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CHAPTER 12

Syntactic Constructions as Prototype Categories

In reviewing the evidence for the prototype structure of grammatical categories, we saw in Chapter 11 that members of a grammatical category do not necessarily exhibit a common set of syntactic properties. Not every noun can be inserted with equal facility into the possessor slot of the possessive construction, not every transitive verb has a passive counterpart, and so on. Possibility of occurrence in a construction is a matter of gradience, some items being readily available, others being totally excluded, with, in between, a range of items whose use is dubious or sporadic. As a consequence, constructions, no less than other kinds of linguistic objects, need to be regarded as prototype categories, with some instantiations counting as better examples of the construction than others.

The main body of this chapter examines the prototype structure of some selected English constructions. First, however, it is necessary to say a few words about the notion of construction within cognitive linguistics, and why we need to recognize constructions in the first place.

12.1 Why we need constructions

As was the case with the grammatical categories of Chapter 11, the topic of this chapter harks back to one of the concerns of pre-generative linguistics. Robins (1964: 190), speaking from the perspective of a descriptive structuralist, characterized grammar as the 'description and analysis of structures [that is, constructions: J.R.T.] . . . in terms of recurrent elements and patterns'. With the advent of the generative paradigm, however, constructions ceased to be a focus of interest. One could even say that constructions ceased to have a theoretical status at all. Constructions were merely 'epiphenomena' (Lakoff 1987*b*: 467), the by-product, as it were, of phrase structure and transformational rules. For example, the transitive clause construction—which we may characterize as [NP_1 V NP_2]—emerges as the product of phrase structure rules, namely, S → NP VP, and VP → V NP. (Further rules are, of course, needed in order to generate the NPs, as well as to supply the tense, aspect, and polarity of the verb.) Lexical insertion into the phrase marker then gives us instances of the construction, such as *The farmer shot the rabbit*.

An immediate problem with this account is that not every NP, and not every verb, is eligible to fill the nodes of the phrase marker. We cannot have **The envy slept the amoeba*. In order to avoid such undesirable results, it is necessary to stipulate that only a subcategory of verbs, namely the so-called transitive verbs, can be inserted into the phrase marker. One also needs to appeal to selectional restrictions holding between specific verbs and their subject and object NPs. Needless to say, such an approach presupposes that the class of transitive verbs is clearly defined. It also rests on certain assumptions concerning the nature of semantic features—assumptions which we have already had occasion to question (Section 2.3).

There are two further problems with the generative account. First, it ignores the role of the construction itself in determining the acceptability of its instances. The general meaning of a construction, for example, may rule out certain word combinations as unacceptable, simply because the resulting meaning is incompatible with the construction's meaning. I address this topic later in this chapter. The second problem is that it ignores the role of idiomaticity in language. Idioms, by definition, are expressions which have to be specifically learned, they cannot be assembled in accordance with general principles. Now, if the idioms in a language were relatively few in number, and if the idiomatic could be cleanly distinguished from the regular, non-idiomatic 'rest' of a language, the existence of idioms would not be particularly troublesome. The remarkable thing about idioms, however, is how many of them there are, and the many different ways in which an expression can be idiomatic.

First, there are idioms whose semantic properties cannot be predicted,

but which are syntactically quite unremarkable. From a syntactic point of view, *kick the bucket* is a regular VP. In its idiomatic sense "die", however, the expression obviously cannot be generated by inserting items selected from the lexicon, it has to be learned as such. Then there are expressions which contain a word which occurs nowhere outside of that expression. *Aback*, for example, is virtually restricted to occurring in the passive construction. We can have *I was taken aback by that remark*, but the active counterpart **That remark took me aback* is not possible. Not only does this example show that the passive cannot be derived from the active, it also shows that *aback* cannot be listed in the lexicon except as part of the passive verb phrase *be taken aback*.

Whereas *kick the bucket* is syntactically normal, other idioms have a syntax which is unique to the idioms in question. *By and large* coordinates what looks like a preposition (*by*) with what looks like an adjective (*large*). This pattern of coordination is attested nowhere else in English. Similarly, the structure of *none the less*, *never mind*, *eggs is eggs*, *far be it from me (to criticize)*, is unique to these specific expressions.

Of special interest are so-called **constructional idioms**. Similar to idioms of the kind *by and large*, these exhibit an unusual syntax, and cannot therefore be generated by general phrase structure rules. At the same time, constructional idioms are productive, in that their slots can be filled by different items. Consider expressions such as *One more beer and I'm leaving*, *Another botch-up like that and you're fired*, *Two hours and we'll be home* (cf. Culicover and Jackendoff 1997). The syntactic (and semantic) commonality of these expressions will be obvious. The initial nominal names some entity suggestive of a process which, when completed, constitutes the condition for the occurrence of the process stated after *and*. In principle, any lexical material which is compatible with the semantics of the construction can be inserted into it. Important for our purposes is the fact that the *one more* construction is not an isolated example. Other examples of constructional idioms that have been studied in recent years include the correlative construction (exemplified by *The more the merrier*), the incredulity response construction (*What?! Me write a novel?!*), and the *What's X doing Y* construction (*What's this fly doing in my soup?*). Once the number and variety of constructional idioms is recognized, it becomes increasingly attractive to view the syntax of a language entirely in such terms. At one extreme are lexically specified constructions, of the kind *by and large*. At the other extreme are highly general constructions, such as that for the transitive clause. In between are all manner of constructional idioms, of greater or lesser degree of productivity. Given this view of syntax, it will be apparent that it is actually rather difficult to draw a line between the 'idiomatic' and the 'regular'. Morphology can be approached in the same way. On the one hand there are 'idiomatic' word formations, such as the plural form *men* (no other noun in English forms its plural by replacing an internal vowel with [e].) At the other extreme are regular, highly general morphological

constructions, such as that for the present participle [V-ing]. In between are word formation patterns of varying degrees of productivity.

