

Consonant lengthening in Icelandic

Icelandic preaspiration prevents long aspirated stops from surfacing in Icelandic. Instead, an underlyingly geminate aspirated stop is pronounced as a two-segment sequence of [h] plus the singleton stop in unaspirated form. This phenomenon has long resisted explanation under the one-root theory of geminates (Hayes 1989), whereby underlyingly mora-bearing consonants are associated with a single root node. A paper by Ringen (1999) did appear to have solved the problem by presenting a one-root model of Icelandic preaspiration in the context of Optimality Theory, but a phonological process not examined in that analysis – consonant lengthening – provides evidence that Ringen’s one-root OT account is untenable.

Preaspiration surfaces not only in the environment of an underlying aspirated geminate stop (*rakka* /rak^h:a/ → [rahka] ‘belittle’), but also whenever an aspirated stop precedes a sonorant such as [n]; so, the output of a word like *rakna* /rak^hna/ ‘unravel’ is [rahkna]. To explain this, Ringen refers crucially to a constraint (Mult Link) that requires the feature [spread glottis] to be shared by adjacent consonants.

Instead, I propose that the stop-sonorant environment triggers a process that lengthens the stop, as in the word for ‘swear’: *ragna* /rakna/ → [rak:na]. In this example the stop is underlyingly unaspirated, so preaspiration does not occur and the lengthening process is evident in the [k:]. When the stop is underlyingly aspirated, however, as in *rakna*, the preaspiration effect obscures the lengthening process, since long aspirated stops always surface as short preaspirated stops.

The benefit of this analysis is that instead of positing two environments for preaspiration (geminate aspirated stop, and aspirated stop + sonorant), only one is needed: the geminated aspirated stop. This approach requires consonant lengthening, but independent evidence exists for consonant lengthening in forms such as *ragna*. And it is just such forms that Ringen's one-root OT account cannot handle, since under her constraints and rankings an unaspirated input form like *ragna* /rakna/ will surface as *[rakna] with a short [k], instead of the correct output, [rak:na], with a geminate [k:].

This development affects phonological theory to the extent that it eliminates the last remaining attempt to explain preaspiration in terms of the one-root theory of length. In her paper Ringen was not arguing against the two-root theory (Selkirk 1990); instead she was suggesting that both approaches remained viable. At least as far as Icelandic preaspiration is concerned, unsuccessful analyses including Jónsson 1994, Keer 1998 (another OT attempt) and now Ringen 1999, lead me to conclude that the one-root theory is inadequate.

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