Microvariation in Turkic laryngeal systems

Synchrony and diachrony

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Overview

- Background I: Laryngeal Realism

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- Background II: Turkic laryngeal phonology

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- Case study: Microvariation in Oghuz

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- Background II: Turkic laryngeal phonology
- Case study: Microvariation in Oghuz
- Analysis and discussion

Background I

Laryngeal Realism

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  - Shows greater phonological activity
  - Shows invariant phonetic realisation
- Phonetic realisation is defined in terms of phonation, usually measured by VOT

(Honeybone 2005, also e.g. Avery & Idsardi 2001, Beckman, Jessen & Ringen 2013)

The major types

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  - "Strong" v. "weak": Finnish, Estonian

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- Changes in types often ascribed to contact (see also Natvig 2019) but otherwise the diachronic typology not too clear

Background II

Turkic laryngeal phonology

Laryngeal contrast in Turkic

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  - Aspirated |fortis| (Kallestinova 2004)
  - Partially voiced/otherwise “weak” |lenis|

Alternation patterns

- Pervasive: progressive devoicing in clusters

Kyrgyz	‘father’	‘lake’	‘guest’
NOM	ɑtɑ	køl	qonoq
LOC	ɑtɑdɑ	køldø	qonoqto

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Gagauz	‘handle’	‘bottom’
NOM	sɑp	dip
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- So far, so aspirating

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  - |fortis| / V̆ _
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Proto-Turkic	Gloss	Turkmen	Sakha	Turkish	Tukha	Tofa	Tyva
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**at-I*	‘horse-POSS.3SG’	atɨ	ata	atɨ	aʰtə	aˢtɨ	aˢdɨ
**āt*	‘name’	aːd̥	aːt	ad	at	at	at
**āt-I*	‘name-POSS.3SG’	aːdɨ	aːta	adɨ	adə	adɨ	adɨ

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**āt*	‘name’	aːd̥	aːt	ad	at	at	at
**āt-I*	‘name-POSS.3SG’	aːdɨ	aːta	adɨ	adə	adɨ	adɨ

- In line with the phonological typology of lenition (Balogné Bérces & Honeybone 2012) but phonetically a bit baffling (Kümmel 2007)

Evidence for voicing?

- Turkish initial weakening

Front			Back		
**täŋiz*	‘sea’	*deniz*	**tïg*	‘needle’	*tığ*
**köz*	‘eye’	*göz*	**kuš*	‘bird’	*kuş*
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- Lenis outcomes after $\bar{V}$ traditionally described as “Oghuz voicing”

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  - Preglottalisation: Tyva (Kunaa 1957), Tofa (Rassadin 1971), Uigur (Yakup 2005)

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Our aim

Can we make progress on understanding the diachronic typology of laryngeal contrast in Turkic?

Case study

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- What are the diachronic trajectories between we can identify?

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- Likely extensive dialect variation

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- Progressive devoicing

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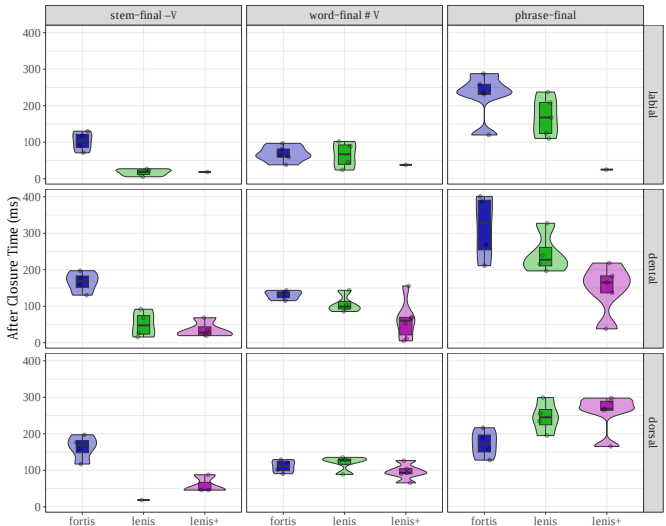
  - Following context: vowel, nasal, pause
- C. 136 test sentences extracted from naturalistic corpora, presented in standard spelling
- VOT/ACT, closure duration, closure voicing duration/proportion, F0 in following vowel

