Acknowledgements

It is only fitting that someone who has made such a substantial and lasting contribution to the field of linguistics over the past fifty years should be celebrated with a volume in his honour. When René Dirven turned sixty in 1992, a Festschrift was published to mark the occasion, reflecting in its contributions from all over the world his wide-ranging academic interests, passions as well as his numerous friendships and connections. His retirement from full-time professorship five years later has not slowed, however, his appetite for language research. Over the past decade René has been involved in an impressively large number of book projects, to which can be added his usual output as a researcher, writer and inquisitive thinker. More than anything else perhaps we feel it is his continued support and encouragement of others — in their own (cognitive) exploration of language and linguistics — that has been invaluable.

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Cognitive linguistic theories of grammar and grammar teaching

Cristiano Broccias

Abstract

This paper first briefly examines some of the most important theoretical approaches to grammar within the cognitive linguistic paradigm, Langacker's Cognitive Grammar, Goldberg's Construction Grammar, Croft's Radical Construction Grammar and Fauconnier and Turner's Blending Theory. It points out that there is a striking similarity between the development of (theoretical) cognitive linguistics (against the background of generative grammar) and the recent history of language teaching. Cognitive approaches to grammar are converging towards a usage-based/network model of language (i.e., a bottom-up, maximalist approach to language), which contrasts with the decontextualized view of language (i.e., a top-down, minimalist approach) espoused by generative grammarians. Similarly, language teaching in general and the teaching of grammar in particular have moved from decontextualized drilling activities to more meaningful, communicative/context-based methods, i.e., a usage-based model of language teaching. The second part argues that one obvious drawback of the usage-based model, both in language theorizing and in language teaching, is “data overload”. For example, it is not possible to say how many senses prepositions - a staple topic in discussions about applied cognitive linguistics – have or, more in general, how many extensions constructions have. Networks are in part arbitrary constructs by the linguist rather than fine-grained reflections of the language user's mind. Consequently, approaches which try to implement network analyses in grammar teaching (as is usually done in the case of prepositions) may in fact turn out to be detrimental. They impose on the non-native speaker the burden of having to also learn how (alleged) extensions came into being while no psycholinguistic and/or diachronic evidence for such extensions is offered in the first place. Hence, the third part of this paper claims that, rather than insisting on detailed elucidations of extensions from prototypes, cognitive linguistics-based grammar teaching should aim at raising language awareness by concentrating on prototypes (and their relation to basic cognitive abilities) and explicitly pointing out that non-prototypical cases may be (synchronically) motivated only to a degree. This point is illustrated for change constructions, simultaneity constructions and noun phrases against the background of the four theories briefly analysed in the first part.
Keywords: grammar; construction; Cognitive Grammar; Construction Grammar; Radical Construction Grammar; Blending Theory; pedagogical grammar; usage-based model; network model; syntax-lexicon continuum; construal; schema; extension; prototype; motivation; polysemy; change construction; simultaneity construction; caused-motion construction; noun phrase

1. What is grammar?

This paper deals with the relation between cognitive linguistic theories of grammar and pedagogical grammar (mainly for foreign students). But before discussing this topic in any detail, it is essential to first (try to) clarify what the meaning of the term grammar is. Traditionally (i.e., descriptively and pedagogically), grammar is identified with (inflectional) morphology and syntax (e.g., Quirk et al. 1985: 12). Traditional grammar concerns itself with both the shape of words and how words (and phrases) can be combined together. This view is not too dissimilar, within the realm of theoretical linguistics, from that of the generative tradition where (formal) grammar is viewed as being made up of two components (e.g., Radford 2004: Ch. 1). One component is the lexicon, a list of unpredictable forms, and the other component is a system of productive rules (the syntax), which specifies how lexical items are to be combined together. The traditional and formal uses of the term “grammar” contrast with the view espoused by cognitive linguistics, where the term grammar tends to be used in a more general fashion. Still, “grammar” will have to be understood in its traditional sense when I discuss the relevance, if any, of cognitive linguistic models to pedagogical grammar. In what follows, I will in Section 2 briefly sketch out the main assumptions underlying some of the most important cognitive grammar approaches (for a fuller description and evaluation, see Broccias 2006c). In Section 3, I will comment on the relation between cognitive linguistics and contemporary teaching methodology stressing the importance of pedagogical grammar despite the growing consensus on a usage-based model for language analysis. Section 4 tries to evaluate what the most important aspects of cognitive grammar approaches are for pedagogical grammar (i.e., networks, prototypes, and attention to constructions). Section 5 draws the conclusions.

2. Cognitive grammar models

2.1. Cognitive Grammar

Langacker’s Cognitive Grammar views grammar as “a structured inventory of conventional linguistic units” (Langacker 1987: 37). Any linguistic expression is defined as an association between a semantic and a phonological structure, i.e., any linguistic expression is a symbol. For example, the lexical item cat is regarded as consisting of a semantic pole (i.e., what would traditionally be called both its denotative and its connotative meaning, abbreviated as [CAT]) and a phonological pole (abbreviated as [kæt]). A linguistic unit is a symbolic structure which has unit status, i.e., it is accessed in largely automatic fashion or, to put it differently, is entrenched. Further, a linguistic unit is conventional if it is shared by a substantial number of individuals. By the term “inventory” in his definition of grammar, Langacker means that a grammar is not a generative algorithm but, rather, a collection of conventional symbolic units. Crucially, such an inventory is not a list, but is structured (i.e., it is a network) because symbolic units, as schemas abstracted from usage events, are related by way of categorizing relationships. For example, the clause I love you is an instantiation or elaboration of the transitive construction; down meaning “sad,” is a metaphorical extension of down from the spatial domain to that of psychological states.

