

Exploring syntactic categories in a construction grammar framework

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Within a construction grammar framework, evidence is provided for the idea that syntactic structures are constructions. Syntactic categories such as NP and VP are posited to yield higher representations of meaning beyond the simple sum of their constituents, which fits the general description of a construction. NPs and VPs are analyzed as contributing a conceptual meaning of “grounding”, in accord with Langacker’s grounding theory. Furthermore, IP represents a grounded proposition, which is ultimately utilized by the more complex “question construction” via conceptual inheritance. Conceptual inheritance between deep and surface structure is explored for question constructions. The ultimate idea is that base-generated and “derived” syntactic categories are not related by pure structural movement. Rather, their relation stems from common conceptual representations, with additional concept representations for the derived category.

1 Central ideas

Over the last few years, there has been renewed interest in a cognitive linguistic framework for defining human language, as set out by researchers like Langacker and Goldberg, to name a couple. The central theme behind the cognitive linguistic framework is that every linguistic form correlates to some sort of meaning. This idea is particularly relevant to the traditional domain of syntax, where we might wonder whether syntactic categories can be considered linguistic forms as well. By synthesizing the work of the above-mentioned authors, I will show that syntactic categories are indeed forms, as they render meaning correlates. In particular, I will discuss how syntactic categories are a particular type of form known as a construction, following the work of Adele Goldberg’s Construction Grammar theory. I will use Goldberg’s theory in conjunction with Langacker’s theory of grounding to offer an alternative account for so-called “derived” syntactic categories (such as those categories found in a questions, thought to arise from movement). It is my hope that this analysis will aid in the overall goal of defining a “cognitive grammar”.

2 What is a construction?

In her theory of construction grammar, Adele Goldberg posits that all linguistic forms are constructions (Goldberg, 1995). Since, in a cognitive linguistic framework, all forms correlate to some sort of construed meaning, constructions correlate to meaning. “Constructions” can be taken to mean any salient form where some sort of representation of meaning is construed. Examples of different types of constructions are shown in the figure below.

Construction	Form/Example	Function
Morpheme	<i>Anti-, pre-, -ing</i>	
Word	<i>Avocado, anaconda, and</i>	
Complex word	<i>Daredevil, shoo-in</i>	
Idiom-partially filled	<i>Jog (someone's) memory</i>	
Ditransitive Construction	<i>Sub [V Obj1 Obj2]</i>	Transfer

Figure 1. Representatives of different construction types. Function is labeled where it is not immediately identifiable. (Goldberg 220)

As can be seen from the figure, constructions vary in size and complexity, where even words and morphemes are considered constructions. The important thing to note here is that the meaning of the construction comes from the construction itself as a whole. For example, Goldberg argues that the “ditransitive construction” above provides a meaning of “transfer” as a whole. This construction (V Obj1 Obj2) is what is responsible for our ability to understand both simple sentences like “pass me a wrench” alongside sentences like “cry me a river”. The idea here is that both sentences employ a ditransitive construction that contains the meaning of “transfer.” As such, metaphors and idioms that employ this construction can also be understood due to the construction alone, and not just by the individual lexical items contained within.

Another important aspect of the constructions is that each one yields a meaning representation that is more than just the sum of its constituent elements, or more than any inherent properties of the element itself. The “synergistic

effect” of constructions is exemplified by Langacker, who asks us to consider three words: “boy” “girl”, and “like” (Langacker, 1991). If we just had these words in isolation-- “boy girl like”-- there could be a number of different meanings. It could mean “the boy likes the girl”, “the girl might like the boy”, “the girl liked the boy”, etc. However, in arranging these in a particular configuration, say “the boy like the girl”¹ (along with adding articles), we gain a greater meaning, which is more than just the sum of the elements in question. How does this work? For starters, we get the notion of a NP when we can combine “girl” with “the” in the correct order. The same goes for “boy”. Similarly, when the word “like” is followed by a NP, a VP results.

3 Can syntactic categories be considered constructions?

From Langacker’s example, we see that the syntactic categories NP and VP are salient forms that have some sort of construed meaning. Furthermore, NP and VP both denote more abstract representations than just the sum of their constituent elements. These representations cannot be predicted from the constituents in any way. This idea begs the question of whether syntactic categories can also be considered constructions as well, and subsequently, what meaning they might correlate to.

