

# VARIATION IN FRONT ROUND VOWELS ACROSS WESTERN ARMENIANS FROM SYRIA

Samuel Chakmakjian (he/him), Hossep Dolatian (he/him)  
[sam.wél tʃakmakdʒján], [ho.sép dolatján]  
Սամուէլ Չաքմաքճեան, Յովսէփ Տօվլէթեան

samuel.chakmakjian@inalco.fr

L'Institut national des langues et civilisations orientales, Stony Brook University

NWAV50 - Stanford University  
14 October 2022

# TABLE OF CONTENTS

- INTRODUCTION
- BACKGROUND
- DATA AND RESULTS
- CONCLUSION AND NEXT STEPS

- Understudied pluricentric Indo-European language (Cowe, 1992)
- Two standardized variants:
  - ▶ **Eastern Armenian** - Rep. of Armenia, Iran, post-Soviet zone
  - ▶ **Western Armenian** - Post-Ottoman zone (across the Middle East). Diaspora communities (Europe, the Americas)
- Two different phonological systems, very different consonant systems, largely similar vowel systems

- **What?** Variation in the production of phoneme /ɣ/ in Western Armenian
- **Who?** Syrian refugees
- **When?** Colloquial speech

# TABLE OF CONTENTS

- INTRODUCTION
- **BACKGROUND**
- DATA AND RESULTS
- CONCLUSION AND NEXT STEPS

# VOWELS IN ARMENIAN

- There are 6 basic monophthong vowels that are phonemic (= can form near-minimal pairs)

/i/	[pir]	‘club’	բիր	<pir>
/e/	[per]	‘burden’	բեր	<per>
/a	[par]	‘word’	բառ	<par>
/u/	[pur]	‘over’	փոռ	<p’ur>
/o/	[por]	‘belly’	փոր	<p’or>
/ə/	[pərel]	‘to spread’	փռել	<p’rel>

- Some vowel-glide sequences are attested, and probably not diphthongal

/aj/	[pajd]	‘wood’	փայտ	<p’ayd>
/uj/	[pujs]	‘plant’	բոյս	<p’oys>

# VOWELS IN ARMENIAN

- There are 6 basic monophthong vowels that are phonemic (= can form near-minimal pairs)

/i/	[pir]	‘club’	բիր	<pir>
/e/	[per]	‘burden’	բեր	<per>
/a	[par]	‘word’	բառ	<par>
/u/	[pur]	‘over’	փոռ	<p’ur>
/o/	[por]	‘belly’	փոր	<p’or>
/ə/	[pərel]	‘to spread’	փռել	<p’rel>

- Some vowel-glide sequences are attested, and probably not diphthongal

/aj/	[pajd]	‘wood’	փայտ	<p’ayd>
/uj/	[pujs]	‘plant’	բոյս	<p’oys>

- A complicated sound is the digraph իւ <iw> ...

/y/	[pyr]	(name of the letter փ)	փիւր	<p’iwr>
... OR	[pujr]			

# THE VOWEL /Y/

- Historically, the oldest attested Armenian variety is Classical Armenian (CA).
- CA had a digraph ԻԼ < **iw** > that was *probably* some sort of diphthong like [iɯ] when pre-consonantal
- e.g., the word ‘guest’ ԻԼԻՆ < **hiwr** >  
CA [hiɯr]

- Historically, the oldest attested Armenian variety is Classical Armenian (CA).
- CA had a digraph իւ <iw> that was *probably* some sort of diphthong like [iɯ] when pre-consonantal
- e.g., the word ‘guest’ հիւր <hiwr>
  - CA [hiɯr]
  - EA [hjur]
  - WA [hɣr]
- Two descendants treat this sound differently
- Eastern Armenian changed [iɯ] to [ju]
- Western Armenian changes [iɯ] to [ɣ] *prescriptively*

# THE VOWEL /Y/

- Western Armenian digraph հլ <iw> is prescriptively pronounced [Y].<sup>1</sup>
- In colloquial speech in its place we see a vowel-glide diphthong [uj~Yj] or a glide-vowel diphthong [ju~jY]

