

## 7. Constructional schemas

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Languages are governed by rules. Without anything specifying the shape of linguistic expressions, our utterances would be nothing more than sequences of arbitrary words strung together in random order. Needless to say, it would be extremely difficult to communicate effectively with such “sentences” and their capacity to express our thoughts would be very limited. While it would be hard to deny that the use of language is rule governed, it is far from obvious what the nature of the rules is. Most certainly, they are not like legal regulations and laws governing our social life, like the rule that says that I should stop when I see a red traffic light. Such regulations are deliberately laid out and modified by law-makers, they have to be learned explicitly, and one can get punished when one breaks them. However, the rules of grammar are not expressly formulated and cannot be easily changed by authorities, they are not learned explicitly, and there is no serious punishment for breaking them.

While there is some room to debate about the exact nature of the rules, in Cognitive Grammar they come in the form of **constructional schemas**. Constructional schemas are best understood as “templates” of composite expressions that can be used to create novel phrases and sentences. Essentially, the schemas are (as the name suggests) schematic concepts of sentences abstracted from utterances heard by infants during language acquisition. They are schematic in that they do not include information about specific words used in respective expressions, so they are not actual sentences heard and memorized by children. Rather, they are general types of expressions that are acceptable in a given language. For example, the sentence *Floyd broke the glass* is built on the basis of the constructional schema of the English transitive sentence, which can be tentatively written out as NOUN PHRASE<sub>1</sub> + VERB + NOUN PHRASE<sub>2</sub>.

### 7.1. Elaboration and extension

We have already seen that schematic elements can be elaborated by more specific concepts. For example, in the previous chapter we saw how a noun or a nominal phrase can elaborate an e-site of a word with a relational meaning. Constructional schemas can also be elaborated into more specific structures. Since the schemas are essentially general and abstract concepts of complex expressions, when they are elaborated, the result is a specific complex expression. For example, the schema for an English transitive sentence NOUN PHRASE<sub>1</sub> + VERB + NOUN PHRASE<sub>2</sub> can be elaborated into a concept of the specific transitive sentence like *Floyd broke the glass*. Of course, this kind of sentence can be readily used in a usage event. In this case, elaboration consists in specifying in more detail particular elements of the constructional schema: NOUN PHRASE<sub>1</sub> is elaborated into FLOYD, VERB is elaborated into BROKE, and NOUN PHRASE<sub>2</sub> is elaborated into THE GLASS. In cases like this, we say that the constructional schema **sanctions** the specific expression, i.e. it provides a general template for a specific expression. Consequently, the expression elaborates the schema. This situation is diagrammed in Figure 7.1.

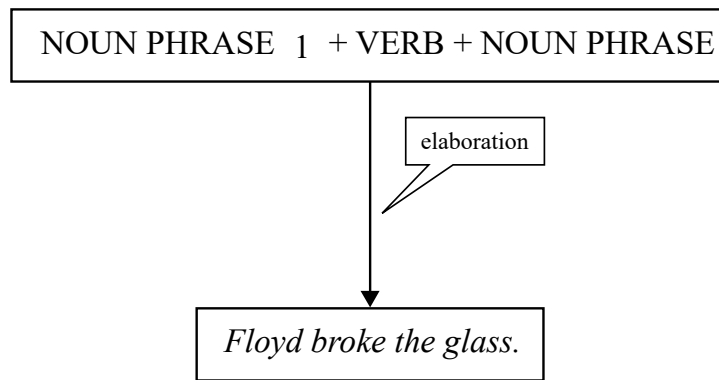


Figure 7.1: Elaboration of a constructional schema

When a schema sanctions a sentence, the expression is fully compatible with the schema. To put it less technically, speakers of the language have the impression that the expression is “well-formed” or created in accordance with the rule. Yet this is not always the case and it is sometimes possible to hear a sentence that is somehow “anomalous” and “ill-formed.” This does not necessarily mean that the sentence is ungrammatical, nonsensical, or hard to understand. Rather, it means that some aspect of the expression does not conform with the constructional schema in the expected fashion. One example widely discussed by cognitive linguists is the transitive variant of the verb *to sneeze* in (1b).

