The development of vowel harmony in Turkic: Phonologization and analogy

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Introduction

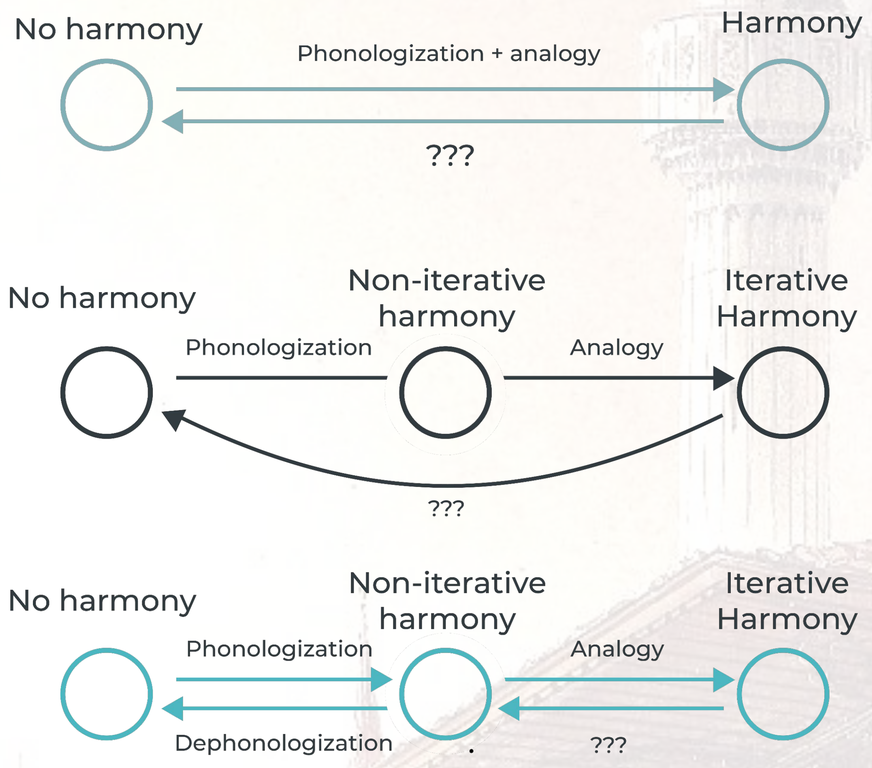
- Vowel harmony is often viewed as arising from phonologization of vowel-to-vowel coarticulation (e.g., Ohala 1994).
- Phonetic coarticulation becomes phonological harmony via phonologization and analogy.

- **Predictions based on previous work**
  - Two kinds of languages (Ohala 1994)
    (1) coarticulation (precursor to or remnant of harmony)
    (2) harmony
    - **Problem**: During the development of iterative rounding harmony in Ottoman Turkish, Viguier (1790:287) reports two distinct registers that differ by iterativity, e.g., *olduği ičün* 'because' (literary; non-iterative) vs. *olduğu ičin* (colloquial; iterative; see also Duman 1999; cf. Johanson 1978-79).

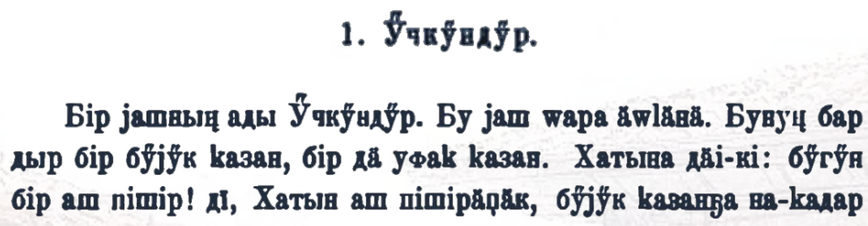
  - Three kinds of languages (Barnes 2006)
    (1) coarticulation (precursor to or remnant of harmony)
    (2) non-iterative harmony
    (3) iterative harmony
    - **Problem**: Cases of non-iterative harmony are attested during the emergence and decline of rounding harmony in several Turkic languages. We focus on the decay of harmony in Crimean Tatar over the last 150 years.

Phonologization and analogy must be treated as two separate aspects of both the emergence and decay of vowel harmony.

Proposal



Crimean Tatar: Radlov (1896)



1. Ӱчкӱндӱр.