In the last couple of decades, **construction grammar** has emerged as an important trend in cognitive linguistics. Significant landmarks are Lakoff's (1977) paper on linguistic gestalts and Fillmore's (1979*a*) notion of syntactic formulas. Work by Fillmore *et al.* (1988), Goldberg (1995), and Kay and Fillmore (1999) have refined and developed the approach. Perhaps the most extensive account to date remains Lakoff's (1987*b*: 462ff.) monumental analysis of some sixteen distinct constructions involving deictic and existential *there*, and the manner in which the constructions are related within an overarching family resemblance category.

12.2 Elements of a construction grammar

Interest in constructions is not new. As mentioned earlier, structuralist linguists recognized constructions as patterns for the combination of smaller elements. But whereas structuralists were mainly concerned with the purely formal aspects of constructions, construction grammar views a construction as the pairing of a specification of form with a specification of meaning. With regard to its formal specification, a construction can be thought of as a formula consisting of an ordered sequence of slots. Some slots are obligatory to the construction, others might be optional. Each slot carries a specification of the kinds of item that can fill it. In some cases, only very general grammatical categories might be specified, such as noun phrase or transitive verb. In other cases, a small set of candidates might have to be exhaustively listed; in the limiting case, there may be only one possible candidate. For some constructions, the formal characterization may need to refer to prosodic and even paralinguistic information regarding voice quality and accompanying gestures. For example, instances of the incredulity response construction (Lambrecht 1990), such as *Me write a novel?!*, have to be spoken with two tone units, the first tone unit being used for the 'subject' nominal, the second for the 'verb phrase' constituent. Each of these tone units has to have a rising intonation, while the expression as a whole may well be accompanied by a sneering voice quality. Consider, as another example, the 'perceptual deictic', exemplified by *There's the bell!* (Lakoff 1987*b*: 509ff.). Perceptual deictics would typically be accompanied by a raised forefinger. As mentioned, the statement of a construction's formal aspects is linked to a statement of its meaning, which may include information on conditions and context of use. Meaning is therefore to be understood in a rather broad sense, to embrace both pragmatic and discourse-related matters. The incredulity response construction, for example, would occur in a situation in which a proposition has already been introduced into the discourse. The speaker takes up this proposition and dismisses it as absurd.

If we take constructions—understood as pairings of form and meaning—to be the basic units of syntax, we need to consider the kinds of relation that can exist between the constructions of a language. One kind of relation is that of a part to a whole, that is to say, a construction may function as part of another construction. Take the prenominal possessive construction in English, exemplified by *the teacher's car*. The formal properties of the construction may be represented by the formula [NP's N]. The formula indicates that the first element is a noun phrase. But noun phrases themselves constitute constructions, one possibility being represented by the formula [DET N]. The matter becomes more intricate when we recognize that a possessive of the form [NP's N] not only contains an NP, it also constitutes an NP, and may itself be analysed as an instantiation of the NP formula [DET N], with [NP's] functioning as the determiner. The example illustrates a second kind of relation that can hold between constructions—one construction may be regarded as an instantiation of another construction. The interaction of the part–whole and instance–schema relationships may result in a number of alternative, and equally valid analyses of a given linguistic expression. Thus the noun phrase *The teacher's wife's car* may be represented by the formulas [DET N], [NP's N], [NP's N's N], and [DET N's N's N].

A third kind of relationship between constructions is the 'based-on' relation discussed by Lakoff (1987*b*). Lakoff identifies, amongst the various constructions exhibiting deictic *there*, a central deictic, instantiated by the expression *There's Harry with his red jacket on*, and an activity start deictic, exemplified by *There goes Harry, meditating again*. The two constructions are formally and semantically distinct. Yet certain properties of the latter can be derived from properties of the former. The one, in fact, can be regarded as an extension of the other, similar to the way in which (to take up an example from an earlier chapter) certain uses of *climb* are based on, or extended from, more basic uses of the verb.

It should be emphasized here that a construction-based grammar has no place for transformations, of the kind that used to figure so prominently in generative grammar. To be sure, there are correspondences between active and passive sentences, between prenominal possessives of the kind *the country's president* and *of*-expressions of the kind *the president of the country*. But similarity does not entail the need to posit identity, at some level of description. There can be no question of one construction being transformed into, or derived from, another (Fillmore 1985). The exclusion of transformations is consistent with Langacker's (1987: 46) claim that 'grammatical structure is almost entirely overt'. Semantic content is structured and symbolized, not at the level of some abstract, unobservable underlying representation, but at the surface level of an utterance.