The main question we ask is what meaning is construed by NP and VP constructions. Though the answer to this question is not certain, Langacker posits that a process called grounding yields these categories. Grounding is the process of fixing conceptual image schemas in place and time for actions (Langacker, 1987). Therefore, the categories NP and VP provide additional meaning of “entity or action grounded in space or time” when they are construed. To see clearly how this works, take “boy”. “Boy” is not grounded until it is put with an article—a, the, etc². Grounding, and the NP category that results, thus serves the function of yielding a particular type of representational schema for this entity. Similarly “like” alone does not acquire the higher category representation of “verb: action” until it’s placed into some sort of proper grounding construction, such as between a subject and an object. If it were not for constructions that ground linguistic elements, we would get a verbal representation schema from ‘like’ in this construction as well: ‘the boy the girl

¹ The inflectional suffix –s is left out because it is considered to be agreement that expresses redundant quantity information about the subject. I will address redundancies later.

² In languages that do not have articles, the noun itself comes with a representation for groundedness “built in”, which English does not have. For a more detailed explanation of definiteness/indefinite articles and how they ground, see Langacker and Fauconnier.

like’. However, native English speakers do not get a clear verbal representation, as this particular construction doesn’t exist in English to ground ‘like’ in time. Therefore, it is the construction itself that yields the higher representational meaning, and this representation is greater than just the sum of its parts.

From the construed meaning of the NP and VP categories, how do we arrive at the total meaning given by “the boy like the girl”? Langacker does not address the notion of the sentence itself as a whole being a syntactic category construction. In combining NP and VP, we get a higher representational notion of yet another category construction. This construction is traditionally designated as IP, or the sentential level of representation. In construing the entire sentence construction “the boy likes the girl”, we inevitably end up with a notion like ‘directional grounded event (like) from one grounded participant to another.’ This meaning cannot be predicted from the constituent NP and VP themselves, nor from the semantics of the word-level constructions beneath them, so it is worthwhile to consider this “propositional/IP level” as a construction too.

4 Constructions all the way down

Goldberg argues that human language grammars can be defined by an interconnected network of constructions from various levels. Larger constructions can contain smaller, simpler constructions for meaning, such as IP containing NP and VP within it. The idea that larger constructions can house smaller ones is what Goldberg terms “constructions all the way down” (Goldberg, 2003). As an example, she shows the multilayered and embedded meaning constructions involved in the sentence “What did Liza buy the child”.

1	2	3	4	5	6	7
1. Words	[<i>What</i>	<i>did</i>	<i>Liza</i>	<i>buy</i>	<i>the</i>	<i>child?</i>]
2. Ditransitive construction :	----			-----		
3. Question construction :						
4. Subject-Auxiliary inversion construction:		-----				
5. VP construction				-----		
6. NP construction	----		----		-----	

Figure 2. An expression, or ‘construct’, that is a combination of constructions shown in row 1, coded (with dashes) to the appropriate parts of the expression (VP, Verb-Phrase; NP, Noun-Phrase) (Goldberg, 2003, p. 221).

Here, we see an example of various levels of constructions interconnected with one another. At the lowest level, there are words/morphemes (which are themselves constructions). When the words are concatenated into certain

configurations, such as “the child”, another representation manifests, one that we typically designate by NP, so Goldberg calls it an NP construction. From Langacker’s example, we saw that the representation of NP usually indicates a meaning of groundedness of an entity. Therefore, we consider “Liza” and “what” to be inherently grounded, whereas the grounding of “child” happens when it is concatenated with “the”.

In construing the different lexical items [*Liza, buy, the, child, what, did*], there are a number of different constructions that we can make beyond just the NP and the VP constructions. For example, NPs gain the additional meaning of “object” when placed into a “ditransitive construction”: V Obj1 Obj2—“Buy the child what”, in this case. The whole ditransitive construction gives a meaning of “transfer”. Still further, there is a “question construction”, taken from the whole utterance with “what” at the beginning. This too is considered a construction, as it builds an additional layer of meaning—the notion of a question. Larger constructions inherit the properties of smaller ones. That is, the overall question construction in the example above inherits the properties of the smaller ones within, such as the subject-auxiliary construction, the NP construction, the VP construction, etc.

