

## Reverse-engineering the Language Faculty: Origins and Implications of the Minimalist Program

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The Minimalist Program for Linguistic Theory (MP) is subject to much heated debate, often the result of misunderstandings, confluences, and polemics. Other than is commonly assumed, the MP is not a theory of language; rather, it is a Kuhnian paradigm that guides theory construction in certain ways by informing the scientist what to look for. The questions the program raises do not depend on theoretical persuasion; they are the corollary of the development of a natural science of language (see Uriagereka 1998, Chomsky 2002, Boeckx 2006). The MP posits the question why language is the way it is: if the abstract principles that theoretical linguistics discovers are real, *why* are they this way and no other? One possible answer to this question is that the principles we find to operate in the organism's knowledge of a language are to a significant extent natural principles of efficiency and optimality. The underlying intuition here is that the language organ is not a product of successive adaptation to selective pressure, but rather an emergent solution that optimally meets the design specifications of interfacing performance systems, allowing the organism – at least to some extent – to put the system to use. The notion of perfection that is at stake here is that of structural (as opposed to functional) perfection: the system integrates into the mind in an optimal way. Performative issues (language use) are crucially distinct from this assumption. The minimalist gamble is supported not only by findings in theoretical linguistics, but also by comparative studies that seek to identify the unique properties of natural language (see Hauser, Chomsky, and Fitch 2002). If these properties are indeed species-specific, this lends further support to the hypothesis that language is an exaptation in the sense of Gould & Vrba (1982): a by-product of some mutation that yielded the recursive linkage between systems of thought and systems of articulation that is the basis for human language. The program approaches Universal Grammar “from below” (Chomsky 2006): which properties *must* be attributed to the genetic endowment, requiring evolutionary explanation? Shifting the explanatory burden as widely as possible from Universal Grammar to general principles of natural design that ‘come for free’ opens the door to a substantial theory of language evolution. I will identify the major factors that determine the design of language and sketch their role in linguistic theorizing, pointing out potential conceptual flaws of the “I-functionalist” approach (Epstein forthcoming). I argue against the commonly held view that the MP is merely an Occam's Razor-style condition on theory construction (methodological minimalism). Rather, its claims are ontological: the language organ is – *ex hypothesis* – a perfect natural solution to a specific design problem, and it is the task of cognitive science to prove the perfection of nature in this domain. Thus, the MP aims at explanation at the deepest level of adequacy: true understanding instead of ‘data coverage’ (cf. Chomsky 2004). As the discussion will show, significant success of the program might have large-scale implications for the biology of mind (cf. Hinzen 2006).