

## Oxford Handbooks Online

### Cognitive Grammar

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The Oxford Handbook of Construction Grammar

*Edited by Thomas Hoffmann and Graeme Trousdale*

Print Publication Date: Feb 2013

Subject: Linguistics, Morphology and Syntax

Online Publication Date: Dec  
2013

DOI: 10.1093/oxfordhb/9780195396683.013.0011

#### **[–] Abstract and Keywords**

This chapter offers an overview of Ronald Langacker's Cognitive Grammar (CG), with special reference to the relation between CG and constructionist approaches. It explains that although CG was developed prior to constructionist approaches, it shares many assumptions with them. CG views language as being grounded in embodied human experience and language-independent cognitive processes, and it assumes grammar to be inherently meaningful, and that language consists of form-meaning pairings or assemblies of symbolic structures. The chapter also addresses the relation between lexemes and constructions and discusses semantic and grammatical roles in CG.

Keywords: Cognitive Grammar, Ronald Langacker, Construction Grammar, cognitive processes, form-meaning pairings, grammatical roles

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#### **11.1. Introduction**

Taken literally, Cognitive Grammar is, quite trivially, a theory of grammar. It has been developed over the last thirty-five years by Ronald Langacker and has been detailed so far in six major works (Langacker 1987, 1991, 1999, 2000a, 2008a, and 2009a),<sup>1</sup> but see also Taylor (2002) for an introductory overview. The theory has changed little over time, although there are some terminological adjustments and refinements in how certain central notions are understood that deserve to be pointed out (e.g., the definition of noun, the use of traditional labels like 'grammar' and 'syntax,' the analysis of trajector and landmark). Further, the rise of Construction Grammars has led Langacker to devote considerable attention in recent years to the notion of "construction" and its relation to Cognitive Grammar (see, e.g., Langacker 2005, 2009a: chapter 1, 2009b, 2009c).

Cognitive Grammar has been applied to various phenomena across different languages. An updated list of some of the most relevant work in Cognitive Grammar can be found in Langacker (2007) and I will therefore refrain from repeating it here. Rather, the present overview aims to illustrate some of the major assumptions Cognitive Grammar rests upon with special reference to Langacker's latest thinking, as detailed, in particular, in Langacker's (2008a) monograph entitled *Cognitive Grammar* (CG for short). Given the breadth of coverage of Cognitive Grammar, I will touch, especially in the final sections of this chapter, upon those notions which I think are of particular interest to practitioners of constructionist approaches to language.

#### **11.2. Grammar in Cognitive Grammar**

**Grammar** in Cognitive Grammar is understood, rather traditionally, to involve the description of how linguistic elements combine into complex expressions. The adjective 'Cognitive' does not simply refer to the fact that language is viewed as a manifestation of the human mind—in this sense formal approaches like Generative Grammar are also cognitive—but is meant to highlight that language is grounded in language-independent

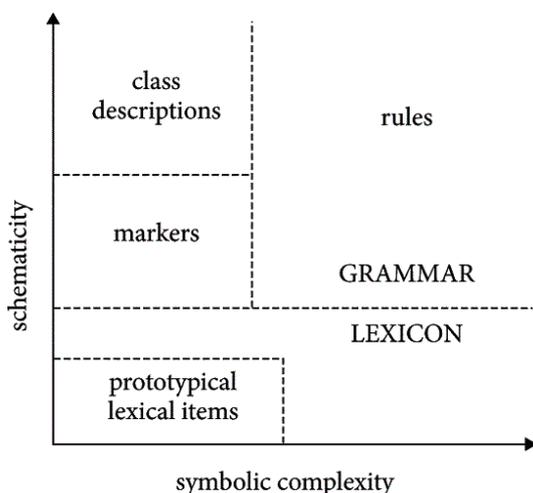
cognitive processes such as association (establishing psychological connections), automatization (using structures without much constructive effort), schematization (extracting a general structure or schema out of the commonality of specific experiences), and categorization (using stored structures to interpret new experience; see CG: 16–18 and also below). This view does not exclude the possibility that our capacity for language (cf. Chomsky's language faculty) could be hardwired into our genes. It simply stresses that language cannot be thought of as a self-contained module as in traditional Mainstream Generative Grammar (see, e.g., Taylor 2007 for an extensive discussion).

Cognitive Grammar also stresses the **dynamic** and open-ended nature of language. Language is ultimately reducible to patterns of neural activation and thus Cognitive Grammar excludes, in contrast to formal approaches, the possibility of an exhaustive formal description, which presupposes the conceptualization of language as a self-contained unit. Rather, Cognitive Grammar belongs to the functionalist tradition (see Nuyts 2007) in that it regards the **semiological** function (i.e., the expression of meaning through sounds and gestures) and the **interactive** function of language (i.e., social interaction in a cultural context through language) as foundational.

Pivotal to Cognitive Grammar is the assumption that language consists of **assemblies of symbolic structures**, that is, what most Construction Grammar approaches call 'constructions' (see also section 11.5.1). In particular, Cognitive Grammar claims that only three structures are needed to serve the semiological function of language, namely semantic structures, phonological structures, and symbolic structures. Linguistic expressions consist of symbolic structures. They are **bipolar** structures pairing a semantic pole (the 'meaning' of an expression) with a phonological pole (its 'form'). For example, the lexeme *flower* is analyzed as the pairing of the complex conceptualization (or meaning) constituting its semantic pole (conventionally abbreviated as [FLOWER]) with a phonological pole (a representation of how the lexeme is pronounced, abbreviated, e.g., as [flower]), resulting in the symbolic structure given as [[FLOWER]/[flower]]. Crucially, the semantic pole also includes information which is traditionally regarded as 'encyclopedic,' for example, the knowledge that flowers can be transferred as tokens of affection. Similarly, the label 'phonological pole' is construed broadly so as to also encompass other bodily manifestations such as gesture.