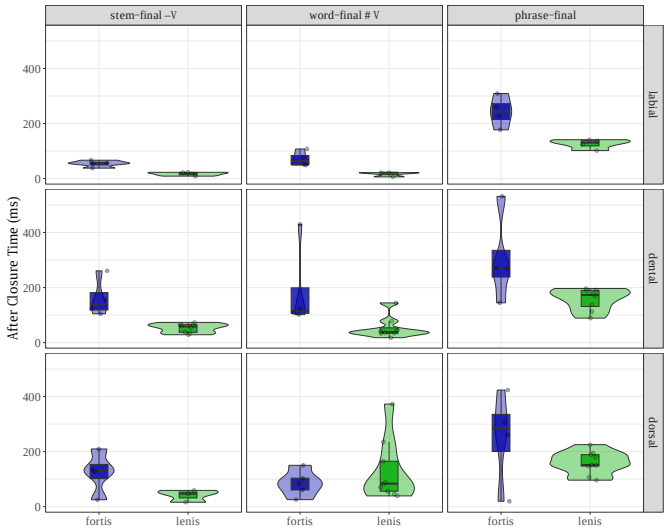
Post-release: Turkish

- Expected aspirating type with final fortition, which |lenis+| (mostly) escapes
  - |fortis| long-lag
  - |lenis| short-lag medially, long-lag finally
  - |lenis+| short-lag (mostly)
    - *et* ‘meat’
      tat ∼ *tad-* ‘taste’
      od ‘fire’



Post-release: Azeri

- Aspirating type, no final fortition
  - |fortis| long-lag
  - |lenis| short-lag
  - *ət* ‘meat’
    od ‘fire’



Post-release: Azeri

- Aspirating type, no final fortition
  - |fortis| long-lag
  - |lenis| short-lag
    - *ət* ‘meat’
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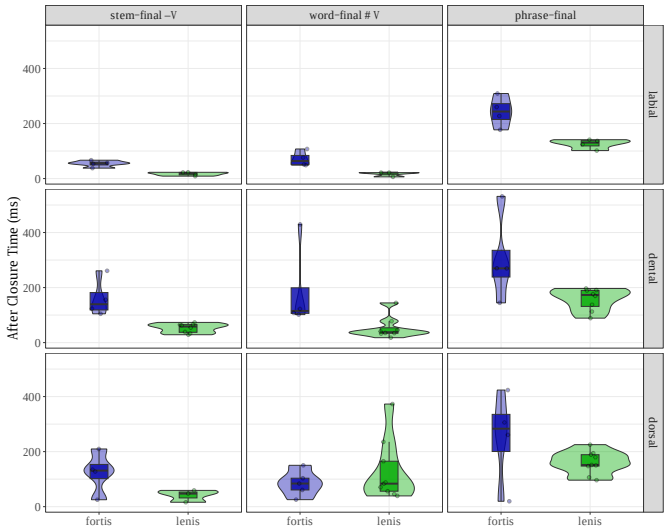
- Also: extensive manner lenition