The main focus of the present chapter will be the prototype structure of grammatical constructions. A construction is constituted by the pairing of a meaning with a form. Consistent with the prototype approach, both meaning

and form need to be stated, in the first instance, in terms of central cases. Both may display prototype effects. A construction may be used to express meanings which differ to a greater or lesser extent from the central specification. Similarly, the items which fill the construction slots may diverge from the formal specification of the prototype. The characterization of a construction needs to specify, not only the prototype, but also the manner and the extent of permitted deviation from the prototype.

I have already given a brief account of a grammatical construction in prototype terms—I refer to the discussion of yes–no interrogatives at the close of Chapter 9. There, the focus was on semantic, rather than formal extension from the prototype. The example illustrates an important property of many of the more productive constructions, namely the tendency for some of their members to acquire idiomatic, or formulaic status. From a purely syntactic point of view, *Is that a fact?* is a regular and unremarkable instantiation of the yes–no interrogative. Semantically, however, the sentence is a rather marginal exemplar, in that it does not ask for polarity specification. It could even be argued that it is not even a question at all, instead, it serves purely as an expression of speaker surprise. (When used in its idiomatic sense, the sentence is also associated with a rather special intonation contour.) Neither is the meaning of the expression entirely predictable from the prototype specification. Thus *Is that a fact?* has dual allegiance. On the one hand, the sentence instantiates the yes–no interrogative. At the same time, we can regard the sentence as a construction in its own right. The formula for the construction would have to state the specific lexical items (including the required tense of the verb and the number of the noun) that may occur in the construction slots; the characteristic intonation and precise conditions on use would also have to be specified. Furthermore, the construction would have to be regarded as highly unproductive, since extension from the central specification is hardly possible. For instance, one could not say, as expressions of speaker surprise, **Are those facts?*, **Were these facts?*, and so on. The phenomenon is quite frequent. The greeting *How do you do?*, the challenge *Over my dead body!*, and the enthusiastic endorsement *You're telling me!* are, from one point of view, instantiations of the wh-interrogative, the prepositional phrase, and the transitive clause construction, respectively. At the same time, the expressions instantiate highly unproductive, one-member constructions. *How do you do?* cannot be extended to encompass **How does she do?*, or even **How do you all do? You're telling me!* is even constrained with regard to its intonation pattern, in that the construction requires falling tone on *tell* and *me* (*You're* `TELLing `ME). With an alternative intonation, e.g. *You're* `TELL*ing me*, the sentence is no longer interpreted in its idiomatic sense.[1]

Other formulaic expressions are productive, but to a very limited extent.

[1] On the association of formulaic expressions with a fixed intonation pattern, see Bolinger (1986: 495).

Consider various means for expressing thanks: *Thanks*, *Thanks very much*, *Thanks a lot*, *Thanks a million*. The construction is not freely extendible. One might, as an expression of very enthusiastic gratitude, encounter *Thanks a billion*, but the insertion of other numerals, e.g. **Thanks a hundred*, **Thanks a thousand*, is impossible. Another construction of low productivity is that instantiated by the expression *day in day out* (Fillmore 1979*a*). The construction is used to express unchanging monotony. As such, it permits the insertion of alternative time units into the N slots. Predictably, these designate the time periods over which monotony is usually perceived: *week in week out, month in month out, year in year out*. Both very long and very short time units are not permitted: **century in century out*, **millennium in millennium out*, **minute in minute out*, **second in second out*. The reason is, clearly, that monotony is not usually measured in terms of seconds and minutes, neither can human beings, with their limited life span, perceive monotony in the succession of centuries and millennia. (One could, however, imagine the writer of a science fiction tale expressing the boredom of a creature of extreme longevity by means of the expression *century in century out*.) In this respect the construction provides a fine illustration of the interdependence of formal and semantic properties.

12.3 The prenominal possessive

In this and the following section I examine two highly productive constructions in English. For the first example I return to the prenominal possessive (*John's car*, *the year's work*, etc.). We have already discussed some aspects of the construction's formal properties (Sections 11.3 and 12.2). What about its semantics?

Let us start with the thesis that the prenominal possessive, in its central sense, identifies one entity, the 'possessed', in terms of its possession by another, the 'possessor'. Possession is a difficult and complex concept (see Miller and Johnson-Laird 1976: 558ff. for some discussion). It is perhaps best thought of as an 'experiential gestalt', in the sense of Lakoff and Johnson (1980, especially chs. 14 and 15). On the one hand, possession is a 'basic' concept; people frequently appeal to it, without needing to analyse it, in order to 'organize their physical and cultural realities' (Lakoff and Johnson 1980: 69). Yet possession is not a semantic primitive. It certainly is possible to identify a number of properties that are shared by instances of the possession relation. Some of them are listed below:

(a) the possessor is a specific human being. Non-human animates, and even less, inanimates, cannot possess things;

(b) the possessed is a specific concrete thing (usually inanimate) or collection of specific concrete things, not an abstract;

(c) the relation is an exclusive one, i.e. for each thing possessed there is only one possessor;

(d) the possessor has the right to make use of the possessed; other people can make use of the possessed only with the permission of the possessor;

(e) the possessor's rights over the possessed are invested in him in virtue of a transaction, i.e. through purchase, donation, or inheritance. The rights remain with him until a further transaction (sale, gift, bequest) transfers them to another person;

(f) the possessor is responsible for the possessed; he is expected to care for it, and to maintain it in good condition;

(g) in order that the possessor can exercise his rights and duties with respect to the possessed, possessor and possessed need to be in close spatial proximity;

(h) the relation of possession is a long-term one, measured in months and years rather than minutes and seconds.