The claim that language consists of assemblies of symbolic structures has two important consequences. One is the view of **lexicon and grammar as a continuum** (see also Croft, this volume, and Goldberg, this volume), also referred to as the 'constructicon' in CxG. Although Cognitive Grammar retains traditional labels like morphology, lexicon, and syntax, it assumes that no sharp boundaries exist between them. (In fact, one of the most important claims in Cognitive Grammar is that, in language, much is a matter of degree.) The other is that **grammar is meaningful**. Even abstract elements like grammatical words (e.g., prepositions, auxiliaries, determiners) and grammatical constructions (e.g., the Ditransitive construction, as exemplified by *He gave her a present*) are meaningful, since they involve a semantic pole by definition. In more detail, linguistic expressions can be analyzed along three dimensions: **symbolic complexity**, **specificity** (or, conversely, **schematicity**), and **entrenchment/conventionality**. Higher-level symbolic structures rest on lower-level ones, *event* < *eventful* < *eventful day* < *an eventful day* < *on an eventful day*, thus achieving a higher degree of symbolic complexity. Structures can also vary in terms of specificity or schematicity. For example, the structure *on a X day*—where *X* stands for a slot in the construction—is more schematic (less specific) than *on an eventful day*. Entrenchment refers to a linguistic expression having **unit** status—i.e., being accessed automatically, without much constructive effort—for a particular speaker, while **conventionality** pertains to the entrenchment of a linguistic expression within a speech community. Novel expressions are thus those with a low degree of entrenchment/conventionality whereas **fixed expressions** or **lexical items** have a high degree of entrenchment/conventionality, that is, they have achieved the status of **conventional units**. It must be stressed that lexical items do not only include single words but also multiword expressions like *I love you*, *with bated breath*, *in the middle of nowhere*, *see you later*, *what are you doing tonight?* and so on. As is shown in Figure 11.1, which arranges linguistic expressions in terms of the two dimensions 'symbolic complexity' and 'schematicity,' prototypical lexical items (e.g., *cat*) tend to be characterized by a lower degree of symbolic complexity (they tend to be single words) and to be fairly specific semantically (it is easy to describe what a cat is). Symbolically more complex items such as *see you later* are also part of the lexicon, since they are fairly specific semantically (as well as phonologically). Grammar, by contrast, has to do with **schematic** symbolic assemblies or **constructional schemas** (CG: 167). What are traditionally known as **rules** are understood as schemas or patterns used to form complex expressions (**constructions**) in Cognitive Grammar. Partly specific structures such as *on a X day* cannot be assigned exclusively to either the

lexicon or grammar, since they are neither fully specific nor fully schematic and thus illustrate the continuous nature of lexicon and grammar.



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Figure 11.1. The grammar-lexicon continuum

Even grammatical **markers** like auxiliaries, agreement markers, and derivational affixes, which are all specific phonologically, are analyzed as meaningful elements in Cognitive Grammar. They involve a semantic pole by virtue of being linguistic expressions although their semantic pole is schematic and therefore may be difficult to describe. Grammatical **classes** differ from grammatical markers in that they are also schematic phonologically. However, like grammatical markers they are claimed to be meaningful. The noun class, for example, is abbreviated as [[THING]/[... ]]: a noun refers to a thing (a technical term in Cognitive Grammar, see section 11.4) and is maximally schematic from a phonological point of view.

Cognitive Grammar also retains the traditional labels 'morphology' and 'syntax.' Within grammar, **morphology** involves schematic symbolic assemblies whose instantiations are single words (e.g., *N + ful*, as in *eventful*), while **syntax** deals with schematic symbolic assemblies that have multiword instantiations (e.g., *N<sub>1</sub> + ful N<sub>2</sub>*, as in *eventful day*).

In sum, language can be described as "a structured inventory of conventional linguistic units" (CG: 222; see also Bybee 1985). As was pointed out above, a unit is a structure that a speaker employs in largely automatic fashion. Linguistic units consist of symbolic associations between a semantic and a phonological structure which have unit status. Conventionality implies that something is shared by a substantial number of individuals. By the term 'inventory,' it is meant that a "grammar is not a 'generative' description, providing a formal enumeration of all and only the well-formed sentences of a language" (Langacker 1987: 63). Still, such an inventory is structured because linguistic elements are related to one another as if in a network.<sup>2</sup>

There is no room for transformations or abstract elements like traces in Cognitive Grammar because Cognitive Grammar makes only three provisions, collectively known as the **content requirement**, for the linguistic system, namely: (1) semantic, phonological, and symbolic structures (which I have considered so far); (2) **schematization**; and (3) **categorization**, which I referred to at the very outset.

Schematization refers to the process by which the commonality inherent in a set of expressions is abstracted away and stored in schemas.<sup>3</sup> This applies to both lexicon and grammar. A lexical item like *flower* is more schematic than the conceptions evoked in specific **usage events** (e.g., when referring to a flower someone was given on a specific occasion), not to mention the fact that it is less specific phonologically. Similarly, **grammar is emergent** because it consists in symbolic assemblies that emerge out of concrete usage events by way of schematization (e.g., the Ditransitive construction emerges out of repeated exposure to expressions like *He gave her a present, I handed him a slip of paper, I threw her the ball*, etc.). More generally, since linguistic units emerge out of specific usage events, Cognitive Grammar can be described as a **usage-based** model of language (see also Croft 2001 and Bybee, this volume).

Stored schemas are used to categorize (or **sanction**) new experience, which constitutes the target of categorization, whereas the sanctioning schema is called the standard in the categorizing relationship. Two different types of categorization are recognized: elaboration (or instantiation) and extension. Upon hearing the utterance *She hurled him the ball*, we may categorize it as an **elaboration** or **instantiation** of the Ditransitive construction. The utterance is fully compatible with the Ditransitive construction, which is schematic with respect to it, since the utterance specifies (among other things) that a forceful transfer, that of the ball, was effected. Categorization is however a matter of **construal**. For instance, Goldberg's (1995) famous example *She sneezed the napkin off the table* is sanctioned by the Caused Motion construction (cf. *She knocked the vase off the table*) only insofar as *sneeze* is construed as a forceful action capable of displacing objects. In fact, this example (see Langacker 2009b) may be viewed as an instance of **extension**. This type of categorizing relationship occurs when the target of categorization is only partly compatible with the sanctioning schema. Lexical examples are easy to come by. *Mouse* as a computer device is, for instance, an extension of *mouse* as an animal by virtue of some perceived similarity (e.g., in shape) although their referents conflict in terms of animacy. Crucially, extension gives rise to prototypes. Both *mouse* 'computer device' and *mouse* 'animal' are probably perceived as belonging to the same category within which *mouse* 'animal' is (possibly still?) a **prototype**. Similarly, insofar as *sneeze* is construed as a force dynamic verb, *knock* is intuitively more prototypical for this category than *sneeze*.