It should be pointed out that the definition of grammar above does not impose any restrictions on the complexity and specificity of linguistic units. Linguistic units can be of any length. Grammar includes symbolic assemblies of any internal complexity rather than just atomic units like cat. Complex constructions like the ditransitive construction (e.g., He gave her a present) are part and parcel of grammar. Further, linguistic units can be of any degree of specificity. Grammar includes both very specific patterns (e.g., I love you, which can be considered an entrenched unit in the English language although its meaning is transparent, unlike idioms such as kick the bucket, give up the ghost, etc.) and general schemas that may subsume them (e.g., grammar includes the transitive construction, of which I love you is an elaboration or instantiation). From these two observations regarding complexity and specificity, it follows that there are no clear boundaries between what are traditionally referred to as the lexicon, morphology, and syntax (this is known as the Syntax-Lexicon Continuum hypothesis). These labels refer to symbolic assemblies differing from one another only in terms of structural complexity and schematicity (or specificity), as is illus-
Cognitive linguistic theories of grammar and grammar teaching

Table 1. The syntax-lexicon continuum

<table>
<thead>
<tr>
<th>Construction type</th>
<th>Traditional name</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>complex and (mostly) schematic</td>
<td>syntax</td>
<td>noun verb noun (i.e., the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>transitive construction),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adjective noun (i.e., a noun</td>
</tr>
<tr>
<td>complex and (mostly) specific</td>
<td>idiom</td>
<td><strong>I love you, black cat</strong></td>
</tr>
<tr>
<td>complex but bound</td>
<td>morphology</td>
<td>noun-s</td>
</tr>
<tr>
<td>atomic and schematic</td>
<td>word class</td>
<td>verb, adjective, noun,</td>
</tr>
<tr>
<td>atomic and specific</td>
<td>word/lexicon</td>
<td>love, black, cat, I, you</td>
</tr>
</tbody>
</table>

Although the symbolic links between the semantic pole and the phonological pole of a construction may often be regarded as arbitrary (e.g., it is arbitrary that a doer is often signalled morphologically by way of the -er morpheme), Cognitive Grammar does not neglect the issue of motivation behind symbolic links. For example, the form of the prepositional dative construction (e.g., *He sent a letter to Susan*) is not arbitrary but emphasizes the possessive relation between Susan and the letter by way of their "juxtaposition and linear order" (Langacker 1987: 39), as is signalled by the motion preposition to. Conversely, the double object construction (e.g., *He sent Susan a letter*) is said to emphasize the possessive relation between Susan and the letter by way of their "views" on a common conceptual content. The prepositional dative construction construes transfer of possession in motion terms while the double object construction construes transfer of possession in terms of its outcome, i.e., the establishment of a relation of possession (or, more generally, control) between the indirect object and the direct object.

Although Cognitive Grammar emphasizes the emergence of linguistic units out of specific usage events (i.e., it is a usage-based model of language), Langacker strives to offer a conceptual (i.e., form-independent) and universal (i.e., valid for all languages) definition of grammatical (or syntactic) functions (also known as grammatical/syntactic relations or roles) and word classes (also known as parts of speech or lexical categories).

In Cognitive Grammar, "subject" for example is regarded as a universal notion ultimately based on the (perceptual) distinction between figure and ground, viz. trajector and landmark, configurations in a scene. As is well-known from Gestalt psychology (for an overview, see Ungerer and Schmid 2006: Ch. 4),² certain objects function as primary foci of attention (e.g., smaller and/or moving objects as opposed to larger, static objects). A sentence like *The table is under the book* (employed to convey the scene depicted by *The book is on the table*) is felt to be deviant because it reflects a non-canonical perception of the intended spatial configuration. A smaller object like a book is usually chosen as the primary focus of attention (or trajector, in Cognitive Grammar terminology) whereas a larger object like a table functions as a secondary focus of attention (or landmark, in Cognitive Grammar terminology). Cognitive Grammar proposes that subject is a universal category in that it can be defined schematically by characterizing it as a clause-level trajector. Similarly, object can be defined schematically as a clause-level secondary figure or landmark.

In addition to its schematic conception of grammatical relations, Cognitive Grammar also provides a schematic characterization of word classes. Cognitive Grammar contends that parts-of-speech can not only be defined prototypically (e.g., a noun prototypically refers to a physical object) but can also be described in a manner which is valid for all its instantiations. Consider nouns and verbs. (The semantic pole of) a noun is characterized as a "thing," a technical term in Cognitive Grammar referring to a set of interconnected entities. The noun *team* (see Langacker 1987: 197), for instance, profiles a set of entities rather than singling out any constituent member. (The semantic pole of) a verb depicts a process (or temporal relation), i.e., a relation between two entities scanned sequentially. The verb *kiss*, for example, refers to the relation between a "kisser" and a "kissed" entity whose various parts (i.e., the constituents into which the kissing event can be broken down) we conceptualize successively as in a motion picture (rather than apprehending as a single gestalt).


