
CLAUSE STRUCTURE AND TRANSITIVITY

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1. INTRODUCTION

Clause structure is one of the central issues for most theories in contemporary linguistics. This chapter will present an overview of clause structure and transitivity from a cognitive and constructional approach. The starting point will be the concept of construction: every aspect of clause structure must be interpreted in terms of the construction in which it appears. More specifically, constructions are symbolic units, that is, conventional associations between meaning and form. The meaning pole includes semantic, pragmatic, and discourse-functional properties. On the formal pole, we have to consider phonological and morphosyntactic properties of constructions. This chapter will cover clause structures as particular types of syntactic constructions, our main concern being the correspondences between meaning and form.

A fundamental claim of Cognitive Linguistics is that grammatical structures and categories have an experiential and conceptual basis. Let me start by saying that the conceptual basis of clause structures is found in the conceptualizations of actions and events. According to Langacker (1990: 209–11; 1991: 13–14; 2000: 24), our conceptions of actions and events combine in a complex archetypal notion defining a “canonical event,” comprising at least two cognitive models. One of them is the “billiard-ball model,” the conception of our world “as being populated by discrete objects...capable of moving about and interacting with others...Energy is transmitted from the mover to the impacted object; this may cause the latter to move also” (1990: 209). In relation to the second archetype, the “stage model,” “we

tend to organize the scenes we observe in terms of distinct ‘participants’ who interact within an inclusive and reasonable stable ‘setting’” (210). Therefore, a canonical event implies an energetic interaction between participants within a setting. But how does the canonical event model correspond to elements of clause constructions?

This chapter focuses more on the symbolic links between meaning and form than on the nature of our conceptualizations of actions and events. The following section includes a short review of the basis of syntactic roles and an introduction to the interaction between verbs and clausal constructional schemas. In section 3, I pay attention to the conceptualization of events and move from event types toward a more general account in terms of force dynamics, action chains, and salience. The remaining sections are devoted to the semantic motivations of some more basic or more common clausal constructions and grammatical relations.

2. CLAUSE CONSTRUCTIONS

2.1. Syntactic Roles

From a syntactic point of view, a constructional schema “can be thought of as a kind of formula consisting of an ordered sequence of slots” (Taylor 1995: 198). In clauses—viewed as constructional schemas—these slots are typically filled by:

- a. a finite verb, symbolizing a type of interaction (a type of event) and locating this event relative to the ground, i.e., the speech situation (through the categories of tense, modality, etc.)—this verb is the head (that is, the profile determinant) of the entire clause;
- b. one or more nominals, symbolizing the main participants in the event; and
- c. other optional elements, symbolizing secondary participants or some aspects of the setting.

Among other things, clauses differ in the number of explicit participants. Latin and English examples of one-participant, two-participant, and three-participant events can be found in (1):

- (1) a. *Claudia legit.*
‘Claudia is reading.’
- b. *Claudia Octavium amat.*
‘Claudia loves Octavius.’
- c. *Claudia Octavio epistulas dat.*
‘Claudia gives Octavius the letters.’

Complex expressions like these evoke events that are globally understood (as Gestalts) and that in actual usage involve much more than what is explicitly designated

Table 29.1. A first account of clause structure strata

Participant roles	<P ₁	P ₂	Event-type>
Syntactic roles	SUBJ	OBJ	PRED
Syntactic categories	N-NOM	N-ACC	V-3SG
Lexis	<i>Claudi-a</i>	<i>Octavi-um</i>	<i>ama-t</i>

by their component units. By abstracting the recurring commonalities from symbolically complex expressions such as these, we can set up constructional schemas (much in the same way as grammatical categories can be abstracted from specific units). As such, constructional schemas can be expressed as combinations of syntactic categories (e.g., NP–V–NP or Nominative Noun–Accusative Noun–Verb). Another commonly used and convenient way to formulate the structure of a construction is by identifying its slots by the names of different syntactic functions or roles (e.g., Predicate–Subject–Object). In so doing, we can describe a clausal construction in terms of several structural strata, each of them resulting from an abstraction process from concrete expressions: (i) the participants in the scene, each associated with a role which we can simply label as P₁, P₂, and so on; (ii) syntactic roles, or grammatical relations, such as subject and object; and (iii) categorization relations, such as that existing between the word *Claudia* and the category nominative noun. These clause structure strata are represented in table 29.1.

While almost any aspect of clausal constructions may be subject to debate, one of the most complex questions is the nature and relevance of syntactic roles. Langacker's Cognitive Grammar (Langacker 1987, 1991, this volume, chapter 17) makes the claim that grammar consists only of semantic structures, phonological structures, and symbolic links between them, together with categorizing relationships. This view of grammar rules out a purely syntactic definition of subject and object; it does not rule out, however, a conceptual characterization or the existence of formal reflexes of these basic concepts.

The main problem in defining and identifying grammatical relations is that there exist no formal criteria that are cross-linguistically valid for any such relation. From Keenan (1976) onward, it has become a common practice to distinguish between coding properties (order, case marking, agreement) and behavior and control properties (deletion, passivization, control of co-reference, etc.). While traditionally the notion of subject has been taken for granted, Keenan's proposal allows a prototype approach to grammatical relations as universal notions, so that the nominal in a particular language can be considered the subject if it bears more coding and control properties than others. This approach is followed, among others, by Givón (2001: 173–97) but has been challenged within the functionalist tradition by Dryer (1997) and by Radical Construction Grammar (Croft 2001). The main problems for a formal characterization of the notion 'subject' (or any other grammatical relation) as a universal are (i) that different coding devices are used in different languages and (ii) that coding properties vary in their distribution across constructions from

language to language; as such, for instance, there is no formal category in, say, Dyirbal that matches the English subject. In Dyirbal, the English subject corresponds to the absolutive in intransitive clauses and to the ergative in transitive clauses. In language-specific constructions, similar problems occur, since the different coding devices do not show homogeneous behavior across different constructions.

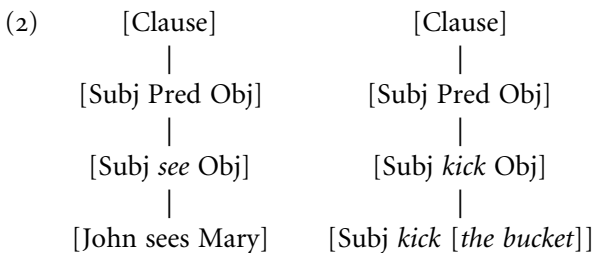
In this regard, Croft (2001) has come to the conclusion that syntactic roles are not only language-specific but also construction-specific, so that, for example, the subject of a transitive clause in English is different from that of an intransitive clause in the same language (see Croft 2001: 54). From that perspective, ‘subject’ is at most a convenient label for a slot in a particular construction, but it is not a primitive concept that can be used as one of the atomic building blocks of constructions. Nevertheless, slots may show correspondences across constructions. These generalizations, in Croft’s view (2001: 55–57), are represented as taxonomic generalizations, that is, as taxonomic relations between constructions; as such, transitive and intransitive clauses, for instance, share enough grammatical properties to warrant setting up the category ‘clause’. As Croft puts it, “the existence of the Clause construction allows us to establish the superordinate categories SbjArg (‘subject as an argument’) and Pred” (57).