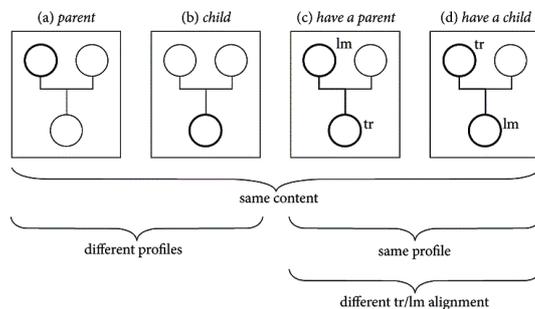
### 11.3. Meaning as Conceptualization

Unlike other constructionist approaches, Cognitive Grammar rests on a very elaborate conceptualist view of meaning. Meaning is viewed as grounded in embodied human experience (see also Bergen and Chang, this volume, for a similar position in Embodied Construction Grammar) and as residing in the minds of speakers (CG: 28–29) as **conceptualization**, a term which is meant to highlight its dynamic (processing) nature. Conceptualization is **imagistic**, rather than propositional, because it involves basic notions like minimal and configurational concepts (e.g., the notions of color and contact, respectively) and conceptual archetypes (e.g., an object moving through space). Further, conceptualization is **interactive** because it involves some degree of negotiation between interlocutors. Finally, conceptualization makes pervasive use of **imaginative** abilities like mental space construction and management, blending (see Fauconnier and Turner 2002) and virtuality or fictivity (we often talk about imaginary entities).

Given the dynamic nature of conceptualization, Cognitive Grammar refutes the dictionary view of linguistic meaning prevalent in formal linguistics, which regards lexical items as clearly definable building blocks that can be used compositionally for the construction of complex meanings. Langacker stresses that lexical meanings are encyclopedic in that they are conventional paths of access to open-ended domains of knowledge (CG: 41) and can be thought of as scaffolding or props for the creation of meanings of complex expressions. For example, despite their structural identity, *the beach is safe* and *the child is safe* can mean two very different things. In the former, the beach can be interpreted as not being likely to cause any harm to a child (the beach is agent-like), while in the latter the child is not likely to be endangered (the child is patient-like). The difference in interpretation depends on how we access our knowledge concerning beaches and children relative to the notion of danger. This also implies that the meaning of a **composite** (or complex) expression includes the way in which its **component** structures lead to the composite expression's semantic pole, that is, its **compositional path** (see also section 11.5.1).

Cognitive Grammar contends that linguistic meaning involves **content** and **construal**. Conceptual content is based on a set of **domains** (collectively known as a **matrix**), where the term 'domain' refers to "any kind of conception or realm of experience" (CG: 44) and is roughly equivalent to Fauconnier and Turner's notion of 'mental space' (CG: 51). For example, *petal* can only be understood with reference to the domain *flower*. Domains are not all equal because, given a certain expression, some domains are more **central** or likely to be activated than others (e.g., stabbing is probably more prominent with *dagger* than *knife*). Ranking of domains for centrality is an instance of construal, by which conceptual content can be portrayed (or construed) in various different ways. For example, a container with water in it (conceptual content) could be described, under appropriate circumstances, as half empty rather than half full. Construal involves a variety of dimensions, including **scope**. An expression's scope is defined as "the conceptual content appearing in the subjective viewing frame inherent" in the apprehension of an expression (CG: 63). In order to make sense of this, it is useful first of all to distinguish between maximal and immediate scope, since the two do not always coincide. Although the lexical item *fangernail*,

for example, evokes the conception (domain) of the human body as its maximal scope (the full extent of the subjective viewing frame or scope of awareness), the expression is apprehended with reference to (foregrounds) a specific subpart of the body, namely the finger, which thus constitutes the expression's **immediate scope**, which is also referred to (metaphorically) as the onstage region or, alternatively, **base**. Within that base, *finger nail* refers to or **profiles** a specific substructure, which is the **focus** of attention.



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Figure 11.2. The interaction of content, profile, and trajectory/landmark alignment

In Cognitive Grammar, any linguistic expression profiles either a thing or a relationship. For example, *parent* and *child* (see Figure 11.2) evoke the same relational content (an ‘offspring’ domain) but do not refer to a relation; they both refer to things. However, they profile different entities (a parent and a child are not the same thing). By contrast, *have a parent* and *have a child*, which also evoke the relational offspring content, both profile a relationship. In this case, the profile (or reference) is identical because both *have a parent* and *have a child* profile a relationship between a parent and a child. The expressions are distinguished by virtue of **trajectory (tr)/landmark (lm) alignment**. The trajectory or **primary focus** is the most prominent element, while the landmark, if it exists, is a **secondary focus**. In *have a parent*, the trajectory (e.g., *Tom* in *Tom still has a parent*) is a child and the landmark is a parent, while in *have a child* the trajectory is a parent and the landmark is a child.

## 11.4. Grammatical Classes

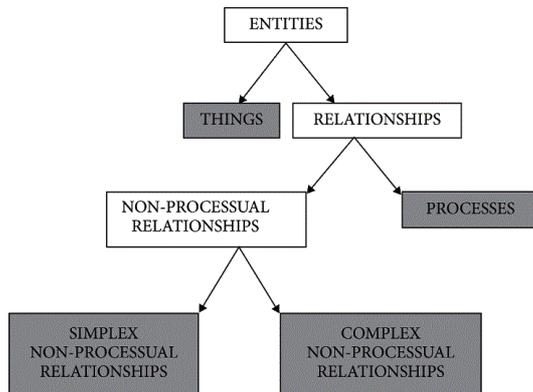
One of the most interesting claims made by Cognitive Grammar is that at least some **grammatical classes** (‘parts of speech’ or ‘word classes’) such as noun and verb may be universal and may be defined semantically, since schematic characterizations valid for all their members are viable. It is perhaps not controversial to state that the prototype for the noun class is the conception of physical object but to claim that nouns can be defined schematically contrasts with much current linguistic thinking, even within the constructionist camp. Radical Construction Grammar and Cognitive Construction Grammar, for instance, do not make this assumption (see also Boas, this volume; Croft, this volume; Goldberg 2006a: 220–25, this volume; Langacker 2009c).