2.2. Construction grammars

2.2.1. Goldberg’s Construction Grammar

Goldberg’s (1995) Construction Grammar originally posited constructions in grammar (i.e., in the language system) if and only if some aspect of their meaning was regarded as “not strictly predictable from [the construction’s] component parts or from other previously established constructions” (Goldberg 1995: 4). For example, a sentence like Sam slept the whole trip away is said to be unaccounted for by the syntactic rules of English (e.g., *sleep a trip* is not a possible string in English) and, hence, a construction with the syntax “Subject Verb Object (referring to time) away” and the meaning (roughly) “to spend the specified amount of time by being constantly engaged in the activity denoted by the verb” should be recognized as a unit in the grammar of English. More recently, however, Goldberg (e.g., Goldberg 2006) has opted for a more comprehensive definition of construction, i.e., one along the lines of both Cognitive Grammar and Radical Construction Grammar. Constructions should be posited in grammar even if they are fully predictable (e.g., I love you vs. kick the bucket) and all the types listed in Table 1 should be categorized as constructions. This in turn implies that, as in Cognitive Grammar and Radical Construction Grammar, no strict separation is postulated between what are traditionally called the lexicon and syntax. Rather, they are taken to form a continuum.

Despite the use of a more inclusive notion of construction in recent work, Construction Grammar still draws a sharp distinction between constructional meaning and word meaning. As is pointed out by Langacker (2005), Construction Grammar aims at minimizing lexical polysemy in favour of constructional polysemy. Consider the verb slice, which can be used in a variety of constructions, as shown in (1) (from Goldberg 2006: 7):

(1) a. He sliced the bread. [transitive]
b. Pat sliced the carrots into the salad. [caused motion]
c. Pat sliced Chris a piece of pie. [ditransitive]
d. Emeril sliced and diced his way to stardom. [way construction]
e. Pat sliced the box open. [resultative]

Construction Grammar argues against postulating five different senses for slice (as would be done in traditional generative approaches, where constructions are projected from a verb’s argument structure). Rather, slice, meaning simply “cut with a sharp instrument,” is claimed to combine with five different constructions (or argument structure constructions), all of which are independently stored in the grammar of English. For example, the verb’s participant roles, which can be dubbed “slicer” and “sliced,” fuse respectively with the arguments causer and theme of the caused motion construction in (1b). Further, the caused motion construction provides a goal argument, realized as the PP into the salad.

It should also be pointed out that, as in Cognitive Grammar, grammatical knowledge is represented in networks in Construction Grammar. But, instead of categorizing relations, Construction Grammar makes use of inheritance links (as in computer science) to relate constructions to one another. Construction Grammar allows for multiple inheritances, i.e., a construction can be categorized by two (or more) independently established constructions. For example, the intransitive motion construction (e.g., The car screeched around the corner) inherits from both the intransitive construction (since motion is predicated of one of the constructional elements, i.e., the subject) and the caused-motion construction (since motion is predicated of one of the constructional elements, i.e., the subject).

Four major types of inheritance links are recognized: polysemy links, metaphorical extension links, subparts links and instance links (see Goldberg 1995: 74–81). Polysemy links and metaphorical links roughly correspond to extension relations in Cognitive Grammar. Construction Grammar claims for example that the double object construction has a variety of senses which can be viewed as extensions (via polysemy links) from the central sense “[a]gent successfully causes recipient to receive patient” (see Goldberg 1995: Figure 2.2). A metaphorical link connects the caused motion construction and the resultative construction (see (1d) and (1e) above) in that the latter is said to have originated from the former via the metaphorical construal of states (e.g., crazy in Chris drove Pat crazy) as locations. A subpart link is posited when a construction is “a proper subpart of another construction” (Goldberg 1995: 78). The intransitive motion construction is linked to the caused-motion construction via such a link since the former is a proper subpart of the latter (the only missing element in the intransitive motion construction is the “cause” argument; for a different view see Broccias 2003: Ch. 5). Finally, instance links correspond to elaborative categorization in Cognitive Grammar. This obtains when a con-
struction specifies another construction in more detail (e.g., Chris drove Pat crazy instantiates the schematic resultative construction).

The importance of constructions in language acquisition has been discussed in various works (e.g., Tomasello 2003; Goldberg 2006) and needs to be summarized here because it has obvious implications for pedagogical grammar. It has been observed that category formation (in general, i.e., including non-linguistic categories) is influenced by frequency and order: high token frequency (e.g., of a particular verb) facilitates category learning (e.g., of the argument structure that a particular verb realizes) and presenting core category members first (rather than interspersing them with other less-core members in no particular order) also plays an important role.

Goldberg (2006) also addresses the issue of how overgeneralizations are blocked in language acquisition. For example, how do English speakers learn that only (2b) is well-formed?

(2)  
   a. *She explained me the story.  
   b. She explained the story to me.

