly not yet exhausted its potential, which, incidentally, this book attempts to demonstrate by applying CG to language teaching.

Similarly to the Chomskyan definition of grammar as a model of native speakers' grammatical competence (Chomsky 1986, p. 22), i.e. the knowledge of their language, CG also essentially equates language, or more appropriately linguistic ability, with grammar. The grammar of a language is defined in CG as "*a structured inventory of conventional linguistic units*" [emphasis ours, JB and MP] (Langacker 1987, p. 57, 1999b, p. 98). It should be borne in mind, however, that the concept of *grammar* and the above definition exploit conceptual reification, which renders something inherently dynamic and processual as some kind of a thing, or entity. In fact, for cognitive grammarians, grammar (language) and its constitutive units ultimately reduce to *cognitive routines*, which take the form of patterns of *neural activation*.³ Incidentally, the acknowledgement that language is most fundamentally electro-chemical brain activity is one reason why CG stresses language's embodied nature. In order to present the framework of CG, the above characterization of grammar as a structured inventory of conventional linguistic units will be explained in considerable detail. It will be done in three parts; first, grammar as a repository of *symbolic* and *conventional* elements, as well as elements with the status of *linguistic units* will be discussed in Sect. 2.3; next, the *structuring* of grammar will be considered in Sect. 2.4; and finally, grammar as an *inventory* of conventional linguistic units will be briefly discussed in Sect. 2.5. Every opportunity that presents itself in the course of this discussion to introduce important distinctions, concepts, terms, notational conventions, etc., characteristic of CG will be taken, which will prepare the right ground for the detailed descriptions of specific grammatical elements, i.e. the English present tense, progressive aspect, and stative and dynamic verbs, in the subsequent chapter.

³ CG subscribes to the *connectionist* model of cognitive processing (also called *parallel distributed processing* or *neural network modeling*) (Langacker 1991, p. 525; 2008a, p. 10) outlined by Rumelhart and McClelland (1986) and McClelland and Rumelhart (1986). It is an alternative to algorithmic models associated with generative grammar.

2.3 Symbolic Nature of Conventional Linguistic Units

In order to properly comprehend the relatively uncomplicated nature of linguistic units as conceived in CG and to recognize their types, one has to appreciate the so-called *symbolic thesis* posited by the theory. It proclaims the symbolic nature of (the whole of) language (Langacker 1987, p. 12). Specifically, the theory regards as symbolic, i.e. as meaningful, not only lexicon but also (and much more surprisingly, in some linguistic circles at least) what is normally regarded as grammatical elements, i.e. grammatical morphemes and syntactic structures. This means that all such elements which occur in actual discourse, as well as their schematizations, which cannot be directly spotted in actual utterances, are thought to combine phonological material with semantic content. Although meaning (semantic structure) and speech sounds (phonological structure) may be autonomous to a certain degree and therefore subject to their own laws of organization, in CG the primary role of either is participation in symbolic structures of multiple sorts, which are, according to the symbolic thesis, the essence of language. The thesis, which ascribes to basically the whole of language the primary role of conveying meaning, may seem so obvious and trivial as not to seem worth mentioning, given the commonsensical function of language as a tool of communication. This claim has to be stressed, however, because of the existence of prominent contemporary linguistic theories, such as generative grammar, which, unlike CG, do not emphasize but even more or less explicitly deny the symbolic nature of (large portions of) language.

2.3.1 *The Symbolic Thesis and Symbolic Units*⁴

The *symbolic thesis* endorsed by CG has an important implication for the theory's conception of language and for its descriptive model. The implication is that language elements requiring explicit description are either symbolic ones or else components of symbolic elements. In particular, CG claims that language consists of and may be satisfactorily described in terms of only three kinds of structures: *phonological*, *semantic* and *symbolic* (Langacker 1987, p. 76). Symbolic units are the most complex of the three (although surprisingly simple compared with many other kinds of units conceived of by linguists of other theoretical persuasions), because they are pairings of structures of the other two kinds. To put it differently, and in CG terms, every symbolic element consists in establishing a correspondence between the element's *phonological pole* and its *semantic pole*, which is also called a *predication*. This arrangement concerning the essential building blocks of language posited by CG is so simple and economical that the phrase "extreme austerity" (Taylor 1996, p. 58) has been used to describe it.

⁴ Beyond its introduction in the present section, symbolization receives further treatment in Sect. 2.4.1, where it is considered as one of the structuring relations of grammar.

As stated earlier, one of the assumptions of CL is that language and grammar are not autonomous. Accordingly, in CG, lexicon, morphology and syntax are not treated as distinct or autonomous subsystems, or modules, of language. Rather, these traditionally distinguished linguistic levels are seen as forming a continuum of symbolic elements the differences between which are thought to lie in their various degrees of phonological and semantic schematicity and symbolic complexity (Langacker 1999b, p. 18). This claim is supported by the following discussion of selected examples of linguistic units of different kinds as analyzed by CG and a brief consideration of the differences among them.

The view that lexical elements, in contrast to grammatical ones, are inherently symbolic is not controversial. The presentation of the CG description of an example lexical item, *pen*, with its explicit characterization of the element's phonological and semantic poles will illustrate the exact nature of these CG concepts and will introduce some basic notational conventions of the theory, which will be used throughout the book. *Pen* is a symbolic unit consisting of the semantic structure (the word's semantic pole) that is expressed by the notation [PEN] and of the phonological structure (the word's phonological pole) written down as [pen]. [PEN] is a neat abbreviation of the word's meaning, which consists of multiple specifications that include the function of the object it designates (a writing implement), its shape (oblong, thin), constitutive material (usually a plastic/metal shell with an ink refill inside), and possibly some others. The notation [pen] stands for speakers' representations of the phonological shape of the word including the component sounds (phonemes and allophones), the transitions between them, stress, and so on. However, the two elements alone do not exhaust the description of the lexical unit *pen*. Since the word is a symbolic element, what is missing is a symbolic relation that depends on a correspondence established between the word's semantic and phonological poles. This symbolic relation is marked by “/” in the following formula representing the entire symbolic unit *pen*: [[PEN]/[pen]].

In contrast to lexical items such as *pen*, the symbolic status of the so-called “grammatical” morphemes is questioned by numerous linguistic theories. In CG, however, all of them are treated as meaningful. The item *of* is often considered as an “empty” grammatical marker (by Chomsky 1981, p. 50, among others) and is therefore a typical representative of the class of “grammatical” morphemes. CG, living up to the promise of its symbolic thesis, has been able to ascribe a clearly defined meaning to *of*: this preposition is said to designate some sort of an intrinsic relationship between two participants (Langacker 1999b, p. 76). This meaning is illustrated by the following array of diverse examples taken from and discussed by Langacker (1999b, pp. 74–76):

- (1) *the bottom of the jar*
- (2) *seven of the peas*
- (3) *the chirping of birds*
- (4) *a man of integrity*
- (5) *the color of the lawn*
- (6) *the state of California*

In (1) *of* designates an inherent relationship between a part (*the bottom*) and a whole (*the jar*). The seven peas in (2) may be treated in much the same way; they

are an intrinsic subpart of a greater assembly of peas. In (1) and (2) *of* is used with what is probably its prototypical meaning, namely the relationship between a whole and an intrinsic and restricted subpart thereof, which obviously conforms to the maximally general (schematic) meaning of *of* identified above. The remaining examples, despite the fact that they illustrate various kinds of divergence from the prototype, are still within the limits of the schematic semantic character ascribed to *of*. In (3) the birds that do the chirping are participants of an event. As a rule, an event's participants are intrinsic to it, since it is not possible to conceive of an event without conceptualizing its participants, at least in schematic terms. In (4) and (5) *integrity* and *the color* designate essential qualities of a person and of a lawn respectively. The component noun phrases in these two examples are linked by *of* because essential qualities are intrinsic to the entities that bear them. Finally, in (6) both noun phrases, *the state* and *California*, designate the same entity, the difference between them residing in the schematicity of this designation; the head of the whole noun phrase (*state*) refers to the designated entity in schematic terms and the head (and only element) of the complement noun phrase (*California*) does so in a much more specific fashion. According to Langacker (1999b, p. 77), *of* is justified here because "an entity could hardly not be intrinsic to itself." In sum, the example of the preposition *of*, often regarded as semantically empty, convincingly demonstrates CG's symbolic commitment and its ability to apply the symbolic thesis to even the most "grammatical" of the so-called grammatical elements.

Not only is CG able to propose a definite meaning of a seemingly meaningless language element, but by doing so it is also capable of insightfully explaining various nuances of its use. Only some of these subtleties will be discussed here in the way of exemplification.⁵ In the subsequent discussion reference will be made to the following examples [examples (7) and (9) are offered by Langacker (1999b, pp. 74–75)]:

(7) ?*the label of this jar*

(8) ?*He is sometimes a man of integrity.*

(9) **the brown spot of the lawn*

The first nuance of the use of *of* is the lesser felicity of (7) compared with (1) (*the bottom of the jar*). This is in fact predicted by the general meaning of the preposition posited by CG, which is the establishment of an intrinsic relationship between some two participants. In contrast to the bottom of a jar referred to by (1), a jar's label is not unequivocally its intrinsic element because it may be quite easily removed and another one may take its place. With reference to the lesser felicity of (8) compared with that of (4) (*a man of integrity*), it should be noted that basically the same expression with *of* in the context forcing the interpretation of the quality as an accidental rather than an essential one, which is created in (8) by *sometimes*, is not very felicitous, because it conflicts with the inherence of the relationship imposed by the preposition. Similarly, (9) is not acceptable because a brown spot

⁵ For a full account, see Langacker (1999).

is not an inherent characteristic of a lawn, but rather an unwelcome intrusion, which is different from the lawn's color, a truly intrinsic quality, whose relation to the lawn is licitly expressed by *of* in (5) (*the color of the lawn*). The discussion of these selected examples is intended to show that the meaning CG ascribes to *of*, a supposedly meaningless grammatical marker, has significant explanatory power and is therefore well-grounded.

In addition to “grammatical” morphemes such as *of*, grammar, as traditionally understood, includes the combinatorial properties of morphemes (morphology) and larger units such as words and phrases (syntax). Structures consisting of two or more elements of these sorts are called *grammatical constructions* (Langacker 1987, p. 82). These assemblies are put together in accordance with conventional patterns of construction called *constructional schemas*, which “are acquired through a process of schematization, being abstracted from occurring expressions as skeletal representations of shared organizational features” (Langacker 2008a, p. 168). Constructional schemas, i.e. morphological and syntactic patterns of syntagmatic integration, are thus kinds of templates akin to “rules” and are considered in CG, alongside lexical items and grammatical morphemes with which they form a continuum, as unequivocally symbolic. One example of a morphological constructional schema and another one of a syntactic type will now be discussed.

As an example of a symbolic grammatical construction the morphological pattern of plural noun formation in English will be considered, as discussed by Langacker (1987, pp. 82–85). The constructional schema sanctioning the composition of plural nouns has the following form when expressed by means of CG notation: [[THING]/[...]]-[PL]/[z]].⁶ The sequence [[THING]/[...]] represents a schematic noun involving a symbolic relation between [THING], which is a maximally schematic semantic noun-like concept,⁷ and [...], an even more schematic characterization of its phonological pole.⁸ [PL] is a semantic structure specifying a replicate mass, i.e. “a mass that we can think of as being formed by replicating indefinitely many times a discrete entity that we are accustomed to dealing with individually” (Langacker 1991, pp. 77–78), and [z] is a phonological marker of plurality understood in terms of replication as just described. These two elements are linked by a symbolic relation to make up the plural morpheme [[PL]/[z]]. The constructional schema of plural noun formation discussed here is symbolic in nature because, just as in the case of individual lexical items, it has its phonological pole, at which the elements [...] and [z] are syntagmatically integrated to render [...]-[z] (the hyphen marks the relation of integration), and this phonological

⁶ A convention derived from CG literature of abbreviating semantic units by means of capitalized graphemic representations, phonological structures by means of lower-case graphemic representations and including both of them within square brackets is adopted throughout the book. Another convention used is placing a hyphen between representations of linguistic units to mark the relation of integration.

⁷ [THING] is to be described in much more detail in Sect. 2.4.2.3.

⁸ Basically, [...] stands here for “any phonological content.” However, see the review of Taylor’s (2002) findings in Sect. 2.4.2.3.

pole is in a symbolic relation with the constructional schema's semantic pole, where the elements [THING] and [PL] are integrated to form [THING]-[PL]. In other words, the constructional schema stipulates that the integration of a count noun with the plural morpheme stands for a replicate mass consisting of indefinitely many instances of the "thing" designated by the noun.

When it comes to syntactic constructions, CG treats them in terms parallel to those used for morphological integration, which means that they are also ascribed semantic values. A suitable example is the constructional schema sanctioning the assembly of a prototypical English finite transitive clause such as *Jerry opened the window*. Langacker (1991, p. 298) proposes to characterize this syntactic schema with reference to the *canonical event model* (Langacker 1991, pp. 285–286). In essence, this cognitive model includes one discrete object, an agent, transmitting energy to another discrete object, a patient, through physical contact, as a result of which the patient undergoes a change of state. Closely conforming to the model, the constructional schema for the prototype of a transitive clause involves the syntagmatic integration of an agent (subject) noun phrase (*Jerry* in the above example), a verbal element (*opened*) and a patient (object) noun phrase (*the window*).⁹ These elements are all symbolic and correspond to the elements of the canonical event model since their integration at the semantic pole renders the conception of a volitional agent (a person) energetically interacting with a patient in which some change of state occurs as a result of the interaction. Obviously, corresponding to the integration relations at the semantic pole of the clause are relations of the same kind at the phonological pole; they define the syntagmatic combination of the phrasal constituents. The constructional schema of the prototypical English finite clause is thus a symbolic unit of a syntactic type.

Following the presentation of some examples illustrating the symbolic nature of lexicon, morphology and syntax, some apparent differences between units of these respective types should be briefly considered. As was stated earlier, the differences between them pertain to the level of their phonological and semantic schematicity and their symbolic complexity (Langacker 1999b, p. 18). Thus, lexical items tend to be both phonologically and semantically specific and usually have a moderate degree of symbolic complexity. The lexical item *pen*, to return to an earlier instance, has very specific phonological and semantic poles that were described above and is symbolically simple, as it is made up of only one symbolic unit. Next, morphemes of a "grammatical" kind are, similarly to lexical items, usually symbolically simple and phonologically specific, but differ from them in that they are semantically quite schematic (abstract). *Of*, another of the earlier examples, is illustrative in this connection: its phonological pole is fairly specific but its semantic pole, which is an intrinsic relation between some two participants, a meaning which covers a diverse range of relations at a more concrete level (e.g. part-whole, participant-event, characteristic feature-characterized entity, etc.),¹⁰ is rather abstract in

⁹ The fact that these obligatory elements may be accompanied by additional optional material, i.e. adverbials, is ignored here.