Cognitive Grammar proposes that the **prototypes** for grammatical classes involve **experientially grounded archetypes** such as the conception of a physical object for the noun class and the conception of a force-dynamic event for the verb class. **Schemas** for them emerge through **basic cognitive abilities** “initially manifested in those archetypes and later extended to other cases” (CG: 103). At the schematic level, the noun class involves our capacity for grouping and conceptual reification (see CG: 105), that is, our ability to construe unitary entities at a sufficiently high level of organization, and the verb class involves our capacity for apprehending relationships and tracking them through time (i.e., scanning, see also Broccias and Hollmann 2007).

The Cognitive Grammar analysis of (the semantic pole of) word classes is summarized diagrammatically in Figure 11.3. Shaded boxes indicate conceptions that are the semantic poles of traditional word classes; for example, non-processual relationships, unlike things, do not correspond to any particular word class. The diagrams usually employed in Cognitive Grammar to depict most of the conceptions in Figure 11.3 are provided in Figure 11.4.

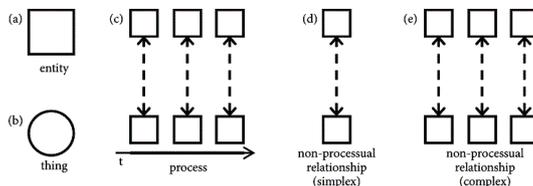
We start with the very general category of **entities**, which can be divided into **things** and **relation(ship)s**. A **thing**, a technical term in Cognitive Grammar, is any product of grouping and reification and is the schematic semantic pole of the noun class. For example, the noun *team* (see Langacker 1987: 197) profiles a set of entities rather than singling out any constitutive member. **Relationships**, by contrast, profile interconnections between entities. Relations can be either **processes** or **non-processual** (or atemporal) **relationships**. A process profiles

a relationship made up of various component states (a complex relationship) scanned **sequentially** through processing time (CG: 111 and 122), as when watching a ball fall in a motion picture. For this reason, a process is said to have a 'positive' temporal profile (i.e., time is focused, as is shown by the heavy time line in Figure 11.4(c)). Processes constitute the semantic pole of verbs (e.g., *enter*).



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Figure 11.3. The Cognitive Grammar analysis of grammatical classes



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Figure 11.4. Cognitive Grammar diagrams for grammatical word-related conceptions

In an important departure from earlier work, CG no longer analyzes all relationships as involving a trajector and a landmark because trajector and landmark are now defined in terms of focal prominence (see also section 11.6). For example, the verb *arrive* depicts a relationship between a mover and space but only the mover is regarded as a focal element and, hence, being unique, the primary focus of attention or trajector. The spatial positions occupied by the mover, including the location she arrives at (the goal), are said to be background elements and thus lack focal prominence (CG: 71–72 and 113). Consequently, they are not treated as landmarks. It is also worth pointing out that a relationship is **conceptually dependent** on its participants because they are evoked as an intrinsic part of its own conceptualization. By contrast, a thing can be conceived of independently of any relationships in which it may participate and is thus said to be **conceptually autonomous**. Non-proceSSIONAL relationships have a 'null' temporal profile (time is backgrounded) and come in two types: **simplex non-proceSSIONAL** (or stative) **relationships** and **complex non-proceSSIONAL** (or atemporal) **relationships**. Simplex non-proceSSIONAL relations involve a single configuration through time and correspond to the semantic pole of adjectives (simple non-proceSSIONAL relations with only one focal participant, a trajector, corresponding to a thing), stative prepositions (such as *in*, as opposed to dynamic preposition *into*) and adverbs (simple non-proceSSIONAL relations with only one focal participant, a trajector, corresponding to a relationship, but see also Broccias 2011). Complex non-proceSSIONAL relations (e.g., *into*) are made up of more than one component state over time but such component states are scanned in summary fashion, that is, the component states are superimposed upon each other so that a single, complex gestalt becomes available (as in a multiple-exposure photo of a ball's fall). Prepositions, both of the simplex and complex types, differ from adjectives and adverbs in that they involve two, rather than one, focal participants, a trajector (which is an entity, either a thing or a relationship) and a landmark (which is a thing). Observe that scanning is crucial in distinguishing between expressions which have the same conceptual content like *enter* and *into*. They both involve motion toward and attainment of a goal but they differ in terms of construal. *Enter* profiles a relationship scanned sequentially while *into* profiles a relationship scanned summarily. Summary scanning is also postulated to be involved in *to*-infinitives (e.g., *to enter*), present participles (e.g., *entering*) and past participles (e.g., *entered* in *have entered*).

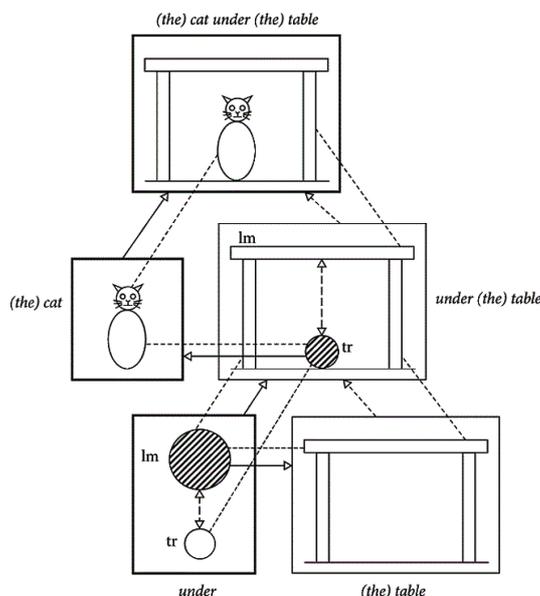
## 11.5. Constructions in Cognitive Grammar

Since the notion of construction has become increasingly important over the last two decades, Langacker's recent work has also dealt extensively with it and its status in Cognitive Grammar. Here I will overview what Cognitive Grammar means by 'construction' and how it tackles the relation between lexemes, in the traditional sense of 'single words,' and constructions.

