

Syntax, Cooperation and Self-Domestication

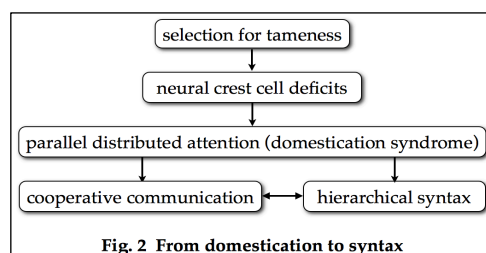
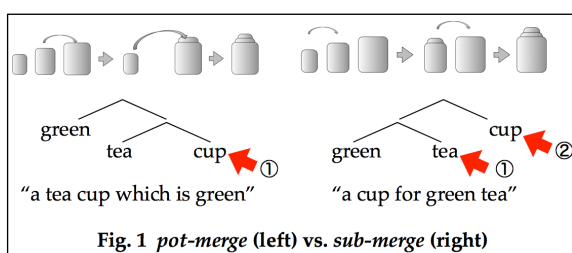
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Keywords: language evolution, communication, cooperation, syntax, self-domestication

Studies of human language evolution demand a broad-range integration of different viewpoints in linguistics and beyond. This talk illustrates one interesting case where cognitive linguistics (CL) and generative grammar (GG) may collaborate to understand the origins and evolution of language, by elaborating on an evolutionary link between human cooperative communication and hierarchical recursive syntax via (self-)domestication.

Today's GG proposes *merge* as the basic computational operation which gives rise to all the hierarchical structures found in human language. This is a highly welcome departure from older proposals because of the operation's sheer simplicity and especially because of its near affinity to *conceptual integration*, *blending*, *grouping*, etc., which will invite a productive conversation between CL and GG. Unfortunately, no serious attempts have been made within GG to uncover the evolutionary origin of merge (Berwick & Chomsky 2016), perhaps with the sole exception of Fujita (2017), who proposes that merge evolved as an exaptation of action grammar (Greenfield 1991) via metaphorical extension. It has been shown, among others, that the shift from *pot-merge* (pot-strategy merge) to *sub-merge* (subassembly-strategy merge) was a crucial event in the making of recursive syntax (Fig. 1). What remains unclear, however, is how this shift became possible.

A closer look at the working of sub-merge reveals that it requires two or more workspaces in parallel, much in the same way that one attends to more than one object in cooperative triadic communication based on joint attention and shared intentionality (Tomasello 2008). I contend that human syntax and cooperation are two examples of our *domestication syndrome*. As a self-domesticated species, we humans share many physical, physiological, behavioral and cognitive traits with other domesticated animals, and the neurobiological mechanisms underlying domestication (Wilkins et al.'s (2014) 'neural crest cell hypothesis') and its importance for language evolution (Benítez-Burraco & Kempe 2018, Thomas & Kirby 2018) are now intensively studied. Our unique pro-social cooperativeness is very likely a consequence of self-domestication which favored reduced aggressiveness and generous attention, which also enabled the kind of parallel distributed attentional system involved in sub-merge. Thus cooperation forms a (not *the*) cognitive foundation of hierarchical syntax (Fig. 2). This line of exploration will open up the possibility of bringing together CL's communication-based approach and GG's structure-based approach into a comprehensive scenario of human language evolution without any conflict.



References

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