In what follows, I will assume that constructions are the basic units of grammar, that syntactic roles must be characterized relative to the constructions in which they appear, and that elements belonging to different constructions in the same language (for instance, subject in a transitive clause and subject in an intransitive clause) share the same syntactic role (subject) to the extent that they share formal encoding mechanisms (order, agreement, case, control of co-reference, etc). A significant consequence of this approach is the fact that these correspondences can simply be partial; for example, syntactic roles across constructions may share agreement, but not case. Conversely, the same morphological property, namely case, can correspond to different syntactic roles, reflecting some schematic commonality between them or some semantic relatedness. For example, the accusative case in Latin or German and the preposition *a* in Spanish are polysemic elements allowing a complex range of syntactic and semantic relations. That means that each element of an expression can be simultaneously characterized by a cluster of relational categories. For example, in sentences (1b) and (1c), *Claudia* is simultaneously the subject of a transitive clause, the initial component in such a construction, a name in nominative case, and the nominal that specifies the number and person expressed morphologically in the verb. Each of these “formal” properties has its own meaning, whereby a single constituent, *Claudia*, enters a complex network of semantic relations.

2.2. The Interaction between Verbs and Constructions

Constructions are arranged at different levels of schematicity, so that they form a structured inventory that can be represented in terms of a taxonomic network (Croft, this volume, chapter 18; Tuggy, this volume, chapter 4). Knowledge of

a language includes knowledge of its schematic constructions, such as the transitive construction in English or Spanish, and knowledge of its more substantive constructions, such as *kick the bucket*. As a matter of fact, a construction may combine substantive and schematic elements to different degrees (Croft 2001: 17; this volume, chapter 18). The variable combination of schematic and substantive elements is indicative of the syntax-lexicon continuum and of the impossibility of establishing fixed limits between lexicon and grammar; furthermore, the existence of levels of schematicity is a demonstration of such continuity: the verb *see*, whose constructional characterization must allow combining with subject and object, gives rise to a constructional schema which can be instantiated by an expression such as *John sees Mary* and, at the same time, instantiates the more general transitive constructional schema. A nonreductionist, nonderivational grammatical model such as Cognitive Grammar incorporates both constructional schemas (at different levels of schematicity) and substantive constructions.



The continuity of lexicon and grammar also applies to idiomatic expressions. The idiom *kick the bucket* is also an instantiation of the construction [Subj *kick* Obj] as well as of the higher-level transitive construction, even though most of the meaning of the idiom cannot be normally derived from either that of the verb or that of the transitive construction.

In setting up syntactic schemas and subschemas, one might want to make use of the meaning of lexical items and their distributional patterns. As such, some lexicalist accounts (e.g., Rappaport and Levin 1998) assume that the syntactic frame of a verb is determined by the verb's lexical semantics. However, this approach has an important drawback: given that most verbs enter in more than one constructional schema, the same verb would have to belong to more than one (sub)class. Put differently, as meaning differences between syntactic configurations must, on the lexicalist approach, be attributed to differences in the semantic representation of the main verb, a new verb sense needs to be posited for each verb construction, even when there is no need to posit independent verb senses (as for *send* in 3a and 3b).

- (3) a. Joe sent Chicago a letter.
 b. Joe sent a letter to Chicago.

Against this lexical approach, Goldberg (1995) has proposed a constructional approach where the meaning of an expression results from the integration or fusion of the meaning of the verb with the meaning associated specifically with the constructional schema, provided that both meanings are compatible ("semantic

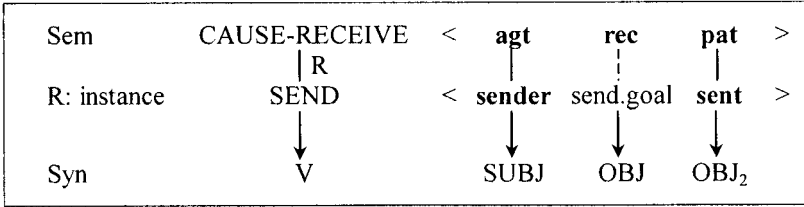


Figure 29.1. Composite fused structure: Ditransitive + *send* (Goldberg 1995: 55)
 (Sem = semantics; agt = agent; rec = recipient; pat = patient ; R = relation [way in which the verb is integrated into the construction]; Syn = syntax)

coherence principle”). For example, the verb *send* can fuse its meaning with the ditransitive construction or with the caused-motion construction. As shown in figure 29.1 and figure 29.2, the verb provides the specific roles of the participants, whereas the ditransitive construction [*Subj V Obj Obj₂*] provides the meaning of an Agent causing a Receiver to receive a Patient, and the caused-motion construction [*Subj V Obj Obl*] provides the meaning of a Cause causing a Theme to move to a Goal.

An important advantage of Goldberg’s proposal is that in those frequent cases in which a verb is registered in more than one syntactic schema the differences of meaning are attributed to surface formal differences, that is, to differences in the construction, with no need to suggest independent verb senses that are hard to justify. An additional advantage of attributing a meaning to the construction itself is the easy accommodation of novel uses. In Goldberg’s popular example (4),

(4) He sneezed the napkin off the table.

the verb *sneeze* does not need to be assigned a caused-motion sense in addition to that of the intransitive construction, which is the more frequent and basic one with this verb. According to Goldberg, the sense of caused motion is provided by the construction, not by the verb.

Still, Goldberg’s proposal about the nature of the meaning of constructions and the relation between constructional meaning and verb meaning is not beyond controversy.¹ For one, Goldberg reduces verbal polysemy by increasing constructional polysemy, with polysemic constructions being viewed as units with extended meanings radiating out from a central constructional meaning. With regard to the ditransitive constructions, the central sense is ‘X CAUSES Y TO RECEIVE Z’ (or ‘Agent successfully causes Recipient to receive Patient’) and is instantiated by verbs such as *give*, *pass*, *throw*, *bring*, and so on. Extended senses include ‘X INTENDS TO CAUSE Y TO RECEIVE Z’ (*leave*, *grant*), ‘X ENABLES Y TO RECEIVE Z’ (*permit*, *allow*), and ‘X CAUSES Y NOT TO RECEIVE Z’ (*deny*, *refuse*) (Goldberg 1995: 37–39).

The idea that constructions are polysemic units with extended meanings originating from one or more central senses does not need to be not rejected. The problem at issue is that if the meaning of an expression is understood as the integration/fusion of the meaning of the verb and the meaning of the construction, as in figure

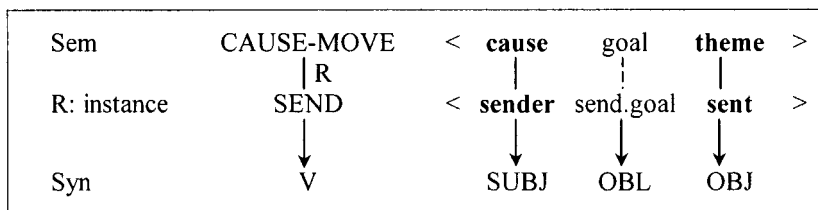


Figure 29.2. Composite fused structure: Caused-motion + *send* (based on Goldberg 1995)

29.1, it can be argued that its extended senses are simply the result of semantic differences among the verbs *give*, *leave*, *permit*, *deny*, and so on. This leads us to reconsider to what extent one can detach the meaning of the construction from the meaning of the verb, and, concomitantly, which level of schematicity is required in order to describe the meaning of the constructions.

It could be argued that (some of) Goldberg’s characterizations of grammatical constructions are not schematic enough, in that they best apply to prototypical cases and that they only include components and semantic roles which seem to derive from the verb, not from the construction itself. As such, a more abstract or schematic meaning would have to be set up for each construction, which accounts for all its instantiations.² Goldberg maintains that an abstractionist account cannot capture the intuition that the construction has a more basic, central sense, “since by virtue of positing only a single very abstract sense, *all* instances instantiate the construction equally” (1995: 35). However, Langacker (1987: 369–86) has shown that an abstractionist account is not incompatible with a semantic network consisting of prototypical instances and extensions from central cases. Let us look in this respect at Langacker’s view of the interaction between verbs and constructions in the continuum lexicon-grammar, as illustrated in figure 29.3.

