

## Catching variation during fieldwork on Nakh-Daghestanian languages

George Moroz, Samira Verhees

Linguistic Convergence Laboratory, NRU HSE

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# Introduction

## Investigating variation [Dorian 2010: 3]:

*“Two equally interesting questions are at the heart of this book: how an extraordinary degree of idiosyncratic linguistic variation can coexist with an extraordinarily homogeneous speaker population, and how linguists might overlook the possibility of their coexistence.”*

According to [Eckert 2016] there are three waves of Variationism:

- [Labov 1963] on Martha's Vineyard /ai/ ~ /au/, [Trudgill 1974] on Norwich speech, [Wolfram 1969] on Detroit Afro-American speech

Data

Data were collected from

- 44 speakers (Upper Andic, Northeast Caucasian) during the fieldwork in 2019 in Zilo (Botlikh district, Dagestan)



Created with [lingtypology](#) [[Moroz 2017](#)]

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- and 23 Nakh-Daghestanian researches via online questionnaire

Zilo Data



## 44 Zilo speakers were asked to translate:

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

## Zilo questionnaire (44 speakers): class attribution

source	lect	m	f	an	-an 1	-an 2	-an 3	-h
[ <a href="#">Alekseev 1999: 221</a> ]	An, sg	w	j	b	b	r	-	-
[ <a href="#">Alekseev 1999: 221</a> ]	An, pl	w	j	j	b	r	-	-
[ <a href="#">Salimov 1968: 47–62</a> ]	Ga, sg	w	j	b	b	r	-	-
[ <a href="#">Salimov 1968: 47–62</a> ]	Ga, pl	w	j	j	b	r	-	-
[ <a href="#">Suleymanov 1957: 131–162</a> ]	Ri, sg	w	j	b	b	r	b	-
[ <a href="#">Suleymanov 1957: 131–162</a> ]	Ri, pl	w	j	j	b	r	r	-
Field data	Zi, sg	w	j	b	b	r	-	-
Field data	Zi, pl	w	j	j	b	r	-	-
[ <a href="#">Tsertsvadze 1965</a> ]	Mu, sg	w	j	-	-	-	-	b
[ <a href="#">Tsertsvadze 1965</a> ]	Mu, pl	w	j	-	-	-	-	b

- *odoruk'a* ‘butterfly’ (1, 2) and *kats'a* ‘grasshopper’ (3, 4) belong to -an3 class in Rikwani [[Suleymanov 1957](#)]
- *odoruk'a* ‘butterfly’ (1) is one of the most variable words from [[Moroz and Verhees 2019](#)]

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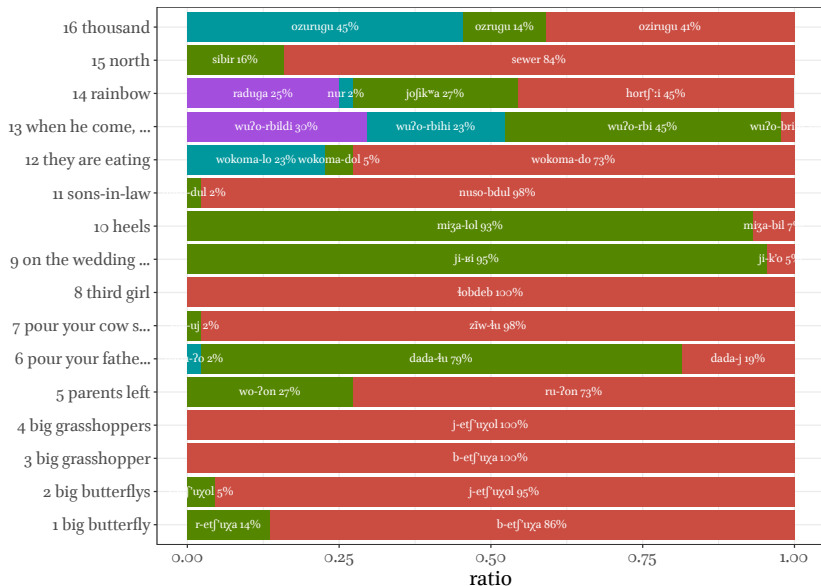
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- An optional plural suffix -l can be added to progressive verb forms in -rado/-mado (12)
- Examples ‘rainbow’, ‘north’, ‘thousand’ (14, 15, and 16) were selected since there were known problems in borrowings (14, 15) and borrowing adaptation (16): *ozrugu*, *ozirugu*, *ozurugu*.

# Zilo questionnaire (44 speakers): results



## More about ‘butterfly’:

- previously we claimed:

source	lect	m	f	an	-an 1	-an 2	-an 3
[ <a href="#">Suleymanov 1957: 131–162</a> ]	Ri, sg	w	j	b	b	r	b
[ <a href="#">Suleymanov 1957: 131–162</a> ]	Ri, pl	w	j	j	b	r	r
Field data	Zi, sg	w	j	b	b	r	-
Field data	Zi, pl	w	j	j	b	r	-