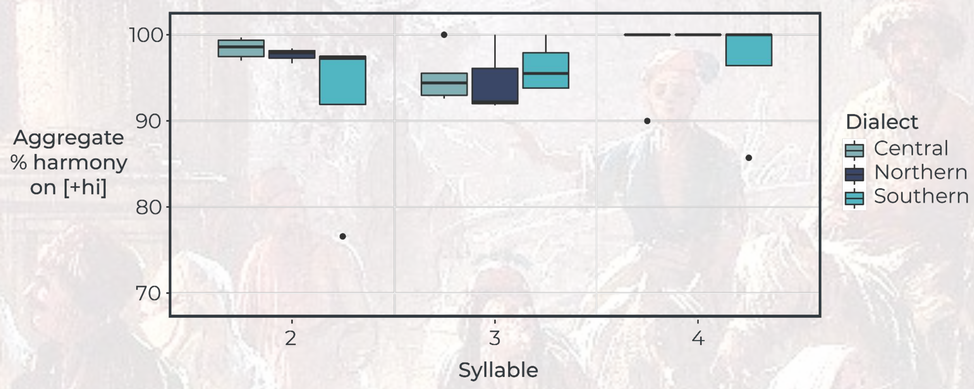
Бір јашның ады Ӱчкӱндӱр. Бу јаш wара äwlänä. Бувуц бар дыр бір бӱјӱк казан, бір дä уфак казан. Хатына дäi-кі: бӱгӱн бір аш пішір! ді, Хатын аш пішірäдäк, бӱјӱк казанда на-кадар туз кojадак бiлмäi. Хатыны дї: анама сор! дї; бӱјӱк казанда

Radlov's (1896) corpora indicate pervasive iterative rounding harmony on following high vowels.

Table 1: Counts of harmony and disharmony aggregated over all Crimean Tatar corpora in Radlov (1896)

	Syllable 2	Syllable 3	Syllable 4	Total
Harmony	4,559	946	105	5,610
Disharmony	134	54	6	194
Total	4,693	1,000	111	5,804
Percent harmony	97.1	94.6	94.6	96.7

Figure 1: Box plot of harmony means by dialect and syllable aggregated over all Crimean Tatar corpora in Radlov (1896)



Contemporary Crimean Tatar: Domain

In Southern CT, iterative harmony is maintained

bojun	'neck'	tuzluɣ-um	'salt shaker-1S.POSS'
dost-um	'friend-1S.POSS'	syrgyn-lyk	'deportation-ADJ.SUF'
burun	'nose'	tykyr-yn-mek	'spit-PASS-INF'
dost-lar-ɯm	'friend-pl-1S.POSS'		

In Central CT, harmony is non-iterative

dost-um	'friend-1S.POSS'	tuz-luɣ-ɯm	'salt shaker-1S.POSS'	(cf. southern [tuz-luɣ-um])
qul-um	'servant-1S.POSS'	burun-ɯm	'nose-1S.POSS'	(cf. southern [burun-um])
kyz-lyk	'autumn-ADJ.SUF'	syrgyn-lɨk	'deportation-ADJ.SUF'	(cf. southern [syrgyn-lyk])
køz-lyk	'eye-ADJ.SUF'	tykyr-ɨn-mek	'spit-PASS-INF'	(cf. southern [tykyr-yn-mek])

In Northern CT, harmony has been lost. Initial high vowels are optionally unrounded.

bojɯn	'neck'	burɯn ~ bʉrɯn	'nose'
dost-ɯm	'friend-1S.POSS'	bulamɯq ~ bʉlamɯq	'a type of cereal'

Contemporary Crimean Tatar: Lexical effects

In Radlov's texts, ACC and GEN undergo harmony. In contemporary CT, they do not.

	Radlov		Contemporary CT	
ACC				
o-nu	'3S-ACC'	(Kefe, p. 134)	o-nɯ	'3S-ACC'
su-nu	'water-ACC'	(Suliman paiğambar, p. 191)	suv-nɯ	'water-ACC'
søz-ny	'word-ACC'	(Qarasu bazar, p. 166)	søz-ni	'word-ACC'
GEN				
dost-nuŋ	'friend-GEN'	(Közleve, p. 235)	dost-nɯŋ	'friend-GEN'
su-nuŋ	'water-GEN'	(Čorba batïr, p. 127)	suv-nɯŋ	'water-GEN'
kyn-nyŋ	'sun-GEN'	(Čora batïr, p. 174)	kyn-niŋ	'sun-GEN'

Discussion and conclusion

- In both emergence and decay, non-iterativity appears to be an intermediate stage between no harmony and iterative harmony.
- Thus, the transition from or to phonetic coarticulation represents only a single step in a more complex pattern of change that may involve both phonologization and analogical extension (Barnes 2006).
- If harmony may develop and decline along these lines, one expects to find many harmony patterns in these intermediate states.
- Typological research in tandem with experimental research and formal analysis should provide a fuller understanding of the life cycle of iterative phonological patterns.

Question

If iterative harmony is the byproduct of phonologization + analogy, how does it decay to non-iterativity?

References

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