¹⁰ See examples (1)–(6) earlier in the section.

nature. Symbolically, *of* is as simple as *pen*, which is in line with the above characterization of lexical and “grammatical” morphemes as sharing this feature. Syntactic constructions, in contrast to both lexical and morphological items, display a tendency to be symbolically quite complex and rather schematic both phonologically and semantically. Thus, the prototypical transitive clause schema discussed earlier is symbolically complex as it involves the integration of at least three phrasal (and symbolic) elements: an agent noun phrase, a verbal element, and a patient noun phrase. The schema is phonologically schematic as there is no concrete specification at its phonological pole. Semantically, it is also quite schematic as the specification of an energetic interaction between two participants as a result of which the patient undergoes a change of state covers a number of much more specific interactions, e.g. causing movement, causing disintegration, causing disfiguration, and so on and so forth. It should be remembered, however, that the above patterns (and differences between units) are nothing more than tendencies. Thus, it is not difficult to find a lexical item that is semantically schematic (e.g. *entity*) or a “grammatical” morpheme whose phonological pole is not very specific (e.g. the English plural *-s* or the English past tense morpheme, whose ultimate phonological schema has to be fairly schematic in order to accommodate its variant realizations of /t/, /d/ and /ɪd/ and the diverse range of irregular past tense forms).

Having considered the nature of and differences between units belonging to different traditionally distinguished levels of linguistic analysis, it remains to be stressed that these dissimilarities are a matter of degree and that the units, just as the levels at which they occur, form a continuum of symbolic structures. This view is an important feature of the CG conception of language, which denies grammar any significant autonomy vis-à-vis other areas of language and, subscribing to the symbolic thesis just presented, emphasizes semantic motivation of all linguistic units, no matter what “types” they are.

2.3.2 Linguistic and Unit Status of Language Elements and their Conventionality

As will become apparent in the course of this introduction to the basics of CG, this linguistic theory rejects a number of dichotomies that have pervaded linguistics and related research fields for a very long time (Langacker 1987, pp. 18–19).¹¹ One such presumably false dichotomy is the distinction between *linguistic* and *non-linguistic* units, which has a direct bearing on the interpretation of the definition of grammar currently under discussion. While CG recognizes the existence of

¹¹ This is due to, among other things, the rejection in CL and CG of the classical view of categorization (based on necessary and sufficient attributes), traceable to Aristotle, in preference to Prototype Theory of Categorization (cf. Rosch 1978; Lakoff 1987). This view of categorization, together with categorization by schema, which is the second major alternative to the classical view widely used in CL and CG, are discussed in considerable detail in [Sect. 2.4.2](#).

a core of units that are centrally and unequivocally linguistic, e.g. words and morphemes, whose linguistic status is hardly questioned, it contends that it is in principle impossible to sharply distinguish between linguistic and non-linguistic symbolic elements (Langacker 1987, p. 60). What transpires from the earlier discussion of the symbolic nature of linguistic elements, a prototypical linguistic unit consist of a segmental phonological pole and a fairly specific semantic pole (a conceptualization) (Langacker 1987, pp. 61–62). However, in the process of communication language users employ numerous elements that only partially resemble this prototype. For example, nonsense words occurring in songs and poetry¹² are clearly segmental, but they lack clear semantic content, which may be only vaguely guessed at on the basis of the (more or less) linguistic context. Another kind of marginally-linguistic elements discussed by Langacker (1987, p. 61) occur in sentences such as (10):

(10) *When she saw the snake, she went [SCREAM].*

Although the scream produced in the sentence is not segmental, which constitutes a divergence from the prototype of a linguistic item, language users have no trouble interpreting its specific meaning when they recognize it (as they do) as an instance of onomatopoeia. In addition, the pattern exemplified by the above sentence, where the verb *go* is followed by a non-segmental vocalization or gesture, is fairly conventional and familiar to the vast majority of native speakers, which draws the non-segmental part into the realm of linguistic elements. In sum, the above two examples, i.e. nonsense words and extreme onomatopoeia in (10), demonstrate that there are indeed sound grounds for CG to regard a symbolic unit's status as linguistic as a matter of gradience.

Another dichotomy that is regarded by CG as unwarranted is the distinction between these linguistic elements that have the unequivocal status of linguistic *units* and those that do not. In the mind of a given speaker, linguistic elements differ among themselves with respect to the ease of their activation, or, in other words, with respect to what may be called the degree of their “automatization.” To refer to it in CG terms, one must speak of a scale of *entrenchment* along which all linguistic units are arranged (Langacker 1987, p. 59). Units that are used, or activated, relatively frequently are characterized by a relatively high degree of entrenchment, which manifests itself in their effortless use. In contrast, units that have not been activated for prolonged periods, together with novel ones that have just entered the linguistic system of a given speaker, have a relatively low degree of entrenchment, as displayed by a certain degree of mental exertion accompanying their use. In sum, in CG unit status of a linguistic element is neither an all-or-nothing nor a once-and-for-all affair; rather, being subject to the changing patterns of use, a unit's entrenchment, or its unit status, is, similarly to the linguistic status of a unit, gradable.

¹² In this connection Langacker (1987, p. 62) cites the example of jabberwocky, which evokes Lewis Carroll's poem “Jabberwocky.” It is not difficult, however, to find numerous other examples of similar poems and songs, which are usually addressed to children.

An issue related to unit status is the *conventionality* of the linguistic units making up the grammar of a given language, i.e. the quality of being shared and recognized as being shared by a large number of speakers (Langacker 1987, p. 62). Once again, it is necessary to speak of a gradation of conventionality rather than a strict dichotomy between fully conventional(ized) and unconventional linguistic units (Langacker 1987, p. 62). Quite obviously, a novel linguistic element starts off with a minimal degree of conventionality when only isolated individuals begin to use it, which increases as more and more users integrate it into their linguistic repertoires. The conventionality of a linguistic element is related to its unit status because in tandem these two factors contribute, if their magnitudes are high, to the status of an element as firmly established in a given language, or, if their magnitudes are low, to its status as novel (Langacker 2008a, pp. 20–21). Following the discussion of grammar as consisting of conventional linguistic units, the CG view of grammar/language as a repository of such units characterized by a certain structure will now be presented.

2.4 Grammar as a *Structured Inventory of Conventional Linguistic Units*

In Langacker's theory, the inventory of linguistic units that constitutes the grammar of a given language is structured. This means that it is not simply a set of isolated, self-contained elements, but rather a kind of a system with its own internal organization and "logic." This organization is provided by a limited set of relations that obtain between the three kinds of linguistic structures identified earlier: phonological, semantic, and symbolic. Such units may be related to one another by virtue of only three kinds of relations: *symbolization*, *categorization* and *composition* (Langacker 1987, pp. 73–75; 1999b, p. 98). They are discussed in more detail in the two subsections below.

2.4.1 *Symbolization: Semantic and Phonological Space*

Symbolization, already introduced in a preliminary fashion in [Sect. 2.3.1](#), seems to be the most straightforward of the three kinds of relations. It simply consists in establishing a correspondence between an element in the so-called *semantic space* and another element in the so-called *phonological space* (Langacker 1987, p. 77). As a result, these two elements form a bi-polar symbolic entity and constitute its semantic and phonological poles. To fully understand symbolization as conceived of by CG, as well as the other relations that obtain between symbolic units and between their components, it is necessary to grasp the essential attributes of the two kinds of spaces and the basic characteristics of the elements that inhabit them. Since phonological space may be regarded as a subregion of semantic space (Langacker 1987, p. 79), and because its specific details are beyond the scope of

the present work and not very relevant in its context, the following account will center almost exclusively on semantic space. In the course of its discussion the nature of such additional important CG notions, constructs and beliefs as *semantic units*, *encyclopedic semantics*, the *profile/base alignment* and the *false linguistics/pragmatics dichotomy* will be presented.

Semantic space may be thought of “as the multifaceted field of conceptual potential within which thought and conceptualization unfold” (Langacker 1987, p. 76) and it consists of multiple *cognitive domains* (cf. Langacker 1987, p. 147ff). The explication of the character of cognitive domains, these building blocks of semantic space, is a key to elucidating the nature of the space itself. Cognitive domains may be usefully divided into *basic* and *non-basic domains*. *Basic domains* are “irreducible realms of experiential potential” (Langacker 1999b, p. 2) with which human beings are endowed. Some straightforward examples of such domains are time, space, the color spectrum, the pitch scale, vision, taste, smell, etc., or, rather, the range of experience of these phenomena accessible to humans. Basic domains serve as backgrounds in relation to which various concepts may be defined. These concepts, distinguished against the backdrop of basic domains, constitute *non-basic domains*¹³ and may in turn serve as bases for the definition of other, higher-order concepts, which likewise constitute further non-basic domains (Langacker 1987, p. 150). This process of employing a concept as a cognitive domain in terms of which, or against the backdrop of which another is established may continue indefinitely, resulting in the creation of concepts of progressively higher orders. Non-basic domains are essentially equivalent to frames, scenes, schemas, scenarios, etc. distinguished in other theoretical models (Langacker 1987, p. 150n).¹⁴ To sum things up, semantic space, made up by multiple cognitive domains, both basic and non-basic, may be thought of as the ultimate conceptual “area” within which multiple “subareas,” or concepts, may be delineated.

After the introduction of the concept of semantic space, the related notion of a *semantic unit* will be considered. A semantic unit, or a linguistically relevant concept (cf. Langacker 2008a, p. 25), typically consists of specifications in multiple cognitive domains. For example, the concept inherent in the word *sister* consists of specifications in at least the following domains: kinship relations, the biological/social domain of sex/gender, living organisms (non-basic domains) and three-dimensional space (basic domain).¹⁵ In the kinship network [SISTER] is specified by being in the sibling relation to an ego (it has the same parents as ego), in the sex/gender domain it is defined as female/feminine, in the taxonomy of living organisms it is specified as probably a mammal and likely a human, and in

¹³ Non-basic domains used to be called (in multiple works on CG) *abstract domains*. However, Langacker (2008a, p. 45n) admits the latter term’s infelicity and abandons it in preference to the former.

¹⁴ One example of a frame is the Fillmorean *commercial transaction frame* (Fillmore 1977) in terms of which the meanings of such verbs as *buy*, *charge* and *spend* must be defined.

¹⁵ Langacker (1987, pp. 184–186) provides a discussion of a similar example, *uncle*, on which the present treatment of *sister* draws.

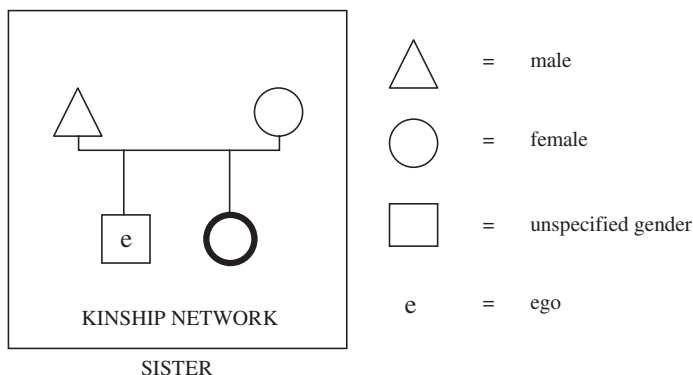


Fig. 2.1 Semantic pole of *sister* in the domain of kinship relations

three-dimensional space it is specified as a body of a certain shape and size. For illustrative purposes, the first of these specifications, i.e. the one in the kinship network, is rendered diagrammatically in Fig. 2.1,¹⁶ which includes a portion of kinship relations necessary for the characterization of [SISTER]. The network is itself based on a fairly complex area of knowledge including mating, reproduction, parent–child relations, sibling relations and so on and so forth. The heavy-line circle indicates the focus of the semantic unit associated with *sister*. All the other specifications for this unit in the remaining domains could be summarized diagrammatically in a similar fashion. Taken together, they form the concept’s *matrix*, which is understood in CG as the set of domains in terms of which a given concept is defined (Langacker 1987, p. 147). It will be clear from the discussion of the *sister* example that cognitive domains usually overlap in intricate ways to define a semantic unit, and, conversely, that a semantic concept may be viewed as an area of overlap of a number of cognitive domains.

It should be noted that not all the specifications in a number of different domains are equally central and equally entrenched for a given concept (Langacker 1987, pp. 164–165, 189). For instance, both *crazy* and *insane* may be used to refer to the same state of mind that is grossly deviant from what is considered as norm. However, the specification of a mental disease in the domain of medically defined health problems figures much more centrally and is much more entrenched in the matrix of *insane* (strictly, of [INSANE]) than in that of *crazy* ([CRAZY]), where it is only marginally present. Conversely, the specification of foolish, reckless behavior resulting from the state of mind evoked by the two words figures a little more centrally and is a little more entrenched in the matrix of *crazy* than in that of *insane*. From these considerations it follows that in CG the characterization of a concept by a specification in a domain, which may be more

¹⁶ Figure 2.1 is modeled on a figure by Langacker (1987, p. 185) concerning a different kinship term, *uncle*.

or less central and entrenched, is a matter of degree.¹⁷ This fact evokes, meshes with and prepares ground for the introduction of the specific model of linguistic semantics adopted by CG, whose exposition in the next paragraph will further illuminate the theory's understanding of semantic units, and, indirectly, of semantic space and therefore of linguistic symbolization.

CG features an *encyclopedic* view of linguistic semantics (Langacker 1987, p. 63, 154ff). In contrast to many other theories, this view does not ascribe a neatly delineated, forever-fixed dictionary meaning to a linguistic item which is clearly distinguished from "extralinguistic" knowledge concerning the object of its designation. Rather, it conceives of linguistic meaning, or the semantic pole of a symbolic unit, as an essentially open-ended subpart of the entirety of our knowledge. In a truly encyclopedic fashion, this meaning shades away into other areas of knowledge that are progressively less and less centrally relevant to a given linguistic unit. This encyclopedic conception of linguistic semantics will be best further explained by discussing an example. The discussion will also shed light on the important CG notion of *profiling*.

