

## How Mechanisms of Sound Change Predict Stability

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When do the mechanisms of regular sound change fail to apply? What types of languages and situations exhibit and promote phonological stability? I consider this question using data from the languages of Aboriginal Australia, where there has been considerable debate on this question. While the earlier strong position of Dixon (2001) -- that Australian languages are a special case of language where comparative methods do not apply -- is now thoroughly refuted, there remain a number of ways in which Australian languages appear to form a distinct typological group. For example, despite 6000 years of descent from a common ancestor (Bouckaert, Bower, and Atkinson 2018), most Pama-Nyungan languages have close to identical correspondence sets with very similar sound changes in language across the continent (Harvey 2011; Alpher 2004; Dench 2001; Austin 1988). More than 80% have consistent, initial stress (Goedemans 2010). Comparison across families shows that Pama-Nyungan shows slower rates of phonological evolution than other families (Moran, Grossman, and Verkerk 2020). And sound correspondences across stable vocabulary in Pama-Nyungan indicate surprisingly few examples of sound change compared to the amount of lexical replacement seen, though the changes we do see and can reconstruct show regular principles according to the comparative method (Alpher 2004).

Various explanations have been proposed for the apparent lack of extensive sound change in Australian languages. Some are social in nature: that the languages of small speech communities tend to change more slowly, either because dense and multiplex social networks inhibit the introduction of innovations (cf. Milroy 1992; Milroy and Milroy 1992) or because smaller speech communities show less variation, restricting opportunities for innovations to arise. Other explanations are physiological; that exceptionally high rates of Otitis media (chronic middle ear infections) have shaped the inventories of these languages, constraining the paths of change exhibited across the family (Butcher 2003; cf. also Fletcher and Butcher 2014).

Here, I review possible lines of inquiry for how and why Australian languages (either individually or in the aggregate) might show little sound change. I argue that neither cultural nor physiological explanations contribute much to our understanding of Australian exceptionalism. Explanations based on absence of variation are also untenable. Instead we should be looking towards explanations that account for the stability of phonological oppositions and the apparent lack of phonologization of allophonic variation.