Goldberg argues that pre-emption and openness are two crucial factors. If the learner consistently hears, e.g., the pattern in (2b) where she would expect (2a) to be used, then she can conclude that (2a) is not appropriate (pre-emption is therefore an instance of indirect negative evidence). Secondy, learners seem to use a new verb in a certain argument structure construction only if the verb is close enough in meaning “to verbs they have already heard used in the pattern” (Goldberg 2006: 99). This is consonant with the view that children are conservative in making generalizations. Still, it has also been remarked that children are quick generalizers. Generalizations are of course needed in order to understand and produce new utterances. If we simply memorized the sentences we have heard, communication would not be possible. Goldberg (2006) shows that we rely on constructions because they are as good predictors of overall sentence meaning as verbs and they are much more available (than specific verbs). The reliance on constructions has also been confirmed in second-language acquisition at least in the case of advanced learners (of English), see e.g., Valenzuela and Rojo (this volume), Gries and Wulff (2005).¹

2.2.2. Radical Construction Grammar

In contrast to Goldberg’s Construction Grammar, which is partly indebted to Fillmore’s non-commitment to a fully cognitive linguistic model, Croft’s (2001) Radical Construction Grammar is claimed to be radical for four reasons. Firstly, grammatical categories (i.e., word classes and syntactic roles) are not viewed as primitives but are argued to be construction-specific. One of the greatest merits of Radical Construction Grammar is to have exposed the circularity inherent in much of modern syntactic argumentation. Constructions are used to define categories (this is known as the distributional method) and then the categories so established are used to define (or categorize) other constructions. As a matter of illustration, consider how direct object status is evaluated in English (see Croft 2001: 35–45). Croft points out that, traditionally, passivizability – the fact that the alleged direct object in an active sentence can become the subject of the corresponding passive sentence, see (3a) vs. (3a’) – is taken to be the defining criterion for direct object status. Consequently, 80 kg in (3b) may not be categorized as a direct object by some linguists: no corresponding passive sentence is possible, see (3b’). By contrast, objects of prepositions may sometimes be passivized, see (3c’). This would lead us to classify such objects as direct objects. The problem here is that the choice of passivization (over, for example, obligatory presence vs. absence of a preposition after the verb) as the defining criterion for direct object status is not theoretically motivated. Further, there is no a priori reason why we should group different cases into the same category. In fact, a Radical Construction Grammar analysis would claim that the three sentences at hand contain three different types of “objects” whose properties overlap only partially: John immediately follows the verb and can become the subject of a passive sentence; 80 kg cannot become the subject of a passive sentence but, like John, occurs immediately after the verb; this house, like John, can become the subject of a passive sentence but, unlike John and 80 kg, is separated from the verb by a preposition.

(3)  
   a. A mule kicked John. 
   a’. John was kicked by a mule. 
   b. John weighs 80 kg. 
   b’. *80 kg are weighed by John. 
   c. Hemingway lived in this house. 
   c’. *This house was lived in by Hemingway.
The second reason why Radical Construction Grammar is radical is because constructions are taken to be the basic units of syntactic representation. This assumption is also shared by Cognitive Grammar and Construction Grammar (at least in its latest implementations) and was illustrated in Table 1 above.

Thirdly, Radical Construction Grammar is radical because syntactic relations are claimed not to exist. Croft argues that the term "syntactic role" should be used instead. He points out that the term "subject," for example, can be used in two different ways (e.g., Croft 2001: 24; Croft and Cruse 2004: 285-286). "Subject" can be used to refer to the syntactic relation between an element of a construction and another element (the verb), e.g., we say that Heather is the subject of sings in Heather sings. "Subject" can also be used to refer to the role that an element has in a construction, i.e., the part-whole (or meronomic) relation of an element with the whole construction. For example, we say that Heather has the role subject in the intransitive construction Heather sings. The crucial point here is that Croft uses the term "syntactic relation" in a traditional (formal) sense, whereby a syntactic relation like subject is taken to be construction-independent by definition – cf. the Government and Binding Theory configurational definition of subject as the Specifier of an Inflectional Phrase or [Spec, IP] – and does not necessarily symbolize any semantic content. Since the only entities which should be posited in grammar according to Croft are constructions (as well as relations among them), it follows that syntactic relations (as construction-independent objects) must be dispensed with. Accordingly, Radical Construction Grammar only uses the term role, which refers to the relation between an element and the whole construction rather than the relation between an element and another element within the same construction.

Finally, constructions are said to be language-specific: no two constructions can be assumed to be identical across languages. This assumption is also shared by Construction Grammar and Cognitive Grammar.

In sum, Radical Construction Grammar can be described as a usage-based model: grammar is maximalist and bottom-up, rather than minimalist and top-down (like formal approaches). It consists of taxonomic hierarchies of constructions which include very specific constructions (e.g., kick the bucket, kick the habit) as well as more general schemas abstracting away their commonalities (e.g., a transitive schema for kick, a general transitive schema, etc.). A self-explanatory example of the kind of taxonomy assumed in Radical Construction Grammar is offered in Figure 1 below (adapted from Figure 1.15 in Croft 2001: 56).
referring, attributive, and predicating constructions are the semantic classes of objects, properties, and actions, respectively, i.e., we prototypically refer to objects, modify cognitive files by attributing properties to entities and predicate actions of entities. It should be observed that these semantic classes are only a small subset of the semantic classes of words found in human languages (and are defined in terms of four semantic properties, namely relationality, stativity, transitoriness, gradability, see Croft 2001: 87). Parts-of-speech in a given language can therefore be represented onto a bi-dimensional space (a semantic map) defined by the dimensions “discourse functions” and “semantic classes.” Nouns, adjectives, and verbs are viewed as the (prototypical) pairings of reference/object, modification/property, and predication/action respectively. This is shown in Table 2 (adapted from Table 2.3 in Croft 2001: 88). “Unmarked” means that no derivational morphemes are employed, e.g., cat is an unmarked noun while happiness is a marked, deadjectival noun.