The example to be employed here is yet again the word *sister*. In CG, every linguistic expression, including the lexical item *sister* ([SISTER]/[sister]), *designates*, or *profiles*, a certain element in the person's conceptual universe, which thereby receives special salience, some kind of focal prominence (cf. Langacker 1987, p. 183ff). This salient element, the expression's *profile*, is typically characterized by multiple specifications in its matrix of cognitive domains and is by (CG) convention indicated by heavy-lining in pictorial representations (as in Fig. 2.1).¹⁸ The domains in the matrix are, as has been said, necessarily evoked for the characterization of the profile and are effectively constitutive, together with some others with which they link and into which they shade in a non-discrete fashion, of the language user's entire knowledge complex. In the present example, the profile, which is the conception of a female human being sharing parents with another human being, is characterized by specifications in multiple domains, the most prominent of which have already been identified and are repeated here for convenience: kinship relations, the biological/social domain of sex/gender, living organisms and three-dimensional space. In addition to being characterized by numerous specifications, the profile may also be viewed as a point of entry into the vast expanse of a person's knowledge, a point which will be presently elaborated. As the discussion of this example shows, the meaning of a linguistic element, because of the existence of a chain of linked domains, is open-ended rather than strictly limited.

Since, as has just been implied, the characterization of the encyclopedic view of linguistic semantics involves reference to the notion of *knowledge*, and since its understanding facilitates further explication of the nature of semantic units, it seems worthwhile at this point to present the CG conception of knowledge. Langacker (1987, p. 162) proposes to view a person's knowledge in terms of a

¹⁷ It seems that the lower the degree to which a given concept is characterized by a specification, the more numerous such specifications are.

¹⁸ The convention is followed throughout the book.

network model. In this model, conceived entities constitute nodes in a network, and conceived relationships between any two entities are arcs between nodes. The model's complex structure derives from the fact that any relationship between any two nodes may itself be an entity linked with some other node. This and other related characteristics of the model contribute to the fact that "knowledge structures grow to be extraordinarily intricate and convoluted" (Langacker 1987, p. 163). This understanding of knowledge in CG provides for and facilitates the appreciation of the concept of semantic *base*, which is complementary with the already introduced notion of *profile* and enables its fuller understanding, as well as a better understanding of semantic units in general. Thus, the semantics of *sister* is further discussed in the following paragraph in the light of the CG view of knowledge just presented.

The entity profiled by the lexical unit *sister*, just as the profile of a linguistic expression of any size and complexity, is considered to be a node in the system of knowledge. Because of its multiple links with other elements (nodes) in the matrix of domains evoked for its definition, it constitutes an *access node* on the occasion of the use of the symbolic unit *sister*, which means that it is a point of access to the whole system of knowledge (cf. Langacker 1987, p. 163). This access node, or the expression's profile, however, should not be confused with (or taken for) its meaning; the meaning of the expression is constituted by the entire configuration of the profile standing "in bas-relief" (after Langacker 1987, p. 183, who ascribes this wording to Susan Lindner) against the background (or "surface") of the expression's conceptual *base*, which is the conceptual context necessarily evoked for the characterization of the profile. Thus, it is the so-called *profile/base alignment*, i.e. the relationship between the profile and the base, which constitutes a fairly complete characterization of the word's semantic value. This alignment is illustrated in Figs. 2.2 and 2.3, which represent the meanings of *circle* and *arc*, respectively. While *circle* takes two-dimensional space as its base, *arc* requires the notion of a circle ([CIRCLE]) in this capacity. An example of the profile/base relationship is also provided by Fig. 2.1, which shows the profile of *sister* displayed against a part of its base provided by the kinship network. Further details of the notion of base explain why it is only possible to speak of "a fairly complete" characterization of a linguistic element's meaning, rather than speak of it in more absolute terms.

It should be emphasized that the conceptual base, which is one component of the profile/base alignment, is fundamentally an open-ended subpart of semantic space rather than a clearly delineated one (cf. Langacker 1987, p. 161ff). This fact has already been hinted at and it explains why the meaning of *sister* and the meanings of other expressions cannot be in principle reduced to a single strictly defined portion of the entire knowledge network. To demonstrate this virtual open-endedness, it may be useful to consider the following chain of links in the knowledge network implied by *sister*. The semantic value of this word includes the specification of a female (i.e. [FEMALE]) in the gender domain,¹⁹ which, following the view of knowledge

¹⁹ The possible distinction between the biological category of sex and the social category of gender is ignored here.

Fig. 2.2 Semantic pole of *circle* (adapted from Langacker 1987, p. 184)

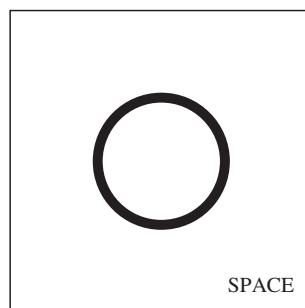
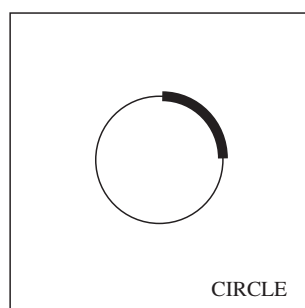


Fig. 2.3 Semantic pole of *arc* (adapted from Langacker 1987, p. 184)



adopted here, is a node with which, in addition to many others, the access node of *sister* is linked. This node in the gender domain is in turn linked with other numerous nodes, including the one specifying the capacity to conceive and bear children, which is typically posited as one of the defining specifications for (the semantic concept) [FEMALE]. The concept of child bearing in its turn links with still others including, through the possible mediation of the concept of child care, the specification of a maternity leave in the domain of employment, which further links with (and therefore implies) a temporary vacancy. Stopping this journey along a conceptual path at this point, which is obviously an arbitrary decision because it could in principle continue indefinitely, it must be concluded that *sister* is capable of activating the conception of a temporary vacancy. In a similar vein, any other linguistic expression may in principle activate, by virtue of the indeterminacy of its (broadly understood) base, conceptual elements only weakly and indirectly related to its core semantic value.

Although such activation of a conceptually remote semantic specification is possible, it has to be admitted that it is not very probable on most occasions when linguistic expressions are uttered. What makes this kind of activation unlikely in the case of *sister*, and parallel remarks may be offered in relation to any other expression, are the indirectness of linkage and the “distance” of the concept of a temporary vacancy, or the node representing it in the knowledge system, from the node representing the profile of *sister*. The likelihood may increase, however, if special properties of the linguistic or situational context arise which will highlight the indirect relationship of the profile of *sister* with the particular semantic

specification of a temporarily vacant position. If this is not the case, the concept of a job vacancy figures only extremely peripherally in the meaning of *sister* due to the great conceptual “distance” and the concomitant difference between the two nodes. The *sister* example just discussed suggests the conclusion that every semantic node is linked with every other node, irrespective of how distant and indirect this relationship may be. For all intents and purposes, though, there is usually no need to include the more peripheral specifications in the expression’s semantic description. Restricting such descriptions of the base to these specifications and relationships that figure centrally in the semantics of a given unit is the practical and realistic norm. The above discussion implies, however, that a description of the meaning of an expression is never exhaustive.

Langacker (1987, pp. 155–158) marshals several substantial arguments for the encyclopedic conception of linguistic semantics sketched above, one of which will be discussed here because it highlights the unfounded nature of the strict differentiation between linguistics and pragmatics.²⁰ The argument is that the encyclopedic view of semantics neatly accommodates different uses of a linguistic item or a combination of items; in different usage events²¹ different specifications in diverse domains (different parts of the network) may be reached through the access node of the profile and activated with various degrees of intensity. It is instructive to consider in this connection the sentence *The cat is on the mat*, which is an example of Langacker’s (1987, p. 155), and his discussion of the possible meanings thereof:

Prototypically it describes a situation where a mat is spread out on the ground and a cat is lying on it. Already there is indefinite variability, since the cat can be of any size, coloring, or subspecies; the mat is similarly variable; the cat can assume many different postures; and so on. But this is only the beginning. Possibly the mat is rolled up in a bundle and the cat is sitting or lying (etc.) on top of it. Maybe the operator of a slide show has just managed to project the image of a cat onto a mat being used for a makeshift screen. The sentence is appropriate in a mat factory where a worker has just finished decorating a mat with the outline of a feline. Conceivably a wrestler is holding an exhibition match with a tiger and has just succeeded in pinning its shoulders to the floor of the ring. The possibilities are obviously endless.

All these diverse meanings are possible because of the open-endedness of semantic structure, which is predicted by the encyclopedic view of semantics exploiting the network view of knowledge. *Cat*, for instance, will have different profile/base alignments under different uses/interpretations of the example sentence given by Langacker. For instance, under the cat-on-the-mat-in-the-factory interpretation, the profile is the conception of the image of a cat, while under the-wrestling-tiger interpretation the profile is the conception of a tiger. Differences of comparable magnitude may be cited for the bases of the two profiles. To conclude, then, in CG contextually-determined meaning is part of every usage event, and since language is usage-based, this kind of meaning necessarily contributes to the meanings of conventional linguistic units, which are extrapolated from actual usage practice.

²⁰ This is another dichotomy, in addition to the ones mentioned in [Sect. 2.3.2](#), eschewed by CG.

²¹ The term *usage event* is explained in more detail in [Sect. 2.5](#).

More generally, the conclusion is that in CG, rather than be strictly distinct, the linguistic and the pragmatic form a continuum.

As mentioned earlier, semantic space, made up by multiple cognitive domains, actually subsumes phonological space (Langacker 1987, p. 79), which is indispensable for the creation of symbolic units of linguistic nature. Phonological space constitutes this subpart of semantic, or conceptual, space which is responsible for our capacity to process sounds, including speech sounds (Langacker 1987, p. 76). Phonological space is far less complicated than semantic space by virtue of a much more restricted variety of concepts whose existence it supports. They are all auditory²² and include the whole spectrum of linguistic sound elements. Being part of semantic space, phonological space is subject to the same basic principles of organization. Since the present discussion does not require a detailed consideration of its idiosyncrasies, phonological space, as already signaled, will not be characterized in any substantial detail here. It should just be recalled that both kinds of spaces prove necessary for the emergence of symbolic linguistic units, which, to repeat, involve a correspondence between an element in semantic space and one in phonological space.

It should be borne in mind that conceiving of our conceptual functioning in terms of “spaces,” and of concepts and semantic units as open-ended subparts of these spaces defined in terms of nodes and inter-node relations in a network, is just a convenient metaphor employed by CG. Therefore, remarks similar to the ones made earlier with reference to grammar (see Sect. 2.2) also apply here. Specifically, conceptual structure ultimately reduces to neurological activity and any terms such as *space*, *domain*, *concept*, *element in a space*, etc. are intended to facilitate the discussion of inherently dynamic, mental processes. Being processual, they are not object-like elements fixed somewhere in the mind or brain; rather, they are enacted by cognitive routines ultimately describable in terms of neurological, i.e. electrochemical, activity (Langacker 1987, p. 100).²³

2.4.2 Categorization

Following the discussion of symbolization and related phenomena, the second type of relations between linguistic elements that make a grammar a structured inventory of linguistic units—*categorization*—will be considered. Because of its structure-imposing function, but also because of its importance for understanding the overall framework of CG, including its perspective on language use (discussed

²² In some cases at least their auditory specifications may be combined with motor-kinesthetic specifications responsible for articulatory routines.

²³ See note 3 above.

briefly in Sect. 2.5) (cf. Langacker 1987, p. 369), it is essential to appreciate the view of categorization adopted by CG. The theory's understanding of this process is an alternative to the classical criterial-attribute model of categorization based on specifying attributes that are necessary and sufficient for category membership. Since this traditional model of categorization has been shown by many linguists to be inadequate for natural language (e.g. Lakoff 1987; Taylor 1995), in CG categorization is modeled on two alternative and related categorization types, namely on *categorization by schema* and on *categorization by prototype* (Langacker 1987, pp. 370–373). The former, also known as *elaboration*, involves the relation between a schema and its instantiations, i.e. between a general category and more specific instances of this category, there being no conflict whatsoever between the two. The latter, also known as *extension*, involves the relation between a category prototype and more peripheral members of the category, which diverge from, or conflict with the prototype, to a greater or lesser extent. What needs to be demonstrated at this juncture is how categorization of these two sorts contributes to the establishment of schematic networks that cement the elements of a language into a structured linguistic system.

Roughly speaking, symbolic units of a language categorize various elements of reality; this, however, is not what lends a sense of structure to language. To get to the roots of structuring in language, it is necessary to realize that, in addition to categorizing extra-linguistic reality, linguistic elements themselves constitute categories that participate in a great number of categorizing relations with other units in two obvious ways: they categorize other elements and are in turn subject to categorization by some others (cf. Langacker 1987, p. 369ff). Because categorization lends structure to a linguistic system, this section focuses, in a fairly detailed manner, on categorizing relations affecting semantic, phonological and symbolic units. In the course of this discussion, the CG view of the fundamental linguistic categories known as *word classes* (or *lexical categories*) will receive extensive exposition. Because of its significance for understanding the CG view of word classes, the discussion will also shed some light on the important CG notion of linguistic *construal*.

2.4.2.1 Categorization of Semantic and Phonological Units

It is a truism to claim that human beings excel at categorization; this is reflected in, among other things, the imposing size and intricate structure of their conceptual world. As large parts of this immense, structured, conceptual universe lend themselves to linguistic expression and thereby constitute semantic poles of symbolic linguistic units, these conceptual areas must also be ascribed the same kind of structural organization induced by categorization (cf. Langacker 1987, p. 373ff). As a simple example of categorization by schema structuring semantic space one might think of the semantic pole of the word *house*, i.e. [HOUSE]. It is a schema whose many elaborations (instantiations) include the concepts symbolized by *terraced house*, *semi-detached house*, *detached house*, *bungalow*, etc.

At the same time, however, [HOUSE] itself, together with concepts designated by *warehouse*, *supermarket*, *stable*, *barracks*, etc., is an elaboration of, among others, the notion symbolized by *building* ([BUILDING]). Obviously, such networks of schematic relations are much larger and more elaborate as they extend much further in both the “upward” (or schematic) and “downward” (or concrete) directions,²⁴ and as in principle there is no limit to their growth in either direction. Because a single concept usually participates in numerous schema-instance relations, schematic networks of the sort just exemplified usually cross-cut. To return to the above example, i.e. [HOUSE], in addition to being an instantiation of [BUILDING], it is also, together with the meaning of *land* ([LAND]), *apartment* ([APARTMENT]), etc., an instantiation of [REAL PROPERTY]. Descriptions similar to those applying to the examples just discussed pertain to the whole of semantic structure, as this kind of categorization by schema is commonplace among the elements of semantic space. The result is the emergence of numerous overlapping networks that ultimately constitute a single huge network of categorizing relationships.

