

<CT>**Essentialism gives way to motivation**

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<C-AB>**Abstract:** The recognition that contentful universals are rare and often “banal” does not undermine the fact that most nonuniversal but recurring patterns of language are amenable to explanation. These patterns are sensical or *motivated* solutions to interacting and often conflicting factors. As implied by the Evans and Levinson’s article, linguistics would be well served to move beyond the essentialist bias that seeks universal, innate, unchanging categories with rigid boundaries.

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The Evans and Levinson (E&L) article is a welcome concise summary of the problems and confusions created by facile claims of universality (see also Croft 2001). Given the authors’ own extensive fieldwork on understudied languages, they clearly know the typological terrain. The paper provides another reminder that the 50-year-old promise of a contentful “Universal Grammar” has gone unfulfilled.

And yet, many sympathetic linguists may be concerned that the picture portrayed appears a bit nihilistic. Surely the regularities of languages that have caught smart linguists’ attention cannot be pure chance or complete accidents of language contact. In fact, as E&L note, recurrent patterns are solutions that satisfy “multiple design constraints, reflecting both cultural-historical factors and the constraints of human

cognition” (abstract). This point is clearly central to the alternative approaches the authors and others espouse, and it is worth emphasizing.

A key idea is that most patterns of language are neither strictly predictable nor arbitrary: they are sensical or *motivated* solutions to interacting and often conflicting demands (cf. also Lakoff 1987). We cannot predict that every language should have a given option, and we should not assume that because one language has the option that all languages do “underlyingly.” But neither are all the logical combinations of options attested, as we might expect if the options were arbitrary and simply learned from whatever unsystematic input a child might be exposed to. Importantly, we should not require that *all* languages show the same recurrent pattern in order to recognize the pattern as being motivated.

Haiman (1985) wrote that polysemy (one word form with more than one *related* meaning) can be defined as recurrent homonymy: that is, if the same two meanings are named by one label in unrelated languages, then it is reasonable to conclude that there is a motivated relationship between the two meanings. We do not require that the same polysemy exists in every language in order to understand that it is motivated by semantic and pragmatic factors.

The recognition of multiple motivating factors should make languages more, not less, interesting to cognitive scientists. Instead of decreeing that a certain recurrent pattern exists just because it exists – because it is part of a “Universal Grammar” – we ask, how does the recurrent pattern develop and what independently needed factors conspire to motivate it? Explanation often comes from an understanding of historical

processes, processing and developmental constraints, and a clear understanding of the functions of the constructions involved.

Recognition of conflicting motivations can reveal explanations as to why exceptions, as well as the generalizations themselves, exist. For example, regular morphological forms are compositional but at times license violations of general phonotactic constraints. For example, the consonant cluster /-lkd/ does not occur in root English words, and yet we tolerate it in *walked* and *talked*. Compositional morphology is motivated because it allows interpretations to be transparent, and it allows us to use old words in new ways. Irregular forms often satisfy one or more other demands while violating compositionality. Irregular *made* allows for phonotactic regularity and reduction that would have been lacking if we used the word *maked* (Burzio 2002).

Unfortunately, providing “motivation” may fail to satisfy the way that prediction does. “Surely necessary and sufficient criteria and simple predictive causes exist, even if have not managed to discover them yet!” An understanding of this reaction may ultimately lead to a better understanding of why Universal Grammar has held such great appeal to so many for so long.

People, even young children, prefer explanations that appeal to *essentialist* categories (e.g., Gelman 2003). An essentialist category, C, combines several key ideas: (1) though surface reality may differ, there exists an underlying invariant essence that defines C, (2) C has clear boundaries: one can determine categorically whether an entity is or is not a member of C, (3) the essence of C does not change over time, and (4) if C is construed as a biological category, the essence of C is assumed to be innately determined.

Essentialist explanations were sought throughout the biological and social sciences, perhaps on the model of mathematics or physics where such programs are often successful (but see Anderson 1972). And yet, most biological and social sciences have moved beyond the essentialist perspective. For example, evolutionary biologists in the nineteenth century thought of species as having an “essence” characterized by certain necessary, abstract features; but by the middle of the twentieth century, essentialism was replaced by "population thinking" (Mayr 1975) in which species were conceptualized as populations of individuals related to one another closely but in myriad complex ways. Similarly, within genetics, researchers had sought single genes that might be responsible for all kinds of syndromes and phenotypes, but more recently this view has given way to systems biology that rests on the recognition that most phenotypes are influenced by multiple interacting factors that include subtle environmental effects (Karmiloff-Smith 2006; Lander 1994).

Much of linguistics has remained in a stranglehold of the essentialist mindset, although important work in laboratory phonology and computational, experimental, and corpus linguistics has successfully moved beyond it. From definitions of word meanings to feature assignments for grammatical categories or constructions, the quest for simple, universal, unchanging, necessary, and sufficient conditions continues.

Yet such essentialist conditions are hard to come by, even for categories within a single language. For example, we like to think English adjectives form a clear-cut set. Definitions might appeal to their semantic property of noun modification, their prenominal attributive distribution, or their appearance after copular verbs such as *seem*. And yet there are exceptions to each of these criteria. For instance, a subclass of

adjectives beginning with an unstressed schwa resists prenominal position (*??the asleep/alive boy*), the adjective use of quantifiers like *occasional* do not semantically modify the following noun (as in *the occasional cigarette*), and adjectives do not all readily appear after *seem* (*?The idiot seems blithering*). Motivations for these exceptions exist (see e.g., Coppock 2008; Goldberg & Boyd, unpublished manuscript, 2009), but the fact remains that the category of English adjectives requires a more nuanced, multifaceted characterization.

E&L wonder aloud why the notion of a Universal Grammar has remained such a compelling notion within our field, despite the lack of consensus about what exactly it is. The lure of essentialism may provide a part of the explanation: “Universal Grammar” provides an essentialist answer to the question, *What is human language?* As with all essentialist explanations, (1) UG is assumed to offer an underlying invariant essence of language, although surface realities are recognized to differ; (2) UG is assumed to have clear boundaries: all human languages, and no other communication systems, are assumed to share UG; (3) UG is viewed as unchanging over time; and (4) UG is assumed to be innately determined.

Each of these assumptions is controversial at best and nonsensical at worst (e.g., Christiansen & Chater 2008; Goldberg 2006; Tomasello 2004). Emergent phenomena, widespread statistical generalizations, and multisource interacting causes undermine the essentialists’ program, as does the sort of widespread variation documented in the E&L article. It is time we let go of the essentialist mindset and embraced motivation as linguistic explanation.

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