Irregular sound change in the Minjim languages

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Although the Neogrammarian controversy was "resolved" forty years ago (Labov 1981), it was revisited soon after (Oliveira 1991), and the debate rages on to this day (Labov 2020). But whatever the truth of the Neogrammarian hypothesis ultimately proves to be, it is a truism among historical linguists that sound change is often irregular. The interaction of a variety of factors, such as lexical diffusion (Bybee 2002), dialect mixing (Trudgill 2004), and lexical borrowing, render the outcome of actual (potentially regular) processes of linguistic change irregular to the eyes of the comparativist. This has long been acknowledged as a factor that must be incorporated into reconstructions (Blust 1996). Moreover, some scholars also recognize that not all families are equally irregular (Grace 1996). Although Grace's distinction between well-behaved and poorly-behaved languages has a lot of intuitive currency among historical linguists, it has seldom, if ever, been rigorously investigated.

This paper takes a step in this direction by taking a careful look at regularity in the Minjim languages. Minjim is a family of six languages belonging to the Madang branch of the Trans New Guinea family (Z'graggen 1975; Pawley & Hammarström 2018), and spoken in Papua New Guinea.

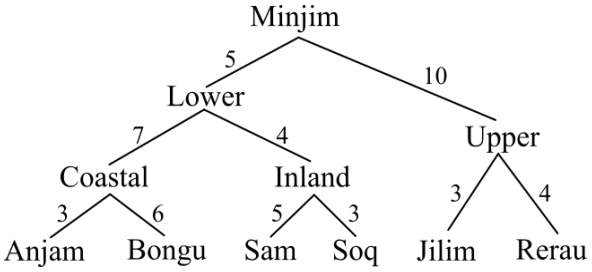

Figure 1. The Minjim languages

Careful comparative reconstruction yielded a reconstruction of Proto-Minjim based on 398 cognate sets and 53 sound changes in daughter branches. These innovations produced the family tree shown in Figure 1; this figure also shows the number of shared innovations that define each node in the tree. (Three innovations contradict these subgroups, but none affect the same subset of languages.)

Among the 53 changes, only 14 (26%) were fully regular. The rest occurred in between 25% and 94% of lexemes (see Table 1). Note that even those changes with very low levels of regularity cannot be disregarded. For example, in Bongu, *a rounded to *o* in the presence of *b and *m. This occurred in 12 words, and must represent a historical change in the articulatory behavior of Pre-Bongu speakers. But it failed to happen 23 times, giving it a regularity percentage of only 34%.

Table 1. Sound changes

% of lexicon	# of lexemes
100	14
80–94	7
60–79	15
40–59	12
25–39	5

Some of this irregularity may eventually be resolved, as Verner's Law resolved exceptions to Grimm's Law. But a great deal needs to be accounted for. As such, this paper has two theoretical goals, in addition to the descriptive goal of reconstructing Proto-Minjim. The first is to relate the patterns of irregularity in Minjim to the social processes that underpin language diversification. Scholars have argued that different social situations lead to different patterns of diversification (François 2011, 2012; Bowern 2013). I argue that the Minjim data suggest a society in which innovations could spread into distantly related varieties, due to high rates of multilingualism, as has been proposed for nearby families (Daniels et al. 2019).

The second goal is to develop a system for comparing rates of regularity among language families. The Minjim data, providing a regularity percentage for each change, is in principle comparable. But a lot of choices had to be made about what changes to include, and how to include them. I discuss how various factors, such as the minimum level of regularity accepted, or the specificity of the conditioning environment, interact with the data, and propose ways of standardizing this input to lay the groundwork for cross-linguistic comparison. I conclude that a naïve comparison of percentages is insufficient, but that comparing nuanced understandings of the histories of language families can be enlightening.

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