Table 2. The two-dimensional space for English parts of speech

<table>
<thead>
<tr>
<th>semantic class</th>
<th>discourse function</th>
<th>objects</th>
<th>properties</th>
<th>actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>reference</td>
<td>UNMARKED</td>
<td>deadjectival</td>
<td>action nominals, complements, infinitives, gerunds</td>
</tr>
<tr>
<td></td>
<td>modification</td>
<td>genitive, adjectivalizations, PPs on nouns</td>
<td>UNMARKED ADJECTIVES</td>
<td>participles, relative clauses</td>
</tr>
<tr>
<td></td>
<td>predication</td>
<td>predicate nominals, copulas</td>
<td>predicate adjectives, copulas</td>
<td>UNMARKED VERBS</td>
</tr>
</tbody>
</table>

2.3. Blending Theory

Fauconnier and Turner’s (2002) Blending Theory is not a theory of grammar as such. Rather, Fauconnier and Turner show that the basic conceptual operation of blending should be invoked to account for a variety of grammatical constructions, including “simple” syntactic patterns like adjective-noun combinations (e.g., red pen, safe beach) and noun-noun combinations (e.g., land yacht). Structure from two (or more) input mental spaces is projected into a separate space, the blend, where it is integrated into a single conceptual unit. Crucially, the blend can develop structure of its own (i.e., structure which was not present in either input), known as emergent structure. Blending Theory points out that both in supposedly (semantically) simple cases like red pen and more exotic cases like land yacht (used to refer to a large, luxurious car) we resort to identical complex mental operations.

Consider the noun-noun combination land yacht. The conceptual pole of this noun phrase results from the blending of two input spaces. One input involves water, a skipper, a course, a yacht, and a tycoon; the other space includes land, a driver, a road, a car, and an owner. These elements from the two inputs are put into correspondence with one another (so that water corresponds to land, skipper to driver, etc.) and some of them (e.g., tycoon/owner and car/yacht) are projected into the blend so as to create emergent structure: a land yacht names a new object, which is neither a generic car nor a yacht.

Let us now analyse the adjective-noun combination red pen. This noun phrase is deceptively simple. It could mean a pen whose case is red, a pen whose ink is red, a pen whose cap is red, a pen “used to record the activities of a team dressed in red” (see Fauconnier and Turner 2002: 355), and so on. In other words, we integrate (as was the case with land yacht) two input spaces, one containing the colour red and the other containing the pen plus, if necessary, relevant frames (i.e., scenarios) in which the pen plays some role (e.g., a frame describing the use of the pen to record the activities of a team). The operation of conceptual integration takes place by virtue of the correspondences established between the two inputs (e.g., between the colour of the pen cap and the colour red) and by projecting the pen and the colour red into the blend. The fact that certain interpretations seem to be simpler and more accessible than others is simply due to the existence of strong defaults: “... simplicity of form, conventionality of vocabulary, and frequency of use [do not] indicate simplicity of underlying conceptual organization” (Fauconnier and Turner 2002: 365).
It should also be observed that conceptual integration can go hand in hand with formal integration. This is the case, for example, of the word Chunnel, which is used to refer to the underwater tunnel connecting England and France. Morphologically, tunnel and Channel (i.e., the English Channel) are blended into a single word by substituting the phoneme /æ/ of Channel with /ʌ/ from tunnel. The formal integration mirrors the conceptual integration whereby the frame of a tunnel is put into correspondence with the frame of the specific stretch of water separating England and France.

Fauconnier and Turner claim that blending can also occur between a construction and a diffuse (or unintegrated) input. They illustrate this point by analyzing the resultative construction (e.g., I boiled the pan dry) and the caused motion construction (i.e., Goldberg’s 1995 famous example He sneezed the napkin off the table). They regard specific instantiations of these two constructions as originating from the blending of an input space which contains the schematic construction (represented in a Goldbergian format as a pairing of semantics and syntax) and an input containing the actual event sequence of sneezing and the napkin’s falling off the table. Importantly, in the blend it is as if the subject referent acted directly on the napkin (or, in the resultative example, the pan), see Fauconnier and Turner (2002: 178–179). We compress the diffuse event sequence into a scenario where an agent acts on object thus causing its displacement (or change of state in a resultative example).

In sum, one of the important lessons to be learnt from Blending Theory is that very complex conceptual operations can often (as shown for English in Section 4) be coded through apparently “simple” structures.