Send NP NP is both an instantiation of the ditransitive construction and an instantiation of the verb *send*. In particular, *send* can be described as a network of related senses. Given that the verb profiles a relation, each meaning (schematic or specific) must include a more or less schematic characterization of the entities making up that relation. As such, “a lexical item’s characterization includes a set of ‘structural frames’ in which it conventionally occurs” (Langacker 2000: 124). For a verb such as *send*, these structural frames make up “a network of constructional schemas describing its grammatical behavior” (123). At the most abstract level, the verb *send* can be characterized schematically without reference to particular constructions, even if some construction is prototypical for it.

Likewise, the ditransitive construction can be schematically characterized without reference to particular verbs instantiating it, even though some verbs (*give*, *send*, *throw*, *bring*, etc.) are more typical in this construction than others (for example, *cry* as in *cry me a river*; see Goldberg 1995: 150). The ditransitive construction can also be described as a network of related senses, the more central sense being “that of a successful transfer between a volitional agent and a willing recipient” (151)

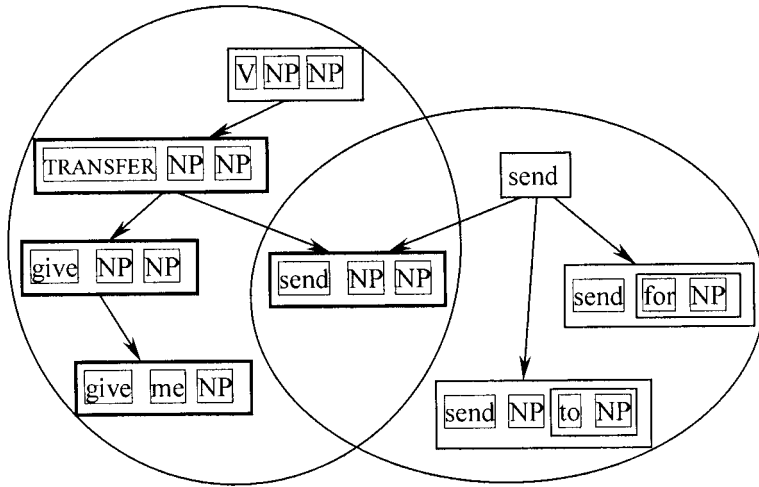


Figure 29.3. Partial networks for ditransitive construction and *send* (Langacker 2000: 123)

In sum, the differences between the meaning of verbs and the meaning of constructional schemas arise only at the more abstract or schematic levels. At more concrete levels, we find more specific constructional schemas such as *send NP NP*, which instantiate simultaneously the ditransitive construction and the verb *send*, and those two aspects are indistinguishable (see also Croft 2003; Langacker 2005: 147–55). At any rate, it seems clear that verb and construction interact semantically selecting and elaborating each other’s meaning and that new uses are based both on an abstract schema that provides a template and on concrete uses that serve as a model.

3. THE MEANING OF THE CLAUSE

3.1. Event Types and Semantic Roles

A basic insight of Cognitive Linguistics is that meanings are described relative to frames or cognitive models (Cienki, this volume, chapter 7), that is, “specific unified frameworks of knowledge, or coherent schematizations of experience” (Fillmore 1985: 223). As such, the meaning of verbs and clauses includes reference to a rich background of world and cultural knowledge. A typical example of frame, provided by Fillmore, is that of a commercial transaction event, involving such concepts as possession, change of possession, exchange, and money and including as basic frame elements the money, the goods, the buyer, and the seller.

Fillmore's conception of a frame, as applied to an event, is close to Talmy's notion of event frame, which is defined as follows: "A set of conceptual elements and interrelationships that are evoked together or co-evoked each other can be said to lie within or constitute an *event frame*, while the elements that are conceived of as incidental—whether evoked weakly or not at all—lie outside the event frame" (Talmy 1996: 238). Talmy (1996: 238) points to some differences between his concept of event frame and that of Fillmore: (i) whereas Fillmore emphasizes the co-presence of certain interrelated conceptual elements, Talmy's notion of event frame "is intended to stress as well the exclusion of other conceptual elements from the privileged core" (Talmy 2000: 260); (ii) while Fillmore "seems to represent a concept or phenomenon that may be specific to a particular language or set of languages," Talmy's event frame "is generally understood as a more generic category that is quite likely universal across languages" (260); for example, a commercial event might be a particular form of generic universal event type consisting of an interchange of entities. This latter point about the universality or cultural-boundness of event frames does not concern us specifically in this chapter, although it affects some aspects of the classification of event types to be treated below.

In Langacker's studies, a common (and universal) cognitive model for viewing events is called the "stage model":

Just as actors move about the stage and handle various props, we tend to organize the scenes we observe in terms of distinct "participants" who interact within an inclusive and reasonable stable "setting". We further impose structure along the temporal axis, by chunking clusters of temporally contiguous interactions (particularly those involving common participants) into discrete "events". (1990: 210)

Furthermore, each participant plays some role in such an event—usually expressed in grammatical theories in terms of "thematic" or "semantic" roles (such as Agent, Patient, Instrument, Experiencer, etc.). There is, however, no definitive list of roles because the roles of participants are specific to particular scenes, although they can be generalized across different events:

An inventory of semantic roles can always be refined and articulated into more specific types on the basis of further data or a finer-grained analysis—at the extreme, every verb defines a distinct set of participant roles that reflect its own unique semantic properties (e.g., the subject of *bite* is a slightly different kind of agent from the subject of *chew*). (Langacker 1991: 284)

When abstracting away from the peculiarities of individual examples, we arrive at event types and role archetypes. The "standard" semantic roles are prelinguistic concepts which, to some extent, reflect a commonsense interpretation of extralinguistic knowledge. However, their descriptive function is only to provide the prototypical values of cases and grammatical relations (Langacker 1990: 236). They do not match all the roles participants can play in actual events, and their formal reflexes may vary from language to language.³

Event types are schematic conceptualizations of actual events and are hierarchically organized. “Basic event types” which correlate with basic sentences types are very general categories of events (‘doing’, ‘moving’, ‘giving’, etc.). In addition to these schematic superordinate categories, we need more concrete “basic-level categories” (e.g., ‘painting’), and less schematic subordinate level categories (‘daubing’) (see Tuggy, this volume, chapter 4; Schmid, this volume, chapter 5). This event type categorization is reflected linguistically in lexis, and more specifically in the hierarchical structure of the verbal vocabulary. At the higher levels, we find a reduced (although difficult to limit) set of maximally general verbs categorizing possible events, such as *be*, *happen*, *do*, or *move*, *say*, *know*, and so on. Most verbs are not so general and denote less schematic events such as *paint* and *daub*.

