Work by Nichols (1992, 2003), Dunn et al. (2005), and others raises the possibility that structural features may be more stable through time than vocabulary, and accordingly better indicators of deep genealogical relationship. Of the features proposed, however, a substantial number can be seen to have changed more rapidly within well-established language families than core vocabulary. Many are morphological, the most routinized domain of structure and thus presumably the most resistant to change. Like vocabulary, structural features do not all change at the same rate. Recent work has sought to rank their propensities for change by averaging stabilities of features over large language samples. Dediu & Cysouw (2013) provide a useful survey of methods used to compare structural features listed in the *World Atlas of Language Structures*, concluding that ‘the seemingly simple concept of structural stability hides an irreducible complexity, mainly due to the prevalence and importance of horizontal processes in language change’.

Before structure is to be taken as an indicator of deep relationship, it is crucial to unpack the complex cognitive, social, and cultural factors underlying structural stability, change, and their interactions, to determine whether abstracting away from variables in contact situations can yield valid rankings at all.

An important cognitive variable is conscious control on the part of speakers, presumably a universal. Speakers are generally more aware of vocabulary than structure. As pointed out early by Thomason and Kaufmann (1988), first-language speakers generally borrow vocabulary before structure, while second-language speakers generally bring structure into their new language first, unconsciously, as they focus on mastering vocabulary. Second-language speakers may also reanalyze grammatical systems of their new language in terms of the old. Another variable is the age of acquisition (Trudgill 2011, 2017, Dahl 2004, 2017). Early bilinguals easily acquire the full complexity of their languages and may enrich each with distinctions from the other, ultimately adding morphology. Adult learners, by contrast, may opt for simpler, more analytic expressions. A third set of factors are community attitudes. The relative prestige of languages in contact and their speakers can of course stimulate or impede replication. But attitudes toward language mixing also affect transfer. Where code-switching is common, both lexical and structural convergence are facilitated, but where languages are intentionally kept apart, speakers working to avoid mixture generally focus on vocabulary, though they may not alter frequencies of certain expressive choices. Such transfer brings up a final variable pertinent for morphology: time. Sometimes bound morphemes are transferred directly on the backs of borrowed words, as in the case of French nominalizers into English. But often morphological convergence takes place over long periods of time. Bilinguals accustomed to specifying a distinction in one of their languages may transfer this frequency into the other, even if they express it with material native to that second. Over time, the frequency can lead to crystallization in that grammar. These effects can result in areal distributions of morphological distinctions expressed by markers sharing no formal similarity.

Cognition and contact can interact in different ways in the development of different structural features. Internal factors can stimulate replacement via external models, or the reverse. Specification of negation is highly frequent in speech, for example, typically resulting in rapid grammaticalization, with reduction in substance and morphological independence. But the erosion of formal salience is at odds with its functional importance, leading to rapid renewal. Source structures for renewal can come from external models. Conversely, the addition of dual number or clusivity may be stimulated by frequency of expression due to contact, but the material for expression is more often drawn from native resources.

Here cases of contact-induced morphological convergence involving features assumed to be stable will be shown, along with the various factors involved in their spread. As will be seen, they can be much less stable than vocabulary. The pervasiveness of such cases raises the question of whether morphological structure in general, or certain morphological distinctions, can ever be considered valid indicators of deep genealogical relationship, particularly where the social and cultural circumstances surrounding contact situations over millennia cannot be known.
References