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  - |fortis| long-lag
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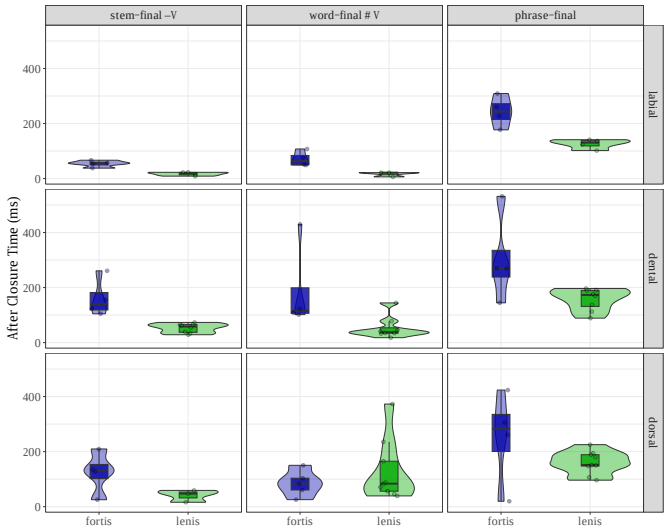

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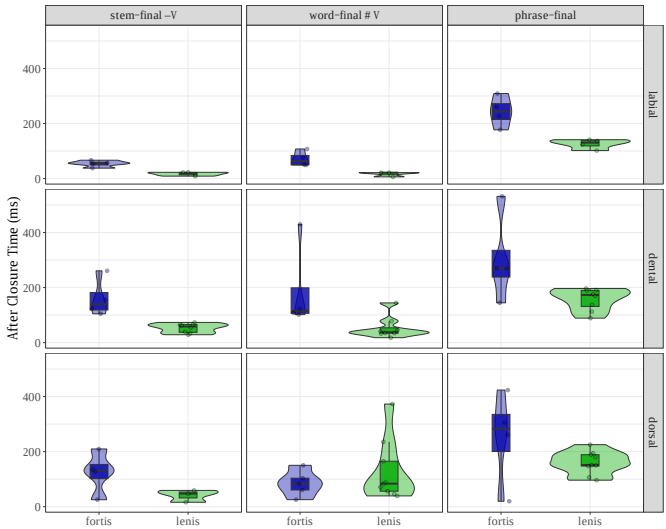
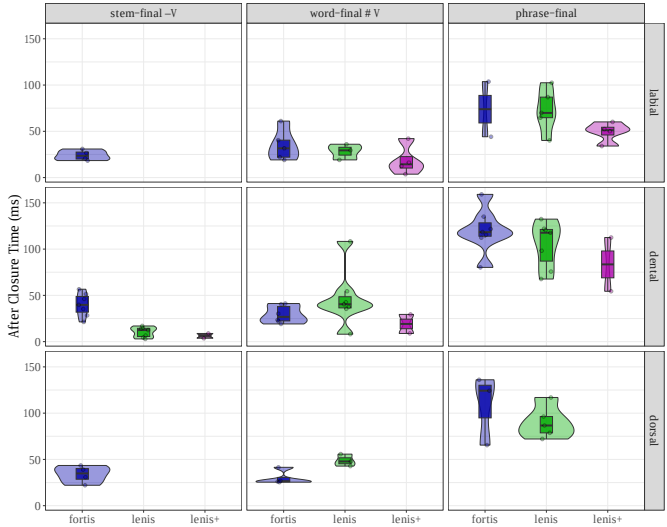
  - Also in our data: preaspiration, fricativisation, affrication…



Post-release: Turkmen

- Aspirating type, final fortition
  - |fortis| long-lag
  - |lenis| short-lag medially, long-lag finally
  - |lenis+| short-lag
    - *it* ‘dog’
      at ∼ *ad-* ‘name’
      sud ‘court case’



