

An extrasyllabic account of North Sámi triple gemination

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Introduction: Extrasyllabic or syllable-appendix consonants have been described at word edges and in word-medial environments where consonants are not able to be syllabified as either onset or coda (Polish: Rubach & Booij 1990, French: Rialland 1994). Using data from a North Sámi length alternation, we provide evidence for an extrasyllabic mora that only occurs medially.

The Western Finnmark dialect of North Sámi (Uralic) exhibits a typologically unusual three-way contrast between short, long, and overlong consonants (Q1, Q2, Q3), alongside a two-way vowel length contrast. North Sámi consonant length contrast manifests at a root-medial syllable boundary (roots are generally disyllabic; primary stress falls consistently on the initial syllable). Alternations between consonant lengths, known as “consonant gradation”, instantiate morphological contrasts with a shorter consonant in the “weak grade” and a longer consonant in the “strong grade”. The three alternations are as follows (Bals Baal et al. 2012):

(1) Short C alternates with long CC after long vowels, but with overlong CCC after short vowels.

Q1~Q2: VVC→VVCC

Q1~Q3: VC→VCCC

(2) Long CC alternates with overlong CCC, accompanied by vowel shortening:

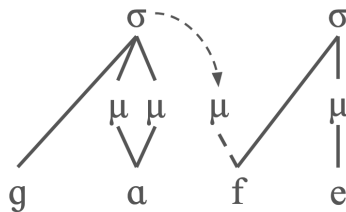
Q2~Q3: VVCC→VCCC

Analysis: We account for these facts by positing that extrasyllabic moras are licensed following heavy syllables. (We assume geminates must straddle a syllable boundary as in Kahn (1976), Clements & Keyser (1983)). In our account, the strong grade is formed by lengthening the medial consonant. A short consonant following a long vowel simply requires insertion of a non-moraic coda, as in (3). However, following a short vowel, an extra syllabic mora must also be inserted in order to license the non-moraic coda, as in (4). If the consonant is already long, it is instead made overlong through compensatory shortening of the preceding vowel, as in (5).

(3) Q1~Q2

[gaafe]~[gaaffe]

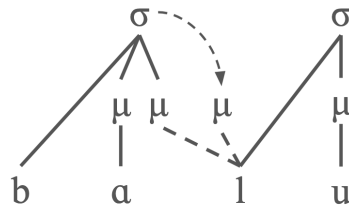
‘coffee (acc sg~nom sg)’



(4) Q1~Q3

[balu]~[balllu]

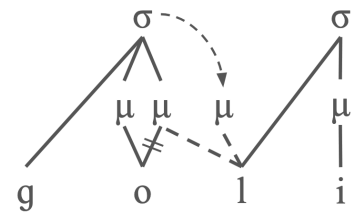
‘fright (acc sg~nom sg.)’



(5) Q2~Q3

[goolli]~[gollli]

‘gold (acc sg, nom sg.)’



Implications: Unlike extrasyllabic units at word boundaries, the North Sámi geminates are obligatorily word- and foot-medial. This expands the typology of attested extrasyllabic positions, resembling proposals that present multiple degrees of affiliation between a syllable and its consonants (e.g. Fujimura 2000, Shaw et al 2011). It also begins to offer an explanation for the conditions necessary to allow a 3-way consonant length contrast to arise.