The constructional evolution of grammatical functions and the thematic representation of events

In this paper I explore the possibility of explaining the existence of grammatical functions (GFs) in languages as a consequence of the generalization by learners of correspondences between syntactic form and the representation of the thematic features of events and relations.

The GFs Subject and Object are taken for granted as having descriptive and explanatory significance in the vast majority of grammatical analyses. In some theoretical approaches, such as Relational Grammar, Simpler Syntax, HPSG and LFG they are taken as primitives of syntactic representation. Thus, they are assumed to be universals. In Mainstream Generative Grammar, descended from Chomsky (1965), Subject and Object are simply names given to particular properties of syntactic configurations, but these configurations are assumed to be universal. Even functionalist approaches such as Givón (1997) take the distinction as given even where it is not robustly marked by morphology or word order.

At the same time, there are significant exceptions. For example, Schachter (1976) argued that the grammars of Tagalog and other Phillipine languages are not organized around GFs, but around the marking of Topic and θ-roles. Mithun (1991) shows that there are 'active/agentive' languages that manage the correspondence between morphosyntactically marked grammatical arguments and θ-roles without appeal to GFs, while Mithun (2008) goes a bit further and argues that Central Pomo lacks a Subject GF, although it does have a construction that can be viewed as 'passivization'. There are many other examples in the literature.

The idea that a language can be fully functional in expressing θ-roles and distinguishing arguments without GFs raises the question that I explore in this paper: Where do GFs come from, if they are not universal? And if they are not universal, what are they, and why are they so ubiquitous in the languages of the world?

I hypothesize that the GFs are essentially grammatical categories that arise from the generalization of formal devices for marking thematic properties of arguments. This idea is by no means a new one. For example Shibatani (1991, 103) writes that "our view on the subject is that: (a) it is a syntactic category resulting from the generalization of an agent over other semantic roles, (b) languages vary as to how far this generalization has taken place; i.e. the grammatical status of subject differs from one language to another, and therefore (c) the subject is not necessarily a universal category."

My goal here is to explore the mechanisms that yield the 'generalization' envisioned by Shibatani. The approach thus has three components. First, we must specify as precisely as possible how events and other kinds of relationships between entities are represented conceptually. Focusing (if only for practical reasons) on Subject, this means that we have to say in more precise terms what it means for an argument to have a given thematic role, e.g. AGENT. Fortunately there is a reasonably solid foundation to build on in this regard, in the form of Dowty (1991), the work that he built on, such as Hopper and Thompson (1980), and the work that has responded to his proposals, such as Primus (2002) and Ackerman and Moore (2001), among many others.

Second, we must give a formal characterization of how a grammatical category is formed through generalization. Again, fortunately, there is a long and rich literature of grammaticalization that we can build on. The key idea, which is found through the literature, often implicitly and sometimes explicitly, is that grammatical categories are formed through changes in the conditions that define grammatical constructions (Traugott and Trousdale 2013). I propose a formal characterization of 'construction', a definition of a grammar in constructional terms, and a scenario in which a learner arrives at a grammar by hypothesizing constructions based on input consisting of individual constructs that are licensed by the constructions of the grammar. Generalization (as well as complexification) is a consequence of the imprecision of the learner's hypotheses. I rely heavily on the work of Alishahi and Stevenson (2010), who offer a computational simulation of Bayesian learning of constructions. I suggest that one consequence of imprecise learning is the emergence of differential argument marking (Seržant and Witzlack-Makarevich (submitted, 2015)).

The third component concerns the question of why change actually occurs. Why isn't the imprecision of the learner corrected through subsequent intense exposure to the correct correspondences? I suggest that errors by learners can become established changes if three conditions are satisfied: (i) the errors are not so salient that they demand correction, (ii) the social network in which learners interact has a configuration that allows for errors to spread to a coherent subpopulation, and (iii) the change is computationally advantageous.

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