## 11.5.1 Assemblies of Symbolic Structures

Langacker defines **constructions** as **assemblies** of symbolic structures (see section 11.1 above). *Mosquito net*, for example, is a **composite symbolic structure** resulting from the **integration** of the **component symbolic structures** *mosquito* and *net*. Observe that in Cognitive Grammar even plural nouns like *flowers* are analyzed as assemblies of symbolic structures. Plural *-s* is regarded as a somewhat schematic noun, whose semantic pole profiles a mass of things, in the Cognitive Grammar sense of the term, and its phonological pole an unspecified sequence of sounds ending with, for example, /z/. The symbolic structure customarily called plural *-s* is integrated with the symbolic structure [[FLOWER]/[flower]] resulting in the plural noun *flowers*.<sup>4</sup>

It is important to stress that a construction does not only reside in its component structures but also in their mode of integration and the resulting composite structure. If we did not pay attention to how integration is effected, we would be at a loss when trying to explain why *mosquito net* and *butterfly net*, despite their structural identity, mean (i.e., profile) two very different things. In order to illustrate this point further, let us consider one possible **compositional path** for the nominal *the cat under the table* (see Figure 11.5), where for the sake of simplicity I will ignore the contribution of the definite article *the* (hence the parentheses around it in Figure 11.5).



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Figure 11.5. A compositional path for *the cat under the table*

Composition relies on **correspondence**, the conceptual overlap between component structures ('horizontal correspondences,' shown as dashed horizontal lines in Figure 11.5), as well as between component structures and composite structures ('vertical correspondences,' shown as dashed vertical lines in Figure 11.5). The semantic pole of the nominal *the table*, for example, profiles a thing which corresponds to the landmark of the preposition *under*, so that integration between the nominal and the preposition can be effected. At the next level of the compositional path in Figure 11.5, the trajector of *under* is put in correspondence with the profile of the nominal *the cat*. In vertical terms, the landmark of *under* at the lowest level of the compositional path corresponds to the more elaborate landmark of the relational predicate *under the table* (i.e., *the table*). That is, from a vertical perspective, (vertical) correspondence shows which facets of the composite structure are symbolized by the component structures. Component and composite structures are also linked by relationships of **categorization**. The landmark of *under*, for example, is schematic with respect to *the table*. Hence, *the table* elaborates or instantiates the landmark of *under*. The landmark of *under* constitutes an **elaboration site** (or **e-site**), which is represented diagrammatically through hatching. The solid arrow (→) connecting the e-site to the nominal *the table* represents

the categorizing relationship of elaboration. Similarly, *under the table* is an elaboration of *under* since it specifies it in more detail. By contrast, the relation between *the table* and *under the table* is one of extension, as indicated by the dashed arrow (—>), because *the table* profiles a thing while *under the table* profiles a relationship. This is also implicit in the choice of a heavy-line box for the preposition vis-à-vis the nominal *the cat* at the lowest level in the compositional path in Figure 11.5. The heavy-line box indicates that the preposition functions as **profile determinant**. That is, the composite structure *under the table* inherits the profile of the preposition, since it designates a relationship of spatial orientation, not a table. Similarly, at the next level of integration, the nominal *the cat* functions as the profile determinant of the overall construction *the cat under the table*, since this construction profiles a cat, not a relationship of spatial orientation. In sum, Figure 11.5 shows that component structures define a compositional path toward, that is, they are stepping-stones for arriving at, the meaning of the overall expression. The composite structure stands in the foreground, but its compositional path is also an important part of its form and meaning (CG: 166–67).

A few more observations can be made in connection with Figure 11.5. First of all, it turns out that correspondence between component structures does not always involve a whole profiled entity. In *The dog bit the cat*, for example, the integration of the process *bit* with the nominal *the cat* apparently relies on the correspondence between the verb's landmark and the nominal's profile. But it is very likely that the dog only bit a part of the cat, for example, its tail. At higher resolution, the correspondence therefore obtains between the verb's landmark and a subpart or **active zone** of the nominal's profile (the tail is an active zone with respect to the cat). More generally, an active zone is the entity (or entities) associated with a profiled element which is targeted in order to effect a relation of correspondence (see Langacker 2009a: chapter 2).

A second important point regards the relation between the notions of profile determinant and elaboration, on the one hand, and traditional grammatical notions like 'head,' 'complement,' and 'modifier,' on the other.<sup>5</sup> Cognitive Grammar contends that the notions of profile determinant and elaboration can be appealed to in order to provide a conceptual characterization of these traditional grammatical notions. The notion of profile determinant allows us to recast the traditional notion of **head** in conceptual terms by equating head with profile determinant (CG: 194). Sometimes, however, things are not so simple. In apposition cases like *my niece Melanie*, the profile of the composite structure is said to correspond to both component structure profiles, that is, the component structures both profile things and their profiles correspond (but see Acuña-Fariña 2009 for a different analysis), so it is immaterial to say whether both or none are profile determinants (see CG: 195).<sup>6</sup> Further, an expression may have a profile which does not correspond to any of its component structures. An exocentric expression such as *pickpocket*, for instance, designates a thing but its profile does not correspond to either of its component structures. *Pick* profiles a process, not a thing; *pocket* profiles a thing but it designates what is picked, not the person who picks pockets, which is what the composite structure profiles.

The notion of elaboration can be related to that of **autonomous/dependent (A/D) alignment**. As was pointed out above (see section 11.4), relationships are necessarily dependent on the entities they interconnect, while things are much more autonomous. *Under*, for example, profiles a relationship between two focused entities and is thus dependent on a trajector and a landmark. The nominals *the cat* and *the table* elaborate them and are much more autonomous. While it is possible to think of cats and tables in relation to locations, spatial concerns are probably not a salient part of their bases, and nominals, in general, can be described as relatively autonomous (or more autonomous than relationships). A/D alignment can be used to provide a conceptual characterization of the traditional terms 'complement' and 'modifier.' A **complement** is defined as "a component structure that **elaborates** a salient substructure of the head" (CG: 203). A **modifier** is defined as "a component structure that contains a salient substructure **elaborated by** the head" (CG: 203). In our example, *the table* is a complement because it elaborates the landmark of the head *under*. *Under the table* is a modifier because its trajector is elaborated by the composite expression's head *the cat*.<sup>7</sup>

One final point concerns the compositional path illustrated in Figure 11.5, which includes three levels, and may resemble the classic constituency hierarchy represented in Figure 11.6.