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

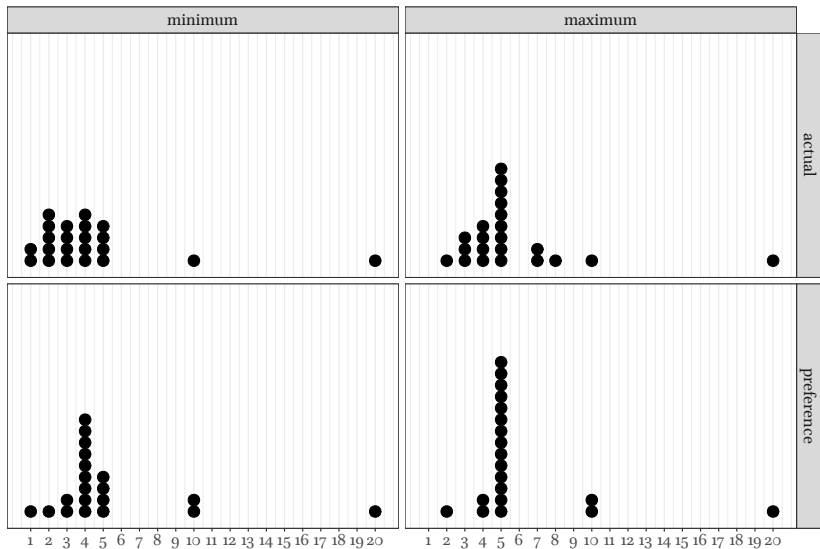
sg	pl	n	class
b-etf'uχa	j-etf'uχol	38	an
r-etf'uχa	j-etf'uχol	4	‘o’
r-etf'uχa	r-etf'uχol	2	-an 2

# Nakh-Daghestanian Fieldwork Survey

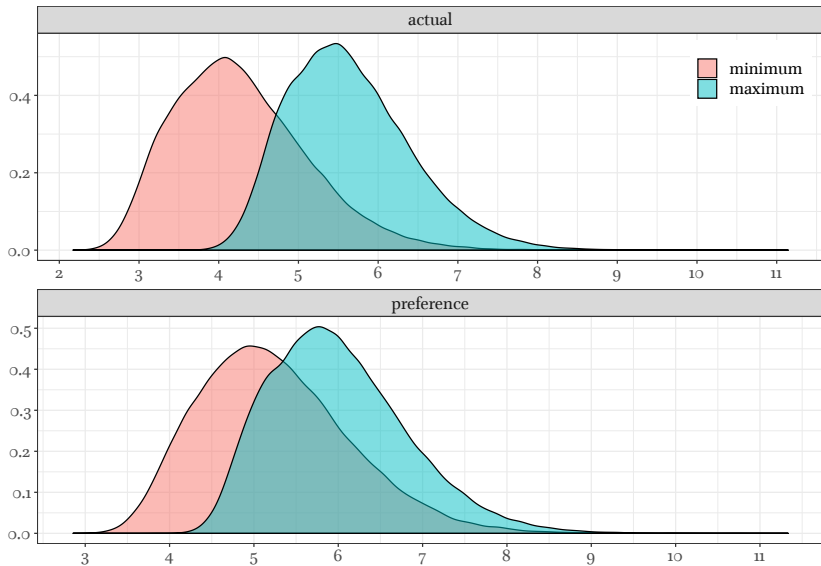
## 23 ND researches were asked to answer about:

- level of education
- linguistic interest
- study linguistics at university
- fieldwork participation when student
- year of finishing study
- place of study and work
- number of people in fieldtrips participated
- number of people in fieldtrips preder to participate
- fildwork goal and the main goal
- elicitation and corpora use
- **number of speakers that researcher should consult with**
- **number of speakers that researcher usually consult with**
- how researcher need to cope with interspeaker variability
- how researcher need to cope 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



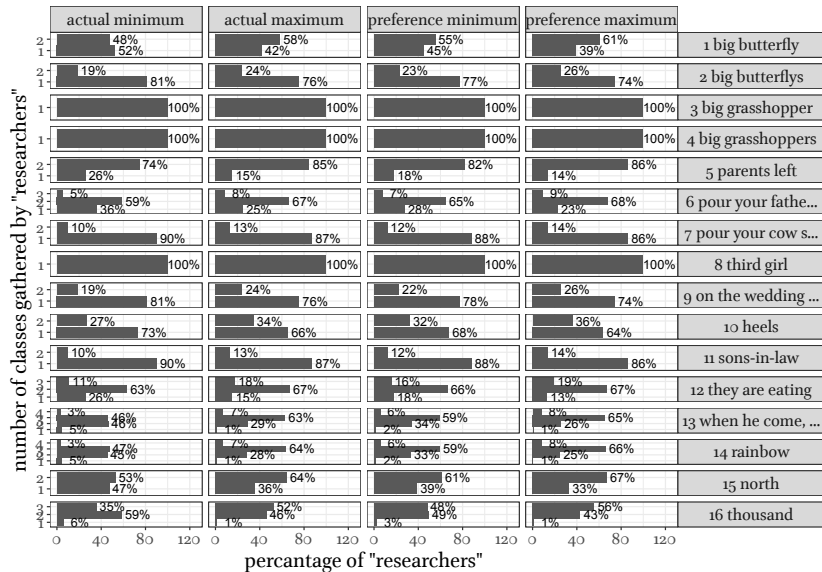
## Bootstrapped mean number of speakers ( $10^5$ iterations)



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



# 10<sup>5</sup> samples from experiment results with bootstrapped number of consultants



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