The Phonetics of Proto-Austronesian *j

I propose that the Proto-Austronesian (PAN) proto-phoneme often transcribed *j was a voiced apico-alveolar affricate [dʒ]. This best accounts for its reflexes based on common sound changes, as well as the mergers this proto-phoneme undergoes.

Most scholars identify PAN *j as a voiced dorsal obstruent. Dempwolff (1934-38) identifies it as a voiced dorso-palatal plosive [j]. Ross (1992:35f) identifies it as a plosive palatalised velar fricative [ɣj], Blust (2009:582) identifies it as a palatalised velar plosive [ʒ], and Wolff (2010:37) identifies it as a voiced velar plosive [g].

The main problem with identifying PAN *j as a palatalised voiced dorsal obstruent is that, as far as I can see, no language retains this value. No Austronesian language reflects PAN *j as IPA [j], [ɣj] or [g]. While this itself is not damning evidence, it is suspicious. It would be the only PAN phoneme which has changed in all 1,200+ daughter languages.

The idea that PAN *j was dorso-velar [ɣj] or [g] does not suffer from the same problem. However, dorsal reflexes of PAN *j are absent in Taiwan with the exception of Rukai, some Atayalic varieties (word finally), and, perhaps earlier Bunun and Tsou in which *j > [Ø] (Blust 1999). These languages do not subgroup, but they are geographically continuous.

Within Island-South-East-Asia (ISEA) dorsal reflexes of *j are only found in three areas (apical/laminal reflexes are also common in these areas): Sumatra, where *j is often reflected as a velar fricative [x], northern Luzon where it often becomes [g], and Palauan where *j normally became [s] but has become [k] in some cases.

It is thus most simple to posit that PAN *j was an apico/lamino-coronal consonant which has been backed independently in four areas: areally in central Taiwan, Sumatra, and Northern Luzon, as well as sporadically in Palauan.

Backing of apicals is an attested areal feature in Sumatra and can be seen, for instance in Rejang *d > [s] medially and *d > [s]-[t] finally; almost the same reflexes as *j in Rejang (Anderbeck 2007).

In other cases backing of PAN *j may have gone through an intermediate *r stage. The change of an alveolar rhotic to dorsal is well attested cross-linguistically. If PAN *R was an alveolar trill, as proposed by Blust (2009:583), then the frequent change of *R > [g] in Northern Luzon provides evidence for an intermediate change of *j > *r in this area.

The evidence for PAN *j being a voiced apico/lamino-coronal consonant is strong. It accounts for the fact that it is overwhelmingly reflected as an apico/lamino-coronal and can also account for the occasional dorsal reflexes of *j based on common sound changes.

In identifying a more precise place and manner of articulation for PAN *j, the first place to look would be cases of merger. The reasoning being that a merger is most likely to involve phonetically similar consonants.

The consonant with which PAN *j most frequently merges is *z. Complete or partial mergers of PAN *j and *z occur in Taiwan in Puyuma, Papora, and Hoanya and are found in more than 200 non-Oceanic Malayo-Polynesian (MP) languages in all areas of ISEA.

There is general agreement on the value of PAN *z. Dempwolff (1934-38) usually reconstructed it as an apico-palatal voiced *d’ (IPA [dʒ] or [dɬ]), Ross (1992) identifies it as a voiced palatal stop [ʃ], Blust identifies it as a voiced palatal affricate [dʒ], and Wolff (2010:34) transcribes it *j and describes it as “a very forward voiced stop [with] palatal

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1. The medial consonant in *ŋaŋan ‘name’ (Blust and Trussel ongoing), or *qágan ‘name’ (Wolff 2010).
2. Dempwolff’s dorso-palatal <ŋq> [ʃ] is different to his apico-palatal <d’> = IPA [dʒ] or [dɬ].
3. At least two proposals identify PAN *j as non-dorsal. Sagart (2004:429) identifies it as a palatal nasal [n] and Norquest and Downey (2013) identify it as a voiced retroflex plosive [d].
4. Some linguists use the symbol <q> for a palatal affricate which is properly IPA [dʒ] or [dɬ]. I use [ʃ] for a voiced dorso-palatal non-affricated plosive. The voiced equivalent IPA [ʃ] or oral equivalent of IPA [n].
5. The medial consonant in *quzaN ‘rain’ (Blust and Trussel ongoing) or *quʃáɬ ‘rain’ (Wolff 2010).
coarticulation”, thus probably IPA [ʤ] or [d̪]. The most likely value of *z given these reconstructions is thus an apico/lamino-palatal affricate, IPA [ʤ]. Given the frequent merger of PAN *ʃ and *z [ʤ], it is likely that these two Proto-phonemes had similar phonetics. Hence, PAN *ʃ was probably a voiced coronal affricate.

After *z [ʤ], the consonant with which PAN *ʃ most frequently merges is *d. In Taiwan a complete or partial merger of *ʃ and *d has occurred in Babuza, as well as, perhaps, Papora. Among non-Oceanic MP languages of ISEA *ʃ and *d have merged in at least 40 instances (probably more) in many different locations in ISEA. PAN *d is almost universally agreed to be a voiced alveolar plosive. Patterns of merger indicate that PAN *ʃ was phonetically most similar to *z [ʤ] and *d [d], thus it was probably a voiced apico/lamino-alveolar affricate; [ʤ]).

In many cases the merger of PAN *ʃ and *d was to *d. A change of *ʤ > *d is an attested sound change elsewhere. Moreover, if PAN *C = [ʦ], then *ʃ [ʤ] > *d is paralleled by the merger of PAN *C [ʦ] and *t which occurred in Proto-East-Formosan, Bunun, and PMP. In this last respect it is worth noting other parallel developments of PAN *C [ʦ] and *ʃ.

These include Saisiyat *C > [ʦ], *ʃ > [z] and Thao *C > [θ], *ʃ > [d]. Such parallel developments are expected if *ʃ was the voiced counterpart of *C.

If PMP *ʃ was a voiced alveolar affricate [ʤ], then it has been retained unchanged in two languages of Taiwan; Hoanya and medially in Pazeh, as well as perhaps some languages of Flores. Reconstruction of *ʃ as [ʤ] thus does not incur the same suspicion as does reconstruction of *ʃ as [ʃ], [ʃ], or [g̊].

I propose PAN *ʃ was a voiced alveolar affricate [ʤ] for the following reasons: (1) it is most commonly reflected as a voiced lamino/apico-coronal, (2) dorsal articulations are geographically restricted and can be derived from [ʤ] based on recurrent sound changes, (3) *ʃ most frequently merges with *z [ʤ] and/or *d [d].

Reconstruction of *ʃ as [ʤ] finds circumstantial support from the increased plausibility of the PAN phoneme inventory with the addition of *ʤ and subtraction of any other value assigned to it. PAN *ʃ [ʤ] would be the voiced counterpart of *C [ʦ].

References


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6 My database contains reflexes of *ʃ in 535 MP languages, of which 109 additionally have reflexes of *d.

7 Wolff (2010:32) reconstructs the equivalent of PAN *C as a voiceless apico-alveolar plosive [t].