Toward an account of tonogenesis in Nawa Panoan languages

Yaminawa and Amahuaca are currently classified as members of the "Headwaters" subgroup of the "Nawa" group of the Panoan family (Fleck 2013). While Shell (1965) reconstructs two contrastive tones in Proto-Panoan, Fleck (2013) argues that tone is an innovation that only occurred in some languages of the Nawa group, but does not suggest a source of tonogenesis.

Despite the close relationship claimed for Yaminawa and Amahuaca, these two languages diverge significantly in their tonal systems. Data from original fieldwork on Yaminawa and Amahuaca, and data from published sources on other Panoan languages (including Amahuaca, Kakataibo and Chacobo) are compared to argue that the truncation of trisyllabic roots is likely an early source of contrastive tone, and that the subsequent retention or loss of glottal segments has led to the development of systems with opposite tonal values.

While tone appears to have a relatively low functional load in Yaminawa and Amahuaca, the few tonal near-minimal pairs that exist are most often between a disyllabic root and a trisyllabic root that has undergone truncation to conform to a prosodic preference for disyllabic forms, as seen in the pairs in (1).

(1)	Yaminawa		Amahuaca	
	[ìsà]	[ĭsa̋nĭ] ~ [ĭsa̋]	[ʔìsáʔ]	[ʔĭsa̋nĭ] ~ [ʔĭsa̋]
	porcupine	ungurahui fruit	porcupine	ungurahui fruit

Truncated roots are found throughout the Mainline Panoan languages and appear in their untruncated forms in certain, limited morphological environments such as ergative/instrumental case. In most of the Nawa languages truncation results in high-low contours. Outside of the Nawa branch, truncation is also seen to have effects on pitch in languages such as Kakataibo (Zariquiey 2011).

Beyond truncated forms, Yaminawa and Amahuaca exhibit significant differences in their tonal systems, particularly in the nominal domain, with Yaminawa preferring level-tone roots (most frequently LL, but also some HH), and Amahuaca being dominated by HL and LH roots. The retention of glottal segments in Amahuaca, and the loss of these segments in Yaminawa, appears to be a key factor in accounting for these differences. For example, where Amahuaca has retained intervocalic /ʔ/, the vowel preceding it almost invariably bears H tone, but in Yaminawa, nearly all of the cognate forms are LL, as seen in (2a) and (2b).

(2)	Amahuaca		Yaminawa	
a.	[tóʔò]	'fetus'	[tòò]	'egg, fetus'
b.	[ʂáʔì]	'anteater'	[ʂài]	'anteater'
c.	[ʂítɨ]	'vulture'	[ʂítí]	'vulture'
d.	[kɨwóʔ]	'pucacunga (bird)'	[kɨ́wú]	'pucacunga (bird)'
e.	[ʂàⁿdóʔ]	'woman'	[ʂàdù]	'paternal grandmother'

This does not necesarily occur with other intervocalic consonants, where a HL contour in Amahuaca may correspond to a HH in Yaminawa, as shown in (2c). In other cognate pairs, Amahuaca LH roots, which always end in a glottal stop or glottalization if not suffixed, may correspond to either LL or HH Yaminawa roots, which do not have glottalization, as seen in (2d) and (2e). Some languages very closely related to Yaminawa, such as Shawanawa and Saynawa, have final glottalization as seen in Amahuaca, but are not described as having tone (see de Souza 2012 and Couto 2010), indicating that the development of tone may be very recent in Yaminawa.

Tone systems in languages of the Americas, and Amazonia in particular, remain largely understudied. While a complete reconstruction of Panoan prosody is outside the scope of this study, this talk provides an important foundation for future work within Panoan linguistics, and some interesting points of comparison with more comprehensive studies of tonogenesis in other language families, such as Athabaskan, where the retention and loss of glottalic consonants have also been implicated in tonogenesis (see Kingston 2005).

REFERENCES:

Couto, Cláudio André Cavalcanti. (2010). *Análise fonológica do Saynáwa (Pano): A língua dos índios da T.I. Jaminâwa do Igarapé Preto*. MA Thesis, Universidade Federal de Pernambuco.

de Souza, Emerson Carvalho. (2012). *Aspectos de uma gramática Shawã (Pano)*. PhD thesis, UNICAMP.

Fleck, D.W. (2013). Panoan languages and linguistics. In *Anthropological papers of the American Museum of Natural History*, no. 99.

Kingston, John. (2005). The phonetics of Athabaskan tonogenesis. In Keren Rice and Sharon Hargus (eds.) *Athabaskan Prosody*, pp.137-184. Amsterdam: John Benjamins.

Zariquiey, Roberto. 2011. *A grammar of Kashibo-Kakataibo*. PhD thesis, LaTrobe University.