The co-occurrence of the above constellation of properties constitutes cases of prototypical possession. Whenever a relation of prototypical possession, as characterized above, exists between two entities, the relation can be expressed by means of the prenominal possessive construction. But the construction can also be used to encode many other kinds of relationship. These relationships can be regarded as extensions, some minimal, some more substantial, from the prototype. A minimal extension is exemplified by *the dog's bone*. A dog is not a prototypical possessor. Yet the relation of dog to bone comes close to the prototype case in that the dog, having found the bone, claims exclusive rights over it. Consider, as another example, *the secretary's computer*, in the sense "the computer that has been assigned to the secretary for regular use". The relation diverges from prototypical possession in that the secretary has only limited rights over the computer; otherwise the relation exhibits considerable commonality with the prototype. With *John's train* (in the sense "the train John is travelling on"), it is again the possessor's right to use the possessed that is in focus; the rights are, however, limited and non-exclusive. A further important group of possessive expressions encodes the relation of a part to a whole: *John's hands*, *the cat's tail*, *the car's door*, *the play's final act*. Here we witness the perspectivization of spatial proximity of possessor and possessed (g), as well as the temporal duration of the relation (h)—a part is always and necessarily 'near' the thing of which it is a constituent; also, for each part, there is only one whole of which it is a constituent, cf. (c). By extension, the possessive construction comes to encode the long-term relation between a thing and its properties (*John's intelligence*, *the car's road-holding ability*).

Of special importance to a characterization of the possessive construction is the exclusive nature of the relation between possessed and possessor (c). While

a person (the prototypical possessor) may enter into a possession relation with many different things simultaneously, at a given time a thing may enter into a possession relation with only one possessor. Hence a possessive expression is a particularly suitable device for a speaker who wishes to uniquely identify an entity. And indeed, possessive expressions generally do have specific reference; *John's house*, for example, identifies a specific house in terms of its (one and only) possessor. This function of the possessive construction motivates the use of the construction to encode relations which at first sight would appear to have very little to do with possession in the strict sense. Possessive expressions commonly invoke kinship and other interpersonal relationships: *John's wife, Mary's rival, my friends*. A person can only be described as a wife, a rival, or a friend from the vantage point of a second person. Different vantage points may lead one and the same person to be described, alternately, as wife or mother, rival or associate, friend or enemy. The possessor nominal makes it possible for a speaker to spell out from whose vantage point a given individual is so designated. A similar motivation lies behind expressions like *the company's director, the country's president*. Again, a person is a director or a president only from the vantage point of an institution in which he occupies a certain role. Even deverbal nouns (i.e. nouns like *arrival* and *invasion*, which are derived from the verbs *to arrive* and *to invade*) may be construed with possessor nominals, just in case the possessor nominal uniquely 'locates' the abstract entity with respect to one of its participants or circumstances: *the train's arrival, the prisoner's escape, Poland's invasion, yesterday's arrests, last night's performance*.

In view of the multiplicity of relations that can be invoked by the possessive construction, some linguists have proposed that the semantics of the possessive are indeterminate. The claim is that the possessive simply identifies one entity by invoking *some* relation between that entity and another entity; otherwise, the meaning is 'quite indeterminate' (Kempson 1977: 125). And indeed, certain possessive expressions are open to multiple interpretations. *John's car* could identify the car as the one John is driving, the one he has rented, the one he owns, the one he has designed, the one he is always talking about—in fact, the expression can invoke just about any relation in terms of which a car can be plausibly identified with reference to a person. Similarly, *John's photograph* could be the photograph that John owns, the one he took, or the one that depicts him. There is, however, some evidence for the primacy of the relation of possession, in the strict sense. The interrogative *Whose car is that?* is not a request to the hearer to name some person who stands in some indeterminate relation to the car; the expression is a request to name the possessor (in the prototypical, or close to prototypical sense) of the car. The possession relation is likewise invoked by contrastive uses of possessive expressions, of the kind *It's not John's photograph, it's Max's photograph*. Consider, finally, the following scenario. Someone lends me his car, which I then smash. In approaching a passer-by for assistance, I could quite well say

I've just smashed my car, meaning by *my car* no more than "the car I was driving". But it would be highly imprudent of me to report the incident to the friend who had lent me the car with the sentence *I've just smashed my car*. In such a context, the central, prototypical meaning of the possessive construction would very strongly come to the fore.