The idea that languages have a network of related verb senses has a practical application in “FrameNet,” a lexicographic project led by Fillmore (Fillmore, Johnson, and Petruck 2003; Ruppenhofer et al. 2005). In FrameNet, roles are defined in relation with specific frames; as such, the roles associated with, for example, the verb *tell* (Speaker, Addressee, Message) are very different from roles associated with the verb *throw* (Agent, Theme, Source, Path, Goal). Some frames are quite general, while others are specific to a small family of lexical items. More specific frames can inherit the syntactic and semantic characteristics of the more general ones. Each frame can account for diverse clause patterns, and it can be applied to different related verbs. For example:

(5) *Frame*: Communication statement

Frame elements: Speaker [S], Addressee [A], Message [M], Topic [T]

[_S Leslie] **stated** [_M that she could not participate in this event]

[_S Leslie] **told** [_A me] [_M that she could not participate in this event]

[_S Leslie] **informed** [_A us] all [_T about her unwillingness in this matter]

[_S The teacher] **discussed** [_T the recent campus incidents]

FrameNet classification does not always presuppose a hierarchical structure. The most general frames (“Inherited frames”) can cross-cut the main domains and the frames included in them. There are also cases of “frame blending” (for example, ‘conversation’ + ‘fighting’: *argue*, *dispute*, *quarrel*) and “frame composition” (complex frames are made of parts that are also frames and which designate sequences of states of affairs and transitions between them).

The main advantages of the FrameNet approach is that it does away with the problems of a list of semantic roles, common to all events types, and that it groups together just the roles that are found in a single event type and does not mix roles from incompatible event types in a unified hierarchy of case roles. On the other hand, FrameNet does not provide a unified basis for an explanation of syntactic structure and grammatical relations. For this, we will need to state generalizations over frames (see Croft 1998: 29–30). This generalization can be carried out only in terms of a more generic and schematic universal characterization of event types and event structure, in terms of force dynamics and causal chains.

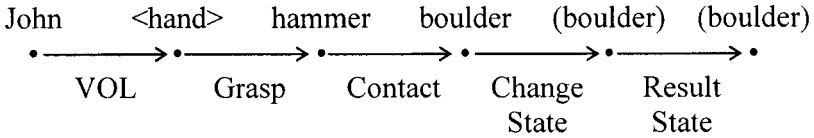


Figure 29.4. The causal chain of *John broke the boulder with a hammer*

3.2. Causal Chains and the Verbal Profile

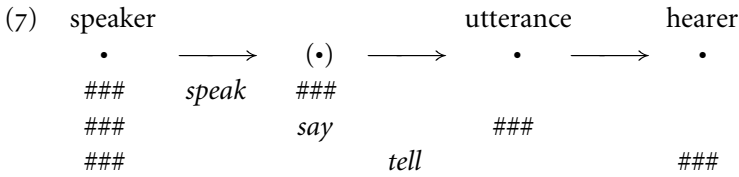
As mentioned earlier, what Langacker calls the “billiard-ball model” is one of the basic models of our conception of events. This model of causal structure is based on force-dynamic relations (Talmy 1988; De Mulder, this volume, chapter 12) and has also been used by Croft (1991, 1998) in a way very similar to Langacker’s. According to Croft (1991: 159–63), the basic difference with respect to other models of causal structure is that relevant causal relations are not established between events or between individuals and events, but between individuals, in such a way that an individual A acts upon individual B, which may act upon a third individual C, and so on. Figure 29.4 portrays in a simplified way the causal chain symbolized by *John broke the boulder with a hammer* (Croft 1991: 166), parentheses being used for force-dynamic relations involving facets of the same participant.⁴

In actual situations, there is an indefinite number of force-dynamic relations between entities participating in a complex interactive network. Within that network, a causal chain—Langacker (1990: 215; 1991: 283) uses the term “action chain”—is a unidirectional asymmetrical series of transmission of force. A verb profiles a segment of a causal chain; this is called the “verbal segment” by Croft (1991: 173). Subject and object delimit the verbal segment, so that “the subject is consistently the ‘head’ of the PROFILED portion of the action chain,” whereas “the object is the ‘tail’ of the profiled portion of the action chain” (Langacker 1990: 217).

The characterization of subject and object as head and tail of the profiled action chain is a more schematic definition than Agent and Patient and allows us to understand better that the selection of subject and object is above all a matter of construal. Many constructional differences can be accounted for as a result of profiling action chains of different lengths. For example, *break* can profile a segment whose head is either the Agent, or the Instrument, or the Patient (the symbols # indicate here, in Croft 1991’s style, the head and tail of the profiled action chain)

		F	H	G	(G)
(6)	a. <i>Floyd broke the glass (with the hammer)</i>	###			###
	b. <i>The hammer (easily) broke the glass</i>		###		###
	c. <i>The glass (easily) broke</i>			###	###

Similarly, the verbs *speaking*, *saying*, and *telling* differ with regard to the segment of the (metaphorical) chain of communication each profiles, and, as a consequence, these verbs differ in object selection.



Other examples of alternative subject and object selection, according to which focal participants are selected from the base frame, include the inversion *give/receive* (Langacker 1990: 226–27) and alternative verbs for the commercial frame: *buy/sell/spend/charge/pay/cost* . . . (Fillmore 1977: 102–9).

4. TRANSITIVITY

Like any other conceptual or linguistic category, constructions tend to be structured as radial categories around some central or prototypical member(s) (Lakoff 1987; Taylor 1995, 1998). From a semantic as well as from a formal point of view, transitivity is a multifactorial and gradual notion (Lakoff 1977; Hopper and Thompson 1980; Taylor 1995: 197–221). The central sense of the transitive construction in any language can roughly be characterized as that of an Agent carrying out an action affecting a concrete, individuated Patient and modifying it. This semantic characterization involves several elements that vary independently and tries to summarize the cluster of properties listed by Lakoff (1977: 244) and the grammatical parameters of cardinal transitivity proposed by Hopper and Thompson (1980). Nevertheless, Rice (1987) observes that a coherent prototype of transitivity must depart from conceptual models of action and interaction. According to Rice, the transitive prototype must be conceptualized in terms of the “billiard-ball model,” as it involves two participants asymmetrically related and involved in some activity. The interaction is unidirectional typically from Agent to Patient; because there is movement and affect, there must be contact with the second participant being directly affected. In sum, her characterization of transitive clauses relies on force-dynamics chains. A canonical transitive event implies an asymmetric energetic interaction between two participants.

However, the transitive construction can be extended from canonical transitive events (the prototype) to the symbolization of other cognitive domains that do not necessarily imply force dynamics. A transitive clause prototypically designates a concrete, perceptible action, symbolized by verbs such as *kill*, *break*, *move*, or *kick*.

Some volitional verbs (*want*) are also common in the transitive construction. More marginal instantiations are expressions with verbs of perception (*see, watch*), mental state (*like, forgot, regret*), or static relation (*resemble*). Nevertheless, even marginal cases of the transitive construction show some kind of asymmetry between participants, which justifies the use of the transitive construction and subject and object syntactic roles (Langacker 1990: 219–24; Croft 1991: 212–25). For example, perception and other mental verbs do not denote a physical causation event and “we have no reason to posit any kind of energy transfer from the experiencer to the other participant,” but “their interaction is obviously asymmetrical, and the experiencer’s role is energetic to the extent that we think of energy as being required for mental activity” (Langacker 1990: 222):

- (8) a. Several witnesses saw the accident.
b. She likes classical music.

Still, since the two participants in mental processes do not differ to the same extent as the Agent and the Patient in a dynamic physical event, such processes can easily give rise to alternative construals. For instance, an Experiencer may direct his or her attention to the stimulus, thus assuming the subject role; as in (8). Alternatively, the stimulus may cause a particular mental state in the Experiencer, thus motivating a reverse construal, with the stimulus as subject (as in *Classical music pleases her*).