Cognitive Grammar also approaches **constituency** in conceptual terms. It identifies it with the order of composition of the component structures, which can thus define various different **conceptual groupings**. The same composite conception can be arrived at via different paths, two of which, in addition to the one illustrated in Figure 11.5, are offered in Figure 11.7 for the construction *the cat under the table*—but notice that Langacker does

not address the issue of the relative likelihood of different compositional paths. By defining constituency as conceptual grouping, Cognitive Grammar is able, among other things, to dispense with the need for movement rules posited in derivational theories of grammar. For example, the sentence *The claim was dismissed that she was a spy* contains a discontinuous nominal, which is analyzed, in some generative approaches, as the result of the movement of the *that*-clause from its underlying position adjacent to *claim* (cf. *the claim that she was a spy*) to the end of the sentence. By contrast, Cognitive Grammar claims that the discontinuous nominal results from a difference in conceptual grouping with respect to *The claim that she was a spy was dismissed*. In the discontinuous version, the nominal *the claim* combines with *was dismissed* and, at higher level of organization, *the claim was dismissed* is integrated with *that she was a spy* thanks to a correspondence relationship between the nominal *the claim* and the latter nominal (the nominal *that she was a spy* elaborates a substructure of *claim*, namely its landmark).

## 11.5.2 The Interaction Between Lexemes and Constructions

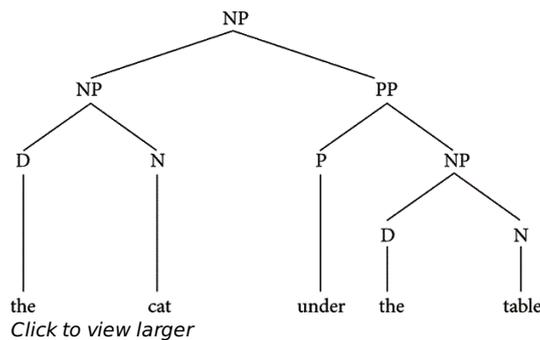


Figure 11.6. Constituency-based analysis of the construction *the cat under the table*

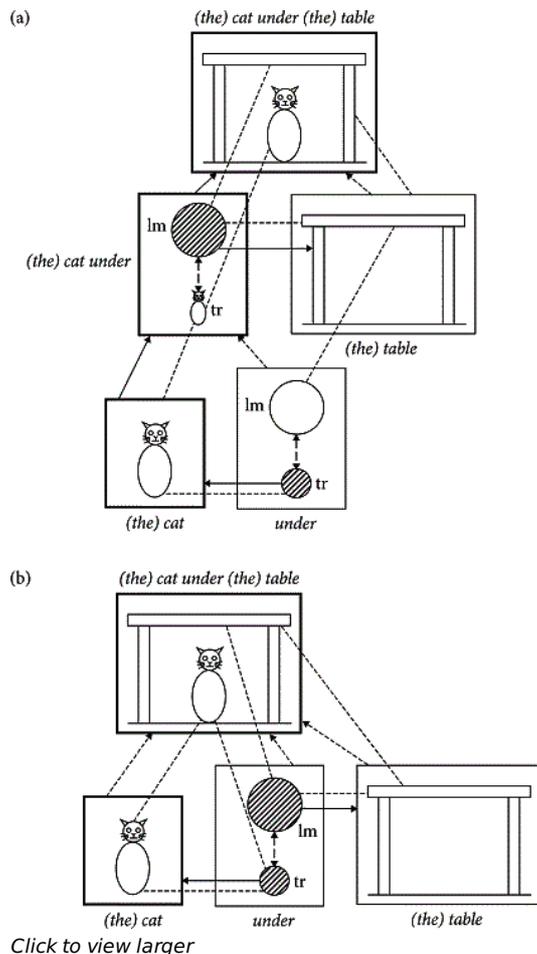
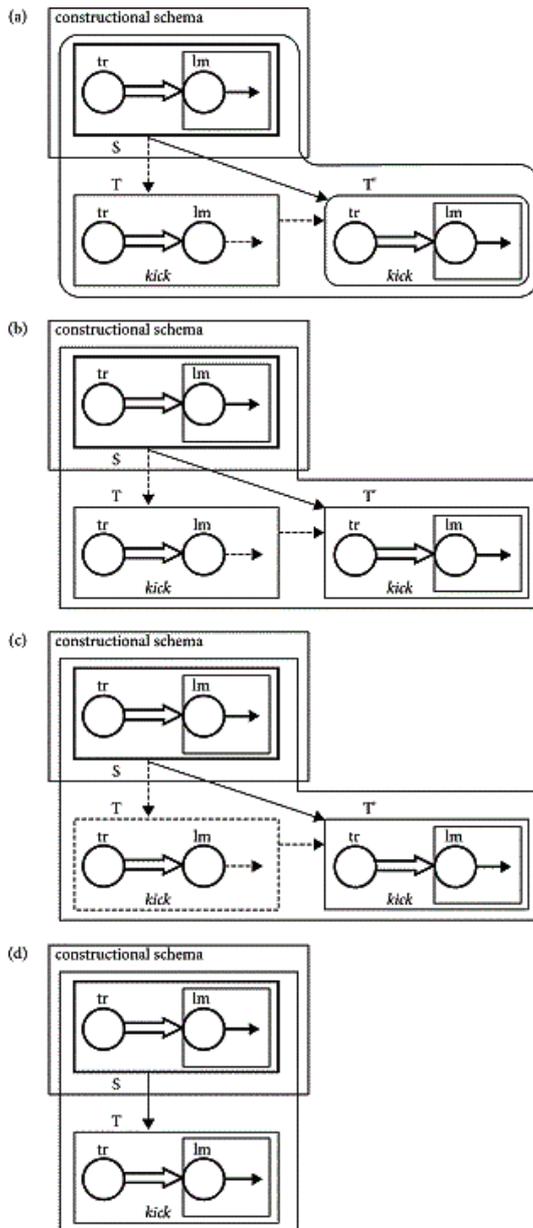


Figure 11.7. Alternative compositional paths for the construction *the cat under the table*