3. Do we need pedagogical grammar within a usage-based model of language?

The development of (theoretical) cognitive linguistics, if set against the background of generative grammar, has a striking similarity with the recent history of language teaching. As was shown in the preceding sections, cognitive approaches to grammar are converging towards a usage-based network model of language, which is bottom-up (constructions or schemas emerge out of specific usage events as generalizations over them) and maximalist (specific instantiations as well as general schemas that subsume them are both postulated as being part of our knowledge of language). This model contrasts with the largely decontextualized view of language espoused by generative grammarians, where syntax is an autonomous component of the (autonomous) Language Faculty. The Chomskyan model is top-down (syntactic templates simply result out of the setting of language-universal parameters) and minimalist (redundancies are eliminated programmatically). Admittedly, however, even within the generative camp, researchers (e.g., Jackendoff and Culicover 2005) have stressed the impossibility of syntactic analyses which dispense with semantic/pragmatic considerations. That is, not only is a clear-cut distinction between lexicon and grammar suspicious (see also Culicover 1999) but the very notion of autonomous levels of linguistic analysis is probably untenable. In a similar vein, it is well-known that language teaching has moved from decontextualized drilling activities to more meaningful, communicative, and context-based methods, i.e., what could be termed a usage-based model of language teaching (see, e.g., Harmer 2001 for a useful overview).

There are further similarities between the development of cognitive linguistics and language teaching. For example, Willis’s lexical approach (e.g., Willis 1990; Lewis 1993, 1997) bears strong resemblance to constructivist approaches to grammar. In both cases, it is recognized that language consists not of traditional grammar and vocabulary but often of multi-word prefabricated chunks” (Lewis 1997: 3), e.g., sentences like I’ll see what I can do, I’ll be back in a minute, etc., despite the fact that many of them are fully transparent in terms of their meaning (unlike idioms such as kick the bucket). Clearly, such “chunks” are located midway between what is traditionally assumed to be the lexicon (as a repository of unpredictable forms) and grammar (as a repository of highly schematic patterns).

The development of cognitive approaches to grammar in terms of the usage-based model obviously raises the question of whether cognitive linguistics should therefore simply advocate “exposure to large quantities of natural speech in context ... and significant immersion in the target language” (Chen 2004) in the case of second language acquisition. After all, massive exposure to language input is what first language acquisition depends on and it would be, at least counterintuitive, to think that this is not also relevant to second language acquisition (e.g., Ellis 2002), although fossilization (e.g., Selinker 1972) is a well-known phenomenon by which exposure to the “correct” input does not result in any changes in the non-native’s output. In fact, the argument that explicit instruction may not be necessary (if not counterproductive) is also a well-known issue in the language teaching literature. For example, Allwright (1979: 170) famously claimed that if learners are involved “in solving communication problems in the target language, then language learning will take care of itself.”
It follows that the same objections that have been raised against the type of argument put forward by Allwright can be made in the case of cognitive approaches to grammar teaching. The discussion of language learning cannot be divorced from issues such as the age of the students, their level of proficiency, their motivation, their education, and the environment where a language is being learned (Harmer 2001: 72). Consequently, pedagogical grammar cannot easily be dispensed with. At the very least, pedagogical grammar may be conducive to what Schmidt (1990) calls “noticing,” i.e., the process of becoming aware of, e.g., constructions that differ importantly from language to language (see also Batstone 1994 and McCarthy and Carter 1995 on the importance of discovery in language learning).

Having established that pedagogical grammar is unlikely to be dispensed with (even within a usage-based theory of language), we can now tackle the question of how the various cognitive approaches to grammar can be put into effect in pedagogical grammar teaching. In particular, I will discuss the notions of network, prototype, and construction and try to assess their relevance to pedagogical grammar. My main contention is that cognitive approaches to grammar may not necessarily result in a new methodology but may nevertheless highlight the importance of claims that have already appeared in the literature on language teaching in general and grammar teaching in particular.

4. Networks, prototypes and constructions

It is usually argued that one of the major applications of cognitive grammar approaches to pedagogical grammar is the use of semantic networks (e.g., Tyler and Evans 2005). Langacker’s Cognitive Grammar and Goldberg’s Construction Grammar underline that constructions are related to one another by way of categorizing relationships or inheritance links. Hence, it is suggested that showing how, e.g., the various senses of prepositions (such as over) can be linked to a prototypical sense may help foreign learners of English, who would not simply have to rely on rote learning but could be aided by establishing conceptual links between apparently different uses. As was shown above, the use of networks is also common in the case of syntactic constructions (to be understood here in the traditional sense of combinations of syntactic phrases). Quite recently, for example, Goldberg (2006), relying on work carried out with Del Giudice (see Goldberg and Del Giudice 2005), has argued that so-called Subject-Auxiliary Inversion constructions, see (4) below, form a natural category in that they can all be regarded as extensions from a prototype:

(4) a. Did she go?
   b. Had she gone, they would be here by now.
   c. Seldom had she gone there...
   d. May a million fleas infest his armpits!
   e. Boy did she go!
   f. He was faster at it than was she.
   g. Neither do they vote.
   h. So does she.

Goldberg claims that all the types exemplified in (4) can be traced back to a prototype (for non-prototypical sentences) which is non-positive, non-predicate focus, non-assertive, dependent, and non-declarative (for more details, see Goldberg 2006: Ch. 8).