Given the fact that phonological concepts make up a subset of semantic space, similar structuring is ascribed by CG to phonological poles of linguistic units (cf. Langacker 1987, p. 389ff). A classic and obvious example are the relations of schematicity between phonemes and their allophones. Some other examples of categorization by schema among phonological elements are relations between different classes of speech sounds. For instance, the concept of a consonant is an instantiation of a more general conception of a speech sound and simultaneously it is schematic for such classes of consonants as obstruents, nasals and approximants. Following Taylor (2002, p. 155), it is worth noting that not just individual elements of phonological space such as segments, syllables and intonation contours are subject to categorization; the same kinds of relations may affect categorizing relations of elaboration (categorization by schema) and extension (categorization by prototype) themselves. One example that Taylor (2002, pp. 156–157) cites is that of the schematicity relation between the English voiceless stop phonemes and their allophones. The fact that every English voiceless stop phoneme (/p/, /t/ and /k/) has an aspirated (word-initially, especially in a stressed syllable) and an unaspirated (following a syllable-initial /s/) allophone presumably supports the extraction of a higher order categorization relation between the concept of a voiceless stop phoneme and the conception of its two allophones: an aspirated one and an unaspirated one. This relation is a schema elaborated by (or a pattern schematic for) the relations of schematicity between the specific voiceless stop phonemes and their particular allophones. To sum up, in CG, phonological space, just as semantic space of which it is a subpart, is structured by relations of categorization, which results in its elements, characterized by various degrees of schematicity, being organized in numerous complex networks of categorization.

²⁴ It is common to think about such paradigmatic relations as vertical, with syntagmatic relations of composition, discussed in Sect. 2.4.2.6, regarded as horizontal.

2.4.2.2 Categorization of Symbolic Units: Word Classes

Schema-instance relations exemplified above with respect to semantic and phonological space, as well as prototype-extension relations, are also the staple of linguistic organization when it comes to symbolic units, i.e. language structures more complex than purely phonological and purely semantic ones in that they combine a semantic and a phonological element. The discussion of their categorization in the present section highlights CG's unorthodox understanding of the traditional parts of speech. This understanding is original in two ways. First, according to CG, word classes are defined by their respective word-category schemas, which are understood to be nothing else but symbolic units, on a par in this respect with specific lexical items that are their elaborations and different from them only with regard to the level of schematicity at which their specifications are established (Langacker 1987, p. 189). The second source of originality of the CG understanding of lexical categories has to do with showing the inadequacy of what has become common knowledge among many linguists, namely the view that lexical classes defy neat definitions that apply uniformly to all the members of a given class (cf. Croft 2000). While it is relatively unproblematic to define a prototypical member of a lexical category in notional, morphological and distributional terms (cf. Hopper and Thompson 1984; Radford 1988, 2009), given the existence of scores of members of any particular class diverging from the prototype in diverse and numerous ways, it seems virtually impossible to devise a schema general enough to cover all of them. However, in addition to defining the prototypes of the most important word classes, CG is able to overcome this problem and propose word-category schemas applying to all the members of a given class (Langacker 1987, p. 189). The ensuing discussion will demonstrate both of these two unconventional characteristics of the CG view of the parts of speech.

As signaled above, symbolic units, including lexical items, are structured by relations of categorization in a fashion parallel to the structuring of the remaining two types of linguistic structures. For instance, specific nouns such as *woman* ([WOMAN]/[woman]) and *water* ([WATER]/[water]) are subsumed by higher order schematic categories of count ([REPLICATE THING]/[...]) and non-count ([HOMOGENOUS MASS]/[...]) nouns respectively, which are in turn in a schema-instance relation with a category of an even higher order, namely that of nouns ([THING]/[...]).²⁵ This category, together with others such as the verb, adjective and adverb categories, is an instantiation of the highly abstract category of words. Some of these relationships are shown in Fig. 2.4, which is a partial classification of lexical units of English. It includes the basic subdivisions within the major word classes of nouns and verbs, and it follows the following conventions: the upper part of a box expresses the semantic pole of a symbolic unit, while

²⁵ The nature of most of these units is explained in more detail later in the section. For now, it should be noted that [THING], [REPLICATE THING] and [HOMOGENOUS MASS] are highly abstract notions, and [...] stands for a schematic phonological structure, "little more than the presence of 'some phonological content'" in Langacker's (2002, p. 17) words.

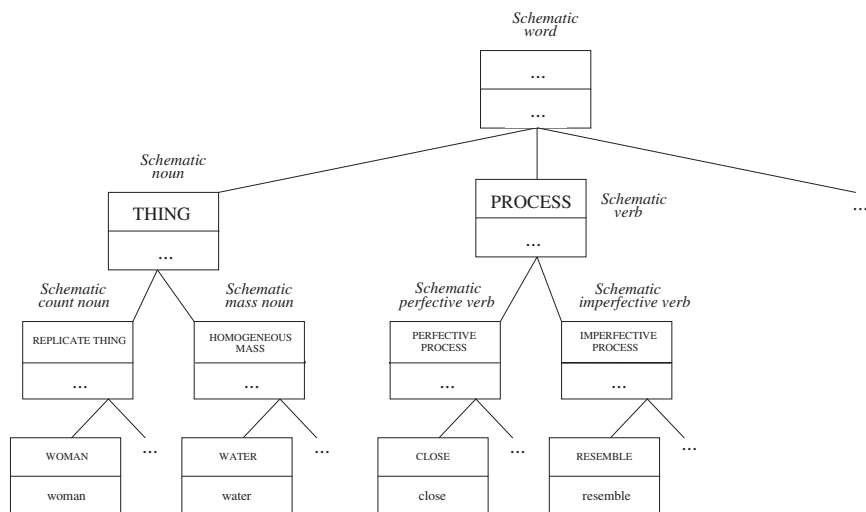


Fig. 2.4 Partial taxonomy of lexical units of English

the bottom part stands for the phonological pole; three dots enclosed in a box symbolize maximally schematic (semantic or phonological) content; and three unboxed dots abbreviate indefinitely many additional members of a given class that are not listed. It has to be stressed here that this partial hierarchy of word-like linguistic structures corresponding to a part of the conceptual space of speakers of English is a taxonomy of symbolic structures, each combining a semantic and a phonological pole. The exact values of these semantic poles are presented in subsequent sections, where the particular parts of speech are discussed.

In CG, the often variegated morphological and syntactic behavior of members of a given part of speech, which is a problem with most accounts of word classes, is taken to be only symptomatic, and not definitional, of their underlying, shared semantic character (Langacker 2008a, pp. 128, 131, 155). This semantic commonality, the shared conceptual core uniting all the members of the class is, given their diversity, naturally highly abstract (Langacker 2008a, p. 95). What is more, the schematic, abstract characterization, instead of making reference to the sheer content of the semantic poles of units in a given lexical class (cf. Langacker 2008a, p. 98), focuses on how that content is *construed* (cf. Langacker 2008a, pp. 95, 112) and ultimately refers to the underlying cognitive processing (Langacker 1987, p. 183) as well as the cognitive abilities which support this processing (cf. Langacker 2008a, p. 103). The notion of *construal*, which refers to the manner of viewing semantic content (cf. Langacker 2008a, p. 55ff), is granted a very important role in CG and, for this reason, it receives detailed treatment extending beyond its significance for parts of speech in [Sect. 2.6.2](#). The next section first offers the CG description of the prototype of the first word class, the category of

nouns, as its appreciation provides clues to understanding the emergence of the overall noun category schema. This is followed by the focus on the high degree of abstractness of this schema and the role of construal in its establishment.

2.4.2.3 Nouns

As remarked earlier, the network of schematic relations among the symbolic units of a language is quite complex, as is a subpart of this network accounting for a particular part of speech. The prototype of a word class is understood in CG to be one element of such a network, albeit one with a special degree of prominence bestowed upon it by its archetypal character (Langacker 1999b, p. 9). In the case of nouns, it is a symbolic unit whose phonological pole, characterized as having any phonological content, is extremely schematic, while its semantic pole is a schematic conception of a physical object (Langacker 1999b, p. 10). According to Langacker (1999b, p. 10), this archetypal noun prototype reflects a presumably inborn human cognitive “capacity for grouping a set of entities and manipulating them as a unitary entity for higher-order purposes.” This ability is responsible for the permeation of human experience by the perception of physical objects and the permeation of human thought by their conception. It is exactly the primacy and ubiquity of such perception and conception which gives the prototype, a schematic physical object, its archetypal quality, and thus its salience. The subsequent application of this basic ability to non-basic domains other than three-dimensional space and the visual plane eventually necessitates the extraction of the overall category schema. The process of applying the basic ability to such non-basic domains may also be viewed as relying on categorization by prototype. Every act of categorization of this sort, which consists in observing some degree of similarity between the prototype and a non-prototypical entity, results in category extension to form a higher order entity of a greater degree of schematicity. An indefinite series of such acts has resulted in the establishment of the highest-order noun schema (the mechanism is the same in the case of other parts of speech), which, as will be presently shown, is of a highly abstract nature.²⁶

In the case of nouns, the category schema includes, just as the category prototype, a very general specification at the phonological pole (i.e. the specification of any phonological content) and the specification of *a thing* at the semantic pole (see Fig. 2.4) (Langacker 1987, p. 189). In other words, the noun category schema, just as all the subclasses of nouns that it categorizes and all individual, actual nouns, profiles (designates) a thing (the concept [THING]). This abstractly understood conception of a thing is defined in CG as *a region in some domain* (Langacker 1987, p. 189). To appreciate the highly abstract notion of a region in a domain, which is crucial for the comprehension of the noun schema instantiated by a diverse array of individual, actually occurring nouns, it seems best to turn to Langacker’s (1987, p. 198) characterization of the concept:

²⁶ The same remarks concerning the operation of extension in the establishment of the category schema apply to verbs and other word classes. The verb prototype is discussed in one of the subsequent sections.

A region will be defined as a *set of interconnected entities*. The requisite notion of interconnection is explicated with reference to event coordination (4.3.4): conceived entities are *interconnected* when the cognitive events constituting their conception are coordinated as components of a higher-level event. Recall that events are coordinated in a variety of ways: by simple association, through various operations (e.g. scanning, focal adjustment), or by incorporation as constituents of a more elaborate conception (e.g. a conceived relationship). It is important to observe that these interconnections (i.e. the coordinating operations or relationships) are not themselves profiled by a nominal predication; they serve to establish a set of entities as a region, but are not per se constitutive of the region. Note further that the profiling of the interconnected entities is collective: the region as a whole (the full *set* of entities) functions as a designatum and constitutes one instance of the [THING] category [emphases original, JB and MP].

Certain important characteristics of the above CG definition of the noun category schema are discussed below, as this will shed further light on the schema itself.

Three significant features of the noun schema definition which contribute to the schema's highly abstract, universal character need to be elaborated upon here. First, the term *entity* occurring in the characterization of the schema, which may seem to be imprecise or even vague and may therefore resist straightforward interpretation, should be clearly defined. It is used here in a "maximally general sense" (Langacker 1987, p. 198) and basically covers anything that may be conceptualized; it may therefore refer to such phenomena as sensations, relationships, interconnections, points or values on a scale, etc. Second, to avoid the trap of forming a biased characterization by focusing unduly on some noun types at the expense of others, this definition makes reference not so much to the specifics of the contents of conception as to the construal of, i.e. a specific way of viewing, semantic material. In particular, reference is made to profiling, one aspect of construal which was discussed in considerable detail in Sect. 2.4.1. Third, and guarding against the same bias as the previous attribute, the above definition of the noun schema resorts to cognitive events²⁷ constitutive of noun conceptualizations. All of these characteristics, i.e. the maximally general understanding of entities, and reference to construal and cognitive events, make the schema general enough to be applicable across the wide and diverse spectrum of the whole noun category.

Given the above, in addition to nouns approximating the category prototype, i.e. those designating physical objects, a very broad and heterogeneous array of nouns are accommodated and easily covered by the maximally general definition of the noun schema just offered. To illustrate this point, several examples will be discussed, most of which derive from Langacker (1987, pp. 199–202). First, there are nouns designating regions in basic domains other than three-dimensional space: *circle* and *line* profile regions in two-dimensional space; *spot* and *stripe* profile things in the visual field; *moment* and *period* profile regions in the domain of time; and *red* and *blue* regions in the color (hue) spectrum. Second, the schema covers many nouns which designate things (regions) delineated in non-basic domains. For instance, the words *January*, *C-sharp*, *paragraph*, and *knuckle* designate regions in

²⁷ It should be recalled that cognitive events are ultimately implemented by patterns of neural activation.

such non-basic domains as the conception of a calendar, a musical scale, a written work, and the human hand. Third, nouns such as *hole* and *pause*, which may seem not to designate anything that might be termed a thing under the commonsensical interpretation of the term, profile regions made up of the sensation of absence of a certain substance and activity respectively. These sensations of absence in the domains of space and time are contiguous and thereby connected, which makes the two words' designata things, as defined by CG. The next example is the word *constellation*, a noun that profiles a set of stars that may be extremely distant from one another and even interspersed in the visual field with stars that are not part of the constellation. Although these facts may seem to prevent the profile of *constellation* from being considered as a region, the designated stars are in fact interconnected by jointly forming a certain image. The last example is the word *team* and other similar nouns (*band*, *gang*, etc.), again designating seemingly unrelated entities, which, however, constitute a region made up by individuals related (interconnected) by virtue of participating in a cooperative enterprise of some sort. In sum, the noun category schema applies to virtually any noun, including nouns whose regions are established in heterogeneous ways in a diverse array of domains.

Following a fairly detailed treatment of the semantic pole of the noun category schema, some discussion of its phonological pole is in order. Despite the fact that Langacker (2002, p. 17) ascribes a specific (although abstract) value only to the semantic pole of a schematic noun, leaving the phonological pole of this element maximally schematic [saying that it involves some (any) phonological content, which is symbolized by the three boxed dots of Fig. 2.4], an attempt to characterize this constituent of the English noun schema in more palpable terms was made by Taylor (2002, pp. 180–185). Specifically, his experimentally derived statistical contrastive analysis of English noun and verb phonology provides some clues that might lead to the postulation of a more specific phonological pole of the noun category schema. To illustrate what this phonological element might look (or sound) like, a summary of Taylor's (2002, pp. 180–185) findings with respect to the phonology of English nouns as compared with that of verbs will now be presented. First, both mono- and polymorphemic English nouns tend to be relatively long (longer than verbs). Second, these English nouns which have an obstruent as a final sound are likely to end in a voiceless rather than a voiced one, and an exactly reversed pattern applies to verbs. Third, disyllabic nouns, in contrast to English verbs, are usually stressed on the first syllable. Fourth, high-frequency nouns tend to have non-front vowels in their stressed syllables, which once again is a pattern exactly reversed in the case of English verbs. Taking all these findings into account, one may conclude that the characterization of the phonological pole of the English noun category schema might include all of the above features of English noun phonology, which would make it more specific than Langacker's stipulation that it contains any phonological content.²⁸

²⁸ For reasons of economy, the subsequent discussions of the other word class schemas will not make reference to their phonological poles. It should be generally assumed that they are likewise specified in highly schematic terms. The discussion of the phonological pole of the noun schema was included to give an idea of how CG handles such matters.