Click to view larger

Figure 11.8. The relation between lexemes and constructions

Since lexicon and grammar make up a continuum, Cognitive Grammar, like Radical Construction Grammar, claims that it is not correct to think of lexemes independently of the **structural frames** in which they occur (see CG: 240–41 and Taylor 2006). Rather, the issue is one of **decontextualization**, that is, to what extent lexical items are accessed independently of the structural frames in which they appear. How the interaction between lexemes and structural frames is handled in Cognitive Grammar can be illustrated by considering the Caused Motion construction, as in *Peter kicked the ball into the stands* (see Langacker 2009b and also CG: 244–50 for a similar analysis based on the Ditransitive construction). Let us assume, for the sake of the argument, that the basic (prototypical) sense of *kick* is the transitive one (cf. *Peter kicked the dog*), that is, *kick* profiles a force dynamic interaction (see the double arrow in Figure 11.8a) between two entities but not the potential, ensuing movement of the landmark (simple arrow in Figure 11.8a). This means that *kick* is not **congruent** with the Caused Motion construction, which prototypically profiles motion as a result of the application of force (see the upper box in Figure 11.8a). *Kick* would then illustrate a **skewing** use, “where a verb is non-congruent with the construction it appears in” (Langacker 2009c: 171). The integration of *kick* with the Caused Motion construction is possible through the categorizing relationship of extension, as indicated by the vertical dashed arrow in Figure 11.8a. *Kick* (the target of of

categorization, T in Figure 11.8a) is apprehended as a caused motion verb (the standard of categorization, S in Figure 11.8a) by blending with the constructional schema, which results in the target T', an instantiation of the Caused Motion construction with *kick* in the verbal 'slot.' Through repeated use, the pattern in Figure 11.8a can become conventionalized, see Figure 11.8b (where the straight angled L shape in place of the rounded angled L shape is meant to visualize exactly that) so that *kick* can now be said to have a new (caused motion) sense, that is, T' in Figure 11.8b. From the verb's point of view, Figure 11.8b represents a **pattern of semantic extension**, since the verb is now apprehended as a caused motion verb in the caused motion structural frame. From the construction's point of view, the conventionalization of the blended meaning implies that a new schema for the Caused Motion construction—the schematization of the categorization represented in Figure 11.8a resulting in a **higher-order generalization** (CG: 249)—emerges, which counts as an extension from the prototype. If interpreted as a schema, the structure in Figure 11.8b can be viewed as what Langacker calls an **augmented constructional schema** (see CG: 249). Since the caused motion sense of *kick* now has unit status, it can progressively lose analyzability: its caused motion sense can progressively be accessed without reference to its basic transitive sense, as is shown in Figures 11.8c–d.

### 11.6. Semantic Roles and Grammatical Roles

As is the case with grammatical classes such as noun and verb and grammatical notions such as head and complement, Cognitive Grammar also strives to provide a conceptual description of semantic roles and grammatical roles (or grammatical relations). Pivotal to this endeavor is the assumption that clause structure is grounded in basic human experience. That is, clause structure can be described with reference to various conceptual archetypes such as the billiard-ball model (which basically describes an agent–patient interaction) and the stage model (which involves the directing and focusing of attention by distinguishing between, metaphorically speaking, the 'viewers' and what is being 'viewed' or put on 'stage'). **Semantic roles**, of which an exhaustive list is not possible in Langacker's view, include agent, patient, instrument, experiencer, mover, and zero (the latter roughly corresponding to what is traditionally known as theme).<sup>8</sup> These are viewed as **archetypal roles**, that is, roles defined with respect to conceptual archetypes.

Cognitive Grammar also offers a conceptual characterization of **grammatical roles** or **relations**. Their description is not only based on conceptual content, as is the case with semantic roles, but also on prominence (CG: 437). In particular, Cognitive Grammar claims that, as is the case with nouns and verbs, it is possible to define subject and object both prototypically and schematically. Importantly, their schematic characterizations may turn out to be universal (i.e., applicable to all languages), because they are grounded in construal (in particular, the focusing of attention; see CG: 382). A **subject** is identified prototypically—at least in English—with an agent (i.e., an energy source) and is defined schematically as “a nominal that codes the **trajector** of a profiled relationship” (CG: 364).<sup>9</sup> The referent of a subject is therefore a **primary focal relational element**. An **object** is identified prototypically, at least in English, with a patient (i.e., an energy sink) and is defined schematically as a nominal that codes the **landmark** of a profiled relationship (see CG: 364). The referent of an object is therefore a **secondary focal relational element**. If (the referent of) an object is construable as a patient, Langacker uses the term **direct object** to describe it. In other words, Langacker uses the label 'direct object' (and, hence, transitivity) restrictively, to refer to those nominals that allow passivization, since passivization is taken to be symptomatic of patient-like construal. Further, the broader notion of 'object' is not only limited to participants (see CG: 370 and CG: 388 n. 19). Examples of objects that are not participants are paths (*We hiked a new trail*), locations (*The train approached the station*), and measurements (*It weighs ten kilos*). Similarly, a nominal trajector (i.e., subject) can be a setting or a location rather than a participant, as in *The garden is swarming with bees* and *This book contains a lot of information on Construction Grammars*, where *the garden* is a setting and *this book* is a (metaphorical) location (see, e.g., CG: 361, 374 n. 19, and 387).<sup>10</sup>

Another type of object recognized in Cognitive Grammar is the **indirect object**, whose prototype is identified with an experiencer and which is marked by a preposition (typically meaning 'to' or 'at') or dative case. In cases like Italian *A Sally piace il cioccolato* (lit. 'at/to Sally likes the chocolate'; i.e., 'Sally likes chocolate'), the indirect object, *Sally*, is a landmark.<sup>11</sup> When an indirect object occurs with a dative verb like Italian *dare* ('give'), as in *Ha dato il libro a Sally* (lit. '(s/he) has given the book to Sally'), Langacker does not commit himself to a unique analysis. He says that “[p]erhaps the indirect object should be considered a secondary landmark. If not, it is at least quite salient as a profiled participant” (CG: 393). Like Italian *dare*, English *give* takes three participants (an

agent, a recipient, and a mover). In English, it can usually occur in the Ditransitive construction (*She gave him the present*) and in the Caused Motion construction (*She gave the present to him*). In the (active) Ditransitive construction, Langacker analyzes the agent as the trajector and the recipient as the landmark. That is, *him*, in the example at hand, is treated as a direct, rather than, indirect object because it can become the subject in the corresponding passive sentence (*He was given the present*). The analysis of the mover complement (the entity transferred) is however uncertain. Langacker (CG: 360) claims that while the agent and the recipient are focal participants, the mover is a participant which is not focused as trajector or landmark and calls it a **central** participant. (This would imply that *the present* is not an object vis-à-vis the definition above.) In the Caused Motion construction, the landmark is identified with the mover and the whole construction is said to highlight motion—which may be metaphorical—since the recipient is the landmark of the path preposition *to* (see CG: 242 and 393–94).

