

## **Putting parametric variation to test: On computational and sociolinguistic considerations**

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One of the central points in the linguistic agenda pertains to understanding the nature of crosslinguistic variation as well as its constraints. Linguists working within the generative enterprise have often described variation as ‘parametric’ (Chomsky 1981). Under standard assumptions, our species is biologically endowed with what Chomsky identified as Universal Grammar (UG) and which consists of principles and parameters, with the latter awaiting setting on the basis of the linguistic data a child encounters. By discussing the notion ‘parameter’, the present work is essentially an inquiry into the contents of UG.

The approach to parametric variation that will be explored in this work relies on computational and sociolinguistic considerations. With respect to the former, I develop an algorithm-based analysis to show that the computability of parametric hierarchies faces problems that pertain to fixity, overproduction, and optimality (Leivada 2015). In their totality, these problems suggest that the hierarchical organization of parametric dependencies runs into problems that should cast doubt on the feasibility of parametric approaches to UG.

After discussing the properties of UG-encoded hierarchies, I will use a different approach to parameters by focusing on linguistic data in communities that involve simultaneous use of closely related varieties. More specifically, I will examine patterns of variation in the spontaneous speech of bidialectal speakers of a standard and a non-standard variety in order to investigate the existence of functionally equivalent variants (FEVs) in grammar (Leivada et al. 2017). The results show mixed grammars in which speakers incorporate competing elements from different ‘lects’ into a single grammar. Only a non-parametric theory of UG is compatible with the conflicting values of the FEVs that are attested in the examined repertoires. All in all, both the computational approach as well as the sociolinguistic study suggest the need to remove parameters from the array of UG primitives.

### References:

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