

Glottometrics

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Tayebeh Mosavi Miangah, Mohammad Javad Rezai

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Lin Wang, Radek Čech

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Peter Zörnig, Gabriel Altmann

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Germán Colomá

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Abstract. In this paper we develop a theoretical model of global language complexity, based on a constrained optimization approach. We assume that language is a system that chooses different levels of complexity for its different domains (i.e., phonology, morphology, syntax, vocabulary) in order to minimize a global complexity function subject to an expressivity constraint (which also depends on non-linguistic variables related to geographic, phylogenetic and demographic factors). The model is illustrated with the aid of a dataset based on a short text translated into 50 languages, for which global complexity is measured using a version of Kolmogorov complexity. That dataset is used to run simultaneous-equation regressions, which represent different relationships between language complexity measures.

Sergey Andreev, Ioan-Iovitz Popescu, Gabriel Altmann

On Russian adnominals 64-83

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