Evaluation of Quantity Patterns in North Sámi Varieties

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This work presents the first results of a phonetic experiment on North Sámi quantity and its areal and dialectal variation. The North Sámi language belongs to the Western group of the Sámi languages, which are a part of the Finno-Ugric language family. There are approximately 25 000 North Sámi speakers altogether [1], and the traditional speaking areas are in the northern parts of three states, Norway, Sweden and Finland. The North Sámi language is divided into four main dialect groups: Western and Eastern Finnmark Sámi, Torne Sámi and Sea Sámi [2]. This work focuses on describing and comparing the phonetic realization of quantity patterns in the two Finnmark dialects.

Like Estonian, also North Sámi has a three-way consonant quantity opposition [3]. These oppositions have a very strong grammatical function in both languages, e.g. marking the difference between singular nominative and singular genitive cases. In North Sámi, also the first syllable vowels and diphthongs (V1) have three different lengths, depending on quantity degree of the following consonant (C2) [4]. Thus, it can be hypothesized that the quantity oppositions in North Sámi are realized and perceived also from the alternating duration ratios between the segments rather than from the intervocalic consonant centre only.

The aim of this work is divided to two main tasks: 1) providing a phonetic description of the North Sámi quantity patterns 2) evaluating dialectal variation and majority language influence on the phonetic realization of the quantity patterns. In the Norwegian variety of Finnmark Sámi, the quantity patterns can be expected to be produced less by means of length but more tonally, reflecting the tonal characteristics of Norwegian. Obviously, the traditional dialectal differences have to be also taken into consideration when describing the phenomena under investigation, since there are various phonetic and phonological differences between the Western and Eastern Finnmark Sámi dialects [2].

The experimental material contains recordings of five subjects, one Sámi-Norwegian bilingual, others Sámi-Finnish. Two of the subjects represented the Western Finnmark dialect, whereas three of them had an Eastern Finnmark dialectal background. The subjects were asked to read aloud short, phonetically controlled North Sámi words in carrier sentences. The target words contained all three quantity degrees with different intervocalic consonants. The preliminary results of the absolute mean segmental duration values show that for the two Western Finnmark Sámi speakers, the length of V1 was less influenced by the quantity degree of the C2. Instead, the quantity opposition shows more clearly in the length of C2 (less significantly for the Norwegian-Sámi speaker), as also suggested in [2]. Contrastively, the three Eastern Finnmark Sámi speakers produced the three-way quantity contrasts very clearly by the length of V1, but showing significantly also in the length of C2.

References: