

### Lexical diffusion of gradual phonetic changes: evidence from Forest Enets

In Wang 1969 it was first suggested that sound changes may be irregular and may involve only a part of the lexicon, cf. 'lexical diffusion'. Elaborating the view of Labov (1994: 421-543), Blevins (2004: 268-278) proposed that lexical diffusion may operate in the case of abrupt sound changes only, while both abrupt and gradual sound changes may spread over the whole lexicon at once. However our field data from Forest Enets (FE; Uralic, Samoyedic) provide four examples of gradual sound changes that are actually spread by lexical diffusion, not by regular sound change. Three of them are changes where a vowel is replaced with another vowel adjacent to it in the vowel space ( $\text{ɔ} > \text{u}$ ,  $\text{e} > \text{i}$ ,  $\text{a} > \text{ɔ}$ ), and one is a change where final vowel is reduced to zero through shwa. All these changes are yet ongoing and illustrate the same general scenario, though at different temporal stages: a handful of morpheme involved (stage 1) > a few more (stage 2) > many more (stage 3) > all morphemes in the relevant contexts (stage 4). At each of the first three stages morphemes displaying variation/change do not form a natural class, i.e. no phonological or functional criteria can be formulated that would differentiate them from other words of the language.

1.  $\text{e} > \text{i}$ . Our field data show that in modern FE the variation  $\text{e} \sim \text{i}$  is common in non-initial syllables (e.g. [kare], [kari] 'fish', the [i]-variant is more frequent), while in initial syllables it is attested only in some exceptional morphemes (e.g. [nexuʔ], [nixuʔ] 'three', the [e]-variant is more frequent). The morphemes with the variation are reported in the earliest sources on FE with /e/, and later sources provide some evidence for variation in the non-initial syllable. So the change  $\text{/e/} > \text{/i/}$  is now generalized to 'stage 4' for non-initial syllables, but initial syllables are only starting to be involved, i.e. for them 'stage 1' holds.

2.  $\text{a} > \text{ɔ}$ . Our field data show a dozen morphemes where /a/ varies with /ɔ/ e.g. [badu], [bɔdu] 'tundra'). Generally, these morphemes are attested with /a/ in the literature. But Castrén (1854: 59) already gives a single example of  $\text{a} \sim \text{ɔ}$  variation in FE (*jaxa* ~ *jɔxa* 'river'), and it is noteworthy that exactly this word is reported with /ɔ/ in all later sources. So this is 'stage 2' of the sound change  $\text{/a/} > \text{/ɔ/}$ , for a handful of exceptional cases it is already finished.

3.  $\text{ɔ} > \text{u}$ . The oldest FE descriptions document only 2 back rounded vowel phonemes, /ɔ/ and /u/. Some of the later sources report a 3-term back vowel system for the FE of 1960-1970s: /ɔ/ - /o/ - /u/ (with the /o/ spelling for some of the former /ɔ/ morphemes). Our field data shows that there are now 3 classes of morphemes with back vowels: /u/-morphemes pronounced only with [u] (e.g. [muzu] 'liver'), /ɔ/-morphemes pronounced only with [ɔ] (e.g. [kɔza] 'nail'), and the so-called '/o/-morphemes' pronounced with free variants [o], [u] or [ɔ] (e.g. [moga], [mɔga], [muga] 'forest'). The corpus of '/o/-morphemes' increases as we analyze more data. '/o/-morphemes' from the literature are a subset of the modern '/o/-morphemes', while the other modern '/o/-morphemes' were earlier attested with /ɔ/. Some of the modern /u/-words were earlier attested with /ɔ/. So this is 'stage 3' of the sound change  $\text{/ɔ/} > \text{/u/}$ , in some morphemes the sound change has already finished.

4. *Final vowel loss*. In modern FE, many lexemes can be pronounced as [CV]-final, [Cə]-final or as [C]-final, e.g. /nadu/ [nad], [nadə], [nadu] 'antler'. The process of final vowel loss is especially frequent in words ending with a rounded back vowel (/ɔ/, /o/, /u/). Individual words ending in a rounded back vowel vary significantly in the frequency of their attestations with or without the final vowel, while for a few words no pronunciations without the final back rounded vowel have been attested in natural speech (though they are possible in elicitation). So this is 'stage 4' of the sound change  $\text{CV}_{/\text{ɔ}/, /o/}, /u/\# > \text{C}\#$ , and 'stage 3' for a more general  $\text{CV}\# > \text{C}\#$ .

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