

Vowel-consonant harmony in Uyghur

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Overview

- Uyghur (Eastern Turkic) exhibits a typologically rare pattern of vowel-consonant interactions.
- The velars /g/, /k/ and uvulars /g/, /q/ participate in backness harmony.
- This V-C interaction will be captured by Agreement by Correspondence.

Data

Vowels	[-bk]		[+bk]	
	[-rd]	[+rd]	[-rd]	[+rd]
[+h]	/i/	/y/	/u/	
[-h,-l]	/e/	/ø/	/o/	
[+l]	/ɛ/	/a/		

Relevant consonants

- velar /g/, /k/, and uvular /g/, /q/
- velar /ŋ/ and uvular /χ/ do not participate; they lack a uvular / velar counterpart.

Vowel harmony

- Affix vowels surface as either [+bk] or [-bk] depending on the vowel backness in the root:

- (1) *kyn-ler* ‘day-PL’
quf-lar ‘bird-PL’ (Hahn 1991b:48)

- If a root features vowels of different backness specifications, the affix vowel is realized according to the last (closest) vowel of the root:

- (2) *adem-ler* ‘man-PL’

- The vowels /i/ and /e/ are neutral to backness harmony and appear with both [-bk] and [+bk] vowels in the stem:

- (3) *nersiler* ‘things’
kynseri ‘day by day’
jelindza ‘burn’
etibar ‘preference’

Consonant harmony?

- Some suffixes feature velars/uvulars that alternate according to backness.

- (4) *jer-ge* ‘place-DAT’ (6) *dunja-ga* ‘world-DAT’
kytʃ-ke ‘power-DAT’ (7) *mabus-qa* ‘prisoner-DAT’
- (5) *kør-mek* ‘seeing’ (7) *jaz-maq* ‘writing’
jygyr-mek ‘running’ (7) *ju-maq* ‘washing’
(Engesæth et al. 2010:301-310)

- In the absence of harmonic vowels, affix velars/uvulars “alternate” according to velars/uvulars in the root.

- As this includes non-adjacent segments, it will be considered consonant harmony here:

- (8) *tegifi-lik* ‘essential’ (9) *jeqim-liq* ‘gracious’
tegiz-lik ‘tall’ *beliqʃi-liq* ‘fisheries’
kifi-lik ‘human’ *qetim-liq* ‘time’
tegifi-lik ‘essential’ *qijintʃi-liq* ‘difficulty’

One or two harmony processes?

- Evidence for two distinct harmony processes comes from “inconsistent roots” (with segments of different [±bk] specifications):

1. Affix vowels agree with the last harmonic root vowel in backness.

- (10) *tʃakir-gan* ‘call-PTCP.PST’
gimnastiki-ga ‘gymnastics-DAT’ (Engesæth et al. 2010:87)

2. Affix consonants agree with the closest harmonic/harmonizing segment.

- (11) *qudret-lik* ‘powerful’ *hejran-liq* ‘surprise’
exmeq-liq ‘fool’ *qeppez-ge* ‘cage-DAT’

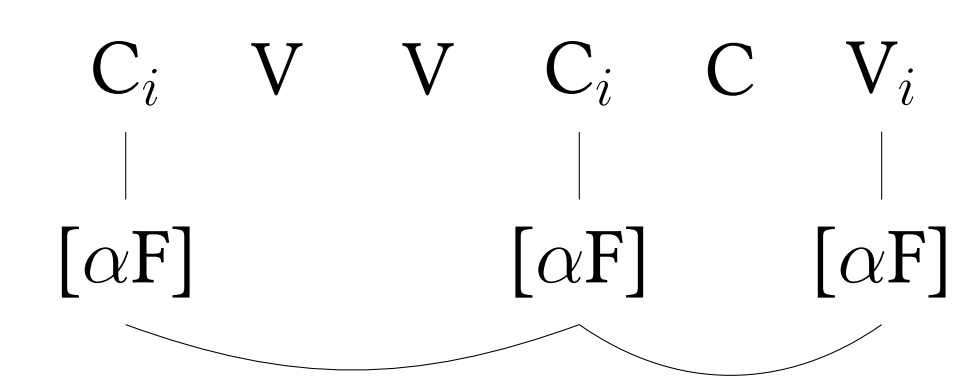
3. An affix consonant adjacent to both a participating vowel and consonant agrees with the consonant.

