

Diachronic and synchronic pharyngealization in West Greenlandic

In this talk, I propose an improved analysis of those West Greenlandic (WG) geminates diachronically derived from what Dorais (1986) terms “special clusters” based on phonetic properties of WG. Forms that are found as nasal-uvular (NQ) clusters in Proto-Eskimo and many Western Eskimo dialects appear as a uvular nasal geminate in West Greenlandic (Bobaljik 1995). Examples are given in (1), where an orthographic QN cluster is realized as a uvular nasal (the specifics of this realization are made explicit in Bobaljik’s (1995) reanalysis of Dorais (1986)). [r] is a voiced uvular approximate. The sound change exemplified in (1) is analyzed as the four-step derivational process shown in (2) by Dorais (1986) and reanalyzed as the two-step process in (3) by Bobaljik (1995).

I propose a new analysis of the diachronic formation of the uvular nasal, in the framework of Optimality Theory (Prince & Smolensky 2004), based on similar processes found in the synchronic grammar of the language. In WG, pharyngealization spreads from a uvular or a pharyngealized geminate to a preceding vowel, as shown in (4). In roots with underlying Cq clusters, pharyngealization appears in derived forms on the correspondent of the input vowel as well as the surface geminate, (5). In a 2007 paper, I analyze this pattern as the result of faithfulness between corresponding vowels in the output and an intermediate form *alq* where pharyngealization has spread from the uvular stop to the first preceding vowel. I refer to this form as the Realized Input and claim that it is the phonetic realization of the underlying representation, generated by putting the UR through a language specific phonetic grammar.

The idea of an intermediate form where pharyngealization spreads to a preceding vowel can also provide insights into the pattern show in (1). If pharyngealization on a consonant spreads leftward until it finds a vowel, then the realization of a NQ cluster will result in [PHARYNGEAL] spreading through the nasal. In languages with surface NQ clusters, then, pharyngealization will be present on the nasal and the preceding vowel, as in (6). When the cluster is assimilated to a geminate in WG, pharyngealization is preserved on the vowel by the same faithfulness constraint, IDENT[PHARYNGEAL]-V, that is responsible for pharyngeal preservation in synchronic forms.

Pharyngealized nasal geminates have two alternate surface realizations (Rischel 1974, Thalbitzer 1976). One possibility is the uvular nasal analyzed by Bobaljik and Dorais. The other is a secondarily pharyngealized geminate that preserves the primary place specifications of the nasal, coronal [n:] or labial [m:]. This alternation suggests that nasal place is only weakly contrastive when pharyngealized, probably due to a lack of clear perceptual distinctiveness. The alternation is analyzed as a free ranking of a constraint IDENTPLACE, preferring preservation of underlying place contrasts, and a markedness constraint against secondarily pharyngealized nasals *PHARNASAL. The alternation between a pharyngealized geminate and a uvular geminate is not restricted to nasals, but is also a possibility for continuants, (7). The analysis proposed here can account for both nasal and continuant alternations, diachronically and synchronically.

Bobaljik’s analysis greatly simplifies the proposal in Dorais, but the preservation and realization of [PHARYNGEAL] is still only an indirect consequence of the order of the rules he postulates. I argue that the analysis proposed in this paper is superior in that it directly accounts for the preservation of pharyngealization, either as primary or secondary place, as the principled result of spreading found robustly in the synchronic grammar of the language.

- (1) a: upinraaq → upirŋaaq [upiN:aaq] 'spring'
 b: paamruqtuq → paarŋuqtuq [paaN:uqtuq] 'crawl'

(2)

	Metathesis	Velarization	Progressive Place Assimilation	Regressive Manner Assimilation
/nR/	Rn	Rŋ	RN	NN
/mR/	Rm	Rŋ	RN	NN

(3)

	Bidirectional Manner Assimilation	Regressive Place Assimilation
/nR/	nN	NN
/mR/	mN	NN

- (4) /iq/ → [iq] *[iq]
 /iç:/ → [i:] *[iç:]

(5) /alq+it/ aḷ:it 'harpoon strap pl.' (singular [aliq])

(6) /upinraaq/ → [upiŋraaq] 'spring'

(7) /aavq+up/ → [aḷ:up] or [aḷç:up] 'walrus rel.'

References

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