

## The development of tone in standard negation in Alaskan Dene languages

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In this paper, we want to provide a detailed description of standard negation in five Alaskan Dene languages spoken along the Tanana and middle Yukon rivers of interior Alaska, reaching from Upper Tanana in the east over Tanacross, Middle Tanana, and Lower Tanana to Koyukon. Standard negation in these languages has multiple exponents: morphological, syntactic, and suprasegmental. Both the multiplicity of negative markers and suprasegmental marking of negation are typologically unusual, and suprasegmental marking of negation has not been adequately described for this language family.

In most Alaskan Dene (Athabaskan) languages, standard negation is marked by inflection plus a negative particle. (Languages without negative inflection are Gwich'in and Han, languages without a negative particle are Koyukon, Lower Tanana and Middle Tanana; all other Alaskan Dene languages use both; cf. Leer (2000), Lovick (2020b).) Negative inflection is expressed by prefixes as well as by suffixes or stem changes; the patterns affecting prefixes have been described by Kari (1993), Leer (2000), van Gelderen (2008a, b), Lovick (2020b). More recently, Tuttle & Lovick (2021) describe a negative high tone that is realized either on the negative suffix or (as in the Upper Tanana example below) on the negative verb stem.

The complete set of contrasts between affirmative and negative forms is shown in (1) and consists of (i) the presence of the negative particle *k'ət'eeɣ*, (ii) the morphological and tonal change from *ji-* to *ì-*, and (iii) the segmental and tonal change of the affirmative stem *'ààł* to its negative counterpart *'áál*.

- (1) Northway Upper Tanana
- (a) Shyì' jì'áàł  
meat 3SG.S:AA.PFV:Ø-eat:PFV  
'he's eaten meat, he's done eating meat'
- (b) k'ət'eeɣ shyì' ì'áál  
NEG meat 3SG.S:NEG.PFV:Ø-eat:PFV:NEG  
'he has not eaten the meat'

The high negative tone is attested in five Dene languages. It is realized on a syllable created by the negative suffix in Koyukon, Lower and Middle Tanana, and on the verb stem in Tanacross and Upper Tanana. This high tone is clearly distinct from the tonal distinctions resulting from historical constriction (Krauss 2005) as its historical genesis cannot be traced to a segmental source, but seems more related to an earlier suprasegmental pattern.

Our goal in this paper is two-fold. First, using primary data collected by ourselves and by other researchers, we want to provide a detailed description and illustration of this pattern in the five languages under discussion. While it has been mentioned in individual descriptions (Tuttle 1998 for Lower and Middle Tanana, Jetté & Jones 2000 for Koyukon, Holton 2000, 2005 for Tanacross, Lovick 2020a, b for Upper Tanana), no systematic, comparative phonetic account is available to date.

Second, we want to suggest a likely origin for this pattern. In Koyukon, the most conservative of the five languages discussed here, two negative suffixes are reported (Jetté and Jones 2000:5). *-aa*, *-e*, *-ee* is used in standard negation of imperfective, perfective, and future forms; no information on the tonal pattern is given in the source. A high pitch is only reported for the

emphatic negative *-éé*. We suggest that the high pitches in negation ultimately derive from this emphatic negative. As morphophonemic processes make negative prefixation less transparent, and as the contrast between different verbal suffixes is being lost, the high pitch associated with emphatic negation serves to reinforce negative semantics.

The outcome of this process is an unusually complex standard negation construction involving syntactic, morphological, and suprasegmental exponents. While this combination is typologically rare as suggested in Dahl (1979, 2010), Dryer (2013a, b) these findings show that it is far from impossible. Suprasegmental phenomena associated with grammatical distinctions may at times be under-reported depending on the analytical tradition in the linguistics of a language family; we suggest that investigation of such phenomena is indeed warranted.

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