

# Catching variation during fieldwork on Nakh-Daghestanian languages

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# Introduction

## Investigating variation:

- In variationism (e.g. (Labov 1963) on Martha's Vineyard /ai/ ~ /au/, (Trudgill 1974) on Norwich speech, (Wolfram 1969) on Afro-American speech from Detroit) researchers get mad about social stratification, mostly urban.

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- In this talk we explore variation in a small, homogeneous speaker population and the probability that an average researcher of Nakh-Daghestanian languages catches this variation.

Data

Data were collected from

- 44 speakers of Andi (Nakh-Daghestanian) during fieldwork in Zilo (Botlikh district, Dagestan) in 2019



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- and 23 researchers of Nakh-Daghestanian languages via an online questionnaire



Zilo Data

## 44 Zilo speakers were asked to translate 16 stimuli:

- 1 'big butterfly'
- 2 'big butterflies'
- 3 'big grasshopper'
- 4 'big grasshoppers'
- 5 'the parents left'
- 6 'pour your father some water'
- 7 'pour your cow some water'
- 8 'third girl'
- 9 'the bride was beautiful at the wedding'
- 10 'heels'
- 11 'sons-in-law'
- 12 'they are eating'
- 13 'when he comes, we will eat'
- 14 'rainbow'
- 15 'north'
- 16 'thousand'

## Stimuli: class attribution

lect	number	m	f	an	inan 1	inan 2	inan 3
Andi	sg	w	j	b	b	r	-
Andi	pl	w	j	j	b	r	-
Gagatli	sg	w	j	b	b	r	-
Gagatli	pl	w	j	j	b	r	-
Rikvani	sg	w	j	b	b	r	b
Rikvani	pl	w	j	j	b	r	r
Zilo	sg	w	j	b	b	r	-
Zilo	pl	w	j	j	b	r	-
Muni	sg	w	j	b	b	b	b
Muni	pl	w	j	b	b	b	b

- *odoruk'a* 'butterfly' (1, 2) and *kats'a* 'grasshopper' (3, 4) belong to the rare inan 3 class in Rikvani (Suleymanov 1957)
- *odoruk'a* 'butterfly' (1) is one of the most variable words according to (Moroz and Verhees 2019)

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- Two past copulas *b-ik'o* and *b-iki* with no functional distinction

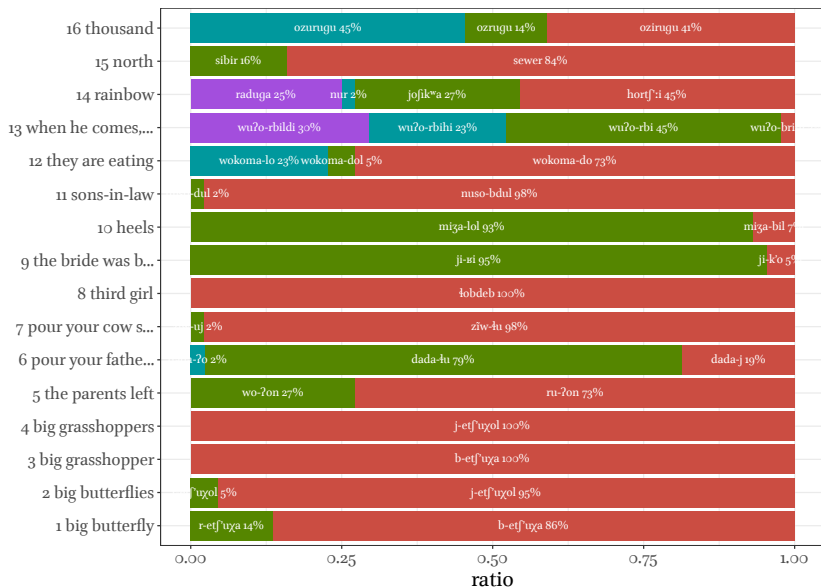


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- Optional plural suffix *-l* can be added to progressive verb forms in *-rado/-mado* (12)
- ‘rainbow’, ‘north’, and ‘thousand’ (14, 15, and 16) show variation in word choice (14, 15) and adaptation (16): *ozrugu*, *ozirugu*, *ozurugu*