Although such attempts (both at word-level and at construction-level) at network building are most welcome (first of all from a theoretical point of view) because they show the non-arbitrariness of grammar, it remains to be established empirically whether they are indeed of crucial importance in second language acquisition. As is well known, Sandra and Rice (1995) have questioned network analyses (of prepositional meaning) in the sense that they observe that language users do make very general distinctions (e.g., temporal vs. spatial uses of prepositions) as well as fine-grained ones, but it is difficult to establish the exact level of granularity at which such distinctions are made. Further, the types of categorizing relations between the various senses of, e.g., prepositions may sometimes not stand up to closer scrutiny (as argued by Broccias 2005). This means that too much insistence on the use of network models in second language acquisition may not be warranted after all. We may impose a further burden on language learners, namely that of having to learn links (between senses) which may not be correct in the first place.

A simple solution to this problem (the importance of inheritance links in our theoretical view of grammar and its actual relevance to language teaching) lies, I believe, in the very nature of Cognitive Linguistics. As was pointed out above, the model of language that emerges from the cognitive enterprise is one where both very specific schemas and general schemas coexist. Further, it has been shown in Section 2.2.1 that the creation of categories is influenced by factors such as frequency and order. From the point of view of pedagogical grammar, this means that learners (as is al-
ready the case in most contemporary teaching methods) should be exposed to a graded input, which first relies on numerous prototypical cases and then moves on to non-prototypical uses (thus enabling both the creation of low-level schemas for specific cases and general schemas capturing generalizations across the low-level schemas). There is no doubt, for example, that prototypical uses of prepositions (e.g., spatial meanings of *over*) or positive sentences (such as *She went...*) should be presented before non-prototypical cases. Still, we should not push too far the quest for motivation (for the existence of the non-prototypical cases) in language teaching. Rather, we should strive to point out non-prototypical uses to foreign learners (because foreign learners are most likely to get these wrong) reminding students that, although such uses may be motivated, it may be difficult to pinpoint the exact factors leading to their existence. This process of course would enhance students’ “attention” (and reduce students’ possible perception of the arbitrariness of language) but would not cancel the need for rote learning.

As a matter of illustration, consider the uses of the preposition *in* in (5).

**We may well be able to motivate such uses, which usually cause problems for foreign learners since they are often realized with different prepositions in other languages (as indicated for Italian in parentheses).**

(5) a. *I like walking in the rain.*  
   Italian: ‘sotto la pioggia,’ Lit. ‘under the rain’  
   b. *Please fill in the form in ink.*  
   Italian: ‘a penna,’ Lit. ‘at (i.e., with) pen’  
   c. *Who’s the girl in the pink top?*  
   Italian: ‘con la maglia rosa,’ Lit. ‘with the pink top’  
   d. *He was talking in a stupid voice.*  
   Italian: ‘con una voce stupida,’ Lit. ‘with a stupid voice’

Still, even if motivation is provided for such cases (by noticing also that Italian often uses *with* where English has *in*), students still need to learn them by heart. That is, the real contribution of cognitive linguistics is here to focus students’ attention on troublesome patterns and to suggest that the patterns are motivated extensions from a prototype. But the exact details of the extension links are not of primary importance to foreign learners in that they should aim to access such uses automatically, i.e., without much constructive effort.

Similarly, in the case of subject-auxiliary inversion, it may of course be of great help for students to recognize that various constructions exhibiting inversion are related to each other to some degree but this does not mean that students will not have to be exposed to a great deal of examples to strengthen the entrenchment of cases like those illustrated in (4). To be sure, it should be pointed out that all the constructions in (4b)-(4h) have the same structure as interrogative sentences, see (4a), because this may help students remember the correct order of the elements in the inverted patterns. Indeed, in some cases, the notion of inheritance may prove of vital importance to help students come to terms with complex inversion structures like (6) below:

(6) *The house was still. All London seemed still. Only, presently, did there rise, from the room below, the muffled throb of Mr Leonard’s murmur* [emphasis in roman mine], *which told her he was hard at work again ...* (Sarah Waters, 2006: 160)

The construction used in (6) results from the blending of two inversion constructions. One is of the type illustrated in (4), which requires subject-auxiliary inversion, and the other is the verb group-subject inversion investigated within a cognitive linguistic framework by, e.g., Chen (2003). The latter construction is usually used for presentational sentences (where a setting is introduced first and the primary figure is placed at the end of the sentence in order to foreground it), as is shown in (7):

(7) *There rose from the room below the muffled throb ...*

Instead of a referential prepositional phrase at the beginning of the sentence (e.g., *From the room below rose the muffled throb...*), (7) contains “expletive” *there* (which could be said to refer to an abstract setting further specified later on in the sentence by *from the room*). This spatial-inversion construction is blended with the one illustrated in (4c) since it contains the restrictive adverb *only*. Consequently, an auxiliary (*did*) is placed after *only*. Interestingly, the inverted subject in (6) is *there*, i.e., *there* is treated structurally in the same way as in questions like *Is there any sugar left?*, although not all scholars may be comfortable with this analysis. Some may regard (at least semantically) the *muffled throb* as the subject (on the analysis of *there* as a subject see Langacker 1991: 351–355).