It is important to reiterate here that the meaning of a construction comes from the construction itself. Smaller constructions combine in a certain meaningful way to yield a new construction. Their combination results in a new representational meaning layer beyond just the sum of the lower constructions it contains.

5 Accounting for Syntactic Categories thought to Arise from Movement: Differing Conceptual Complexity

We saw that constructions can be embedded within constructions. However, Goldberg makes the claim that the two sentences “Liza did buy the child what” and “What did Liza buy the child” are two different constructions (Goldberg 2003). This idea opposes the generative theory, where one is structurally derived from the other through movement. In the generative framework, the syntactic category CP is thought to be created for questions when we move from the deep structure (Liza did buy the child what) to a surface structure for the question (what did Liza buy the child). The idea is that we access the base structure first, and then go from there to the target structure by moving key elements. However, Goldberg’s model dictates that different constructions, no matter how complex they are and how much they seem to be based off of one another, are base-generated *in situ*. That means that “What did Liza buy the child” and “Liza did buy the child what” are both considered to be base-generated exactly as their surface structures appear.

At first glance, it is difficult to think that these two constructions are not

related to one another, which is what makes the generative rule of movement from a deep to a surface structure so attractive. However, Goldberg's theory implies that these are two separate constructions, despite how similar they are. If they are not derived from purely structural movement, what else could be responsible for their similarity? Though Goldberg says these are two different constructions, it doesn't necessarily entail that they are two *unrelated* constructions. The difference between her theory and generative grammar theories, though, is that these constructions are considered to be related via *conceptual* derivation, rather than being related through pure structural derivation. With conceptual derivation, the meaning in one construction is inherited by the meaning of a larger encompassing construction, as we saw before. For example, the overall question construction "What did Liza buy the child" inherits the meaning of the constructions contained within it, like the subject-auxiliary construction and the ditransitive construction.

Let's consider how conceptual derivation would look in IP and question constructions, given our ideas about IP grounding. Recall the claim that IP/propositional constructions represent a grounded situation, with grounded entities and actions in space and time. However, when we employ a question construction, we construe an additional layer of meaning to the original proposition. The additional meaning that is construed is that of making part of the construction virtual or ungrounded (symbolized by 'what' in this case). The conceptual inheritance of constructions is more salient in the example "do you swing dance", where the grounded proposition (you swing dance) is made virtual in space and time by being used in the CP question construction³. In other words, the question construction has the effect of "ungrounding" the entire proposition/IP.

In cases like the IP and question constructions above ("Liza did buy the child what" and "What did Liza buy the child") Goldbeg says these are two different overall constructions. However, they employ many of the same smaller constituents. Rather than thinking that this comes about through movement from the deep structure, we can offer a conceptual inheritance interpretation of the similarities instead. If we construe one situation as a basic proposition, we use the IP construction. If, however, we construe a basic proposition, along with it not being grounded in space/time, we use the question construction (which inherits the IP construction). In other words, two constructions can be related conceptually (where one is the basic proposition, and the other is the proposition plus the added meaning of "virtual/ungrounded" element), which is enough to account for their similarities.

³ This ability to establish spaces where events and participants are not necessarily in the "here and now" is a crucial element to displacement, which gives rise to a number of syntactic categories, and lends incredible expressive power to human language.

6 Conclusion

In a cognitive linguistic framework, we define all linguistic forms as constructions, which correlate to some sort of construed meaning. Under this approach, the grammar of a language is defined by interconnected constructions for meaning that occur at many different levels (“constructions all the way down” according to Goldberg). The question was whether syntactic categories can be considered constructions as well, and how they are construed and represented. We saw evidence for the idea that syntactic categories like NP, VP, and IP are constructions, as they reflect the multilayered construal of meaning just as other constructions do. Syntactic categories that are considered to be structurally derived, such as those used in question formation, actually represent complex constructions that inherit the meaning of lower-level constructions. Thus, Goldberg’s hypothesis of different constructions for seemingly-related sentences is not necessarily disproven by the existence of conceptual inheritance. In investigating how syntactic categories are construed and constructed, we get at broader questions of whether syntax is autonomous, or whether it is driven by general cognitive construals of meaning, such that we can consider syntactic categories to be constructions.

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