

“Frozen” sound change in a vanishing language: challenges for description, codification, and typology

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Vanishing Soikkola dialect of the Ingrian language (Finnic; Uralic), with just few speakers left, manifests shortening of long second syllable unstressed vowels (V₂), a still ongoing process partially influenced by the dominating Russian language. In a comprehensive phonetic study (Kuznetsova et al., *subm.*), we showed that it enters in complex relations with compensatory and anti-compensatory phonetic tendencies. As a result, the original phonological contrast of long and short V₂ is currently in a state of a fine-grained continuum from the contrast maintenance, through a near-merger, towards a complete merger, depending on the foot and word structure.

Structural variability is aggravated by considerable interspeaker variability. Out of the five studied speakers, three were sound change forerunners and two were laggards. Since the language is moribund, native speakers do not communicate in it any longer, and the language evolution has stopped. During the last 15 years that we have been observing the speakers' language behaviour, no feasible progress towards the completion of the V₂ reduction has happened in their idiolects. One could potentially speak about a “frozen/conserved” sound change, which is likely never to be completed due to the imminent language loss. Notably, the sound change in question used to be an actively developing process when the language was still vital: V₂ shortening was not yet attested in the end of the 19th century (Porkka 1885), documented at the initial stage in the 1940s (Sovijärvi 1944), and at present is more advanced in younger speakers than in the older ones. In this sense, such a sound change, which is left incomplete just because of the language shift, might be structurally very different from the known cases of incomplete neutralisation in big languages (e.g. Roettger et al. 2014), which can be preserved without much change for several generations of active speakers.

The described situation creates numerous challenges, outlined below, for the development of a practical transcription, as well as for the typological placement of a rare ternary quantity contrast of consonants attested in Soikkola Ingrian. Transcription is needed for the description and codification of vanishing Soikkola Ingrian in grammars and dictionaries, intended also for language teaching and revitalisation.

1. It is hard to choose the most frequent V₂ length variant for transcription and orthography, because there is simply no such variant: length correlates with a particular word structure and a particular speaker. In a small language, the statistical weight of each speaker is higher, while the previous knowledge base associated with the language is narrower (Whalen and McDonough 2019). It is difficult to consider any of the speakers as an outlier when there are so few of them and the interspeaker variability is so huge. It is also unclear how to transcribe data from individual speakers e.g. in phrasal examples audio-recorded for a dictionary.

2. The situation also poses considerable problems for phonological and morphological analysis. Length contrasts and alternations are already very complex in Ingrian (Saar 2014; Rozhanskiy and Markus 2020). The unfinished V₂ reduction adds new length alternations in paradigms, which occur in some speakers but not in others, which only increases challenges for language learners. Cf. a change in a fragment of a verbal paradigm ‘squeeze oneself in’, where new alternations of long and short V₂ as a function of the number of syllables in the foot (2 vs. 3) evolved:

(old system) *mättī-n 1SG, *mättī-d 2SG, *mättī-mmä 1PL, *mättī-ttä 2PL >
(new system) mättī-n, mättī-d, but mättī-(m̄)mä, mättī-ttä.

3. The present state of vowel shortening in Soikkola Ingrian can be neatly captured in a phonological transcription with the so-called foot quantity accents (light and heavy). They are used e.g. in modern normative dictionaries of cognate Estonian (cf. Raadik 2018). However, accents prove challenging to be used in a practical orthography. Unlike the dictionaries meant for L1 Estonian speakers, materials for an endangered language should use a more phonetically-oriented system of writing to facilitate its L2 students to pronounce the words correctly.

4. Due to this unfinished sound change in V₂, Soikkola Ingrian presents typologically the “purest” case of a rare ternary quantity contrast of consonants out of all known cases (attested only in Finno-Saami languages). Here, V₂ duration is not yet in a completely reverse relation with the length of the preceding consonant, cf. esp. the 2nd and the 3rd degree of consonantal length before a phonologically long vowel in a triplet of disyllables like *tapa* ['taɸa:] ‘kill!’ (Q1) – *tappā* ['tap:a:] ‘he catches’ (Q2) – *tappā* ['tap:a:] ‘he kills’ (Q3) (Kuznetsova 2015). In corresponding trisyllables, as our study (Kuznetsova et al., subm.) showed, this trend is much more advanced due to the long V₂ shortening after a Q3 consonant: *lagata* ['laɸa:ɖa] ‘to sweep’ (Q1) – *mattāla* ['mat:a:la] ‘low’ – **kattīma* > *kattima* ['kat:ima:] ‘we cover’ (Q3).

It might be hypothesised that the unfinished V₂ shortening in question would have been just a brief transitional period in the life of a big vital language (cf. the same process in cognate Estonian). Still, Soikkola Ingrian will likely remain in the phonological typology and used in cross-linguistic comparisons the way it was documented and described in these last years. Phonological typology, therefore, should probably pay more attention to the phonological stability of emerging patterns and account not just for mere language facts but also for the sociolinguistic conditions in which they were documented and the period of their survival in a language.

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