In sum, it should be clear from this short synopsis how different the treatment of grammatical relations in Cognitive Grammar is compared to other constructionist approaches. Langacker is always at pains to show that **grammar is meaningful**, hence constructions should not be viewed as pairings of semantics and syntax, as in (Radical) Construction Grammar, but rather pairings of semantics and phonology (broadly construed), since syntax itself, as a part of grammar, is meaning.

### 11.7. Conclusion: What Lies Ahead?

At the very beginning of this chapter I wrote that “Cognitive Grammar is, quite trivially, a theory of grammar,” but after this very short journey through Langacker's theory, which by necessity only touched upon some of his analyses and completely ignored topics such as phonology (see, e.g., Nessel 2008), grounding (see, e.g., CG: chapter 9), and discourse (see, e.g., CG: chapter 13) to name a couple, the reader may wonder if that is really the case. If grammar is understood as dealing with schematic symbolic assemblies, I would dare to say that Cognitive Grammar is not (only) a theory of grammar. Rather, Cognitive Grammar is probably best described as a theory of language. In fact, Langacker (2007) defines it (in principle) as a theory of *énonciation* in Culioli's (1990) sense.

Apart from (partly) terminological issues, there is one crucial aspect of Cognitive Grammar that should deserve more attention in the future. Langacker insists that the claims made by Cognitive Grammar are psychologically plausible (CG: 15). Hence, one of the challenges for this theory will be to validate the adequacy of such claims empirically (i.e., through psycholinguistic experiments). For example, at the time of writing, no empirical evidence has been gathered to support the difference between sequential and summary scanning, as well as its relevance to language, no matter how intuitive and/or theoretically appealing the difference might be (see Broccias and Hollmann 2007 and Langacker 2008b for extensive discussion).

More specifically, future research should focus on processing (i.e., what Langacker refers to as dynamicity). For example, what are compositional paths (see section 11.5.1) meant to describe? Are they intended to capture language production, comprehension, both, or something else? The way in which they are detailed seems to suggest processing on the part of the speaker but some clarification in this area is much needed. In fact, one could argue that the issue of processing should perhaps be put on stage not only in Cognitive Grammar but also in other constructionist approaches, which tend to concentrate on language representation/storage (e.g., language networks) rather than language production/comprehension.

Further as is pointed out by Broccias and Hollmann (2007), there is also the issue of the apparently dual nature of Cognitive Grammar. On the one hand, Cognitive Grammar is a usage-based model (see section 11.2). As Langacker puts it, “[w]hat is essential is that every language and every construction be characterized in its own terms” (CG: 423), which is, of course, fully compatible with, for example, Radical Construction Grammar. On the other hand, Cognitive Grammar is also a semiotic model in that every linguistic expression, even apparently meaningless elements such as ‘grammatical’ morphemes (in the traditional sense), is regarded as meaningful. Yet this is potentially problematic. If much in language is accessed automatically and can undergo loss of analyzability (see, e.g., Figure 11.8 above and Langacker 2009a: 26–28), to what extent can we map specific meanings onto individual forms? Langacker is, of course, conscious of this issue since he explicitly acknowledges the importance of the notion of decontextualization (see section 11.5.2) and also points out (see note 3) that schematic meaning ultimately resides in immanent, recurring processing activity rather than abstract structures (hierarchically) separate from their multifarious instantiations. However, it must be demonstrated empirically that fully schematic

meanings, rather than more specific schemas, are psychologically 'real' and thus are not just a useful descriptive tool resorted to by linguists.

Having said that, Cognitive Grammar remains, undeniably, one of the most innovative and comprehensive theories of grammar (or should one say language?), thanks to its rejection of formal machinery and modularity, its insistence on gradience and meaning as conceptualization, which involves both embodied cognition and disengaged cognition, that is, our ability to deal with fictive (or virtual) entities, see CG: 14.2. Ultimately, even if analyses such as the schematic characterizations of subject and object turned out to be wrong, we would still have to face the question of why such and related grammatical notions seem to emerge when studying language, that is, we will always and inevitably have to focus our attention on the cognitive foundations of grammar.

### Notes:

(1.) Unlike Langacker (1987, 1991, and 2008a), the other books mentioned are collections of essays which have often appeared elsewhere. A complete list of Langacker's publications can be found at <http://idiom.ucsd.edu/~rwl/> (last accessed January 30, 2011).

(2.) It should be pointed out that the use of the term 'grammar' in Langacker's recent work is more restrictive (and traditional) than in the past. Langacker (1987: 57), for example, assigns the definition "a structured inventory of conventional linguistic units" to 'grammar,' rather than 'language,' as he does in CG.

(3.) CG: 219 points out that schemas should not be thought of as separate from their instantiations but, rather, as **immanent** in them.

(4.) Single words (e.g., *flower*) and morphemes would count as degenerate constructions in that the symbolic assembly contains only one symbolic element, see, e.g., Langacker (2009a: 17) on morphemes.

(5.) Here I omit Langacker's conceptual analysis of adjuncts, see CG: 204–5 and Langacker (2009a: 24–25).

(6.) By convention, Langacker says that neither component is a profile determinant in appositive cases (see CG: 195).

(7.) Langacker (CG: 205) stresses that notions like head, complement, and modifier are "not themselves the basic units of CG [Cognitive Grammar] description. They are more accurately thought of as convenient labels for certain kinds of configurations commonly observable at the semantic pole of symbolic assemblies." This means that not all constructions will have a head and that it will not always be possible to distinguish between complements and modifiers.

(8.) Langacker uses the term 'theme' to refer collectively to patients, experiencers, movers, and zeros.

(9.) Notice that trajector and landmark are conceptual entities while subject and object nominals are symbolic structures.

(10.) Since focal prominence can fall on entities other than a participant such as a setting, location, path, or measurement, I have used the more accurate definition "focal relational element" over the looser definition "focal relational participant" for the referents of subjects and objects in the text, see CG: 388 n. 33.

(11.) Since an object is defined as a nominal landmark (see, e.g., CG: 432) and a prepositional phrase like *a Sally* is obviously not a nominal, we have to conclude that Cognitive Grammar views the object of the preposition (*Sally*) as the indirect object.

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