A similar situation occurs with predicates expressing symmetrical relations, which allow reverse construals in the languages that admit transitive (or alike) constructions for this kind of predicates:⁵

- (9) a. Marsha resembles Hilda.
b. Hilda resembles Marsha

In a definition of transitivity involving energy transfer, an intrinsic orientation is imposed between subject and object participants from the head to the tail of the action chain. But the existence of transitive constructions such as (9) forces us to look for more abstract definitions of subject and object. Langacker proposes a schematic definition of the subject as “trajector” (primary figure) and the object as “landmark” (secondary figure) of the relation profiled by the verb. Therefore, in (9) the construction imposes an asymmetric construal of subject and object based only on the selection of the primary figure. The definition of subject as the trajector at clausal level subsumes other well-known characterizations; among them are Givón’s (1984) definition as the grammaticalization of “primary clausal topic,” Chafe’s (1994) notion of “starting point,” and the relation between subject and empathy, as defined by Kuno (1987). Langacker’s definitions place the characterization of subject and object at a more general level and emphasize the role of construal in the linguistic coding of events. The close affinity between topics and subjects is explained by Langacker (1998) in that a topic construction expresses a reference-point relationship between a thing and a proposition, whereas the subject-trajector and the object-landmark can be described as first and second elements in

a reference point chain, giving mental access to the relation provided by the verb. There is also a close affinity between subjects and possessors: in a possessive construction, the possessor can be described schematically as a reference point, and the possessed, as a target found in its dominion. In (10a) the child, as subject, is a reference point in the mental access to the resemblance relation, and, as possessor (*his*), it is a reference point with respect to the father. The oddity of (10b) can be justified because of conflicting reference points: the father is a reference point by the fact that it is coded as the subject; at the same time, the child, as a possessor, is a reference point with respect to the father.

- (10) a. The child resembles his father.
 b. ?His father resembles the child

It is interesting as well that across languages, instantiations of the transitive construction range over a variety of central and less central cases (Taylor 1995: 218–20). For example, the English language uses the transitive construction for many event types for which German (or Spanish) uses dative/indirect object plus nominative/subject:

- (11) I like Mary.
 (12) *Mir gefällt Mary.*
 ‘To me [DATIVE] pleases Mary [NOMINATIVE]’
 (13) *A ella le gusta la música clásica.*⁶
 ‘She [IO] likes classical music [SUBJ]’

By considering the integration of components in the construction and the symbolic correspondences between form and meaning, one can determine where prototypicality comes from and where it is manifested in transitivity. First of all, prototype effects in a construction normally come from prototype effects in the components of the construction: “Because words, as a rule, do not cluster in internally homogeneous categories, the instantiations of syntactic constructions also tend to exhibit prototype effects” (Taylor 1998: 185). In transitive constructions, prototypicality correlates with the degree to which subject and object are filled by nouns. For example, (14a), with a concrete specific noun phrase as object, is a better example of a transitive construction than (14b), with a complement clause:

- (14) a. John broke the window.
 b. John believes that they will arrive on time.

On the other hand, the syntactic roles subject and object admit some range of formal variation, which can be corroborated by the coding devices (variable marking of subject and/or object) and by the behavioral properties (e.g., passivizability) of the syntactic functions. For example, in English, *V + Prep + NP* constructions can be passivized to the extent that they approach the semantic prototype of transitivity. For example, “[15a] specifies something about a single participant acting within a setting, whereas [16a] specifies something about a

participant acting on and affecting an entity which we might otherwise construe as a setting” (Rice 1987: 95–96):⁷

- (15) a. Mary exercises in the living room.
 b. *The living room is exercised in by Mary.
- (16) a. That flea-bitten dog has slept in this bed again.
 b. This bed has been slept in again by that flea-bitten dog.

The variable behavior of these examples is symptomatic of another relevant property of syntactic prototypes, namely, the “merging of constructions at boundaries” (Taylor 1998: 196). In English, the sequence *V + Prep + NP* may correspond to three different constructions in a continuum with no clear boundaries (Rice 1987: 144): the verb particle construction, the prepositional verb construction, and the verb plus prepositional phrase construction.

Languages also vary according to the set of constructions they have available for encoding events with two participants (see the overview by Onishi 2001). For example, Finnish objects use accusative case if the action is complete (telic) and partitive case if it is incomplete (atelic), the latter implying a lesser degree of transitivity:

- (17) a. *Lapsi luki kirja-n.*
 boy.NOM read.PST.3SG book-ACC
 ‘The boy read a book [ACCUSATIVE].’
 b. *Lapsi luki kirja-a.*
 boy.NOM read.PST.3SG book-PART
 ‘The boy read a book [PARTITIVE].’

In Spanish, inanimate direct objects are usually coded without prepositions, whereas personal direct objects are usually preceded by the preposition *a*.⁸

- (18) a. *Andrés encontró a María.*
 Andres met TO Maria
 ‘Andres met Mary.’
 b. *Andrés encontró un tesoro.*
 ‘Andres found a treasure.’

Most objects in Spanish transitive clauses are not animate and are not preceded by the preposition *a*. Frequency of usage generates particular expectations about the elements that fill the slots constituting a schema: an asymmetric interaction is typically instantiated by a human NP as subject and a concrete, mostly nonhuman, NP as object. While zero-coding of the object is associated with the more frequent cases and a broader asymmetric relation between participants, overt coding is reserved for less frequent cases and the reversibility of the subject-object asymmetry. All this suggests a correlation between prototypicality, high frequency, and nonovert coding. Anyway, these are independent parameters, and it remains an empirically open question in what measure they correlate.

5. ERGATIVE AND ACCUSATIVE SYSTEMS

We have seen that Langacker defines subject and object as, respectively, trajector and landmark of the relation profiled by the verb. He also states that “subject and object relations are universal and non-primitive” (Langacker 2000: 28; also Langacker 2005: 128–36). Croft (2001), however, argues that syntactic roles are language-specific and construction-specific. How can these contradictory views, both of them cognitive linguistic, be reconciled? Note that this is a different problem from that of the nature of transitive constructions. When questioning the universality of subjects, we are dealing with what kind of formal marking (particularly, case, as well as word order and agreement) is employed in which constructions and with the semantic motivations for this distribution. The central issue here is that a specific pattern of formal marking is language- and construction-specific, whereas its semantic motivation is universal. The classic phenomenon that has been discussed in this context is that of ergativity, that is, the system where a grammatical property (case, agreement, order, etc.) is applicable to “intransitive subjects” and “transitive objects,” but not “transitive subjects.”

It is commonly assumed that all languages have syntactic constructions encoding the asymmetric interaction between the participants prototypically associated with the roles Agent (A) and Patient (P), that is, constructions whose semantic prototype is the canonical transitive event; in other words, with the distinction between A and P correlates a syntactic distinction. It is also accepted that every language has constructions with only one core participant (S). Syntactically, this sole participant may be encoded similarly to the encoding of A (accusative system) or to the encoding of P (ergative system). In Cognitive Grammar, the existence of these and other alignment systems is assumed to have a semantic motivation: the fact that S is encoded similarly to the encoding of A or to the encoding of P involves any of three different parameters to a greater or lesser extent:

- a. The role archetypes Agent and Patient
- b. Focal prominence
- c. The autonomous-dependent distinction (Langacker 1991: 378–96)⁹

With regard to the first parameter, we would expect the encoding of S as A if it is possible to categorize S as an Agent or as a semantic extension of an Agent, and we would expect the encoding of S as P if S can be categorized as a Patient or a semantic extension of a Patient. However, it should be noted that intransitive clauses, given their focus on a single participant, neutralize the asymmetric contrast between participants. In terms of action chains, the only participant of an intransitive clause is both at the beginning and at the end of the event profiled by the verb. As a consequence, intransitive subjects can be semantically more similar to agents (19b) or more similar to patients (19c):

Table 29.2. Hierarchy of Agent-like to Patient-like marking of the intransitive argument

controlled activities	< inactive actions	< bodily actions, uncontrolled activities, dispositions/properties, inchoatives	< temporary states
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- (19) a. Mark is cooking potatoes.
- b. Mark is cooking.
- c. Potatoes are cooking.