Two basic, traditionally distinguished and widely recognized subclasses of nouns were mentioned in the discussion of the schematic network of word-sized symbolic units (see Fig. 2.4). They are the classes of *count* and *non-count (mass) nouns* and they will be discussed at this juncture for two major reasons. The first one is that the distinction between them is semantically based and highlights the semantic motivation of linguistic phenomena that is characteristic of CG. The second reason is the fact that the contrast between these two noun subclasses is accompanied by a parallel one among English verbs and is needed for its proper presentation, which is in turn necessary because this verb distinction is the focus of the subsequent chapter.

The difference between count and non-count nouns is explained in CG with reference to how their semantic content is construed with respect to the notion of *bounding*, which involves setting a limit to the set of interconnected entities that constitute a region in some domain,²⁹ which, in turn, precludes its indefinite extension (Langacker 1987, p. 201). Count nouns are said to designate regions that are bounded in their bases (Langacker 1987, p. 189). The bounding characteristic of count nouns may be effected in two different ways: the limit may be imposed by factors either internal or external to the region. For instance, while *constellation* profiles a region that is bounded by the internal configuration of interconnections between the stars constitutive of the region, *spot* designates a region that is delineated by reason of contrast with its surroundings with respect to such parameters as color and brightness. In sharp contrast to count nouns, non-count nouns are believed to profile regions not specifically bounded in their bases, or, to use an alternative term, in their *scopes of predication* (Langacker 1987, p. 203). The difference that the two major subclasses of nouns display with respect to bounding accounts for a further contrast that results in different patterns of grammatical behavior of their members.

The contrast in question results from the difference between the construal of regions as bounded and unbounded and has consequences for the grammatical property of pluralization. Count noun concepts are distinguished by the feature of *replicability* (Langacker 1987, p. 204). A bounded region that such a noun designates constitutes a separate instance of some type of a thing and if need arises to refer to a greater number of the specimens of the type, to “more” of the type as it were, it is necessary to conceptualize two or more instances of it, since one bounded and thereby discrete instance is always exhausted at some point in the process of incrementation. This characteristic of replicability, or “the possibility of multiple instances of the same category” in Langacker’s (1987, p. 204) words, is exploited in pluralization, which is, as is widely acknowledged, possible only with respect to count nouns, but not non-count nouns. The latter profile concepts which have the feature of indefinite *expansibility* and *contractibility*, which contrasts with replicability and means that any portion of a mass designated by a non-count noun is a valid instance of a given category (Langacker

²⁹ In Langacker’s definition, a *primary domain* is mentioned in this connection, which is the most important domain for a given noun.

1987, p. 204ff). This explains why with non-count nouns it is possible to use one noun form, which is regarded as neither singular nor plural, to denote different quantities of the designated “substance.” For example, the form *wine* may be used to refer not only to the contents of one bottle of the drink, but also to one drop of it as well as to the contents of an entire well-provisioned cellar without any need to resort to pluralization or any other grammatical device. It is, however, possible to refer to a bounded portion of a region designated by a mass noun. It may be effected, for instance, by means of adding a partitive, as in *a drop of wine*, in which case the bounded region, just as count noun concepts, may be replicated and the corresponding noun phrase pluralized, as in *several drops of wine*. In sum, different grammatical properties of count and mass nouns, i.e. the fact that count nouns may be pluralized and non-count nouns are considered in CG as neither singular nor plural, are semantically motivated and follow from the former designating replicable entities and the latter indefinitely expansible and contractible ones.

Causally related to the characteristic of indefinite expansibility/contractibility is yet another feature of mass noun concepts, namely their effective *homogeneity* (Langacker 1987, p. 205). Although, as Langacker (1987, p. 205) admits, a mass or substance designated by a non-count noun is seldom or never totally homogenous because it may either be composed of small elements that may carry some individual features (such as individual blades of grass) or because certain portions of the mass may not be exactly identical, mass noun concepts are construed (by language users) at the level of schematicity at which the actual differences of this kind are ignored. Consequently, the mass designated by a non-count noun is construed as an undifferentiated, homogenous region, as the following remarks based on Langacker (1987, p. 205ff) concerning a number of examples make clear. For instance, nouns such as *grass* designate masses composed of an indefinite number of small components, in this case blades of grass, which are all different from one another with respect to shape, size, etc., but are nevertheless conceptualized as uniform throughout their extension. Similar remarks are in fact true even of nouns whose profiles are not perceivably composed of such individuated sub-elements, e.g. *water*; no two drops or even particles of water are ever exactly identical, but the standard construal is of a homogeneous liquid. *Furniture* is another instructive example. It designates a mass construed as such even though the subregions of this mass, i.e. different pieces of furniture such as chairs, tables, sofas, etc., are plainly different from one another. But construal takes precedence over objective factors here; *furniture* is a mass noun because the shared function of various pieces of furniture allows speakers of English to conceive of them, at a certain level of schematicity, as an undifferentiated mass. Moreover, “effective homogeneity is the source of indefinite expansibility and contractibility; [a]ny portion of a mass entity, however large or small, constitutes a valid instance of the category [original punctuation altered for clarity, JB and MP]” (Langacker 1987, p. 259). To conclude, the effective homogeneity ascribed by CG to diverse mass noun profiles, which is the source of contractibility/expansibility, is yet another important feature of non-count nouns.

2.4.2.4 Relational Predications: Towards Defining Other Word Classes

As shown earlier, the schema for the whole category of nouns profiles a thing, and this property sets the category apart from the schemas for all other word classes. These other categories, which, similarly to nouns, are structured networks of word-sized symbolic units ultimately subsumed under the word schema, are thought in CG to designate *relations* rather than things (Langacker 2008a, p. 99). This means that they profile not solely sets of interconnected entities, but in addition the interconnecting relations between them (Langacker 1987, pp. 215–216). The result is that in relational predications, in contrast to nominal ones, semantic content is construed in such a way that both the conceived entities (or participants) and the relations between them are highlighted.

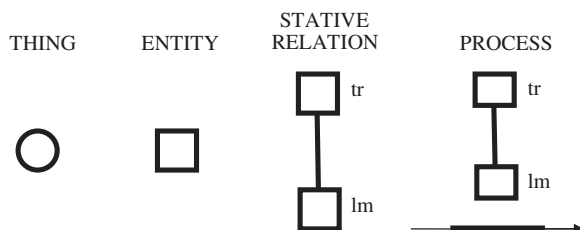
More exactly, CG views relational symbolic units in the following, very specific terms. A unit of this sort typically involves and jointly profiles a configuration involving a specially prominent entity called *trajector*, one or more entities of secondary prominence called *landmark(s)*,³⁰ and the interconnection (*relation*) between the two. The trajector is considered to be some kind of focal figure characterized by a high degree of salience and it stands out against the less salient landmark, which provides some kind of (back)ground (Langacker 1987, p. 217). It should be stressed that both the trajector and the landmark need not be things (conceptual regions); they are entities³¹ that may be either things or relations. A number of notions relevant to the present discussion are expressed diagrammatically in Fig. 2.5 in accordance with CG conventions; a circle is used to indicate a thing, a box stands for an entity and a line connecting two elements expresses a relation between them. The two kinds of relations shown in the figure should now be explained.

These two sorts of relational predications, whose understanding is indispensable for the appreciation of further word-class distinctions made in CG, are distinguished on the basis of the temporal status of the profiled relation (cf. Langacker 1987, p. 214). First, a relation may be *atemporal*, which means that it reduces to a single relational configuration that is not conceived of as persisting thorough time; hence the absence of the time arrow below the relevant part of Fig. 2.5. Atemporal relations are often thought of as states. Second, a relation may be processual, or *temporal*, by virtue of being construed as consisting of a sequence of relational configurations that extend through conceived time. This is marked by placing a time arrow below the last part of Fig. 2.5. Such a series of relational configurations, which may actually differ from one another, arises as a result of applying a mode of cognitive processing called *sequential scanning* (Langacker 1987, p. 145), which is discussed in more detail later, in Sect. 2.4.2.6, where the category of verbs is discussed. The difference between symbolic units with relational predications of the atemporal and processual types gives rise to the distinction between such lexical classes as adjectives, adverbs and prepositions, on the one hand, and verbs, on the other (Langacker 1987, p. 214).

³⁰ In the majority of cases, there is only one landmark, so the ensuing general discussion of relational predications will focus on cases of this sort.

³¹ See the all-inclusive definition of an entity in Sect. 2.4.2.3.

Fig. 2.5 Diagrammatic representation of basic CG notions (entities) (adapted from Langacker 1987, p. 220)



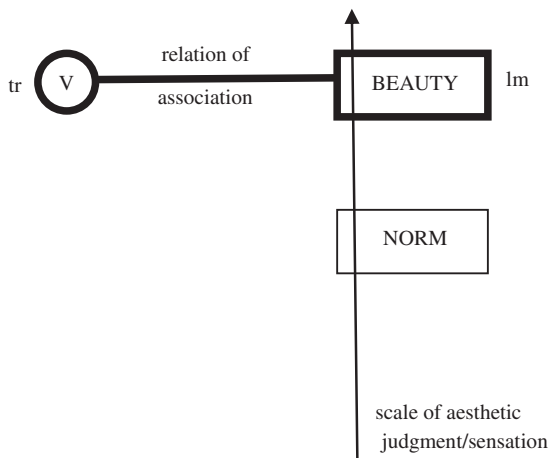
Before the second major lexical category, i.e. the class of verbs, characterized in CG as designating a process (a temporal relation) (Langacker 1987, p. 244), is discussed, it seems profitable to briefly focus on atemporal relations defining the categories of adjectives and adverbs, as these are conceptually less complex and therefore constitute a natural transition leading to the explication of the more complicated relations of a temporal kind. It was noted above that the trajector and landmark of a relation may be either things or relations. In fact, the categorization of a given symbolic unit with a stative (atemporal) relation at its semantic pole as an adjective or an adverb hinges on whether the trajector is a thing or a relation (Langacker 1987, p. 242).

2.4.2.5 Adjectives and Adverbs

Adjectives are defined in CG as profiling stative relations whose trajectors are things (Langacker 1987, p. 242). For instance, *beautiful* profiles the relation of association (or inclusion) between the trajector, which is a schematically defined thing, e.g. the concept of a view in *a beautiful view*, and the landmark, which in this particular case is, but need not be, another thing, namely a subpart of a scale of aesthetic judgment that is relatively distant from the subpart considered as a norm and located in the part of the scale indicating ascending positive aesthetic judgment.³² The semantic pole of this adjective as used in *a beautiful view* is rendered diagrammatically in Fig. 2.6, where the circle marked *V* stands schematically for the meaning of *a view*. It should be stressed that the adjective *beautiful* designates the whole relation consisting of the trajector, the landmark and the relation between them in the form of the specification that the trajector is included in (or associated with) the landmark. As in this example, in all adjectives the trajector is specifically a thing, while the landmark may be either a thing, as here, or a relation.

³² The analysis of *beautiful* (and of adjectives in general) offered here diverges from Langacker's (1987, pp. 216–217, 227, 272–274) analysis of adjectives in certain subtle ways. For instance, to give justice to the full complexity of the CG analysis, reference would have to be made to the notion of *active zones* (cf. Langacker 1987, pp. 272–274). The simplification, encountered in many other works (cf. Broccias 2006, p. 87; Evans and Green 2006, p. 567), is made for expository clarity and coherence.

Fig. 2.6 Semantic pole of *beautiful* in a *beautiful* view



In contrast to adjectives, whose trajectors are things, adverbs profile atemporal relations whose trajectors are specifically relations (Langacker 1987, p. 242). For example, *beautifully* designates the relation of inclusion (or association) between the trajector, which is a schematically specified relation, and exactly the same region on the scale of aesthetic judgment as the one given above for the corresponding adjective, which again is the landmark. As to the trajector of *beautifully*, two examples will be cited. In *She dances beautifully* the trajector is a process, hence a relation (of a processual type) profiled by the verb *dance*. The second example is the phrase *a beautifully naked statue of Venus*, whose trajector is an atemporal relation symbolized by the adjective *naked*, the details of which will not be elaborated on here. The meaning of *beautifully* in the above examples could be easily expressed in a pictorial form by replacing the *view* circle of Fig. 2.6 with symbols standing for the relevant relations; all the other elements would stay the same. Irrespective of whether their trajectors are temporal or atemporal relations, and both options are possible in the case of *beautifully*, all adverbs are characterized by their trajectors being relations.

2.4.2.6 Verbs

It should be noted that for the classes of adjectives and adverbs, whose schematic values have just been presented, the category prototypes have not been discussed. To be sure, listing them is not impossible [for instance, the adjective prototype specifies a property (Langacker 2008a, p. 95)], but has been skipped here due to a lack of revelatory character of these prototypes. Matters are different when it comes to the prototype of the verb category, which CG sees as “the archetypal conception of an asymmetrical energetic interaction, specifically an event in which an agent does something to a patient” (Langacker 1999b, p. 10). This prototype depends on two fundamental cognitive abilities: the ability to apprehend a relationship and to track it through time

(Langacker 2008a, p. 104), which, just as in the case of their counterparts related to the noun prototype, make the verb prototype perceptually and conceptually basic and salient. In addition, because the same abilities are also applied to certain kinds of interactions between the agent and the patient which are different from energetic ones, the overall verb category schema is necessarily much more abstract.