- (1)(a) *Floyd sneezed.*  
 (b) *Floyd sneezed the cat awake.*

In its basic sense, the verb in question is intransitive, i.e. it normally does not take an object. We say that people sneeze, not that they sneeze something. Thus, *to sneeze* is associated with the constructional schema for intransitive sentences, let us write it out as NOUN PHRASE + SNEEZE. It is expected that when the verb is used in the sentence, the sentence will be sanctioned by the intransitive schema, as in (1a). The sentence in (1b) is therefore “anomalous” in that it does not involve the intransitive constructional expected for *to sneeze*. In such cases, we could say that (1b) is an **extension** of (1a), because it includes elements that are absent from (1a) – in this case, it involves the object (*the cat*), which does not normally appear in sentences with *to sneeze*. On the formal level, (1b) looks like a transitive sentence, but since the verb is not normally associated with the transitive constructional schema, there does not seem to be a standard schema that could sanction it. We may therefore say that extension happens when an expression or a sense of a word is created by means of “pushing the envelope” of pre-existing words and expressions rather than by means of elaborating a standard schema. The relations between the constructional schema and the sentences in (1) is sketched in Figure 7.2.

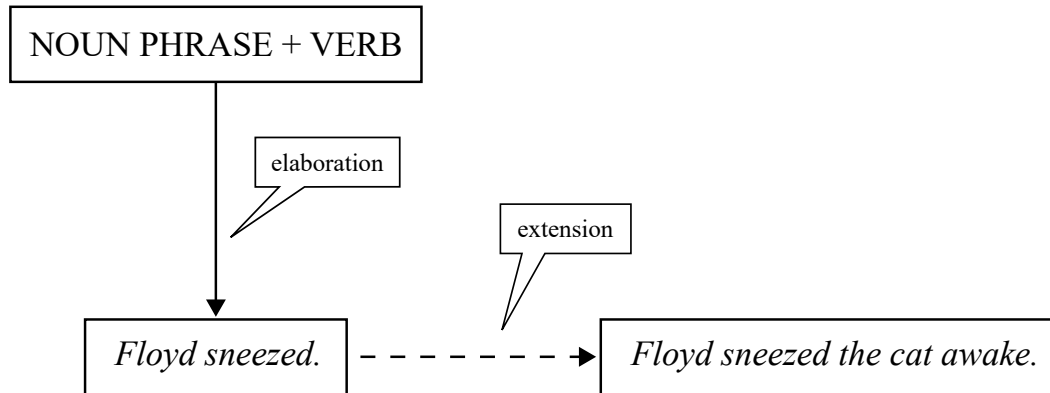


Figure 7.2: Relations between the constructional schema and the sentences in (1)

Note, however, that (1b) is perfectly meaningful and even though it is unconventional, it is far from clear whether all native speakers of English would readily judge it as ungrammatical. Slight deviations from “norms” provided by constructional schemas oftentimes do not cause major breakdowns in communication and may even go unnoticed. This is because linguistic communication does not consist in strict application of pre-defined rules, but dynamic negotiation of meaning. In typical circumstances we pay more attention to what our interlocutors are trying to say rather than to whether they perfectly follow the rules of grammar. Real-life communication resembles puzzle solving: given the linguistic cues provided by speakers, we do our best to reconstruct the meaning they are trying to convey. Obviously, when the speakers use words and phrase patterns familiar to the ones we are familiar with, the communication is much easier. However, fluent speakers of a language are very good at solving linguistic puzzles, so small abnormalities are usually not fatal to comprehension.

Let us return for a moment to the transitive variant of *to sneeze* in (1b). As already mentioned, the variant is an extension of the more standard variant associated with the intransitive schema, exemplified in (1a). Let us suppose that for one reason or another the speakers of English find the transitive variant of *to sneeze* quite useful and appealing. Doesn't it make much sense to use sentences like (1b) to talk about events caused by loud and unexpected sneezing? If other speakers start producing sentences with the transitive variant of the verb, the new variant may become conventionalized and become a part of standard English. If the transitive variant is used only in the contexts of waking up cats, at best a new fixed phrase would be coined: *to sneeze the cat awake*. Yet if speakers use the transitive variant in other contexts, i.e. for other objects and events, a new constructional schema may emerge: NOUN PHRASE<sub>1</sub> + SNEEZE + NOUN PHRASE<sub>2</sub> + ADVERB PHRASE. If this happened, the new sense of the verb would become conventionalized and “standardized,” so that the speakers of English could routinely talk say something like *to sneeze a napkin off the table*, *to sneeze the fly away*, *to sneeze one's nose clean*, etc. Such expressions would not be formed via extension of the intransitive variant anymore, but via regular elaboration of the new constructional schema NOUN PHRASE<sub>1</sub> + SNEEZE + NOUN PHRASE<sub>2</sub> + ADVERB PHRASE.