This similarity is a gradient, depending on the type of event. Mithun (1991) has shown that there is a considerable amount of cross-linguistic variation in the case marking of “intransitive subjects.” This cross-linguistic variation in the encoding of participants in different event types (where some are more A-like and some more P-like) has led Croft (1998: 53) to posit the following implicational hierarchy (table 29.2).

This table suggests that the unique participant of controlled activities is more likely to be marked in the same manner as A and that the unique participant of temporary states is more likely to be marked in the same manner as P. Languages with accusative systems generalize A-like marking to every intransitive clause, and languages with ergative systems generalize P-like marking. In between, some languages choose the marking of the intransitive subject according to event type (so-called “active systems”) or in correlation with aspect or some other categories akin to the event type. The rationale is that “transitive agent and volitional intransitive subject constitute a unified semantic category” (DeLancey 1990: 289) and so do transitive Patient and nonvolitional intransitive subjects.

In relation to the focal prominence, it seems logical that the sole participant (S) in intransitive constructions must be considered the “trajector,” the primary figure. In transitive constructions, either one of the two participants could be the protagonist and that might justify the existence of two of the most common systems in the world’s languages, namely, the accusative system, where A’s marking is identical to that of S, and the ergative system, where P’s marking is identical to that of S. Langacker considers grammatical behavior as being merely symptomatic of the conceptual import of subject, whose definition as primary focal participant is proposed to be universal. He also states that “it need not be the case in every language that trajector status is prototypically associated with agents. I believe, in fact, that in some languages (Tagalog perhaps being one) the default situation is for primary focal prominence to fall instead on what I call the theme” (Langacker 2005: 136). Nevertheless, in most languages grammatical behavior gives some evidence in favor of participant A as the primary clausal figure and in favor of the grouping of S + A as subject. Indeed, some properties of grammatical relations

Table 29.3. Ranking of all properties of grammatical relations according to universality and functional transparency

<i>Most Universal (Most Transparent)</i>
a. Functional reference-and-topically properties
b. Behavior-and-control properties
c. Word-order
d. Grammatical agreement
e. Nominal case-marking
<i>Least Universal (Least Transparent)</i>

(such as control of co-reference across clause boundaries) tend to treat A and S in the same way, even in languages whose case system is ergative.¹⁰ Givón (1995: 253; 2001: 196) has ordered the grammatical properties according to their “universality,” as shown in table 29.3.

Here the use of the terms “universal” and “transparency” is controversial, because it takes for granted the universality of categories that can be checked formally in English and in other European languages, but that are hardly detected in other systems. However, their functional basis is correct. If we seek grammatical correlates of the notion “primary clausal topic” (Givón) or of “clausal trajector,” the first element on a scale of prominence (Langacker), cross-linguistic evidence shows that there exists a clear tendency toward assigning such prominence to A (or the grouping A + S defining accusative systems), rather than to P (or the grouping P+S defining ergative systems). Such evidence comes from the tendency for the subjects (A+S) to convey accessible information (Chafe 1994: 82–92), from the tendency against the lexical instantiation of A and, to a lesser degree, S (Du Bois 1987), and from the preference for subjects to serve as reference points in accessing the relation profiled by the verb (Langacker 1998). What table 29.3 means is that behavior and control properties of grammatical relations (passivization, reflexivization, relativization, etc.) “are transparently linked to topicality and referential continuity” and that “of the three overt coding properties of [grammatical relations], both word-order and pronominal agreement are transparently associated with the coding of topicality” (Givón 2001: 196).¹¹ And properties more associated with topicality are also more associated with the grouping of S + A as subject. In a similar vein, Croft (2001) scales the properties and the constructions which characterize syntactic functions on a hierarchy which he labels as the subject construction hierarchy (figure 29.5): if a construction patterns accusatively (that is, grouping A + S as ‘subject’), the left constructions on the scale will also pattern accusatively.

Finally, the semantic distinction “autonomous-dependent” plays a role in the behavior of verbs such as English *break* and *open*. Such verbs may express a relation with a single participant affected by the process denoted by the verb. Importantly,

coordination < purposive < relativization < verb agreement < case marking

Figure 29.5. The Subject Construction Hierarchy (Croft 2001: 155)

this “core” relation can be conceptualized autonomously (see 20a), and to this nuclear relation, different components may be added whose conceptualization is ‘dependent’ on it (such as an entity supplying energy, as in 20b).

- (20) a. (The door opened)
- b. (Sam (opened the door))

This alignment, which can also be observed in other areas of linguistic structure is, according to Langacker (1991: 386–89), the basis of ergativity—the formal alignment of intransitive S and transitive P as absolutive versus the transitive A as ergative. In this system, the absolutive is normally unmarked and corresponds consistently to the most involved participant in the event (Mithun and Chafe 1999: 583–84). Mithun and Chafe note, however, that speakers have choices concerning which the most involved participant is. In Yup’ik, for example, with a verb meaning ‘to eat’, the absolutive may be the eater, as the sole relevant participant (21a), or the eaten, as in (21b):

- (21) a. *ner-u-q*
 eat-INTR-3SG.ABS
 ‘She [ABSOLUTIVE] is eating.’
- b. *luqruiyak ner-a-a*
 pike.ABS eat-TR-3SG.ERG/3SG.ABS
 ‘She is eating the pike [ABSOLUTIVE].’

The semantic basis of ergativity finds further corroboration in noun-verb compounding, incorporation, verb-phrase idioms, and in general in the dependency of the meaning of the predicate of the nature of the absolutive referent (Keenan 1984: 201). Ergativity also has a discourse basis: Du Bois (1987) notes that new referents tend to be introduced either in S or in P slots, but not in A position. In fact, about half of the entities in S-slots introduce new referents either in accusative or in ergative languages (García-Miguel 1999a), so that ergativity can be seen to imply a generalization and grammaticalization of this partial similarity between S and P.

In sum, we have seen that across languages, intransitive clauses can be subdivided according to whether their unique participant aligns with the Agent (A) or Patient (P) role of canonical transitive events. There is no clear dividing line between these two categories, but rather a continuum, whereby the unique participant of controlled activities tends to form a semantic category with the transitive Agent A (accusative system) and the unique participant of temporary states tends to group with the transitive Patient P (ergative system). Second, we have seen that the trajector-landmark asymmetry motivates the grouping of S and A as the primary figure (even in some morphologically ergative languages). Finally, ergative

systems are motivated by the involvement of participants and the conceptual autonomy of this involvement motivate the ergative systems.

Considering that in accusative systems the subject is the unmarked role and that in ergative systems the absolutive is the unmarked role (the other role being absent in intransitive clauses and usually morphologically marked in transitive clauses), in selecting an accusative or an ergative system, languages grammaticalize either one of two possible orientations in the conceptualization of events with two participants: starting from subject and eventually extending to an object or starting from the nuclear relation with an absolutive and eventually extending to an ergative. But it is important to bear in mind that in a language some facts and constructions may behave “accusatively” and others may behave “ergatively.”

6. DITRANSITIVE CLAUSES, INDIRECT OBJECTS, AND DATIVES

So far, we have focused mainly on transitive constructions, subject and object grammatical relations, and ergative-absolutive alignment. However, we have seen that a clause may have more than two participants and that some two-participant clauses exhibit a special marking, indicating that they are less transitive. These two facts lead us to posit core grammatical relations different from subject and direct object.

