

THE SYNTAX OF COORDINATION AND THE EVOLUTION OF SYNTAX

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Our purpose here is to articulate and explore a possible connection between the syntactic theory of coordination and the theory of language evolution. The asymmetric functor-argument relation central to Merge (Chomsky, 1995) has come to be widely regarded as the foundational relationship in syntactic theory. Moreover, the recursive system based on Merge has been proposed as the sole uniquely human component of the human linguistic system, what Hauser, Chomsky, and Fitch (2002) term FLN – Faculty of Language Narrow. With these developments in view, the apparent symmetry of coordinate structures comes to seem increasingly anomalous. Here we suggest that progress may be possible by reexamining what we term the Homogeneity Thesis – the widely accepted presumption that coordinate structures must arise within the same general framework of syntactic structure as organizes prototypical subordinating structures. We review evidence suggesting that the Homogeneity Thesis is in fact false and propose that, by rejecting it, it may be possible to formulate a more plausible model of the evolution of the modern human linguistic system.

Among several relevant lines of evidence, we report on recent experimental evidence from English that contrasts attraction-like effects (Bock, Eberhard, Cutting, Meyer, & Schriefers, 2001; Eberhard, Cutting, & Bock, 2005) with complex coordinate and subordinate NP subjects. We used a judgment task with materials structured as shown in (1).

$$\left\{ \begin{array}{l} \text{A book} \\ \text{Some books} \end{array} \right\} \left\{ \begin{array}{l} \text{on} \\ \text{and} \end{array} \right\} \left\{ \begin{array}{l} \text{a newspaper} \\ \text{some newspapers} \end{array} \right\} \left\{ \begin{array}{l} \text{is} \\ \text{are} \end{array} \right\} \text{on the desk.} \quad (1)$$

This enabled us to systematically compare grammatically illicit effects on acceptability that could be traced to the second NP, which was always at the right edge of either a coordinate or subordinate complex NP. As expected, the results showed strong, reliable differences in pattern between coordinate and subordinate forms, $F_1(1,47) = 8.37, p < .01$, $F_2(1,47) = 11.6, p < .001$. However, the difference in pattern incorporated a number of statistically reliable features that are not explainable in terms of the differences in canonical grammaticality. More specifically strong attraction-like patterns evident in the subordinate cases are explainable in detail in terms of syntactic and morphosyntactic properties, while the coordinate structures showed no evidence that the structural position or morphological details of material in the coordinates affected judgments. In

particular, the locality-based attraction-like effects seen in the subordinate cases were absent, and were replaced by a pattern suggesting that participants were aggregating the number of singular-marked nouns across the coordinate structures as a whole, without regard to linear position. In brief, it appears that our respondents took a radically different approach to assessing agreement relations in coordinates and subordinates, applying a strongly structure-based approach to the latter and a conceptual approach to the former. These and other effects in English and several other languages are discussed in relation to the implications of the Homogeneity Thesis, which we conclude does not comport well with these findings.

With these results in view we explore the consequences of rejecting the Homogeneity Thesis and holding instead that some mechanism quite apart from the hierarchical syntax must be engaged to deal with coordinate structures, somehow supplementing the work of the hierarchical mechanism. We propose that if there is such a division of labor, the coordinating mechanism is the evolutionarily earlier mechanism and the one that is most likely to have derived from a mechanism shared with other primates. We propose that its initial role was simply to make possible conjoined use of members of a preexisting fixed set of holistic utterance types, perhaps similar to what's been described in vervets. The force of these conjoined uses would be no more than to assert that each was somehow simultaneously relevant in the context of utterance. Use of this mechanism would, however, create a cognitive environment that would advantage the emergence of more word-like subpropositional units. The set-like logic of this mechanism would allow for aggregating these labels into lists or sets of names for individuals, categories, etc. In an enriched cognitive environment of this sort Merge could provide the means to specify relations that could only be hinted at with the set-like mechanism. The modern contributions of these two mechanisms are intricately intertwined, but perhaps nevertheless distinguishable.

References

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