In sum, cognitive models of grammar can contribute much to pedagogical grammar by leading learners to “noticing.” This is especially so in the case of English, where the existence of “idiosyncratic” constructions (traditionally understood) may pose more problems for learners than in other...
languages (see also Goldberg 2006: 120). One more example will suffice. Consider (8) below, from the very beginning of J.K. Rowling’s Harry Potter and the Philosopher’s Stone (i.e., Harry Potter and the Sorcerer’s Stone in the American edition):

(8) ... Mrs Dursley gossiped away happily as she wrestled screaming Dudley into his high chair. (Rowling 1997: 7–8)

(8) is a very interesting example because it blends various construction types in just two clauses. The first clause contains the verb-away construction which is used “with intransitive verbs ... in order to indicate that the process or activity continues throughout a period of time” (see the Particles Index in Collins Cobuild Phrasal Verbs Dictionary (Moon 2002); examples are bang away, grind away, slog away, work away, talk away, etc.). The first clause also makes use of what could be termed the “verb -ly adverb construction,” which occurs very frequently in J.K. Rowling’s novels. It is a device which allows the author to describe in a very compact way what action is being carried out as well as the concurrent (esp. emotional) state in which its doer is (i.e., the manner in which the verbal event is carried out: Mrs Dursley seems to be happy while gossiping all the time, see e.g., Geuder 2000). The notion of simultaneity is also relevant to the use of the immediately following as-clause, which is one more pattern foreign learners of English may have problems with (as the author has noticed repeatedly, although informally, when teaching English to his students). Simultaneity between two events in English can be expressed in various ways (see Broccias 2006a, 2006b; Schmiedtova 2004), among which are the use of as-clauses and while-clauses. One of the striking facts about these two simultaneity clause types is that they tend to be used differently and that as-clauses tend to be more frequent (at least in novels) than while-clauses. In general, as and while-clauses reflect different construals of external reality. As-clauses are preferred with relatively short actions and/or when verbs of change (of either state or motion) are used. Since motion is evoked in the temporal clause, we “correctly” expect the use of as rather than while. Finally, (8) also contains a caused motion construction (within the as-clause). Wrestle is used as a verb of caused motion (because Dudley is caused to go into his high chair) although, on its own, wrestle may not necessarily be categorized as such.

To conclude, examples like (6) and (8) clearly illustrate (in the case of the English language) the pedagogical grammar fallout of the attention paid by cognitive linguistics to “idiosyncratic” structures. The role of the teacher here is that of a facilitator, i.e., s/he can highlight potentially problematic constructions to second language learners by pointing out how such constructions tie in with the grammar of English as a network of related constructions.

5. Conclusion

It may be unlikely that cognitive linguistics will result in a radically new teaching methodology both in the specific case of pedagogical grammar and in language teaching in general. Rather, cognitive models of language highlight certain aspects of already existing language teaching methodologies which deserve further attention, namely: (i) the need for combining drilling activities (which are conducive to the entrenchment of prototypes) with communicative-based tasks when acquiring grammatical structures (this follows from Langacker’s view of grammar as a structured inventory of conventional linguistic units, i.e., units shared by a sufficiently large number of speakers); (ii) the emphasis on the nature of language as a network (i.e., grammatical structures are related to each other); and (iii) the importance of motivation, construal, and blending in the shaping of grammar, which can be related to our basic physical/psychological experiences (although the exact details of how this is the case may be an open question). Having said this, we should however recognize that cognitive linguistics will be able to contribute enormously to pedagogical grammar (at least in the case of English) thanks to its attention to constructions, especially if they are understood traditionally as combinations of syntactic phrases. The proponents of the lexical approach have already commented on the importance of “word prefabricated chunks” in language learning. Cognitive linguistics provides theoretical and experimental evidence in support of this claim and, hence, we should expect future pedagogical grammars to include much more discussion of constructions (along the lines of the previous section, for example), rather than focussing, more traditionally, on words.

Notes

1. A second reason why constructions emerge is that the use of a certain construction primes the use of the same construction (see Goldberg 2006: Ch. 6).
2. Table 2 is not the complete map of English part of speech constructions (see Figure 2.3 in Croft 2001: 99). But it will suffice for our present purposes.

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Corpora, cognition and pedagogical grammars: An account of convergences and divergences

Fanny Meunier

Abstract

The present paper addresses the convergences and divergences between cognitive and corpus linguistics with a view to determining if and how those two fields could meet not only in describing and analysing English grammar, but also in integrating the results of the analyses in pedagogical grammars. The presentation of the converging and diverging forces is followed by a discussion of the major obstacles to writing corpus- and cognitively-informed pedagogical grammars. The final section discusses future prospects and challenges in the writing of such grammars by using a question-and-answer approach. The notions of principled eclecticism and prioritization are presented, together with some methodological guidelines and illustrations.

Keywords: corpus linguistics; cognitive linguistics; pedagogical grammar; principled eclecticism; prioritization

1. Introduction

This article aims to outline the convergences and divergences between cognitive and corpus linguistics approaches to language within a pedagogical perspective. The applied aspect of the present volume being that of a pedagogical grammar, the core questions can therefore be stated as follows: First, under what conditions can cognitive linguistics and corpus-based studies meet in analysing English grammar? And secondly, how can their respective findings be merged to help learners of a second or foreign language get to grips with aspects of English grammar?

To address these issues, Sections 2 and 3 sketch out the similarities and differences between the two fields. Section 4 consists in a critical account of the obstacles that may hinder the actual writing of corpus- and cognitively-informed pedagogical grammars. In the light of the findings presented, the concluding section aims to answer the research questions using...