Long and short diphthongs in North Saami

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This paper examines the vowel system of North Saami (Guovdageaidnu dialect), a language well known for its ternary length distinctions and complex morphophonological quantity alternations (Aikio & Ylikoski, 2022; Bals Baal, Odden, & Rice, 2012; Hiovain, Vainio, & Šimko, 2020). Three durational categories are observed for fricatives and sonorants, including both consonants and vowels, which can result in minimal triplets like [ruo:sa] 'Sweden.Acc' vs. [ruossa] 'cross.Acc' vs. [ruossa] 'cross.Nom'. The duration of the first vowel and medial consonant are complementary in these situations, such that a short vowel co-occurs with an overlong consonant and vice versa; these durations correspond to different proposed prosodic structures, in which the weight of two moras is distributed differently between the segments (Bals Baal, Odden, & Rice, 2012).

As seen in the above example, diphthongs in North Saami are also observed in three different durational categories; however, not all diphthongs in the language exhibit the same patterns. The high diphthongs [ie] and [uo] have a clear ternary length distinction, but the mid diphthongs [ea] and [oa] show different quantity alternations and are only reported to be short before overlong preaspiration. In this paper, I argue that unlike other vowels in North Saami, the mid diphthongs are phonologically long, and must always bear more than one mora of weight.

This proposal is supported by morphophonological data as well as phonetic measurements of segmental duration and formant trajectories in a North Saami data set (Odden, 2005). Words with mid diphthongs do not show vowel length alternations if there is a medial consonant cluster, and show different duration patterns than other vowels in words where epenthesis breaks up a medial cluster. In words with preaspiration, I argue that the appearance of a phonetically short version of the mid diphthongs actually results from vowel devoicing, and that this is the phonetic realization of the second vowel mora being shared with preaspiration.

This paper presents a novel phonological pattern in North Saami, supported by both phonetic and phonological data, and discusses the nature of prosodic weight within vowel systems and in preaspiration.

References

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