

Re-examining the Athabaskan tonogenesis hypothesis: tonal dissimilation and tonogenesis.

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The overarching understanding of tonogenesis, coming from studies of African and Sino-Tibetan language groups, is that tone develops in response to a loss of a segmental contrast, marrying tonogenesis to the maintenance of segmental and lexical distinctions. The development of tone as a grammatical marker is not well understood and is considered secondary to its lexical development, if not epiphenomenal.

One group of tone languages that have been under-represented in tone literature are the Athabaskan or (as speakers prefer) Dene languages. Athabaskan tonogenesis hypothesis (Krauss, 2005; Leer, 1999) argues that the parent Proto Athabaskan (PA) language was toneless. Contrastive tone developed in some daughter languages via the incorporation into the rime of glottalized consonants in noun stems, and the concomitant loss of those segments from codas, (much as it did in Sino-Tibetan). Those Athapascan languages that did not lose their glottalized consonants did not develop tone. Additionally, the tonal daughter languages developed mirror tone systems, the so-called H and L marked languages. Kingston (2005) has provided a strong foundation for understanding how this switch may have occurred, filled out gaps in the Krauss-Leer tonogenesis hypothesis, and raised several interesting problems. However Kingston's analysis was stymied by the lack of phonetic data available on tonal phenomena among the Dene languages.

In this talk we provide phonetic documentation of tonal alternations in six Dene languages, mostly from the Mackenzie Basin area, and, taking up issues laid out by Kingston, provide a preliminary outline for an alternate hypothesis of tonogenesis. In this hypothesis, laryngeal constriction, not tone, was inherited from the parent language, in conjunction with the reduction/neutralization in stem codas. Tone arose as a dissimilatory factor between the inflectional prestem and the stem domains, due to an interaction between constricted stems and obligatory inflectional pre-stem morphemes. Tone reversal among daughter languages is available as a dissimilatory phonetic process. The documentation of tone reversal within a closely related group with near identical tonogenesis patterns is important to theories of tone and language change, as is the relationship of tone to grammatical marking.

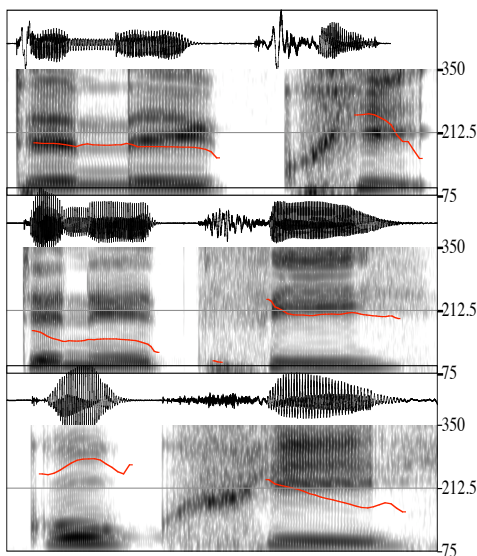


Figure 1: Tone in 'constricted full stem vowels' in open syllables. Waveforms, spectrograms and pitch traces for prefixed noun 'head' (final syllable) in three Mackenzie Basin Dene (Athabaskan) languages with contrasting stem tones:

dene-kwí (North Slavey, Deline, NWT) H tone stem
dene-tthí (Dene Sų́líné, Alberta) H tone stem
go-kwì (Tłı̄Cho (Dogrib) Rae, NWT) L tone stem.

Note tone realization patterns across the three languages. The pre-stem syllable sets up the tonal percept in the stem (final syllable). The actual tonal contrasts are more clear in the so-called 'unmarked' prefix tone group. The stems are argued to be the location of tonogenesis, the pre-stem domain is often called 'underlyingly toneless'. We propose that tone arose in the dissimilatory patterns that arose between the pre-stem and stem morphemes in response to functional demands of a rich inflectional system.