

Accent and tone: the double origin of the Paicî tone system

Florian Lionnet (Princeton University)

Introduction. Tone mostly originates from the phonologization of redundant F0 differences caused by segmental laryngeal features – i.e., from non-prosodic features (Michaud and Sands 2020, a.o.). Languages where tone originated from prosodic features (e.g. accent) appear to be the exception rather than the rule (e.g., Scandinavian languages, cf. Kingston 2011). What has yet to be fully documented is what happens when an accentual language develops a tonal contrast from laryngeal features: is the accent system kept alongside the new tone contrast? Is it lost? Do both prosodic systems merge?

In this paper, I present the typologically interesting tone system of Paicî (Oceanic, New Caledonia), which illustrates the latter outcome: tonogenesis occurred in an accentual language and caused the former accent system to be reinterpreted as tonal.

Paicî data – Tone. Paicî is one of five tonal languages of New Caledonia, all Oceanic (Grace 1955; Haudricourt 1968, 1971; Rivierre 1993, 2001). These languages are famous for being the only Oceanic languages that have developed tone without any external influence. They are thus particularly interesting for what they might reveal about the historical development of tone systems.

Paicî has arguably the most complex tone system in New Caledonia (Rivierre 1974, 1993, 2001). The tonal inventory itself is simple, with only two tonemes, H(igh) and L(ow), as shown in (1).

- (1) *í* ‘to cry’ *ì* ‘louse’
pádi ‘to thrash’ *pàdi* ‘to divide’

This tonal contrast results from the transphonologization of a former aspiration contrast on plosives and voicing contrast on sonorants (Rivierre 1993, 2001), e.g. *tíi* ‘to strip bark’ (cf. Nemi *t^hi-*) vs. *tìi* ‘letter, book’ (cf. Nemi *tii*).

Paicî data – Downstep. More complex is the behavior and history of downstep in Paicî. Two types of downstep are attested: a metrically conditioned downstep systematically marking the boundary between the first two L-toned bimoraic feet within a prosodic word (2), and underlying downstep found in about 20 tonal enclitics (3) (cf. Rivierre 1974, Lionnet 2022).

- (2) /tèèpàà/ → (tèè)⁺(pàà) ‘to arrive’
(3) /gò =⁺ì bwà / → gò ⁺ì bwà ‘on the banyan tree’
on =DET banyan

The Paicî downstep has many typologically rare properties (Lionnet 2022): (i) it affects only L, and is incompatible with H; (ii) it is mostly autonomous from lexical tone; (iii) it is culminative (i.e. there cannot be more than one) within the prosodic word; (iv) it is (partly) metrically conditioned; and (v) it is realized utterance-initially. Properties (ii)-(v) give it a strong accentual flavor, giving the impression of two parallel prosodic systems in Paicî : a H vs. L tonal contrast, and a downstep-based accent.

Comparative data and diachronic hypothesis: Comparative evidence from neighboring (non-tonal) Xârâcùù strongly suggests that downstep in Paicî was indeed originally an accentual system (Rivierre 1978). It is not accentual anymore in contemporary Paicî, as can be seen from the fact that it lacks obligatoriness, one of the definitional criteria of accent (cf. Hyman 2006) – indeed it is never found with H-toned words, i.e. one third of the lexicon. It can even be shown to interact with the tonal system – at least in stating distributional constraints, e.g. “no downstep on words carrying a H tone”.

The complexity of the Paicî tone system is thus the result of its double historical origin: accentual and tonal. Tonogenesis innovated a H tone in a downstep-marked accentual system. Consequently, the innovative H-toned words were, so to speak, removed from the “regular” accent system, while the rest of the lexicon maintained its former accentual behavior, only reinterpreted as involving a L tone, as a consequence of which downstep was reinterpreted as a property of L-toned words. This double origin offers a simple explanation for the typologically rare features of the Paicî downstep listed above.

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