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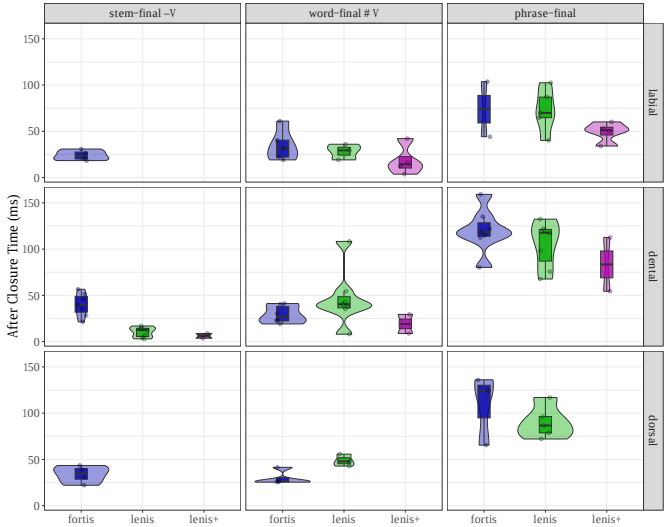

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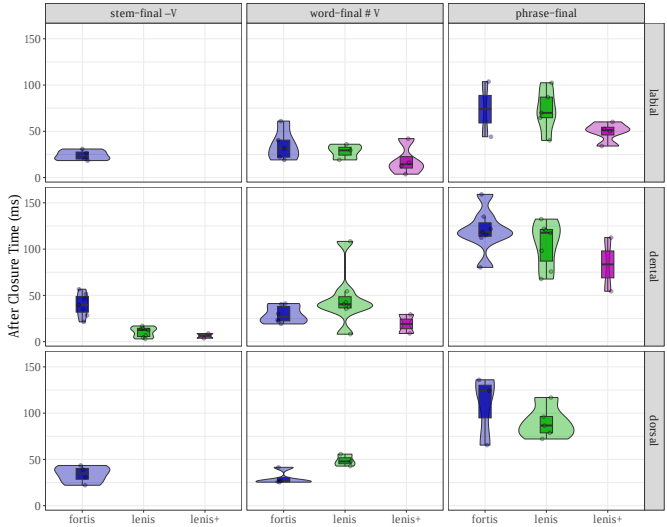
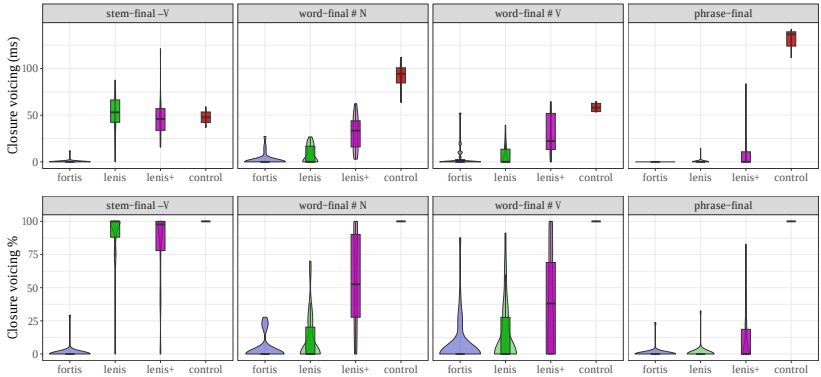
  - *oka*, *ok # V*, *ok* |
  - *ahlagy*, *ahlak # V*, *ahlak* |
  - *boýagy*, *boýag # V*, *boýag* |



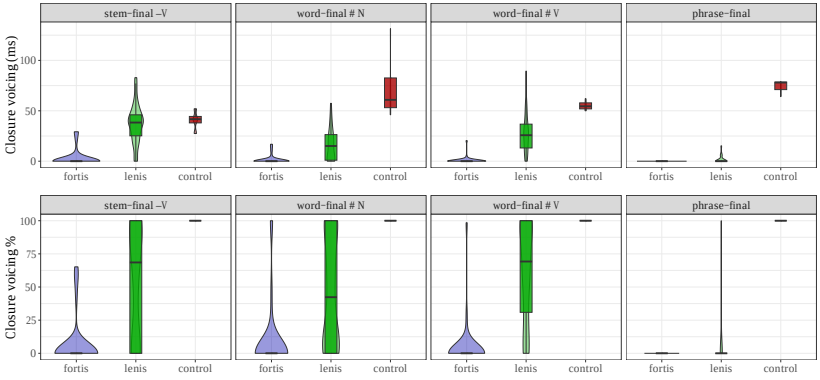
Closure voicing: Turkish



- Expected aspirating type with final fortition, from which |lenis+| is exempt

|fortis| no voicing
|lenis| incomplete voicing medially, even less finally
|lenis+| incomplete voicing, least phrase-finally