A prototype approach throws light on certain other matters. It will be appreciated that, semantically, the prenominal possessive construction permits very considerable extension from its prototype characterization. Even so, extension from the prototype goes only so far. It is not the case that *any* entity can be identified in terms of *any* kind of relationship with any other entity. An important constraint is that the possessor should not diverge too much from the prototype specification, i.e. a human being. We saw in Section 11.3 that inanimates and abstracts cannot readily serve as possessors; in these cases, full productivity gradually gives way to idiomaticity and dubious acceptability. In comparison with the [NP's N] construction, other constructions involving possessor nominals permit very little extension indeed from the prototype. Consider predicative possessives, of the kind *This car is John's*. This expression is not open to the multifarious interpretations of *John's car*. The expression invokes a relation of true possession, or a relation which is very close to true possession, such as authorized usage, as sanctioned by an agreement with a car-hire company. Accordingly, [NP's N] expressions which invoke a relation which is rather distant from the possession prototype do not permit predicative rewordings: **This rival is Mary's*, **This door is the car's*, **This invasion was Poland's*, **These arrests are yesterday's*. Another construction involving the possessive morpheme is the postnominal construction: *a book of John's, a friend of Mary's*. Again the construction permits only limited extension from the prototype. For instance, non-human possessors are ruled out (**a bone of the dog's*). And while *John's photograph* is open to different semantic interpretations, *a photograph of John's* can only mean "a photograph that John owns".

12.4 The transitive construction

I now turn to one of the most productive constructions in English, the transitive clause construction. The following are typical instantiations:

(1) The child kicked the ball.
(2) John moved the table.
(3) Mary shot the intruder.

The syntactic properties of the construction may be represented by the formula [NP_1 V_{TRANS} NP_2], where NP_1 and NP_2 stand for the subject and direct object, and V_{TRANS} is a transitive verb. In its prototypical instantiations, both NPs have specific reference, while the verb is realis, i.e. affirmative and

indicative, and in a reporting tense (either present or past). These latter characteristics fall out from the specification of the construction's meaning.

Semantically, the transitive construction is difficult to characterize in a few words. Drawing on Lakoff (1977) and Hopper and Thompson (1980), we can list at least twelve semantic properties of the construction, in its prototypical instantiations. The length of this list should not be taken to imply that the semantics of the transitive clause are particularly complex. On the contrary, the meaning of the construction—like that of the possessive—has the status of an experientially primitive gestalt, cognitively simpler than any of its component parts. Indeed, it would probably be true to say that many of the following properties are understood relative to a prior understanding of the gestalt, the gestalt does not emerge from the summation of independently conceptualized attributes.

(a) The construction describes events involving two, and only two participants, encoded by the subject and direct object NPs respectively;

(b) The identity of the two participants can be determined, that is to say, the subject and direct object nominals have specific reference;

(c) The two participants are highly individuated, distinct from each other and from the background environment;

(d) The event is initiated by the referent of the subject NP, i.e. by the agent. Responsibility for the event thus lies exclusively with the agent. Furthermore, the subject NP is the sentence topic; the subject is what the sentence is about;

(e) The agent acts consciously and volitionally, and thus controls the event. Since consciousness and volition are typically human attributes, it follows that the agent is typically a human being;[2]

(f) As a consequence of the agent's action, something happens to the patient, i.e. the referent of the object nominal. The effect on the patient is intended by the agent. Typically, though by no means necessarily, the patient is inanimate;

(g) After the occurrence of the event, the patient is in a different state from before the event. Usually, the difference is one which would be highly perceptible to an onlooking observer;

(h) The event is construed as punctual. Even though the event necessarily has temporal extension, the internal structure of the event, and the intermediate states between its inception and termination, are not in focus;[3]

[2] With respect to this property, sentences (2) and (3) are open to two interpretations, according to whether the action is carried out intentionally or accidentally. Only the intentional reading is consistent with prototypical transitivity.

[3] Again, sentences (1) and (2) are open to two interpretations with respect to this characteristic, the one punctual ("The child kicked the ball once"), the other iterative ("The child kicked the ball repeatedly").

(i) The agent's action on the patient usually involves direct physical contact, and the effect on the patient is immediate;

(j) The event has a causative component, i.e. the agent's action causes the patient to undergo a change;

(k) Typically, agent and patient are not only clearly differentiated entities, often they also stand in an adversative relationship;

(l) The event reported by the construction is real, not imaginary, hypothetical, or counterfactual. Central instantiations of the construction are realis.

The NP and V slots of the transitive construction can be filled by virtually any combination of items which meet the above specifications. But, like the prenominal possessive, the transitive construction can be used to encode a wide range of states of affairs which differ, in one or more ways, from the paradigm case. To begin with, we may note that the acceptability of a transitive sentence is not, in general, affected by the choice of tense, mood, polarity, or aspect of the verb, even though, cf. (l), only realis verb forms are consistent with prototypical transitivity. The NPs, too, may have generic, or nonspecific reference, contrary to (b):

(4) Elephants uproot trees.

The following sentences illustrate other kinds of deviation, some minimal, others more extensive, from the central case:

(5) The lightning destroyed the tree.
(6) We approached the city.
(7) I read the book.
(8) He brushed his teeth.
(9) I carried the suitcase.
(10) Mary helped John.
(11) John obeyed Mary.

In (5), the subject NP refers to an inanimate force, not a consciously and purposely acting agent. Otherwise, the event is highly transitive. (6) is rather less typical, in that the event is not punctual, and the patient does not undergo any change as a consequence of the subject's action. (7) is untypical in that the patient does not undergo change, while in (8) the patient, being part of the agent, is not maximally individuated *vis-à-vis* the agent. In (9) the event is temporally protracted, while in (10) the adversative component is missing from the agent–patient relationship. Finally, in (11), although an action is carried out by the agent, the event is arguably under the control of the patient, not of the agent.

