

## **Multiple uncommon word-prosodic changes in the Austronesian languages of Raja Ampat: when—and why?**

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There are seven indigenous languages of the Raja Ampat archipelago, just off the northwest tip of New Guinea: Ambel, As, Batta, Biga, Matbat, Ma'ya, and Salawati. These languages all belong to the Austronesian family; within Austronesian, they are classified in the Raja Ampat-South Halmahera (RASH) subbranch of South Halmahera-West New Guinea (SHWNG). The word-prosodic systems of the Raja Ampat languages are typologically interesting for two reasons. First, they are all tonal—while tone is common worldwide, it is unusual in the Austronesian family. Second, Biga and Ma'ya additionally have unpredictable stress (Remijsen 2001); the combination of lexical stress and lexical tone is extremely rare, cross-linguistically. The Raja Ampat languages thus provide interesting data to investigate both the diachrony of tone in the Austronesian family, and the emergence of concurrent systems of stress and tone.

In this poster, I discuss some findings on diachronic word-prosodic processes in Raja Ampat, based on a recent subclassification of the languages (Author submitted). Following the typology of tonogenesis mechanisms in Hyslop (2022), the cross-linguistically most common sources for tone are co-intrinsic segmental effects—for example, the transphonologisation of pitch perturbations caused by onset or coda consonants. Co-intrinsic effects, however, are not characteristic of the Raja Ampat languages. Instead, there are multiple independent instances of two much rarer processes: (1) prosodic developments caused by apocope of word-final vowels, which have occurred at least twice (in proto-Salawati-Misool Ma'ya and proto-Salawati-Batta); and (2) tone changes conditioned by vowel height, which have occurred four separate times (in Ambel, Batta, proto-Waigeo-Ma'ya, and proto-Ma'ya). I will outline the conditioning factors involved in each of these changes, and show how they can be used to form a relative chronology of word prosody in the Raja Ampat languages.

Owing to the relative cross-linguistic rarity of word-prosodic developments conditioned by syllable loss and vowel height, I also address the question: why, in this small group of languages, do these two unusual changes occur multiple times? The distribution across the languages suggests that structural pressures which favoured the changes were inherited from a common ancestor. In both cases, these pressures appear to have been phonetic. In the case of apocope, two of the conditioning factors in the Raja Ampat languages are penultimate stress and an open final syllable. We can infer from this that final vowels in these contexts are weakened, and eventually elided; this process today occurs synchronically in some dialects of Ma'ya, strengthening this hypothesis. With regards to vowel height: it is a cross-linguistic near-universal that high vowels (e.g. /i, u/) are realised with a higher F<sub>0</sub> than low vowels (e.g. /a/), a phenomenon referred to as intrinsic fundamental frequency (IF<sub>0</sub>; Whalen & Levitt 2005). Recent production data shows that IF<sub>0</sub> differences in Salawati and Biga are nearly double the mean cross-linguistic average (Author et al. forthcoming), making them salient candidates for reanalysis and transphonologisation as lexical tone. These

findings thus emphasise the need to study word-prosodic developments in a cross-linguistically diverse sample of languages, in order to develop our theoretical understanding of when and why certain changes are possible.

### **References**

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