Text setting in an Itelmen xhodila (song): A phonological analysis
Jonathan Bobaljik¹, David Koester², Chikako Ono³, G. D. Zaporotskij
Harvard University¹, University of Alaska Fairbanks², Chiba University³

We report on - and more importantly seek feedback on - work in progress towards understanding text-setting -- the composition of vocal music to a given text (Halle & Lerdahl 1993) -- from a language quite different from those considered in the literature that we know of. Analysis of text-setting in European languages has focused primarily on the association of stressed syllables to strong beats, and intuitions about permissible manipulations to optimize this association (Hayes 2009). In this paper, we analyze a traditional Itelmen unaccompanied song (khodila). A line from this khodila is given below – elements in red are modifications of the spoken text as it is sung. Notable throughout the khodila is extensive use of vowel epenthesis, and sometimes consonant epenthesis, as well as lengthening.

Text as sung: Ч’и : нəӈӄь я ԥэстал кэ лэ лэ зы :н
Linguistic form: Ч’инəӈӄь йаԥстэл кэлэзын
Gloss: beautifully sea.gulls are.calling

We argue that the fundamental consideration in text-setting in Itelmen is not metrical prominence, but instead alignment of word boundaries to measures. We show that nearly all manipulations of the text can be characterized with a fairly simple algorithm (or equivalent constraints). Two conditions account for almost all of the phonological manipulations of the linguistic form in this khodila, including 136 added or lengthened vowels in 156 3-beat half-measures. Alternative perspectives, such as phonologically-driven epenthesis to simplify consonant clusters, do not survive scrutiny. Along the way, we speculate to some extent on whether the khodila-setting algorithm might provide some evidence for speakers' intuitions about syllable structure in Itelmen.