With some of the above examples we are already quite distant from the central semantic specification of the construction. Indeed, it is doubtful

whether it is still legitimate to speak of the subject of (11) as the agent and of the direct object as the patient. Even further removed from the prototype are those transitive clauses which do not describe an event at all, but rather an act of perception on the part of the subject. In these cases, the role of the subject is better described as **experiencer**, and the direct object as **stimulus**:

(12) I watched the movie.

Here, the act of watching is still under the control of the subject. In this respect, *watch* is a more transitive verb than *see* (as in *I saw Mary*). In other cases, the experiencer appears as the direct object, while the stimulus stands in subject position:

(13) The movie fascinated me.

Again, it is still possible to claim that the event in (13) is 'initiated', in some metaphorical sense, perhaps, by the subject, in that properties of the movie are 'responsible' for its effect on the experiencer. However, when the verb encodes a mental state, even this property of the prototype is lost:

(14) a. I like John.
b. I've forgotten his name.
c. I regret the incident.

Still further removed from the prototype are transitive clauses which describe a relation between entities, not some action performed by one entity with respect to another:

(15) John resembles his brother.

In the following, it may even be queried whether the second nominal in fact designates a participant in the state of affairs. They state, rather, a property of the book and of John, not a relation between these individual entities and a second entity.

(16) a. The book costs £20.
b. John weighs 85 kg.

What we can identify on semantic grounds as more central members of the transitive construction exhibit a number of syntactic and distributional characteristics not shared by more marginal members. Only sentences with agents which act volitionally can be embedded under *persuade*:

(17) a. I persuaded Mary to shoot the intruder.
b. *Mary persuaded me to regret the incident.

Only sentences which report on events (rather than states) can be inserted into the clefting expression *What happened was that S*:

(18) a. What happened was that the lightning destroyed the tree.
b. *What happened was that John resembled his brother.

Only actions allow clefting with *do*:

(19) a. What elephants do is uproot trees.
b. *What the movie did was fascinate me.

The punctual nature of an event is consistent with the occurrence of temporal adverbials like *suddenly*, *at ten o'clock*; non-punctual events are odd in this context:

(20) a. Suddenly, at 10 o'clock, John saw Mary.
b. *Suddenly, at 10 o'clock, we approached the city.

Conversely, punctual events cannot be associated with adverbials expressing temporal extension, like *all morning, for hours on end*:

(21) a. *Mary shot the intruder for hours on end.
b. I carried the suitcase for hours on end.

Patients which are affected by the action of the agent can readily stand as subject of a passive sentence; the ungrammaticality of a passive counterpart indicates that the object of a transitive sentence is in no way acted upon by the agent:

(22) a. The ground was dug by me.
b. *£20 have been cost by the book.

Although many of the sentences cited so far have been rather distant, semantically, from the construction's prototype specification, the construction has retained a high degree of productivity, in that less central instantiations are subject to very few constraints of a non-predictable, idiomatic nature. Although *X saw Y* is not a very good example of a transitive sentence, it is still the case that practically any nominal denoting a sighted creature can stand as the subject of *see*, while the name of any visual stimulus can function as its direct object; the same applies, *mutatis mutandis*, to other verbs of perception, like *hear*, *feel*, *smell*, *taste*. In the next section we examine some more marginal members of the construction, where full regularity gives way to idiomaticity.

12.5 The transitive construction: more marginal members

A striking feature of English over the centuries has been the steady encroachment of the transitive construction to encode states of affairs which diverge increasingly from prototypical transitivity. A well known example concerns the development of experience verbs like *think* and *like*. In Old English, the stimulus stood as the nominative-case subject of the verb, while the experiencer appeared in the dative case:

(23) Þam cynge licoden peran.
"to the king (DAT) liked pears (NOM)"
(cf. Hawkins 1986: 68)

The extension of the subject-verb-object pattern continues apace in modern English. Symptomatic is the possibility of deleting a path preposition from a prepositional phrase following an intransitive verb of motion:

(24) He swam across the Channel. →
He swam the Channel.[4]

In the first sentence, the verb is intransitive. Swimming is an activity involving only one participant, namely the swimmer, with the prepositional phrase indicating the path the swimmer follows. In the second sentence, the path has been incorporated into the verb. *Swim* here means "swim across" (a usage which according to the OED dates from the end of the sixteenth century), with the consequence that the event is now encoded by a transitive sentence. That *the Channel* is now the direct object of *swim* is confirmed by the existence of a passive counterpart (*The Channel was swum*). Other manner of motion verbs, e.g. *fly*, behave in a similar way:

(25) He regularly flies across the Atlantic. →
He regularly flies the Atlantic.

Yet this extension of the construction is not fully productive. A path preposition cannot always be deleted from a prepositional phrase following an intransitive verb of motion:

(26) The child crawled across the floor.
*The child crawled the floor.

(27) We drove across the Alps.
*We drove the Alps.

Not even all examples with *swim* (*across*) are fully acceptable:

(28) ?She swam our new swimming pool.

It would seem, then, that the possibility of using a verb of motion in a transitive sentence is an idiomatic property of individual lexical verbs. To judge from (28), which nominals are permitted as direct object is also a matter of idiom.

The transitive construction comes to be applied to other one-participant events through the use of a semantically (relatively) empty verb and a deverbal nominal as its direct object:

[4] The arrow in this and following examples does not indicate the derivation of the one sentence from the other. The sentences on either side of the arrow, while systematically related in meaning and form, are instantiations of independent constructions.

