Towards a Phonological Model of Uyghur Intonation
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Introduction

Goals of this project
A preliminary model of Uyghur intonation.
- No such models exist
- Uyghur intonation is typologically interesting!

Uyghur background
- Southeastern Turkic language
- Spoken by ~10 million people around Northwestern China
- Synthetic, agglutinating language with SOV word order

Uyghur prosody
- Uyghur is a stress language [1]
  - Consistent with most analyses of Turkish [2]
- Only duration is correlated with stress!
  - Pitch & intensity are not
  - Suggests that Uyghur intonation is not sensitive to stress
  - Attested in some other languages like Kuot [4]
- Prediction: Uyghur intonation is exclusively edge-marking

Part 1: An acoustic study of Uyghur stress and intonation

Participants
Four native speakers of Uyghur from Xinjiang, currently living in USA

Stimuli
Two carrier phrases:
- bek yaxshi sızı “_____ is a good word”
- Mahinur________deydu “Mahinur will say _______

Target words: 8 minimal or near-minimal stress pairs

Procedure
- Consultants read sentences from randomized list in sound booth
- Sentences preceded by context question:
  - Néme boldi? “What happened?”
- Each word read once in each carrier phrase
- Measure vowel duration, intensity, and pitch
- Fit linear mixed effects models

Part 1: Results

Pitch

Stressed syllables were longer (p < 0.01)
Final syllable of initial words is longer (p = 0.08)

Duration

Stressed > unstressed
Sentence-initial > sentence-medial
Sentence-initial > sentence-medial
Duration results support analysis of Uyghur as a stress language
Pitch results are consistent with edge-marking intonation

Part 2: Discussion

We propose a preliminary AM model [3] of Uyghur intonation with three prosodic levels (Fig 3).

Intonational phrase (IP)
- Consists of one or more IPs
- High (H1) or low (L1) right boundary tones
- Questions, continuation rises

Intermediate phrase (ip)
- Consists of one or more APs
- High tone (H) on right edge
- Subjects, focused constituents
- Exhibits phrase-final lengthening (cf. Part 1)

Accentual Phrase (AP)
- Low tone (L) on left edge
- High tone (Ha) on right edge
  - Lower than Ha
  - Consists of one or more prosodic words
  - Exhibits phrase-final lengthening (cf. Part 1)
  - To a lesser degree than ip
  - Hiatus resolution by vowel deletion
  - Across AP boundaries, but not ip boundaries

Part 2: The intonational phonology of Uyghur

We propose a preliminary AM model [3] of Uyghur intonation with three prosodic levels (Fig 3).

Intonational phrase (IP)
- Consists of one or more IP
- High tone (H) on right edge
- Subjects, focused constituents
- Exhibits phrase-final lengthening (cf. Part 1)

Select References


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