# Zilo questionnaire (44 speakers): results



## More about ‘butterfly’:

- previously we claimed:

lect	number	m	f	an	inan 1	inan 2	inan 3
Rikvani	sg	w	j	b	b	r	b
Rikvani	pl	w	j	j	b	r	r
Zilo	sg	w	j	b	b	r	-
Zilo	pl	w	j	j	b	r	-

- in ([Moroz and Verhees 2019](#)) we asked only the singular form of ‘butterfly’
- in our new experiment):

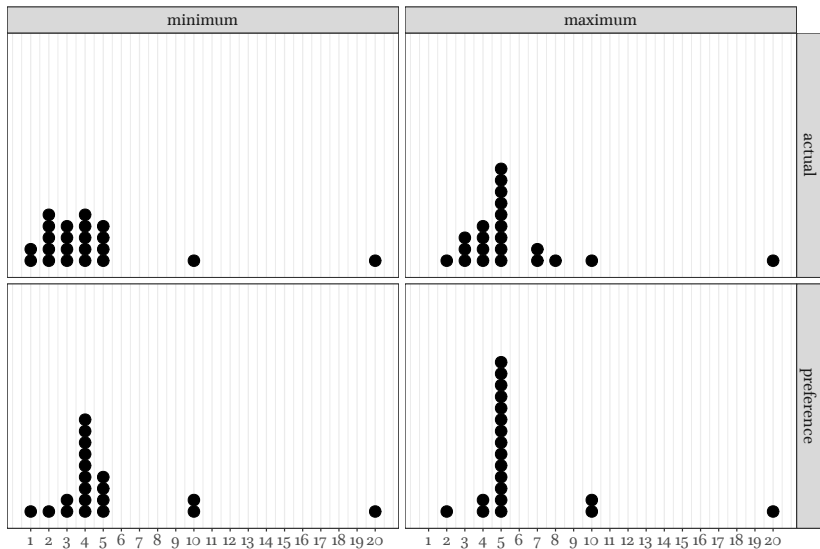
sg	pl	n	class
b-etʃʷuxa	j-etʃʷuxol	38	an
r-etʃʷuxa	j-etʃʷuxol	4	‘o’
r-etʃʷuxa	r-etʃʷuxol	2	inan 2

# Nakh-Daghestanian Fieldwork Survey

## 23 ND researchers were asked about:

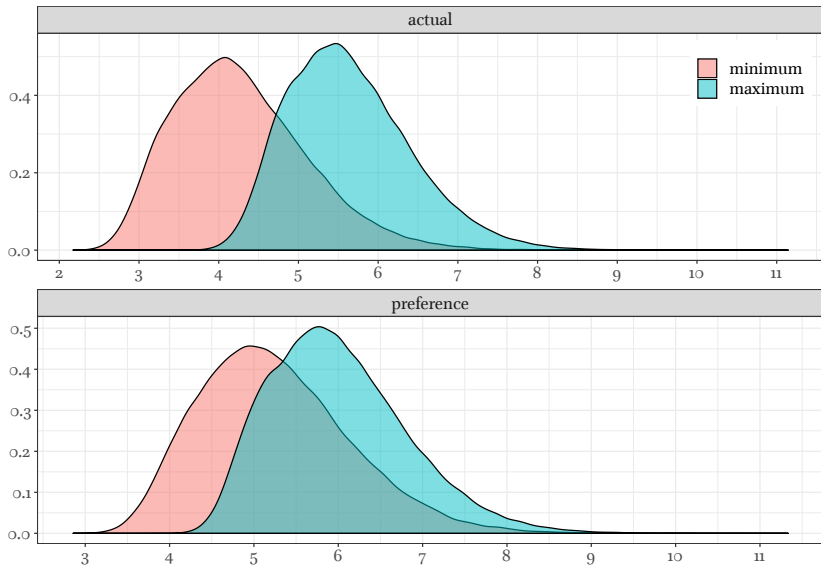
- level of education
- linguistic interest
- studying linguistics at university
- fieldwork participation as a student
- year in which they finished their degree
- place of study and work
- number of people who participated in their fieldtrips
- preferred number of participants in fieldtrips
- goals of fieldwork
- use of elicitation and corpora
- **number of speakers a researcher *should* consult with**
- **number of speakers the researcher *usually* consults with**
- how researchers need to deal with interspeaker variability
- how researchers need to deal with intraspeaker variability
- whether speakers under the age of 13 are reliable consultants
- whether speakers older than 70 are reliable consultants
- personal (dis)preferences about the choice of consultants