In CG, the verb class schema has at its semantic pole a process, i.e. a relation with a *positive temporal profile* (see Fig. 2.4) (Langacker 1987, p. 244).³³ This means that the relation is specifically construed as unfolding through conceived time. The conceptualization of such a relation requires the employment of a mode of cognitive processing called *sequential scanning* (it is dealt with in more detail in Sect. 2.6). This kind of processing is applied to a series of relational configurations of the simple sort described above for adjectives and adverbs, which are thus transformed sequentially one into another. Langacker's (2002, pp. 78–79) words may be instructive in this connection:

The various phases of an evolving situation are examined serially, in noncumulative fashion; hence the conceptualization is dynamic, in the sense that its contents change from one instant to the next. At the level of cognitive events, we can suppose that events that represent a given scene remain active only momentarily, and begin to decay as the following scene is initiated.

In addition, it should be stressed that the component relations are conceived as occupying points in time ensuing one after another, which constitutes the positive temporal profile defining the category of processual relations, i.e. verbs. Such a characterization of the verb category schema, similarly to the definition of the noun schema, makes crucial reference to construal and cognitive processing, which take precedence over the contents of conception.

Another similarity between the classes of nouns and verbs highlighted by CG is that the distinction between the two general types of nouns, count and non-count, has a corresponding equivalent in the form of a broad distinction within the verb category (Langacker 2008a, p. 128). The distinction, which is aspectual in nature, is that between *perfective* and *imperfective* verbs (and processes) (Langacker 2002, p. 87). As Langacker (1987, p. 254) remarks, because a process is a series of relations scanned through conceived time in a sequential fashion, words with processual profiles are ideal devices for describing change. And indeed, most verbs, called *perfective* verbs, refer to a change of one kind or another (Langacker 1987, p. 254). Individual relations of such verbs in the whole series of relational configurations that they profile are usually not all the same, and their non-identity constitutes the change in question. For instance, the verb *close* in *The door closed* designates a series of changing relations scanned sequentially through conceived time. In the initial configuration, the door (actually, only its three edges), which is

³³ As is clear from Fig. 2.4, the verb schema's phonological pole is, just as the noun schema's (and any other lexical category's), specified only in very schematic terms, i.e. as any phonological content. However, Taylor's (2002, pp. 180–185) findings concerning the phonology of English nouns as compared with that of verbs, reviewed in Sect. 2.4.2.3, may be also taken as the basis for a more specific characterization of the phonological pole of the verb category schema.

the trajector, is positioned away from the frame, the landmark, enabling passage. This relation between the door and the frame is followed by a number of relations in which the door is progressively closer to the frame, all of which are slightly different from the initial one and from one another by virtue of the changing distance between the trajector (door) and the landmark (frame). In the final relation, which is also different from all the previous ones, the door touches the frame preventing passage.³⁴ The conceptualizer's registration of the disparities between the successive relations constitutes the conception of change characteristic of perfective verbs and perfective processes that they designate (see Fig. 2.4).

The definition of verbs as profiling a relation with a positive temporal profile scanned sequentially obviously covers perfective verbs expressing change, but it does not rule out the possibility that all the component states of a process are construed as effectively identical. This kind of construal creates the conception of a stable situation persisting through time and verbs which express this kind of meaning are called *imperfective* (Langacker 1987, p. 256). One of Langacker's (1987, p. 255) examples is the verb *resemble*. Its component states are viewed as effectively the same because each and every relation this verb profiles is a relation of similarity between conceived individuals, objects, etc. The fact that any relation of this verb's predicate is perceived as identical with any other gives rise to the conceptualization of the progression of the relation of similarity through conceived time. To sum up, although imperfective verbs, profiling a series of relations which are perceived as identical, do not exploit the natural suitability of processual profiles to express change and thus diverge considerably from the category prototype, they still conform to the verb category schema, which requires a verb to profile a process (see Fig. 2.4).

As signaled earlier, there are some interesting parallels between the categorial divisions within the noun and verb classes, two of which will now be presented. The first similarity pertains to the flexibility of members of the two subdivisions manifested in their ability to be used as members of the opposite subclass. It is common knowledge that most non-count nouns may be used as count nouns, e.g. to express quality (*We have two coffees: espresso and cafe latte*) and quantity (*Three coffees, please*), and a reversed situation is not unheard of (*It's a lot of car for a modest price*). Just as most nouns of one subcategory may be alternatively used as members of the other, many verbs have both a perfective and an imperfective variant (Langacker 2008a, p. 148ff) and others may be used as members of the opposite category with an extended sense (Langacker 2008a, p. 150). The following examples illustrate two variants of a verb, each belonging to a different subdivision:

- (11) *Jerry had a car back then.*
- (12) *Jerry had an apple for breakfast.*

In (11) *have* is used with an imperfective sense because it profiles a stable situation whose component states, relations of ownership, are all effectively

³⁴ The actual conceptualization entertained by most speakers would probably be enriched by some specifications concerning the lock and its function in the whole action. For the purposes of the present discussion this consideration may be ignored.

identical. By contrast, in (12) *have* is used with a perfective sense because the relations it profiles between Jerry and the apple are not all the same. Under the most likely interpretation of this example, the initial relation is that between Jerry and the whole apple, each subsequent relation in the whole series being between Jerry and a progressively smaller part of the apple reduced by Jerry's bites. An example of a verb reclassified from one category to the other through extension is *resemble* in the following examples given by Langacker (1987, pp. 255–256):

(13) *J.P. resembles his father.*

(14) *J.P. is resembling his father more and more every day.*

In (13), *resemble*, used with its canonical value, is imperfective, conforming to its characterization in an earlier paragraph. In (14), however, it expresses an increase, and therefore a change, in the degree of similarity between J.P. and his father, which makes it perfective. This flexibility of verbs manifested by the ability of their variants to be subsumed by different verb subclasses is one important property they share with nouns.

The second parallel between the two subgroups within the noun and verb categories concerns the mutually exclusive characteristics of replicability and indefinite expansibility/contractibility, which have already been ascribed to count and mass nouns, respectively. Langacker (1987, p. 257ff) focuses on the similarities in this respect between count nouns and perfective verbs, on the one hand, and between non-count nouns and imperfective verbs, on the other. Just as count noun profiles are bounded and therefore replicable, the profiles of perfective verbs are also bounded in their primary domain, i.e. the domain of time, and may be, just as their noun counterparts, replicated. The following examples are intended to support the existence of this parallel:

(15) *The door closed again and again.*

(16) **J.P. resembled his father again and again.*

In (15) the perfective *close* is compatible with the adverbial *again and again*, as well as with many others expressing repetition (e.g. *repeatedly* and *time after time*), since the process it designates is replicable in its domain of instantiation, namely time. *Resemble* in (16), by contrast, is not compatible with any of these adverbials because replicability is ruled out for imperfective verbs, in the same way that it is for mass nouns.³⁵ In contrast to countables and perfectives, mass nouns share with imperfective verbs the feature of effective homogeneity resulting in their indefinite expansibility/contractibility, which also points to the fact that imperfective processes are unbounded. The discussion of the following two examples backs this claim:

³⁵ Ignored here is the unlikely interpretation of *resemble* in (16) as a perfective verb designating a cycle of starting to resemble someone, resembling this person for some time and then ceasing to do so, in which case it would of course be compatible with *again and again*.

(17) *J.P. resembled his father when he was young, and in fact he still does.*

(18) **The door closed five minutes ago, and in fact it still does.*

The fact that imperfective *resemble* inflected for the past tense in (17), in contrast to perfective *close* of (18), is compatible with a clause such as *in fact they still do* may be explained by the indefinite contractibility/expansibility of the imperfective. In this connection, two facts related to different aspects of the example sentences should be considered. First, the use of the past tense in the first clause of either implies a full instantiation of a process before the time of speaking. Second, the appended clause *and in fact he still does* conveys the duration of the first clause's process from some point in the past up until the present in an uninterrupted fashion. The appropriateness of (17) may now be easily explained once its process is understood to bear the feature of indefinite contractibility/expansibility. The verb *resemble* in this example may be licitly used with both the past tense of the first clause and with the second clause, because the full instance of the process implied by the past tense may be freely expanded (as well as contracted) to cover the time from some point in the past up until now. The situation is different with the process designated by *close* in (18), though. Its full instantiation prior to the time of speaking implied by the past tense makes it impossible for the verb to simultaneously convey the continuation of the process up until the present, because the process of perfective *close* is not conventionally construed as effectively homogenous and therefore indefinitely contractible/expansible. This is why (18) is unacceptable. Instead, should a need arise to convey the recurrence of the process, replication (e.g. by means of *again and again*) rather than expansion is possible [as in (15)]. In sum, despite the fact that their members involve essentially different sorts of construal, it is possible to observe close parallels between the groupings within the categories of nouns and verbs, as illustrated in this and the preceding paragraph. The two major classes of verbs, i.e. perfective and imperfective verbs, are further discussed in [Chap. 3](#), which describes the use of the English present tense and progressive aspect to refer to situations taking place at the time of speaking.

As already mentioned, besides symbolization and categorization, also the relation of *composition* lends structure to a language. Composition will not be discussed here in as much detail as the other two kinds of relations because it is crucially relevant neither to the descriptions offered in [Chap. 3](#) nor the quasi-experiment reported in [Chap. 5](#); instead, only a few general remarks concerning this relation will be offered to complement the picture of the CG view of the structuring forces of human languages. Incidentally, some remarks concerning composition were already provided in [Sect. 2.3.1](#), which concerned the symbolic nature of grammatical phenomena and where the integration of the English plural morpheme with a countable noun and the integration of the component phrases of a prototypical English transitive clause were considered. These examples illustrated the nature of grammatical constructions and constructional schemas, which involve semantic and phonological integration. An important terminological point is that in CG the elements which undergo integration are called *component*

structures, and the resulting amalgam they make up is dubbed the *composite structure*. Even more important is the fact that crucial for composition as viewed by CG are correspondences established by language users between these elements of the two component structures which they have in common. For example, in the case of the composite structure *jar lid* at the semantic pole the profile of [JAR] corresponds to the unprofiled schematic container in [LID]’s base (Langacker 2008a, pp. 162–164). Such correspondences are thought to motivate and enable composition, and at the same time they reflect the contribution of component elements to the values of composite structures (Langacker 1987, p. 94). Another important facet of composition is the fact that the composite structure inherits the profiling of only one of the component structures, which is thereby called the *profile determinant* (Langacker 2002, p. 123). In the *jar lid* example, *lid* is the profile determinant, since the composite structure *jar lid* designates the cover profiled by *lid* rather than the container profiled by *jar*. As has been shown, the relation of composition is thought in CG to depend on correspondences established between certain elements of the composite structures, one of which determines the profile of the composite structure.

2.5 Grammar as an *Inventory*

Defining grammar (and language) as an *inventory* of linguistic units results from the fact that CG is a *usage-based* theory of language. Already mentioned at the beginning of this chapter as one of the major principles of CL, the usage-based conception of language means that speakers, on the basis of their linguistic experience, first of all learn vast amounts of specific language elements of all sorts, i.e. phonological, morphological, lexical and syntactic ones (Langacker 1999b, p. 91ff; N. Ellis 2003). This mode of learning, however, does not preclude the acquisition of rules, or rather constructions.³⁶ The huge inventory of actually occurring language chunks of various sizes and kinds supports the extraction of multiple patterns (constructional schemas) of different degrees of generality, which then constitute more abstract elements of the inventory. From this it follows that CG allows for the simultaneous inclusion of general patterns and at least some specific, actually-occurring expressions instantiating the operation of these very patterns in the speaker’s linguistic knowledge (i.e. in the inventory). One should therefore not fall into the trap of the so-called *rule/list fallacy* warned against by Langacker (1987, p. 27), which excludes from the inventory either the general patterns or the actual expressions. Steering clear of the fallacy, CG thus sees grammar as an inventory of

³⁶ Strictly speaking CG does not recognize the existence of *rules*, which it takes to be “analogous to the phrase structure rules and transformations of generative syntax” (Langacker 2009, p. 2). Rather, it only posits the existence of constructions (constructional schemas) (Langacker 2009, p. 2), as defined in [Sect. 2.3.1](#).

conventional linguistic units of various degrees of specificity (generality), complexity and of different sizes.

This way of viewing grammar nullifies the need for the postulation of a generative device that is the highlight of some major linguistic theories, e.g. the Government and Binding Theory or the Minimalist Program, which are probably still the ruling orthodoxy of the language study landscape today. Without positing such a device, the conceptual apparatus of CG is capable of accounting for speakers' full command of language including creating syntactically well-formed, although novel, strings. In particular, in CG it is language users themselves, and not the linguistic system, who are responsible for the "generation" of linguistic output (Langacker 1999b, p. 99).

In every instance of language use, the speaker faces the seemingly mundane task of finding the right expression to convey a conceptualization that he or she entertains. In CG, this process is termed *coding*³⁷ and it is a kind of a problem-solving activity (Langacker 1987, p. 65). The problem to be solved here is selecting such elements from the inventory of conventionalized linguistic units which are capable of conveying the intended meaning, i.e. a contextually-determined conceptualization contemplated by the speaker in a given situation.³⁸ Even though the problem is usually dealt with relatively successfully and effortlessly, at least in the case of a native language, part of its challenge lies in the fact that on the whole the meaning to be expressed and the phonological sequence that is produced to symbolize it are much richer in specific detail than the specifications of the semantic and phonological poles of the linguistic unit(s) that may be selected. In CG, the solution to the problem is the process of categorization: the two poles of a particular *usage event* (an instance of language use), i.e. the context-dependent conceptualization and the actual segmental vocalization, are *categorized* by the two corresponding poles of conventional linguistic units selected for this purpose on a given occasion (Langacker 1987, p. 68). The intricate details of coding will not be discussed here in greater detail (see Langacker 1987, p. 65ff), but it should be noted that similarly to composition it depends on a number of correspondences between (different parts of) linguistic units and objects of conception.

The fact that in CG the only units of language are thought to be phonological, semantic and symbolic ones, and that they are supposed to enter only three kinds of relations, namely symbolization, categorization and composition, testifies to the frugality of the set of conceptual tools used by the theory for linguistic analysis. Despite this conceptual economy, the descriptions and analyses that CG offers are characterized by a high degree of psychological reality, as attested by the next section, where the linguistic role of cognitive abilities is reviewed.

³⁷ The process of coding performed by the speaker is reflected as a kind of a mirror image in the process of decoding performed by the hearer (Langacker 1999, p. 99). The latter process is ignored here for the sake of economy.

³⁸ It seems that the process of coding developed by CG roughly corresponds to the *formulator* in the well-known model of speech production by Levelt (1989).