Orthography	Prescriptive pron.	Alternate pronunciations
հիւր <hiwr>	[hyr]	[hujr], [hjur]
ծիւն <jiwn>	[tsyn]	[tsujn], [tsjun]
միւս <miws>	[mys]	[mujs], [mjus]

- Some speakers hyper-correct prescriptive [uj] to [Y] (ex. prescriptive քոյր [k<sup>h</sup>ujr] ‘sister’ gets hyper-corrected to [k<sup>h</sup>Yr])
- In short, the /Y/ acts different from other high vowels (Khanjian, 2011)

---

<sup>1</sup>But why did [iu] change to [Y] instead of [ju] or anything else? Possibly from contact with Turkish and French, both prestige languages that have a front round /y~Y/ which contrasts with back round /u/

# TABLE OF CONTENTS

- INTRODUCTION
- BACKGROUND
- DATA AND RESULTS
- CONCLUSION AND NEXT STEPS

## 1. Elicitations

- ▶ Small corpus of elicited utterances with (Western Armenian speaking) Syrian immigrants from Aleppo, now residing in Armenia
- ▶ 9 speakers (5F, 4M), 10hrs
- ▶ Speakers 18-42 years old
- ▶ Recorded in Yerevan April/May 2022

## 2. Interviews

- ▶ Video interviews with Western Armenian refugees originating from different cities and villages in Syria
  - ▶ 104 speakers, 90hrs
  - ▶ Wide range of age, city of origin, sociolinguistic profile
  - ▶ Recorded mostly in Yerevan 2018-2022
- For this task, focus on the elicitation data as a pilot

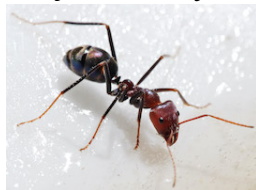
# ELICITATION DATA

- During an elicitation experiment, we asked participants to pronounce some words in isolation
- Two of those words have a prescriptive [ɣ]<sup>2</sup>

‘lion’      առիւծ  
[ɑɾɣd͡z]    <ariwc>



‘ant’      մրջիկ  
[mɑrt͡ʃɣn]    <mrjɪwn>

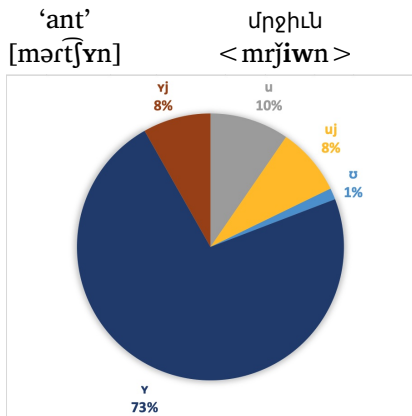
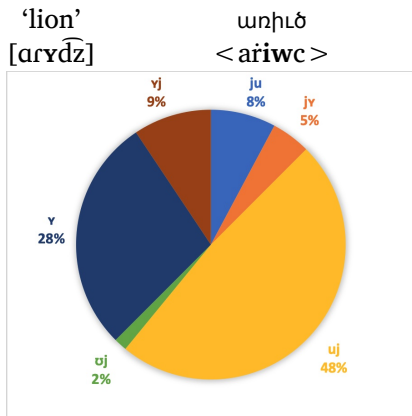


- A speaker would say the words ‘lion’ and ‘ant’ a many times over the course of an hour

<sup>2</sup>Pictures taken from Wiktionary for [ant](#) and [lion](#).

# DESCRIPTIVE STATISTICS

- For the words 'lion' and 'ant', Samuel impressionistically heard a LOT of variation in how 9 people said these two words

