

## Pre- and postaspiration: Faroese and GP 2.0

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Preaspiration of stops is mostly known through Icelandic where /pp, tt, kk/ are realized [hp, ht, hk] and /pl, pn, tl, tn, kl, kn/ surface as [hpl, hpn, htl, htn, hkl, hkn] (Rögnvaldsson 1990, Keer 1998, Arnason 2011). Faroese, Icelandic's closest sister language, also displays preaspiration and it affects the same segments: voiceless stops when they are phonologically long (1a) or in clusters with sonorants (1b) (Lockwood 1964, Braunmüller 2007, Thráinsson et al. 2012, Adams & Peterson 2014).

### (1) Preaspiration of geminate stops and /stops+sonorants/ clusters in Faroese

(a)	/knappu/	[k <sup>h</sup> na <sup>h</sup> p:u]	<i>button</i> NOM.	(b)	/vøpn/	[vø <sup>h</sup> p <sup>h</sup> n]	<i>weapon</i>
	/lappi/	[la <sup>h</sup> p:i]	<i>rag</i> NOM.		/depla/	[de <sup>h</sup> pla]	<i>point</i> PL.
	/stappi/	[sta <sup>h</sup> p:i]	<i>stuff</i> PRES. 1PS.		/fatla/	[fa <sup>h</sup> tla]	<i>put in a sling</i> INF.
	/dett/	[te <sup>h</sup> t]	<i>dead</i> NEUT.		/vatn/	[va <sup>h</sup> t <sup>h</sup> n]	<i>water</i>
	/grøtt/	[grø <sup>h</sup> t]	<i>grey</i> NEUT.		/ritma/	[ri <sup>h</sup> tma]	<i>rhythm</i>
	/øtta/	[ø <sup>h</sup> tta]	<i>eight</i>		/lœtti/	[lœ <sup>h</sup> t <sup>h</sup> i]	<i>little one</i> MASC.
	/takka/	[ta <sup>h</sup> ka]	<i>thank</i> INF.		/søkni/	[sø <sup>h</sup> kni]	<i>sunk</i> MASC. GEN. PL.
	/sœkui/	[sœ <sup>h</sup> kui]	<i>sink</i> PRES. 3PS.		/jøkla/	[jø <sup>h</sup> kla]	<i>glacier</i> PL.

Note that preaspiration in both languages is not exactly alike: as shown in (1a), Faroese geminates are preaspirated and phonetically long, while in Icelandic preaspiration blocks consonantal length. Both Nordic preaspirations seem different phonetically (Thráinsson et al. 2012:48), which is why they are not transcribed the same way ([hC] vs. [h<sup>h</sup>C]). The discrepancy between Icelandic and Faroese preaspiration is also observed in the environments where it appears. In Faroese, it is possible to meet preaspiration where we find underlying intervocalic voiceless singletons (Thráinsson et al. 2012:49).

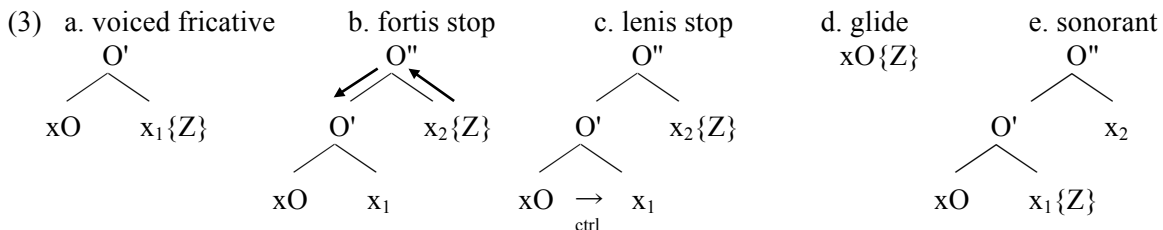
### (2) Preaspiration of intervocalic singletons in Faroese

