This dissertation analyzes vowel systems in two dialects of Even, an endangered Northern Tungusic language spoken in Eastern Siberia. The data were collected during fieldwork in the Bystraia district of Central Kamchatka and in the village of Sebian-Kuöl in Yakutia.

The focus of the study is the Even system of vowel harmony, which in previous literature has been assumed to be robust. The central question concerns the number of vowel oppositions and the nature of the feature underlying the opposition between harmonic sets. The results of an acoustic study show a consistent pattern for only one acoustic parameter, namely F1, which can be phonologically interpreted as a feature [±height]. This acoustic study is supplemented by perception experiments. The results of the latter suggest that perceptually there is no harmonic opposition for high vowels, i.e., the harmonic pairs of high vowels have merged. Moreover, in the dialect of the Bystraia district certain consonants function as perceptual cues for the harmonic set of a word. In other words, the Bystraia Even harmony system, which was previously based on vowels, is being transformed into new oppositions among consonants.