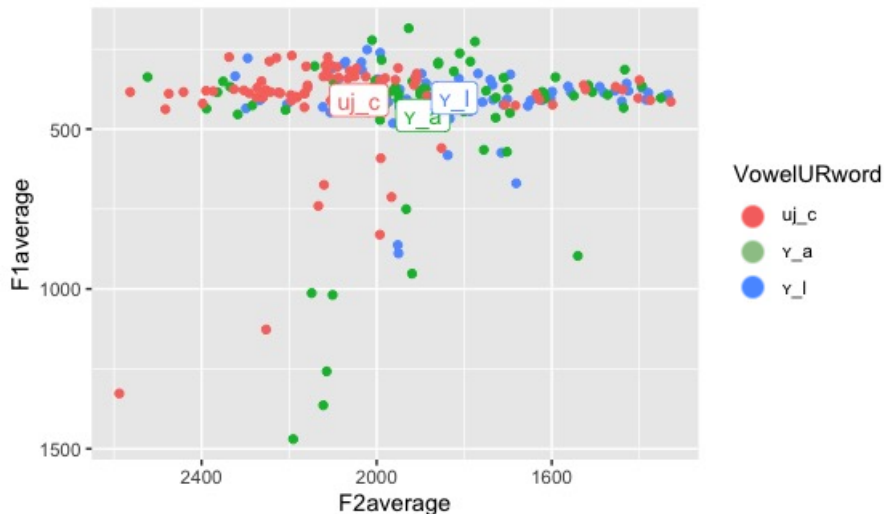


- cf. the word 'clock' [zɑmɑts<sup>h</sup>ujts] was almost always pronounced [uj]
- More inter-speaker variation for 'lion' than 'ant'
- PS: no obvious effects from gender, minimal effects of age (see appendix)



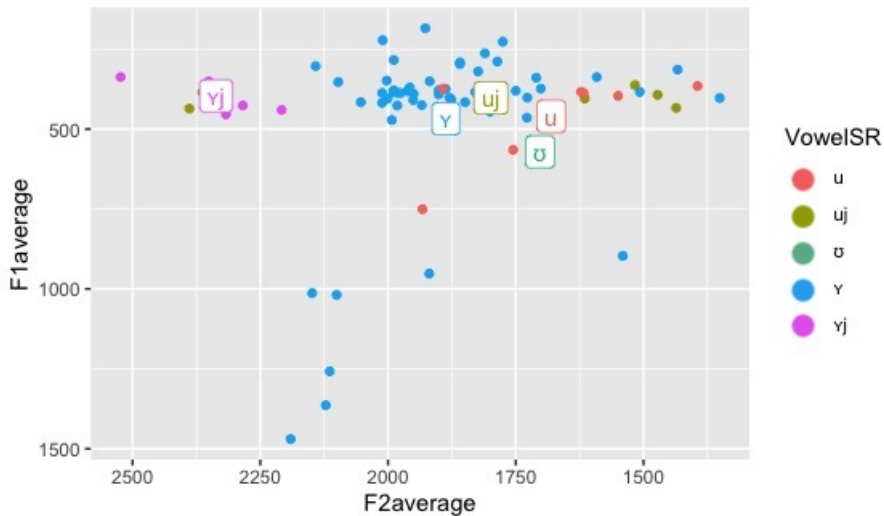
# PHONETIC ANALYSIS

- Distribution of target vowels averages by word (c = clock; a = ant; l = lion)