2.6 Cognitive Abilities

Following the introduction of the basics of CG which are evoked by its definition of grammar, some fundamental *cognitive abilities* believed by cognitive grammarians to be implicated in language will be reviewed. The discussion of the abilities, which are formatively crucial for both the name and nature of CG, will complement the foregoing presentation of the theory by stressing its cognitive commitment. As was stated at the outset of the present chapter, CG grants human cognitive abilities an important place in linguistic theory due to its insistence on regarding language as inherently intertwined with general cognition. In particular, CG postulates the linguistic importance of a wide array of cognitive abilities that are nevertheless, in themselves, relatively uncontroversial, not to say obvious (Langacker 1987, p. 99, 2008a, p. 8). This provides them with an important feature of being established independently of linguistic considerations, which makes CG different from the generativist framework, where linguistic factors are taken as revelatory with respect to human cognition without any or little support from psychology or cognitive science (Taylor 2002, p. 8, see [Sect. 2.2](#)).

Some cognitive abilities are so obviously the basis of language (as well as many other higher-order cognitive phenomena) that there is probably no linguistic theory that would deny their linguistic importance. One example of such an ability is *memory*. It must be used, for instance, to keep track of the unfolding discourse at the levels of the phrase, sentence, text, etc. Another example is *directing* and *focusing of attention*. As part of language use, attention must be paid to, among other things, the phonological input and output of any conversation. In addition to such abilities, whose use is straightforward and which have their indisputable and quite obvious role in language, however, there are others whose linguistic employment is perhaps more intricate and definitely not as obvious. The following selective review will deal with these cognitive abilities ascribed linguistic importance by CG which are deemed the most relevant in the context of the present work. This means that quite frequently the overview will refer back to some phenomena already discussed earlier in the chapter, highlighting their cognitive nature.

2.6.1 Correspondences and Transformations

The first cognitive ability posited by CG as crucial for linguistic functioning is the ability to establish *correspondences* (Langacker 1987, p. 90). It is part and parcel of numerous linguistic phenomena, some of which have already been discussed or mentioned. First, correspondences in the form of symbolic relations are established between semantic and phonological poles of all symbolic elements. Second, very often correspondences are involved in the employment of another basic ability of linguistic importance, namely the ability to compare. For instance, in relations of composition certain subelements of the component structures are

compared and consequently judged to be the same at a certain level of abstraction (Langacker 1987, p. 278). This process of comparison involves the establishment of correspondences between the compared elements in general, and it is, importantly, reducible to a number of “local” correspondences and comparisons between their subparts (Langacker 1987, p. 284). The correspondences (and comparisons) between the elements of the component structures, in turn, give rise to the correspondences between certain elements of the composite structure and those of the component structures, which indicate the contribution of the latter to the value of the former. Third, linguistic categorization, whose importance for grammatical organization and usage events has already been asserted, is another process based on comparison and therefore on correspondences. For example, in numerous usage events multiple correspondences are formed between various phonological and semantic elements of the categorizing linguistic unit(s) and the categorized elements of the usage event (actual context-specific conceptualization and vocalization), both of which are judged to be identical in the sense of there being no incompatibility between them. In sum, the basic and closely related cognitive abilities to establish correspondences and to effect comparisons are crucial for such essential linguistic phenomena as symbolization, composition and categorization.

Another major cognitive ability essential for the CG view of language is the capacity to carry out *mental transformations* in the sense of one conceptualization being changed into another (Langacker 1987, p. 138). One important kind of transformation is the process of *scanning*, which, as has already been signaled (see Sect. 2.4.2.6), is crucial for the conceptualizations evoked by verbs. Actually, two linguistically significant, contrasting modes of scanning are distinguished in CG. The first kind, called *sequential scanning*, “involves the transformation of one configuration into another, or a continuous series of such transformations” (Langacker 1987, p. 145). It is further defined by Langacker (1987, p. 145) in very precise terms:

For a series of distinct configurations to be perceived as a coherent evolving scene, correspondences must be established among them, and each configuration serves as a standard for an act of comparison (possibly quite complex) that constitutes a recognition of disparity between it and the next. Because the scenes are viewed successively rather than simultaneously, recognition of disparity amounts to recognition of change. In contradistinction to summary scanning, the separate components (states) are conceived as neither coexistent nor simultaneously available; hence there is no judgment of inconsistency.

The ability to scan in a sequential fashion is exemplified by conceptualizations evoked by every finite verb, one of which is *fall*. Its semantic pole is schematically represented in Fig. 2.7, in which the circle represents a falling object (the trajector), the bottom flat rectangle stands for a surface towards which the object is moving (the landmark) and the arrows represent successive acts of comparison constitutive of the scanning process. The second type of scanning, called *summary scanning*, is different from sequential scanning in that all the component states (configurations) are activated, and therefore mentally available, simultaneously. Summary scanning is exemplified by the episodic noun *fall*, whose semantic pole is shown in Fig. 2.8. By way of summary and further elucidation, it is useful to

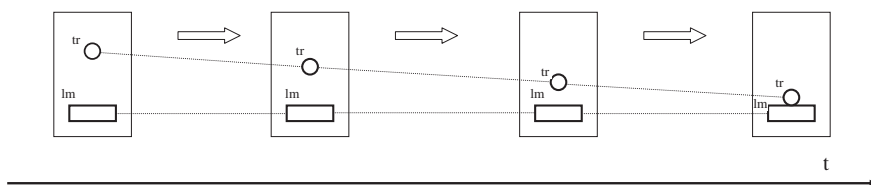
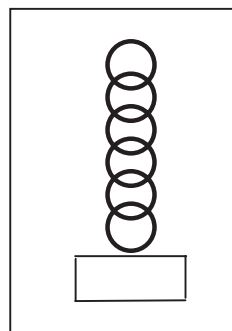


Fig. 2.7 Semantic pole of the verb *fall* (adapted from Langacker 1987, p. 144)

Fig. 2.8 Semantic pole of the episodic noun *fall* (adapted from Langacker 1987, p. 144)



consider Langacker's (1987, p. 145) comparison of the two kinds of the scanning ability discussed here with two other everyday activities (and abilities):

It is not at all farfetched to compare the difference between summary and sequential scanning to that between examining a photograph and watching a motion picture (though I have taken pains to characterize the notions independent of this analogy): indeed our ability to view both photos and motion pictures nicely exemplifies these respective modes of processing and argues strongly for their validity.

2.6.2 *Construal*

Another important cognitive ability crucial for the CG conception of language is the ability to *construe* a given situation in alternate ways (Langacker 1987, p. 138), which basically has to do with different and quite intricate ways of focusing attention on conceptual content (Evans and Green 2006, pp. 536, 537). This ability, which was already evoked in a preliminary fashion as a crucial element of the CG descriptions of the noun and verb schemas as well as to discuss important distinctions within the verb and noun word classes (see Sect. 2.4.2), will now receive more detailed treatment. As Langacker (1987, p. 116) says, “[l]inguistic expressions pertain to conceived situations, or ‘scenes’.” The meaning of an expression, however, is not exhaustively described by referring to the contents of a conceived scene. Equally important for the semantic value of any piece of language is the way in which these contents are viewed (conceptualized), or construed (Langacker 1987, p. 138). In other words, of paramount importance in CG is the image that is imposed on and used

to structure a scene that is being conceptualized, which ultimately depends on how attention is focused on different elements of the scene. A number of examples taken from Langacker (2005b, p. 15) will now be used to further illustrate the notion of construal and the operation of more specialized cognitive abilities associated with it.

On seeing a glass with some water in it, speakers may use many different expressions to refer to what they see including the following:

(19) *the glass with water in it*

(20) *the water in the glass*

(21) *the glass is half-full*

(22) *the glass is half-empty*

Examples (19) and (20) differ with respect to profiling, which is one aspect of construal and which was already introduced in [Sect. 2.4.1](#). This facet of construal is all about highlighting certain aspects of conceptualized scenes, which thereby receive some kind of focal prominence. This extra salience is given by (19) to the glass, whose conception is the profile, while the water in this example is an important but unprofiled element of the base. (20), by contrast, shifts the profile of (19) to the water in the glass, leaving the glass unprofiled. In contrast to both (19) and (20), (21) and (22) are verbal rather than nominal expressions, which constitutes one major difference between their respective construals. The difference is clear once the schematic characterizations of nouns and verbs are recalled; nominal (19) and (20) profile abstract things (regions in domains, as defined in [Sect. 2.4.2.3](#)), while verbal (clausal) (21) and (22) designate relationships scanned sequentially through conceived time (as described in [Sect. 2.4.2.6](#)). As to the difference in construal between (21) and (22), it may be said, simplifying matters a little for expository purposes, that (21) profiles the relation between the glass and the region inside the glass occupied by the water, which is achieved by viewing or scanning the entire inside of the glass in the direction from bottom to top; and that in (22) the inside of the glass is scanned in the opposite direction, from top to bottom, and the relation designated by the sentence is that between the glass and the empty region inside it. Thus, in addition to the major difference between (19) and (20), on the one hand, and (21) and (22), on the other, (21) and (22) differ from each other with respect to construal as well, specifically with regard to the direction of scanning that they involve. These examples demonstrate that the construal of a conceived situation is the mental image³⁹ used to structure the situation in a certain way rather than in another chosen from among a number of alternatives.

The ability to construe conceived scenes in competing ways involves variation with respect to a number of dimensions, or parameters (Langacker 1987, p. 117). The most relevant of them will now be discussed. In the course of the discussion an array of more specifically defined cognitive abilities, subsumed under the broad

³⁹ The image is not necessarily visual; it may involve a different sensory mode, e.g. auditory or tactile, or else it may be autonomous (abstract) in the sense of being executed by cognitive processing divorced from any perceptual support (Langacker 1987, pp. 111–113).

heading of the construal ability, will be considered. The discussion is based mainly on Langacker (1987) and Langacker (2008a).

The first general parameter of construal is a function of the human capacity for *selection*. Speakers of a language constantly select certain aspects of conceived situations to be dealt with rather than others, an example of which is the selection of a profile—a facet of a scene accorded special prominence. Another important, and related, kind of selection pertains to the so-called *scope* of predication, which has already been encountered under the name of *base*. Every linguistic expression, and therefore every predication, includes the profile—the most prominent element which “can be thought of as a kind of focal point” (Langacker 1987, p. 118) distinguished within and against the background of the scope, which is in turn the portion of the whole scene necessary for the proper characterization of the profile. Sometimes the selected scope of predication (the base) is not sharply delimited and a special part of the base is distinguished. It is called the *immediate scope* and, in contrast to the base’s more peripheral regions of diminished relevance, it is the most salient and relevant for the characterization of the profile. As examples of the scope of predication (under the name of *base*) have already been amply provided in the discussion of the notion of profile (see Sect. 2.4.1), and because the two notions are related, only immediate scope will be exemplified here. One of Langacker’s (1987, p. 119) instances concerns body-part terms including *body*, *arm*, *hand*, *finger*, and *knuckle*. *Body*’s profile is the immediate scope for *arm*, *arm*’s profile constitutes the immediate scope for *hand*, *hand*’s for *finger*’s and so on and so forth, with the profile of every term providing the immediate scope necessary for the characterization of the profile of the word that is next on the list. This is supported by language data such as the following:

- (23) *A body has two arms.*
- (24) *A hand has five fingers.*
- (25) *?A body has two hands.*
- (26) *??An arm has five fingers.*
- (27) *???An arm has eight knuckles.*

Sentences with *have* are the most felicitous when the subject designates the part of the body which constitutes the immediate scope for the characterization of the direct object, as in (23) and (24). If the subject profiles a part of the body that is part of the scope of predication for the direct object noun in a more marginal way, i.e. less saliently and directly, as illustrated by (25), (26) and (27), the relative felicity of the sentence decreases. In fact, the degree of acceptability is inversely related to the conceptual “distance” between the scope defined by the subject’s profile and the profile of the object. To sum up the present discussion of selection as a parameter of construal, it may be reiterated that the human capacity to select certain facets of conceived situations that will be attended to manifests itself in, among other things, such constructs of CG as profile, scope (base) and immediate scope.

The second general parameter of construal is *perspective*, which “relates to the position from which a scene is viewed, with consequences for the relative prominence of its participants” (Langacker 1987, p. 117). One major aspect of perspective, relating to the prominence of linguistically coded participants, is the cognitive ability

to impose the so-called *figure/ground* organization. This is how Langacker (1987, p. 120) describes this phenomenon: “[i]mpressionistically, the *figure* within a scene is a substructure perceived as ‘standing out’ from the remainder (the *ground*) and accorded special prominence as the pivotal entity around which the scene is organized and for which it provides a setting [emphases original, JB and MP].”

Before the linguistic relevance of the figure/ground organization is exemplified, it should be stressed that although there is a natural tendency for them to conflate, the figure/ground distinction is not equivalent to the profile/base organization (Langacker 1987, p. 187). While profiling seems to be explainable in terms of attention, the notion of figure appears to be best explicated as something contrasting sharply with its immediate surroundings. Obviously, an entity (the figure) standing out against its environment (the ground) is a natural attractor of attention and therefore the two frequently, although not invariably, coincide; this is the source of the tendency to equate them. However, it is not uncommon for the two distinctions to stay apart. Langacker (1987, p. 120) cites some features that make entities contrast with their environment, i.e. features of a prototypical figure. For example, a moving object is likely to contrast with its surroundings consisting of other unmoving objects, and consequently it is likely to become the figure. Despite the fact, however, that in *the plane’s descent* the plane is a moving object and therefore the figure, it is not profiled at the level of the whole expression, which designates either the path of motion or the movement itself (Langacker 1987, p. 187). Bearing in mind that the figure/ground organization often coincides with the profile/base alignment but is a qualitatively different and possibly distinct phenomenon, the linguistic relevance of the cognitive ability that underlies it will be considered.

In CG the capacity to impose the figure/ground organization is claimed to lie at the root of some basic linguistic constructs, two of which will be discussed here in the way of exemplification. The first linguistic phenomenon that CG analyzes in terms of the figure/ground organization are the *grammatical relations* of the *subject* and *direct object*, which are regarded as the primary and secondary figure in the conceptualization evoked by a clause (Langacker 1991, p. 304ff). This analysis is for instance supported by the fact that a moving entity (a moving object, person, etc.) is almost invariably coded by the subject at the level of the clause. Despite the fact that CG is not able to offer definitive evidence for this analysis, to further support it Langacker (1991, p. 317) evokes a number of proposals along the same lines made by such authors as Chafe (1976), Fillmore (1977) and Shibatani (1985). As another special case of the figure/ground organization Langacker (1987, p. 231) posits the basic distinction between the *trajector* and *landmark*, which is so crucial to relational predications (and relational word classes in general). The *trajector* is considered to be a relational figure while the *landmark*, said to constitute a “secondary figure,” is supposed to be (part of) the ground at a certain level of analysis. One important argument for this view is based on examples such as (28) and (29).