The conceptual structuring of three-participant situations, and in particular that of transfer events, can be seen as an extension of the Agent-Patient model, with two entities competing for the status of primary landmark, as represented in figure 29.6.

The most common constructions for transfer and other three-participant events differ, then, in the selection of the primary landmark but also in the construal of the third participant (see Newman 1996: 61–132). One common option is to code the third entity in an oblique form, for example, construing the Recipient as a Goal, as in Finnish (22), or construing a transferred thing as an Instrument, as in the Latin example (23):

- (22) *Annan kirja-n tei-lle.*
 give.1SG book-ACC you-ALL
 ‘I (will) give the book to you.’ (Finnish)
- (23) *Octavi-us Claudia-m coron-a donav-it.*
 Octavius-NOM Claudia-ACC corona-ABL presented-3SG
 ‘Octavius presented Claudia (with) a crown’ (Latin)

Constructions with Subject + Object + Oblique, independently of which entity is selected as Object (primary landmark), are closest to monotransitive constructions as far as they present only two core participants. According to Tuggy (1998), the construal of the Giver as Agent/subject and the Thing as Patient/object employs

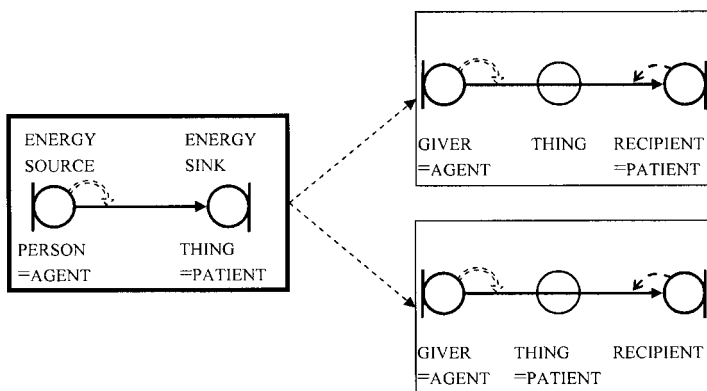


Figure 29.6. The Agent-Patient model extended to GIVE (Newman 1996: 67)

the Manipulation archetype in the conceptualization of the event; then again, if the Recipient is made Patient/object, the situation is construed according to the Human Interaction archetype. In addition, the oblique phrase may add construals such as ‘motion of the Patient toward a Goal’ (in the allative) or ‘transferred thing as an Instrument used in human interaction’.

Even so, the more typical constructions for three-participant events involve two arguments showing object properties to a variable degree. Also in that case, languages tend to exploit either of the following possibilities:

- a. Double object construction, as in English, with the Recipient as first object (or primary object as proposed by Dryer 1986) and two noun phrases showing some object properties (Hudson 1992; Newman 1996: 74–80), as in (24)
- b. Direct Object plus Dative/Indirect Object construction, as in (25)

- (24) She gave Harry the book.
- (25) *Ya dal knig-u uchital-yu.*
 I gave book-ACC teacher-DAT
 ‘I gave the book to the teacher.’ (Russian)

Both these constructions are labeled ditransitive. Their semantic properties have been dealt with in Cognitive Linguistics either by considering the construction as a whole (Goldberg 1992, 1995; van der Leek 1996) or by specifically considering indirect objects and datives (Smith 1985, 1993; Langacker 1991; Janda 1993; Maldonado 2002). In either case, ‘transfer’ serves as the prototype from which several extensions emerge. Goldberg, for instance, defines the central meaning of the ditransitive construction as ‘an Agent successfully causes Recipient to receive Patient’ (see section 2.2); furthermore, she views constructions as radial categories, extending from the central sense to other senses such as ‘permission’, ‘intention’, ‘future transfer’, ‘refusal’, and ‘promises’. Geeraerts’s definition of indirect object also starts from the transfer prototype: “active recipient (with controlling power) of a benefactive transfer of

material entities” (1998: 203); but he shows the necessity of a multidimensional structure to indicate how nonprototypical readings are linked. The main paths of extension include the metaphorical extension toward a communicative transfer instead of a benefactive transfer or toward an abstract entity instead of a material entity and generalization toward an Experiencer instead of an active Recipient.

Langacker (1991: 327), then again, looks for a more schematic characterization and defines the indirect object in terms of force dynamics and action chains as an “active experiencer in the target domain.” This definition accommodates some observations by Smith (1985) about German to the effect that the dative generally encodes participants in an event who are affected entities (i.e., in the target domain) and at the same time affectors (i.e., potentially active), whereas the accusative encodes entities who are affected only. Langacker’s characterization includes both Recipients with *give* and other verbs of transfer and Experiencers with verbs of mental experience (*seem, please, be hungry, frighten, bother, etc.*).¹² Nevertheless, it constitutes the base for more complex elaborations and extensions. For example, Maldonado (2002) has shown how the Spanish dative extends from encoding the Recipient of a transfer (“indirect object”) to designating some participant in the setting not directly involved in the event (“setting dative”) or even a participant in the viewer’s space (“sympathetic dative”) added to an indirect object:

- (26) *Le envié el paquete a María.* [receiver of transfer]
 3SG.DAT send.1SG the package to María
 ‘I sent the package to María.’
- (27) *Le castigaron al niño.* [setting dative]
 3SG.DAT punish.3PL to.the kid
 ‘They punished his child.’ (literally: ‘They punished the kid on him.’)
- (28) *Me le pusieron un cuatro al niño.* [sympathetic dative]
 1SG.DAT 3SG.DAT put.3PL a four to.the kid
 ‘They flunked my son.’ (literally: ‘They gave a four to the kid on me.’)

The point is that the dative could play a crucial role in the construal of events, bringing onstage additional participants that do not fit exactly as subject or object, construing them as central participants.¹³ This leads us to the last point in this chapter, the contrast between center and periphery in the structure of the clause.

7. ARGUMENTS AND ADJUNCTS

A clause can be viewed as consisting of a head (the verb) and two types of dependent elements, namely, arguments and adjuncts; what distinguishes arguments and adjuncts is the (relative) obligatoriness of the former and the (relative) optionality of the latter. This distinction is similar, even though not equivalent, to that operating

in many languages between the core and oblique elements in a clause. The latter distinction relies on more formal grounds: in some languages, such as English, core elements are instantiated by bare NPs, whereas obliques are instantiated by adpositional phrases. In other languages, it is agreement or cross-reference that accounts for the distinction: for example, in Basque, the auxiliary verb agrees with absolutive, ergative, and dative arguments. Be that as it may, adjuncts largely correspond to oblique elements (coded by an oblique form) and arguments to core elements. For example, in *She broke the window in the kitchen*, subject and object are the core arguments, and *in the kitchen* is an adjunct in an oblique form.

The “obligatory-optional” as well as the “core-oblique” distinctions have a similar semantic basis. In the canonical event model involving distinct “participants” who interact within an inclusive and reasonable stable “setting,” arguments basically correspond to the participants in the scene and adjuncts to some facet of the setting. The setting of the event needs to be distinguished from its location(s), that is, a fragment of the setting that locates a participant and that may be required by the verb (as in *put the book on the table*). Finally, participants in the event may have a “central” role (primarily, subject and object) or may be considered secondary or peripheral. Adjuncts are usually reserved for secondary or peripheral participants (e.g., Instruments, Beneficiaries, and so on).