- (12) *kawak-ka* ‘pit-DAT’
χelq-qe ‘people-DAT’ (Hahn 1991a:82)

Analysis

The Agreement by Correspondence mechanism

- ABC (Rose & Walker 2004; Hansson 2001) establishes agreement between segments via output-output-correspondence relations based on similarity.



- Similarity between segments is defined by constraints of the CORR_[F] family: Segments sharing a given feature enter a correspondence relation.

CORR_[dor]

- * for each pair of segments specified for [dorsal], being closest neighbours and not in a correspondence relation.

- Harmony is regulated by the IDENT_{SS} constraints:

- They determine the feature that corresponding segments have to agree for.

ID_{VV/CC/VC}

- * for each pair of closest corresponding vowels / consonants / vowel and consonant contrastively specified for [±back] in the output that do not agree for [±back].

Features & contrast

- All vowels and velar/uvular consonants are assumed to be [dorsal] (Sagey 1986).
- Only segments contrastively specified for [±back] participate in harmony.

Vowel / consonant harmony

- This mechanism can account for simple vowel and consonant harmony.

- (13) *adem-ler* ‘man-PL’

I: adem-lar	ID-IO _{root}	CORR _[dor]	ID _{VV}	ID-IO
a. a _i dε _i m-la _i r			**!	
b. a _i dε _i m-lε _i r			*	*
c. a _i da _i m-la _i r	*!			*

- (14) *kifi-lik* ‘human-ADJ’

I: kifi-liq	ID-IO _{root}	CORR _[dor]	ID _{CC}	ID-IO
a. k _i i _i ʃ _i li _i -li _i k _i				*
b. k _i i _i ʃ _i li _i -li _i q _i			*!	

Vowel-consonant interactions

- ID_{VV}, ID_{VC} >> ID_{CC}

follows from the fact that the consonant does not agree with the closest harmonic consonant, but with the closest harmonic vowel instead.

- (15) *qudret-lik* ‘powerful’

I: qudret-liq	CORR _{dor}	ID _{VV}	ID _{VC}	ID _{CC}	ID-IO
a. q _i u _i drε _i t-li _i q _i		*	**!		
b. q _i u _i drε _i t-li _i k _i		*	*	*	*

- ID_{VV} >> ID_{VC}

follows from the fact that the harmonizing vowel does not agree with a closer harmonic consonant, but with a more distant harmonic vowel instead.

- (16) *heqq-i-de* ‘concern-POSS3-LOC’

I: heqq-i-da	CORR _{dor}	ID _{VV}	ID _{VC}	ID _{CC}	ID-IO
a. hε _i q _i q _i -i _i -da _i		*!	*		
b. hε _i q _i q _i -i _i -dε _i			**		

- although ID_{VC} >> ID_{CC}

if a harmonizing consonant in the affix is adjacent to both a vowel and consonant participating in harmony, the consonant agrees with the consonant.

- Candidates *a* and *b* in (17) equally violate ID_{VC}; however, candidate *b* surfaces as the unmarked for not violating the lower ranked ID_{CC} as *a* does.

- (17) *kawak-ka* ‘pit-DAT’

I: kawak-qa	CORR _{dors}	ID _{VV}	ID _{VC}	ID _{CC}	ID-IO
a. k _i a _i wa _i k _i -q _i a _i			***	*!	
b. k _i a _i wa _i k _i -k _i a _i			***		*
c. k _i a _i wa _i k _i -k _i ε _i		*!	**		**

Concluding remarks

- Uyghur features the rather rare interaction of backness harmony between vowels and velar/uvular consonants.
- “Inconsistent” roots reveal that there are two separate but interacting harmony processes: vowels agree with vowels, while consonants agree with the closest participating segment.
- This interaction can be viewed as argument for vowel and consonant harmony being rather similar and not fundamentally different.
- ABC could account for the observed patterns in a straightforward way: [dorsal] is the feature of correspondence and [±back] the harmonic feature.

References

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