# Number of speakers





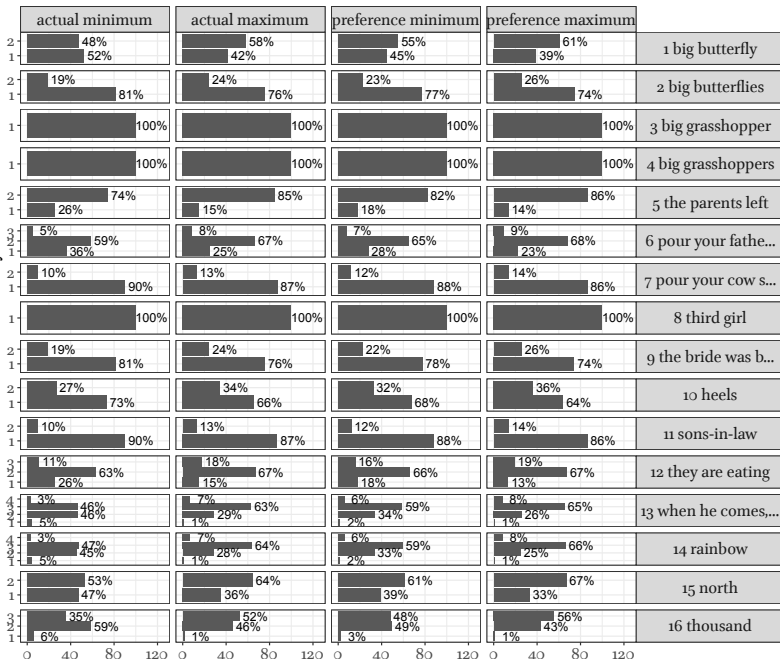
## Bootstrapped mean number of speakers ( $10^5$ iterations)



What if  $10^5$  “average researchers” ...  
come to Zilo?

# 10<sup>5</sup> samples from experiment results

number of variants discovered by "researchers"



# Conclusions

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- An “**average researcher**” might overlook a significant amount of the variation we observed due to the low number of speakers they usually consult with
- However, our experiment with 44 speakers also failed to show some of the variation we found in prior research on this dialect
- The observed variation should be explored in more detail using the collected sociolinguistic parameters
- The characteristics of the “**average researcher**” of Nakh-Daghestanian languages can be further elaborated using the parameters collected in the survey
- The observed variation remains a collection of isolated lexical, phonological and morphological facts...

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  - Could variational variables be interrelated?

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  - Is it possible to study variation in syntax in this manner?
  - Could variational variables be interrelated?
- And what do all these results contribute to linguistic theory?

## References

- Dorian, N. C. (2010). *Investigating variation: The effects of social organization and social setting*. Oxford University Press.
- Labov, W. (1963). The social motivation of a sound change. *Word*, 19(3):273–309.
- Moroz, G. (2017). *lingtypology: easy mapping for Linguistic Typology*.
- Moroz, G. and Verhees, S. (2019). Variability in noun classes assignment in Zilo Andi: experimental data. *Iran and the Caucasus*, 23(3):268–282.
- Suleymanov, J. G. (1957). *Grammatičeskij očerk andijskogo jazyka (po dannim govora s. Rikvani)* [Grammar sketch of the Andi language (based on material from the dialect of the village Rikvani)]. PhD thesis, Institut Jazykoznanja AN SSSR.
- Trudgill, P. (1974). *The social differentiation of English in Norwich*. Cambridge University Press.



Wolfram, W. A. (1969). *A Sociolinguistic Description of Detroit Negro Speech*, No. 5., volume 5 of *Urban language*. Center for Applied Linguistics.