Closure voicing: Azeri

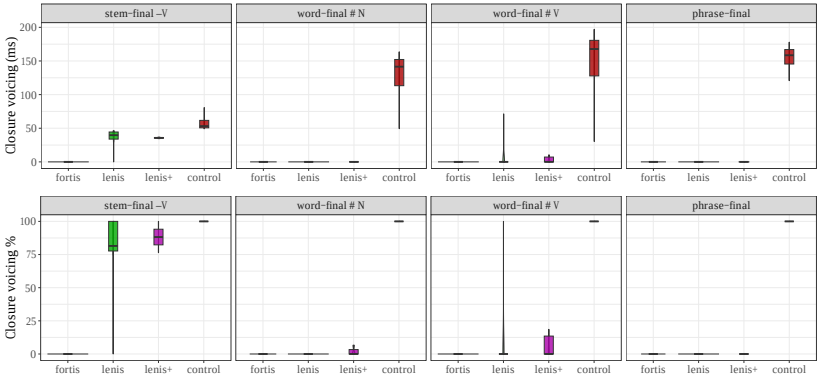


- Aspirating type with no final fortition

  |fortis| no voicing

  |lenis| incomplete voicing, almost none phrase-finally

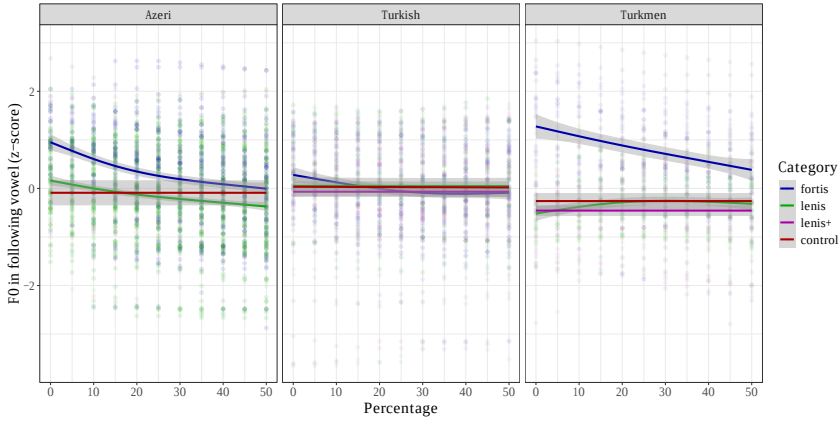
Closure voicing: Turkmen



- Aspirating type with final fortition

|fortis| no voicing
|lenis| incomplete voicing medially, none finally
|lenis+| incomplete voicing, none phrase-finally

F0 effect: Azeri, Turkish, Turkmen



- Azeri and Turkmen: effect of stop category comparable to other languages (Hanson 2009, Kirby & Ladd 2016, Kirby & Tan 2023)
  - |fortis| raised F0 relative to control (onset nasal)
  - |lenis(+)| F0 similar to control

Analysis and discussion

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Stage	Turkish	Azeri	Turkmen
Mechanical effect	F0	—	—
Phonologisation	—	F0, final fortition	F0
Stabilisation	final fortition	—	final fortition

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Teşekkür ederiz! **Təşəkkür edirik!** **Sagboluň!**

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The trajectory and distributional typology of phonological change

Abbreviations

3	third person
LOC	locative
NOM	nominative
PL	plural
POSS	possessive
SG	singular

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