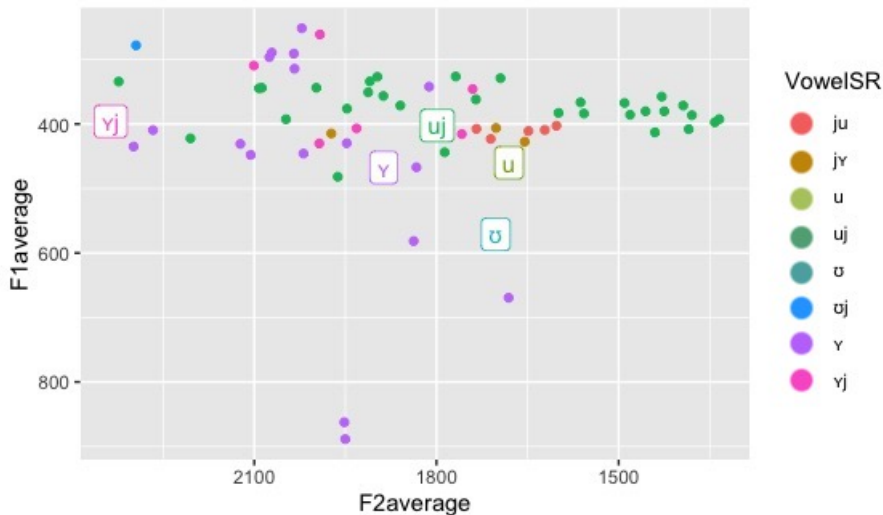
# PHONETIC ANALYSIS

- Distribution of perceived vowels for 'ant' /mærtʃʌn/



# PHONETIC ANALYSIS

- Distribution of perceived vowels for 'lion' /aɪdʒ/



# TABLE OF CONTENTS

- INTRODUCTION
- BACKGROUND
- DATA AND RESULTS
- CONCLUSION AND NEXT STEPS

# CONCLUSION AND NEXT STEPS

- Looked at variation in production of high round vowel /y/
- Process our second corpus, and extract more vowels!
- A lot of our effort has been collecting + analyzing data using simple acoustic measurements
- Before we jump into our much larger corpus (~90hrs), we want to make sure that our measurement/analysis methodology from our pilot is sound

Q1 Do high round vowels present any phonetic anomalies that make them special for variationist sociophonetics?

Q2 Is there any close-enough precedent on round-vowel sociophonetic variation?

- ▶ (e.g., a suggested pipeline to replicate, an optimal normalization, or a bibliography)

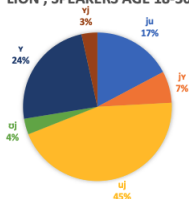
☺ feel free to email before we do something wrong :D

samuel.chakmakjian@inalco.fr

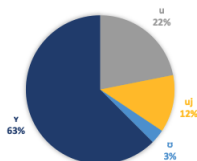
- Cowe, S Peter. 1992. Amēn teġ hay kay: Armenian as a pluricentric language. In Michael Clyne (ed.), Pluricentric languages: Differing norms in different nations, 325–346. De Gruyter Mouton. doi:10.1515/9783110888140.325.
- Khanjian, Hrayr. 2011. Stress dependent vowel reduction in Western Armenian. Unpublished manuscript, MIT.

- Slightly higher percentages of prescriptive [y] in for both 'ant' and 'lion' among older speakers
- Sample size is too small to tell - more vowels!

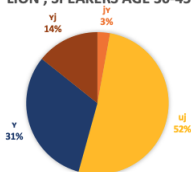
'LION', SPEAKERS AGE 18-30



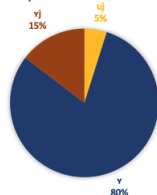
'ANT', SPEAKERS AGE 18-30



'LION', SPEAKERS AGE 30-45



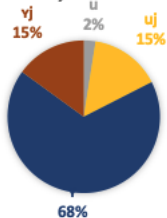
'ANT', SPEAKERS AGE 30-45



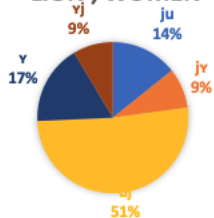
# GENDER

- No obvious effect of gender

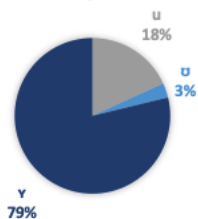
'ANT', WOMEN



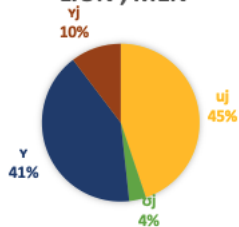
'LION', WOMEN



'ANT', MEN



'LION', MEN



# DESCRIPTIVE STATISTICS

Word/Vowel	ju	jʏ	u	uj	ʊ	ʊj	ʏ	ʏj	Total
'ant' /mærtʃʏn/			7	6	1		53	6	73
'lion' /aʏdʒ/	5	3		31		1	18	6	64
<i>clock</i> /ʒamatsujts/			4	80			1	4	89

# VARIABLES IN SECOND CORPUS

- See if the variation is lexical, using high-frequency words such as ‘village’ <kiwł> [k<sup>h</sup>Yʁ] and ‘other’ <miws> [mys]
- The oldest speaker in the pilot was 42, and produced some of the most most divergent vowels, in expanding the scope of speakers, we can check for:
  - ▶ Generational trends
  - ▶ Socio-economic status & education
  - ▶ City of origin (*all of the participants of this presentation were from Aleppo*)