(28) *X is above Y.*

(29) *Y is below X.*

Both sentences may describe exactly the same spatial configuration of elements X and Y, but they differ in their choice of the primary figure, arguably the trajector, standing out against the background of the landmark. Element X is the trajector and therefore the figure in (28), where Y is the backgrounded landmark; while in (29) the statuses of X and Y with respect to the figure/ground organization are reversed. In sum, all of this shows that in CG the cognitive ability to impose the figure/ground organization underlies such fundamental linguistic phenomena as the basic grammatical relations (subject, object) and the trajector/landmark distinction.⁴⁰

The third major dimension of the construal ability is *abstraction*, which “pertains to the level of specificity at which a situation is portrayed” (Langacker 1987, p. 117). This parameter of construal concerns the human capacity to abstract away from specific detail of a conceived situation or of linguistic elements. The linguistic importance of abstraction understood in this way, which often leads to the establishment of schemas, was illustrated in the discussion of categorization employed in coding (Sect. 2.5), in the treatment of the extraction of constructional schemas (Sect. 2.3.1), and in the description of the emergence of word category schemas (Sects. 2.4.2.3–2.4.2.6). It will therefore not be dealt with much further here beyond reiterating its function in these phenomena. To begin with, in coding language users abstract away from specific details of context-sensitive conceptualizations and vocalizations to subsume them under more schematic (abstract) linguistic units. Second, to extract constructional schemas, speakers abstract away from actually occurring linguistic expressions. Finally, to create word class schemas, it is necessary to abstract away from the idiosyncratic properties of members of a given word class. In the first of these cases, abstraction operates at the level of conceptualized situations; in the other two, at the level of linguistic units.

By focusing on selected cognitive abilities employed in language, the present Sect. 2.6 has shown that in CG care is taken to fashion linguistic descriptions in such a way that there is no incompatibility between them and what is known about human cognitive functioning. Also, the present section has demonstrated, by turning attention to how basic cognitive abilities inform language and how this fact is reflected in CG descriptions of language, that despite the frugality of the set of conceptual tools used by CG for linguistic analysis, the resulting descriptions are characterized by a high degree of psychological reality. The following remarks by Radden and Dirven (2007, p. 1) seem to be suitable as a conclusion emphasizing the role of cognition in CG, including the role in it of basic cognitive abilities: “[a] Cognitive Grammar is based on the insight that grammar is the product of human cognition. Therefore we must first understand the principles of cognition that determine grammar.”

⁴⁰ In addition, CG uses the figure/ground organization to explain the traditionally troublesome, in terms of defying neat definitions, head/modifier distinction (Langacker 1987, p. 235). However, its explication would require an extended discussion, which is foregone here for reasons of economy.

2.7 Conclusion

This chapter, whose aim has been the introduction of the framework of CG, has demonstrated that, as well as how, this linguistic theory subscribes to most of the basic principles and assumptions of CL.⁴¹ The assumption concerning the cognitive nature of language in the sense of language drawing on general cognitive phenomena has been highlighted in the discussion of the following important aspects of CG:

- the cognitive canonical event model as the basis of the prototypical English transitive clause;
- word category schemas and the basic subdivisions within the noun and verb classes, which depend on the broad cognitive ability of construal;
- the relations of composition, symbolization and categorization utilizing the cognitive abilities to establish correspondences and to compare;
- the profile/base (scope)/immediate scope configurations underpinned by the aspect of construal called selection;
- the subject/object and trajector/landmark distinctions as manifestations of the figure/ground alignment, which in turn depends on another dimension of construal, namely perspective;
- coding and the emergence of constructional schemas, which are functions of the aspect of construal called abstraction;
- verbal predications depending on the cognitive ability to scan sequentially.

The CG conviction that language is a cognitive phenomenon functioning in accordance with general cognition was highlighted and summarized in [Sect. 2.6](#), which reviewed the CG views on the linguistic function of cognitive abilities.

Recognition in CG of the role in language of all these general cognitive phenomena implicates the non-autonomy of language, another guiding principle of CL. The commitment of CG to the cognitive-linguistic assumption of non-autonomy of grammar has been revealed, for instance, in the exposition of the fuzzy boundary between grammar/language and pragmatics and in the discussion of the meaningfulness of such grammatical processes as plural noun formation, which depends on different aspects of cognition such as, for instance, the establishment correspondences (symbolization is basically a correspondence relation). Non-autonomy has also been demonstrated in the discussion of the assembly of prototypical transitive clauses, which is based on a general cognitive model. The demonstration of the meaningfulness of these elements testifies, together with the semantic

⁴¹ The only concern of CL from among those mentioned in the introductory section that has not been reflected in the foregoing introduction to CG is the linguistic relevance of conceptual metaphor, metonymy and other figurational devices. Although their linguistic importance is recognized by the theory and they are easily accommodated by it (see for instance Langacker 2009: Chap. 2), CG's focus seems to lie elsewhere. Because figuration does not occupy a central place in CG and because its analysis is not relevant in the context of the present dissertation, CG's approach to it has not been presented.

characterization of word category schemas, to the CG and CL conviction that virtually all language phenomena, including grammar, are semantically motivated. The allegiance of CG to the embodied nature of language, another assumption of CL, is reflected in the theory's ascription to language of all the above-mentioned general cognitive processes, which are tools of bodily experience, and in its insistence on the ultimately neural enactment of cognitive and linguistic phenomena. Finally, the commitment of CG to the cognitive-linguistic usage-based conception of language transpires from the framework's view of grammar as an inventory of linguistic units of various degrees of schematicity and the attendant view of linguistic coding.

In addition to presenting all these major general characteristics that CG shares with its mother movement of CL, the present chapter has introduced a number of more specific notions and features of CG. First and foremost, the CG definition of grammar and language as a structured inventory of conventionalized linguistic units was presented. Its more detailed exposition in the remainder of the chapter allowed the introduction of a whole spectrum of notions, tools, concepts, etc., endorsed and utilized by CG. In addition, the present chapter introduced, by displaying a number of figures (e.g. Figs. 2.1, 2.2, 2.3), the special kinds of pictorial representations that CG uses to abbreviate important linguistic constructs and processes, as well as a number of notational conventions used by the practitioners of the theory. It should be conceded that although the present introduction to CG focused on the most important aspects of the framework and paid special attention to these of its elements which are deemed the most relevant in the context of the quasi-experiment reported in Chap. 5, due to the sophistication of the theory and the richness and breadth of its application it has not been, by necessity, exhaustive. Some additional details of the framework of CG are offered and explored in Chap. 3, which includes in-depth CG descriptions of a number of specific grammatical elements of English: the present tense, progressive aspect and stative (imperfective) and dynamic (perfective) verbs.

As a final step in this concluding section, a brief attempt will be made to enumerate certain differences between CG and other *cognitive approaches to grammar*, and, also, between CG and other *mentalist* (broadly cognitive) approaches.⁴² This is done in order to set CG against the background of other cognitive views of grammar. Some of these differences, however, will also signal in a preliminary fashion the pedagogical potential of the theory, which the other cognitive approaches may lack.

At the beginning of the present chapter it was asserted that CL and CG had developed in opposition to *generative linguistics*. Naturally, then, there are a number of crucial differences between the two approaches, some of which have already been mentioned in the body of the chapter. One of them was touched upon in the introductory section, where the meaning of the first word in the appellations *Cognitive Grammar* and *cognitive linguistics* was considered. The difference is that CG (just like CL) attempts to inform its linguistic analyses by what is known about

⁴² Both kinds of approaches were mentioned briefly in Sect. 2.2.

general cognition, while generative linguistics draws conclusions as to the cognitive architecture on the basis of language study. Other important differences may be easily enumerated by considering the other items on the list of the major assumptions and principles of CL given in the introduction to the present chapter: CG sees language and grammar (syntax) as non-autonomous, while generativism holds the opposite view; in CG language is embodied, whereas in generativism it has the properties of a disembodied algorithmic model; CG is usage-based, generative grammar is not. The most important difference from the point of view of pedagogic utility, though, seems to be constituted by the CG belief in the *meaningfulness* of the majority of linguistic elements (lexical, morphological, syntactic), which is spurned by generative linguistics. Commonsensically, a theory stressing the meaningfulness of all sorts of linguistic elements seems to be pedagogically superior to theories which relegate meaning to a peripheral role and posit the existence of semantically empty elements. This rings especially true in view of recent developments in foreign language pedagogy, which are presented and frequently mentioned in [Chap. 4](#) and which place a premium on meaningful language use, even when teaching the formal aspects of language. The potential pedagogical advantage of CG over generative approaches to grammar is in fact supported by the severely limited extent to which generative models have been directly applied to language teaching (cf. Odlin 1994a, p. 15; Whong 2011). Also relevant in this connection is the difference between diagrammatic representations employed by the two approaches. While generative grammar uses intricate syntactic tree diagrams treated as models of speaker knowledge (Evans and Green 2006, p. 764), CG, as has been illustrated throughout this chapter, employs pictorial representations which, because of their direct reference to meaning, seem to be more accessible and which do not aspire to directly represent native speaker knowledge. Because of their inclusion of meaning, these CG representations may turn out to be useful in language pedagogy. To summarize, a number of crucial differences exist between CG and generative approaches, some of which seem to make CG better suited to pedagogical application. Although of much lesser magnitude, certain differences also exist between CG and other cognitive approaches to grammar, which, likewise, seem to make the former a little more suitable for application in language teaching than the latter.

Although CG shares with other cognitive approaches to grammar a number of assumptions and principles, among which there is the pedagogy-friendly focus on the meaningfulness of a wide array of linguistic elements including constructions, there are nonetheless certain differences between these approaches, some of which may suggest the superiority of CG with respect to pedagogical application. First, in contrast to CG and the remaining cognitive approaches, the model of *Construction Grammar* developed by Charles Fillmore and his collaborators (Fillmore 1988; Kay and Fillmore 1999), which is often considered as an intermediate step between generative and truly cognitive approaches to grammar, is not usage-based (cf. Evans and Green 2006, p. 661). Second, unlike CG, the incarnation of *Construction Grammar* developed by Adele Goldberg (1995) and *Radical Construction Grammar* developed by William Croft (2001) do not define such basic grammatical notions as noun, noun phrase, subject, verb, etc. in

semantic terms at the schematic level (Langacker 2005a, p. 106; Broccias 2006). Consequently, these approaches recognize the level of grammatical form, which is reminiscent of autonomous grammar associated with generative approaches and makes Construction Grammar and Radical Construction Grammar less parsimonious than CG (Langacker 2005, p. 106), where no such level exists. This may give CG a pedagogical upper hand, as this model does not suggest the existence of formal elements with elusive or non-existent meanings which language learners may find extremely puzzling. Third, as Broccias (2006, p. 97) notes of the treatment by the cognitive approaches of the issue of verbal vs. constructional meaning, and this claim might be extended to other cases as well, the CG analysis “seems more consonant with truly cognitive assumptions about language [compared with construction grammars, JB and MP].” Similar in tone is the remark by the same author that Radical Construction Grammar displays some features of an objectivist view of semantics/pragmatics (Broccias 2006, p. 102), which puts it in contrast with the empiricist-embodiment view of CL and CG. To conclude, even though there is a lot of common ground between different cognitive approaches to grammar, some relatively subtle differences between them do exist and some of what distinguishes CG may well be suspected to be, *a priori*, a pedagogical advantage.

It has to be conceded, though, that other cognitive approaches to grammar, and especially Goldberg’s (1995, 2006) Construction Grammar, may also be well suited for pedagogical application, a view expressed by a number of authors (e.g. Wee 2007; Hinkel 2011; Holme 2011; Turula 2011). The reason which is often cited is that Construction Grammar is a middle-of-the-road option between two imperfect extremes. One of them is associated with generative models of grammar which are algorithmic in nature and therefore expect of learners the assembly of every utterance out of the smallest component structures. The other extreme is exemplified by the Lexical Approach (Lewis 1993, 2000), which places heavy emphasis on teaching and learning collocations and fixed expressions, at the expense of grammatical rules and patterns. According to Turula (2011, pp. 342–345), Construction Grammar avoids the problems associated with these extremes because it envisages language learning as based on both memory and pattern extraction, sees pattern formation as a function of both induction and deduction, makes room for creative use of constructions and does not neglect extra-lexical grammar. While it seems that CG, which is often licitly classified as a kind of constructional grammar, seems to offer exactly the same advantages as Goldberg’s Construction Grammar, it is possible that the differences between these two theories, although mostly a matter of shifted emphasis rather than of fundamental contrast, do make Construction Grammar better suited for pedagogical application with respect to some aspects of language. It is an empirical issue which undoubtedly deserves due investigation, but is beyond the scope of the present work. In the absence of research concerning their suitability for pedagogy, we can only express our strong suspicion that the two theories might well prove to be complementary in this regard.

In addition to the differences between CG and the other cognitive approaches to grammar, several other facts about CG should be cited as they motivated the

focus in this book on this rather than another cognitive theory. The first one is that CG is considered as the most comprehensive theory of grammar to have originated from the cognitive linguistic movement (Broccias 2006, p. 108). No doubt because of its wide scope and minute attention to analytic detail, which could only be demonstrated in the present chapter to a limited extent due to space limitations, Langacker's theory is also at present the most influential of the cognitive approaches to grammar (Evans and Green 2006, p. 480). Broccias (2006, p. 108) goes as far as to claim that in a way other cognitive theories of grammar may be viewed as notational variants of CG. All of this, it seems, makes CG a prime candidate for being tested in applications to language teaching as the most comprehensive and well-known representative of the cognitive approaches to grammar. It should be noted, however, that the theory's pedagogical suitability has been considered here in a highly preliminary and limited fashion and that much more in this regard appears in the subsequent chapters. In [Sect. 3.4](#), the CG descriptions of the English present tense and progressive aspect are compared with traditional descriptions, which brings out certain aspects of the pedagogical potential of CG; in [Sects. 4.4.1 and 4.4.2](#), the instructional potential of CG is argued for and juxtaposed with that of traditional grammatical descriptions, and the research concerning the applications of CG to grammar teaching is reviewed; finally, in [Chap. 5](#), a study is reported in which we put grammar teaching based on CG to the empirical test.

Applying Cognitive Grammar in the Foreign Language
Classroom

Teaching English Tense and Aspect

Bielak, J.; Pawlak, M.

2013, XI, 295 p.,

ISBN: 978-3-642-27455-8