(29) We swam. ~ We had a swim.
(30) He walked. ~ He took a walk.

The status of these sentences as highly marginal members of the transitive construction is shown by the fact that passivization is scarcely possible:

(31) *A swim was had.
(32) *A walk was taken.

Again, not all intransitive verbs have transitive equivalents of the form empty verb-plus-deverbal nominal. There is no **to have/take/make/do a death* alongside *to die*.

There also exists in English the possibility of encoding a three-participant event as a transitive sentence, through the incorporation of the patient into the verb. Thus, in (33), a locative, and in (34), a benefactor, come to function as patients:

(33) He laid a carpet in the room. →
He carpeted the room.

(34) The Government provided houses for the squatters. →
The Government housed the squatters.

Again, the phenomenon is sporadic, rather than fully productive. Not all benefactors and locatives can be promoted to patient through incorporation of the direct object into the verb:

(35) He installed windows in the house.
*He windowed the house.

(36) He provided money for the orphanage.
*He moneyed the orphanage.

The idiomatic nature of the phenomenon is apparent in (37), with respect to the relative acceptability of (a) and (b) in contrast to the ungrammaticality of (c) and (d):

(37) a. He wined the guests.
b. He champagned the guests.
c. *He beered the guests.
d. *He coffeed the guests.

The encroachment of the transitive construction shows up again in the alternative ways of encoding three-participant events involving the transfer of a patient to a recipient. Usually, either patient or recipient can function as direct object:

(38) a. John gave the book to Mary.
b. John gave Mary the book.

That both *the book* and, respectively, *Mary* function here as direct object is shown by the passive counterparts in (39):

(39) a. The book was given to Mary.
b. Mary was given the book.

Often, the same choice exists with more abstract instances of transfer:

(40) a. He showed the pictures to the children.
b. He showed the children the pictures.

With some verbs of transfer, however, the alternative encodings are not available. Which verbs admit the recipient as direct object would appear to be a matter of idiom. In many dialects, (41b) is ungrammatical:

(41) a. He explained the problem to the class.
b. *He explained the class the problem.

Sometimes the recipient can even stand as direct object without mention of the patient:

(42) Give me! Show me!

With these last examples we are approaching the outer limits of the transitive construction. The acceptability of such sentences appears to be crucially dependent on the mood of the sentence and the context in which it is uttered. The imperative forms in (42), spoken in the presence of the objects which would normally function as the patients of the verbs, are more acceptable than the past tense reports: **John gave me*, ?**Mary showed me*. (These latter sentences seem incomplete: What was given/shown?) It is here, also, that one encounters considerable between-speaker variation—another symptom of the highly marginal status of the examples within the construction. Some speakers accept the transitive sentence *I'll write you*, others insist on *I'll write to you*. Even so, *I'll write you* seems better, to me at least, than the past tense report *John wrote Mary*.

The above discussion has shown how, in special cases, NPs referring to very unpatient-like entities can function as the direct object of a transitive clause. Subjects with unagent-like properties are no less frequent. We have already seen how forces, experiencers, and stimuli can stand as subjects. Also unproblematic, in English, are sentences with the names of institutions as subjects. In such cases we can say that the name of the institution is being used metonymically for the human agent who holds an important position in the institution:

(43) This hotel forbids dogs.

A relation of metonymy between an agent and the instrument he uses to affect the patient similarly sanctions the use of an instrument in subject position:

(44) The key opened the door.

Even further removed from the prototypical agent are subjects which designate the scope, or setting of an event:

(45) a. My guitar broke a string.
b. The stove has blown a fuse.

Sometimes the scope subject almost has the role of a locative or temporal:

(46) a. This tent sleeps six.
b. The room seats 500.
c. The fifth day saw our departure.

With these last examples, we have again approached the outer limits of the transitive construction. Symptomatic of the highly marginal status of (45) and (46) is the extremely low productivity of the construction with scope subjects. On analogy with *My guitar broke a string*, we cannot say, **The window cracked a pane*. Alongside *The tent sleeps six*, we do not have **The house lives four*, nor can we say, on the model of *The fifth day saw our departure*, **Midnight heard the explosion*, or **Spring experienced his return to health*. Furthermore—and this is a property already noted in connection with (42)—the acceptability of these highly marginal sentences seems to be affected by the tense, aspect, and polarity of the verb, and by the number and specificity of the NPs. *All these tents have been sleeping six* and *May the fifth day see our departure* are both decidedly odd. Even *The key won't open the door* seems better than *The key opens the door*.

12.6 Metaphorical extension of syntactic constructions

Metaphor, as we saw in Chapter 7, is one of the principal means of category extension. Our earlier discussions of metaphor were restricted mainly to the meanings of lexical items. The question arises whether metaphor also motivates the semantic extension of a syntactic construction. Halliday, for one, explicitly deals with sentences like *The fifth day saw our departure* in terms of grammatical metaphor (1985: 321 ff.)—an approach endorsed by, amongst others, Dirven (1985). In this section, I would like to examine more closely the validity of this view. What exactly is meant by saying that non-central transitive sentences like *He swam the Channel*, *I took a walk*, *They carpeted the room*, *My guitar broke a string*, are metaphorical?