(a)	[ea <sup>h</sup> pa]	<i>ape</i>	<i>apa</i>	(b)	[k <sup>h</sup> vøi:ðu]	<i>white</i> MASC.	<i>hvítur</i>
	[ðie <sup>h</sup> pa]	<i>kill</i> INF.	<i>drepa</i>		[k <sup>h</sup> œu:ða]	<i>kneel</i> INF.	<i>krúpa</i>
	[o <sup>h</sup> pin]	<i>open</i>	<i>opin</i>		[iai:ða]	<i>irritate</i> INF.	<i>reita</i>
	[p <sup>h</sup> ða:pi]	<i>dad</i>	<i>pápi</i>		[iøu:ða]	<i>cry</i> INF.	<i>rópa</i>
	[bøa <sup>h</sup> tui]	<i>boat</i> NOM.	<i>bátur</i>		[lu:ðu]	<i>thing</i>	<i>lutur</i>
	[e <sup>h</sup> ta]	<i>eat</i> INF.	<i>eta</i>		[nu:ðu]	<i>use</i> INF.	<i>nýta</i>
	[hea <sup>h</sup> ti]	<i>hate</i> PRES. 1PS.	<i>hati</i>		[iøu:ðin]	<i>root</i> DEF.	<i>rótin</i>
	[sta <sup>h</sup> tui]	<i>state</i>	<i>statur</i>		[si:ða]	<i>sit</i> INF.	<i>sita</i>
	[frie <sup>h</sup> kui]	<i>greedy</i> MASC.	<i>frekur</i>		[loi:ðu]	<i>similar</i> MQSC.	<i>líkur</i>
	[læa:kui]	<i>bad</i> MASC.	<i>lakur</i>		[mjøu:ðu]	<i>soft</i> MQSC.	<i>mjúkur</i>
	[re <sup>h</sup> ka]	<i>drive</i> INF.	<i>reka</i>				
	[vea <sup>h</sup> kui]	<i>beautiful</i> MASC. SG.	<i>vakur</i>				

This context is widely neglected in the literature about Faroese and Nordic languages in general. In this presentation, we aim to investigate this particular environment. Finding the correlation between preaspiration and vocalic identity will help us identify the exact requirement for the occurrence of this phenomenon and it will also lead us to a better understanding of what preaspirated segments are.

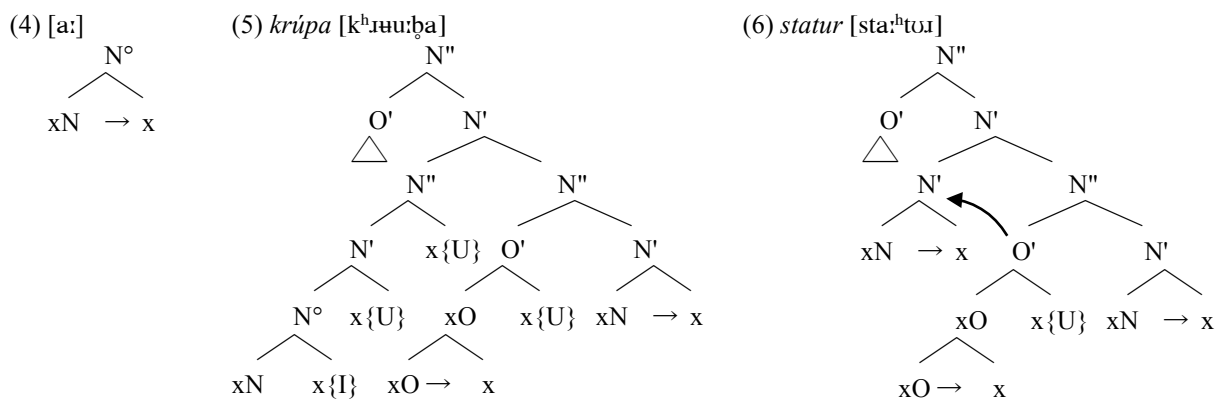
As pointed out in (2), the quality of V<sub>1</sub> plays a role in the distribution of preaspiration in this particular context: preaspiration occurs on singletons after long (middle)-low vowels only (1a) – if the stop is adjacent to a high vowel then the lenis version of the stops surfaces (2b).

In order to illustrate the configuration of (preaspirated) segments and their interactions, we situate our analysis in the GP 2.0 framework, as developed in Pöchtrager (2006) and in Pöchtrager & Živanović (2010). This approach fits in the perspective introduced by Jensen (1994), aiming at the reduction of the number of phonological primes (see also Brandão de Carvalho, 2002) in the Element Theory framework (KLV, 1988; Scheer, 1996; Backley, 2011). Consequently, some properties are no longer represented with elements but with structure.



In this model, stops have a more complex structure than fricatives, i.e. they have an extra level of

We claim that preaspirated stops, which also count as fortis, need two slots to express – the distinction is made on the location of this extra space: while postaspirated occupy two nodes of their own structure, preaspirated expand to the preceding nucleus to find the extra space they need. In other words, it has to expand its own maximal projection. This slot is however not available in every vowel: those which contain {A} ([ɛa:, e:, o:, ɔa:, a:] do, while those which consist of {I/U} only ([ui:, ɥu:, ɔu:, au:, i:]) don't. Following Pöchtrager & Živanović (2010), we assume that the prime {A} should also be replaced by structure: namely a nuclear projection with no content at all but a control relation, as illustrated in (4). The non-head node being unannotated, it can receive the interpretation of another segment from the chain: in (6) it serves to the expression of the following onset.



Some examples of preaspiration following a high vowel are given in (1b). All these cases show that when there is a sonorant at the right of the stop, preaspiration always occurs with no consideration for the vowel quality. This leads to the hypothesis that sonorants have an empty space in their structure (Pöchtrager 2006:86f), allowing the stop to expand and hence to preaspirate.

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