

Northern Pomo tonogenesis and steps towards a diachronic typology of “lexical pitch-accent”

Cross-linguistically, the diachronic development of tonal contrasts (*tonogenesis*) is typically associated with the loss of segmental contrasts (Haudricourt 1954; Matisoff 1973; Hombert et al. 1979; Kingston 2005; Gao & Kirby 2024) or phonation contrasts (e.g. breathy vs. creaky vowels; Thurgood 2002, 2007; Brunelle et al. 2019). A classic example is the case of Vietnamese where tones first developed as the contrast between *-ʔ* and *-h* was lost in the syllable coda and voicing contrasts merged in the syllable’s onset (Haudricourt 1954, cf. Thurgood 2002, 2007). However, a recent survey presented by Hyslop (2022) highlights the presence of alternative tonogenetic paths, underscoring a growing interest in understanding the different ways in which a language may develop tonal contrasts (or lose such contrasts e.g. Ratliff 2015). To this end, I present the atypical tonogenetic case of Northern Pomo (O’Connor 1992), a dormant Indigenous language of California, and begin to situate it within a broader typology of tonogenesis.

Although Northern Pomo exhibits a contrast between two level tones: (H)igh vs. (L)ow, the comparative evidence (McLendon 1973) shows they did not develop through segmental neutralizations like those discussed above (Dailey 2025). Instead, tonal minimal pairs developed serendipitously through the confluence of 3 independent sound changes shown in the table below. In stage (1) L tone developed on stress-bearing *CVV and *CVVC syllables, likely through the reanalysis of a prominence marking pitch-accent (Dailey 2025). Then, in stage (2) the contraction of **-’aja* sequences (McLendon 1976) created new long vowels which had not developed L tone, creating tonal contrasts on CVV syllables (e.g. *m̥a:* ‘thing’ vs. *má:* ‘you (pl.)’). Finally, in stage (3) vowels in *CVVC syllables are shortened with no alteration to the associated L tone, facilitating tonal contrasts with some high-pitched CVC syllables (*mòts* ‘sour’ vs. *tʰót* ‘rotten’):

PROTO-POMO	THING *ʔa ‘ <i>m̥a:</i>	YOU PL *ʔa ‘ <i>maja</i>	SOUR *‘ <i>mòts</i> ’	ROTTEN *ʔih ‘ <i>tʰót</i>
1	ʔa ‘ <i>m̥a:</i>	--	‘ <i>mòts</i> ’	--
2	--	ʔa ‘ <i>má:</i>	--	--
3	--	--	‘ <i>mòts</i> ’	--
N. POMO	<i>m̥a:</i>	<i>má:</i>	<i>mòts</i> ’	<i>tʰót</i> ’

The changes outlined here don’t show any trace of the segmental contrast neutralizations found in languages like Vietnamese. Instead, a comparison might be made to Swedish (Riad 1998) and Basque (Hualde 2022) which developed lexical pitch-contrasts as changes in word structure and the fossilization of compounds led phrasal tones to be lexicalized. However, unlike Northern Pomo which developed minimal pairs that contrast level tones paradigmatically (e.g. H vs. L) on monosyllabic words, Swedish and Basque developed minimal pairs contrasting pitch contours syntagmatically (e.g. early vs. late pitch peak in Swedish).

Working within a typology which views stress and tone as two potentially related but independent phenomena (following Hyman 2009), the relative differences between the contrasts seen in “lexical pitch-accent” languages and “prototypical” tone languages may be seen as an artifact of their diachronic sources. Indeed, there are some marked differences: tonal systems that develop through the loss of segmental contrasts often exhibit rich sets of paradigmatic contrasts, while those that develop through prosodic changes are often restricted and syntagmatic; both reflect the nature of their respective progenitors. Northern Pomo bridges a gap: its lexical tone is introduced through the lexicalized pitch-accent, but it has gone one step further to develop paradigmatic contrasts.