I have characterized metaphor as a process whereby one domain of experience is conceptualized in terms of another. To say that the transitive construction undergoes metaphorical extension would be to claim that the agent-action-patient schema, characteristic of transitive events, gets projected on to states of affairs which are not inherently transitive. These states of affairs thereby come to be conceptualized in terms of an agent consciously acting in such a way as to cause a change in state in a patient. Some non-central transitive sentences certainly lend themselves to this kind of interpretation. The slogan of the pro-gun lobby, *Guns don't kill people, people kill people*, gets its effect precisely by denying the implication that, because *guns*

can stand as the subject of the transitive clause *Guns kill people*, guns therefore participate in the killing of people as consciously acting, responsible agents. Further indirect evidence for the power of the grammatical metaphor comes from a paper by Coleman (1980), which documents some characteristics of the speech of born-again Christians. The speakers studied by Coleman denied the full agency of human beings; people's actions, they believed, are ultimately God's work. This belief was reflected in the systematic avoidance of transitive sentences with first-person subjects. Sentences of the form *I did X* tended not to occur. Instead, circumlocutions like *I was led to do X* and *I was enabled to do X*, were preferred.

For other, more marginal transitive sentences, the metaphorical application of the transitive schema seems less appropriate. It does not, on the face of it, make much sense to say that *We had a swim* encodes a conceptualization of a state of affairs in terms of a consciously acting agent ('we'), whose action (that of 'having') causes a change in state in a patient ('a swim'). Neither is 'our departure' in any way affected by the action of 'seeing' on the part of 'the fifth day'. But if the use of the transitive construction does not always project the full agent-action-patient schema on to a situation, the choice of a transitive encoding might nevertheless serve to attribute selected aspects of prototypical transitivity to an otherwise non-transitive state of affairs. Indeed, the only partial applicability of the transitive schema would in itself point to a less central status within the construction. To the extent that a transitive clause encodes a state of affairs which is only partially compatible with prototypical transitivity, that clause will have the status of a more marginal member of the category.

We may note, to start with, that transitive clauses are rarely synonymous with non-transitive wordings. *We had a swim* does not mean the same as *We swam*. *We had a swim* conceptualizes the activity as a temporally bounded event, in contrast to *We swam*, where the activity is (potentially) unbounded. Thus one may readily say *We swam for hours on end*, but not **We had a swim for hours on end*. In this respect, the transitive construction does impose one component of the transitivity schema, namely temporal bounding. A different component of prototypical transitivity, namely the adversative relationship between agent and patient, is involved in *He swam the Channel*. In contrast to *He swam across the Channel*, where *across the Channel* merely denotes the path of the swimming, *He swam the Channel* presents the Channel as a challenge to the swimmer's prowess. (It is along these lines that we may account for the oddity of *She swam our new swimming pool*.) To take another of our earlier examples: *He carpeted the room* focuses on the status of the room as the affected entity. We would probably infer that the whole of the floor was covered with the carpet, and in this respect the room ends up in a different state, a state, moreover, which is salient to an observer. *He laid the carpet in the room* presents the carpet as the affected entity, and implies nothing about how the room was thereby affected, or how it looked to an observer.

Particularly interesting in this context is (47), in which the subject NP refers to what looks like the patient of the action, not the agent:

(47) The book sold a million copies.

Clearly, this sentence is a highly marginal example of the transitive construction. Passivization is impossible (**A million copies were sold by the book*), and seemingly analogous sentences with *buy* (**The book bought a million copies*) are also ungrammatical. The availability of a transitive encoding in (47) appears to depend on the fact that certain aspects of agency can be attributed to the subject (van Oosten 1977). This is not to say that the book is construed as a full-fledged agent; the book does not act volitionally and consciously, it does not by its actions effect a change in state of another entity. The true agent, in the act of selling, can only be the person who sells. Yet the seller does not have complete control over the act of selling. A successful sale depends, in no small measure, on the attributes of the thing that is sold. (47) seems to highlight the contribution of the merchandise itself (e.g. the fact that the book appeals to a wide audience) to the high sales figures. An analogous sentence with *buy* is not possible, precisely because the act of buying is to a much greater extent under the control of the buyer. Similar arguments to these have been used by Schlesinger (1981) in connection with the only limited productivity of the transitive construction with an instrument in subject position. *The key opened the door* is acceptable, since the successful opening of a door depends, in large part, on properties of the key. In contrast, **An ivory baton conducted the symphony* is bizarre, since conducting a symphony is the responsibility of the conductor, the properties of the baton play no part in the event.

The reader may well be wondering which aspects of prototypical transitivity sanction the use of the transitive construction in *The fifth day saw our departure*. In fact, practically the only commonality between this sentence and more central members of the category is the status of the subject as sentence topic: the fifth day is what the sentence is about. The absence of any other aspects of prototypical transitivity is in itself symptomatic of the extreme marginality of the sentence.

12.7 A comparison with German

Evidence for the essential correctness of the prototype view of constructions comes from a rather unexpected source, namely from cross-language comparisons. We can hypothesize the following situation. Two languages, *A* and *B*, each have a construction whose semantics—at least with regard to the central instances—are very similar. In language *A*, the construction has undergone considerable extension, in *B* the construction is restricted to cases which are fairly close to the prototype. Consequently, all instantiations of the