

An evaluation of contact-induced change to word prosody systems on a global scale

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The historical linguistics literature often approaches contact explanations for phonological change with scepticism. At the heart of the issue are arguably two broad methodological shortcomings in research on contact. First, there is an overreliance on individual case studies (e.g. Hickey 2010, Grant 2019) which hinders systematic generalizations. Secondly, some of the claims put forward in works evoking contact as a source for change are much too speculative, which reduces opportunities for empirical control. The current study presents a new technique for addressing those issues (Authors 2021, Authors 2023a), and uses a typologically informed sample (Authors 2023b) to further test the claim that suprasegmental variables are frequently impacted by contact (e.g. Rice 2010, van der Hulst et al. 2017).

Specifically, this investigation looks at word prosody systems to investigate the extent to which contact may explicate similarities between pairs of unrelated languages whose speakers interact on a regular basis. The languages were selected from the contact and areal linguistics literature according to two main criteria: a) the donor and receiving languages must belong to distinct language families; and b) the receiving language must have a close relative to serve as a control for inheritance factors (see Authors 2023a for more details). Importantly, this study aims to evaluate *how* contact shaped word prosody systems of languages in contact rather than *whether* or not it did.

Method. The sample is divided into 40 three-language sets ($N=120$) from all parts of the globe. Each set is comprised of a receiving language (R), an unrelated donor language (D), and a benchmark language (B), a language that is as closely related to the receiving language as possible without being part of the contact scenario according to the sources. Every language was then coded for 30 different variables following criteria discussed in the typological literature (e.g. Hyman 2006, Maddieson 2013, Gordon 2016, Authors 2023c). For instance, for stress languages, we coded for obligatoriness, location of the prominent syllable, and the role of syllable weight, among others. Tone systems, including so-called ‘pitch-accent’ languages (Hyman 2014), were also coded for using criteria in the typological literature.

We computed similarities between Rs and Ds by assigning ones (1) or zeros (0) to individual variables. When the feature values of the receiving and donor languages were the same while differing from the benchmark, we assigned a one (1). When R and B had the same feature value, we assigned a zero (0). In this coding, we interpret (1) as contact-induced change, whereas (0) represents either no change or independent developments. These scores were then averaged across variables and added up, yielding an ‘adaptation score’ for every receiving language. So as to better estimate the likelihood of contact-induced change, adaptation scores were then turned into Beta distributions.

Results and Discussion. A preliminary analysis of the data suggests that word prosody systems are indeed commonly affected by contact, albeit to different levels. For stress languages, the location of the stressed syllable looks particularly prone to change, whereas contact between languages with tone systems tend to lead to the acquisition of new tones. It is expected that a full analysis of the results will highlight how this method will help advance our understanding of contact-induced change, especially regarding suprasegmental variables.