## 7.2. Major and minor schemas

Cognitive grammarians believe that while language is rule governed, the rules embodied in constructional schemas are flexible templates and patterns of regularities rather than inviolable laws that can never be stretched or broken. No natural language is entirely regular and exceptionless. Traditional grammarians tend to think about language in terms of rules and exceptions (although they do not always use these precise terms). Cognitive grammarians, on the other hand, prefer to think in terms of degrees of regularity.

Consider that way of making a past verb forms in English. Traditionally, the “regular” way to do it is to add the past tense suffix *-ed* to the verb, like in *to regulate–regulated*. Yet some verbs do not comply with this pattern, e.g. *to let–let*, *to hide–hid*, *to drive–drove*, etc. Verbs of this kind are sometimes termed “irregular.” Nonetheless, after a closer inspection, it turns out that the collection of English “irregular” past tense forms is not a chaotic mass or entirely random forms; on the contrary, there are some small-scale similarities between many elements. For instance, the past tense of *to let – let* is created just like the past tense of *to hurt–hurt*, *to hit–hit*, *to burst–burst*, and several others, i.e. the past tense form is identical to the infinitive. Likewise, *to hide–hid* is formed like *to slide–slid*, while *to drive–drove* like *to dive–dove*, *to strive–strove*, and *to thrive–throve*, still used by some speakers. Surely, these are not large-scale regularities and many of the forms are giving way to more regular variants (e.g. *dived*, *strived*, *thrived*). Nonetheless, some smaller patterns of regularities are evident. For this reason, it is more useful to talk about:

- major constructional schemas, used to create most expressions and often recognized as “regular,” and
- minor constructional schemas, whose scope of application is smaller and which are usually labeled as “irregular” ways of creating phrases and sentences.

It is sometimes the case that a word or a phrase admits two different schemas for a particular construction. In English, one example is the verb *to hang*, whose past form can be created by means of the major “regular” schema (*hanged*) or minor “irregular” one (*hung*). Languages generally tend towards economy, so such situations are usually not meant to last. Competition between two schemas can end in several ways. In the case of English *to hang*, the two schemas become **specialized**, so that each is compatible with a different semantic variant of the verb: the minor schema is used when the verb denotes hanging inanimate objects (*Jack hung a picture on the wall*) and the major schema when the verb denotes execution by hanging (*Executioners hanged Jack for stealing a picture from the wall*). In many cases, however, minor schemas “die out” and give way to major schemas. For instance, the “irregular” way of making the past form of *to thrive* (*throve*) has been almost completely superseded by the “regular” way (*thrived*) and most probably the same fate awaits the verb *to strive*. In traditional terms, we could talk about grammatical forms becoming more regular over time.

While this kind of “regularization” is a very frequent phenomenon, it is, in fact, possible for a minor schema to resist the process and survive. In English, one example is the extremely “irregular” verb *to be*, whose past forms are created by a highly unusual minor schema. Notice that the constructional

schema for *to be* is limited to this verb alone – there are not any other English verb whose past forms are created in this way. What helps this highly specific and limited constructional schema to survive is **entrenchment**, i.e. the degree to which the schema is established in the mind of speakers. Since the verb is very frequently used in everyday speech, the minor schema is firmly fixed in the minds of speakers, if only because they repeat the “irregular” past forms over and over again. The “irregular” past forms of less frequently used verbs, like *throve* and *strove*, tend to “fade away” from users’ minds and when a need arises, speakers resort to the better entrenched major schema to create the past tense forms (*thrived* and *strived*).

## Study questions

1. Can you propose a constructional schema that sanctions the phrase *a big cat with sharp claws* and propose an expression that extends the phrase?
2. Despite the fact that *to sneeze* and *to freeze* have similar infinitive forms, their past forms are made very differently: *sneezed* and *froze*. If the verbs were to develop similar past forms in the future, which pair do you think is more likely: *snoze* and *froze* or *sneezed* and *frozen*? Why?
3. Can you think of other words *to thrive* and *to strive* whose grammatical behavior may become more regular over time?

## References

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