

Testing Greenberg's universals on a global scale

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In recent years, Greenberg's word order universals have been claimed to be lineage-specific (Dunn et al. 2011) or alternatively, to be divided between lineage-specific patterns and true universals (Jäger 2018a). Other universals have not yet been investigated using quantitative methods that control for language history. In this paper we investigate a large set of universals (100+) with a new large morphosyntactic dataset using phylogenetic comparative methods and a global tree. The typological data are taken from Grambank (Skirgård et al. 2020), a new database containing more than 1400 languages. The universals are gathered from Greenberg (1963) and Plank and Filimonova's (2006) collection. We select universals that dictate the presence or absence of two specific features (such as gender and number; or tensedness and noun adjectives) and investigate whether these features are likely to co-evolve or not. Rather than investigating individual families, we make use of global language trees (Jäger 2018b, other global trees are in preparation). This allows us to incorporate small families and isolates, as well as quantitatively appreciate the fact that many separate families specific to a certain area probably share a past.

Results indicate that universality is a matter of degree. Some of Greenberg's well-known universals, such as no. 43, "If a language has gender categories in the noun, it has gender categories in the pronoun", are close to the absolute universal end of the spectrum. Others, however, are not universal (for example, no. 27, "If a language is exclusively suffixing, it is postpositional; if it is exclusively prefixing, it is prepositional"). In some cases, these negative findings are due to a mismatch between the terms used in the original formulation of the universal and the Grambank questionnaire. In other cases, our findings support earlier falsifications of universals, for instance Greenberg's universals regarding Object-Verb and Adjective-Noun order (no. 5 and no. 17), which have been shown to be wrong by Dryer (1988). Other universals are falsified. These may have held up in their original samples, but are not found to be universal in the current analyses. Viewing universality as a matter of degree has implications for the debate regarding culture and cognition: we put forward a more sophisticated view where both cultural evolution and cognitive factors play a part in investigating correlations between typological features.

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