Even though the explanation just offered accounts for the prototypical cases, the distinction between arguments and adjuncts has, in Langacker’s view, a more general basis, which is related to the opposition “autonomous-dependent” and to the way in which correspondences between elements are established in the assembly of complex structures. An argument elaborates a salient substructure (the e-site) of the predicate. For example, the verb *break* includes in its meaning a relation between the breaker and the broken thing. In the transitive construction, these salient substructures are elaborated by the subject NP and the object argument(s), respectively. An adjunct or modifier does not elaborate a salient substructure of the head (the verb) but, rather, a substructure of the adjunct is elaborated by the predicate. For example, the preposition *in* of *in the kitchen* establishes a static relation between a setting (the kitchen) and some other entity, which can, for instance, be elaborated by the predication *She broke the window*.

Note that the distinction between argument and adjunct relies on the saliency of substructures and that saliency is a gradient. Some participants—above all, the theme or the absolutive—are inherent to the meaning of a verb, some others are less inherent, still others such as a location are usually not salient in the characterization of an event, although localizability is a relatively inherent property of some (not all) predicates (Croft 2001: 274). Therefore, argument and adjuncts range along a continuum according to the relative salience of the semantic substructures they elaborate.

Besides being a gradient, saliency is also subject to alternative construals. The very same participant in an objective scene may, in various construals, be conceptualized as more or less salient and coded accordingly. Even a setting, which is normally assigned adjunct function, can be construed as subject, the primary figure in the conceptualization of an event (Langacker 1991: 345–48). Determining

the relative salience of the elements in a scene is not just based on the selection of the subject but rather on the core-oblique distinction, which distinguishes central participants from marginal elements.

We have observed two sources of salience in clause structure. On the one hand, the verb's meaning implies which elements of the frame-semantic knowledge are obligatorily accessed; these are the "arguments" implied lexically by the verb. On the other hand, core grammatical functions "profile particular roles as being semantically salient or as having some kind of discourse prominence" (Goldberg 1995: 49). Goldberg uses the term *participants* for 'lexically profiled roles', and the term *arguments* for 'constructionally profiled roles'.¹⁴ The important point at issue is that in a particular clause there must be coherent links between arguments and participants. Take the verb *send* as in figures 29.1 and 29.2 above. The verb selects three roles: the Sender, the Sent, and the Goal. The DITRANSITIVE construction gives prominence to all three roles (matching constructional roles Agent, Receiver, and Theme), whereas the CAUSED-MOTION construction just gives prominence to the sender and the sent (as Causer and Theme, respectively), coded with the core grammatical functions subject and object.

Note that neither "lexical profiling" nor "constructional profiling," as used by Goldberg, are equivalent to the concept of profiling in Cognitive Grammar (Langacker 2005: 129). According to Langacker (1987: 118), the profile is the part of the conceptual base designated by an expression. A clause (and a verb) profiles a temporal relation, where subject and object act as trajector and landmark, respectively; that is, the clausal profile concerns the relation itself, more than the participants. Nevertheless, there is some affinity between Langacker's profiling and Goldberg's constructional profiling: subject and object are central participants, the entities delimiting the event and defining the "verbal segment." For this reason, such entities are especially salient in the construal of the event. In other cases—and this may differ across languages—prominence is given to additional participants not directly involved in the event (often as a result of particular construals and depending on the grammatical routines established in a particular language).

8. CONCLUSION

This chapter has provided a brief and necessarily incomplete survey of basic problems in clause structure. The guiding assumption has been that the units of grammar (constructions) are symbolic units and thus that grammatical structures must be understood in terms of their meaning, rooted in cognition and language use. This chapter has focused on schematic and prototypical characterizations of basic syntactic constructs, such as the subject or the transitive clause. It has dealt with issues such as the relations of categorization between clausal constructions and

specific linguistic expressions, the interaction between verbs and constructions, and conceptual schemas underlying transitive constructions and accusative and ergative systems. Among the basic concepts that have shown to be particularly useful for the understanding of clausal structure, I have dealt with the notion of prototype, schema, construal, and saliency. On several occasions, I have observed that minor formal differences may give rise to alternate construals, which give more or less prominence to different aspects of a frame.

Many problems have not been covered in this chapter. I have left for further research the study of the way in which the meanings of the different elements in a construction are integrated, not only the meaning of the verb and of the constructional schema but also that of agreement, case, and other morphemes.

NOTES

1. It is worth comparing Goldberg's approach with Fauconnier and Turner's (1996) concept of *blending* (see also Turner, this volume, chapter 15). A blend does not integrate a constructional schema with a verb, but a prototypical instance of a construction and an unintegrated novel conceived event sequence.
2. A more schematic or abstract view of the meaning of constructions leads to question the appropriateness of cause, receive, move, and so on (or the semantic roles Agent, Patient, etc.) as components of the constructional meaning (van der Leek 1996, 2000).
3. See, for example, Nishimura (1993: 506–8) for the differences between the notion of Agent in English and Japanese. Davidse (1998) has argued that semantic roles can be defined formally, by bringing in paradigmatically related constructions (such as passives, alternative adpositional phrases, etc.). Such paradigmatic alternatives are alternate construals of the same scene, each with its own meaning; and, in my opinion, they are merely symptomatic of semantic roles, as far as alternate construals are semantically coherent with some event types and not others.
4. In his latest work, Croft uses a three-dimensional representation, which is detailed in Croft (forthcoming).
5. I am assuming here that the main criterion for the identification of a transitive construction in English is the occurrence of a postverbal NP. This is, of course, a simplification. Verbs such as *resemble* do not admit other commonly recognized criteria such as passivization, which may be a signal of its deviation from the prototype of transitivity.
6. Similar constructions have been interpreted in some languages as having a "dative subject." In these languages, however, the grammatical properties of the subject do not cluster on a single participant. In Spanish, for example, the Experiencer appears in first position, but the verb agrees with the postverbal Stimulus. More generally, it appears that across languages, subject and/or object properties are spread to variable degrees over core participants in less transitive clauses.
7. Rice (1987) relies on passivizability as the main formal test for transitivity, but this criterion is subject to controversy: "If one takes passivizability as the criterion for Direct Object in English, then one's conclusions will tell us something about the passive, not about some allegedly global category Direct Object" (Croft 2001: 46). No doubt, the use of passive overlaps to a large extent with the conceptual space of transitivity, but in the final

analysis the grammaticality of (15b) and (16b) only depends on the construal made by the passive construction, not the transitive construction (see Langacker 1990 on the English passive).

8. ‘Humanness’ is just one of the main factors correlating with the use of “personal” *a*. Another important factor is ‘individuation’. Actually, the explanation for the use of *a* must be stated at clause-level (see Delbecque 1998, 2002) and has to do with the potential reversibility of subject and object roles, that is, with a weakening of subject-object asymmetry.

9. These three parameters correspond with those proposed by Mithun and Chafe (1999): “semantic role,” “starting point,” and “immediately involved,” respectively.

10. This fact has been alleged since Anderson (1976) suggested a distinction between “syntactic” ergativity, based on behavior and control properties, and morphological ergativity, based on case marking, and suggested the universality of “deep” subject, defined with syntactic criteria. However, besides the fact that the terms “syntactic” and “morphological” in this context are misleading, “behavior-and-control” properties do not behave uniformly across languages either.

11. “Topicality is fundamentally a cognitive dimension, having to do with the focus of attention on one or two important events-or-state participants during the processing of multi-participant clauses.” (Givón 2001: 198)

12. I have mentioned above the use of dative case in less transitive two-participant clauses.

13. The status of indirect objects as core participants (in Spanish) is stressed by Vázquez Rozas (1995) and García-Miguel (1999b).

14. In previous work (García-Miguel 1995a: 41–46; 1995b: 27–52), I have used the terms *arguments* or *actants* for lexically determined prominent roles and *central participants* for grammatically salient roles, the distinction being equivalent to that of Goldberg.

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