Catching variation during fieldwork on Nakh-Daghestanian languages

George Moroz, Samira Verhees Linguistic Convergence Laboratory, NRU HSE

26 November 2019, Happy Birthday Ferdinand de Saussure!





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.

"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." [Dorian 2010: 3]



Data

Data

Data were collected from

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



Created with lingtypology [Moroz 2017]



Data

Data were collected from

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



Created with lingtypology [Moroz 2017]

 and 23 Researchers of Nakh-Daghestanian languages via an online questionary



Zilo Data

44 Zilo speakers were asked to translate:

- 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'

Zilo questionary (44 speakers): class attribution

lect	number	m	f	an	inan 1	inan 2	inan 3	non-h
Andi	sg	w	j	b	b	r	-	_
Andi	pl	\mathbf{w}	j	j	b	r	-	-
Gagatli	sg	\mathbf{w}	j	b	b	r	-	-
Gagatli	pl	\mathbf{w}	j	j	b	r	-	-
Rikwani	sg	\mathbf{w}	j	b	b	r	b	-
Rikwani	pl	\mathbf{w}	j	j	b	r	r	-
Zilo	sg	\mathbf{w}	j	b	b	r	-	-
Zilo	pl	\mathbf{w}	j	j	b	r	-	-
Muni	sg	\mathbf{w}	j	-	-	-	-	b
Muni	pl	W	j	-	-	-	-	b

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



• We noticed that *ila-ima* 'parents' can agree with inan 2 (5).



- We noticed that *ila-ima* 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers *-j/-lu* (6, 7)



- We noticed that *ila-ima* 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers *-j/-\delta u* (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation



- We noticed that *ila-ima* 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers -j/-łu (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation
- We noticed variability in the formation of plural forms, but the stimuli selected for this topic (10, 11) unfortunately did not vary at all.



- We noticed that *ila-ima* 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers -j/-łu (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation
- We noticed variability in the formation of plural forms, but the stimuli selected for this topic (10, 11) unfortunately did not vary at all.
- There are two past copulas b-ik'o and b-iki, the distribution of which does not seem to have a functional motivation



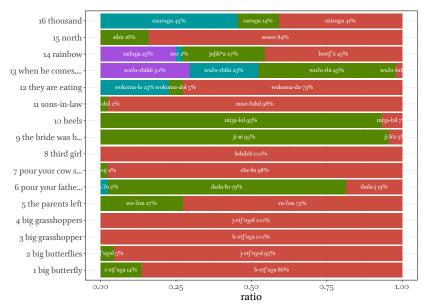
- We noticed that *ila-ima* 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers *-j/-lu* (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation
- We noticed variability in the formation of plural forms, but the stimuli selected for this topic (10, 11) unfortunately did not vary at all.
- There are two past copulas *b-ik'o* and *b-iʁi*, the distribution of which does not seem to have a functional motivation
- Temporal clauses of the type "When X happened/happens/will happen" consist of a participle and the noun *rihi* 'time' in Zilo the form has undergone metathesis and fusion of the ptcp suffix and the first consonant of *rihi* (-*b rihi* = -*rbihi*). It can be truncated (-*rbi*) and appear in ergative case (-*rbil-di*)



- We noticed that ila-ima 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers -*j*/-*lu* (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation
- We noticed variability in the formation of plural forms, but the stimuli selected for this topic (10, 11) unfortunately did not vary at all.
- There are two past copulas *b-ik'o* and *b-iki*, the distribution of which does not seem to have a functional motivation
- Temporal clauses of the type "When X happened/happens/will happen" consist of a participle and the noun *rihi* 'time' in Zilo the form has undergone metathesis and fusion of the ptcp suffix and the first consonant of *rihi* (-*b rihi* = -*rbihi*). It can be truncated (-*rbi*) and appear in ergative case (-*rbil-di*)
- An optional plural suffix -*l* can be added to progressive verb forms in -*rado*/-*mado* (12)

- We noticed that ila-ima 'parents' can agree with inan 2 (5).
- We observed different dative morphemes with masculine experiencers -*j*/-*lu* (6, 7)
- We observed variability in the ability of the cardinal numeral marker to agree with noun class (8), though the experimental data showed no variation
- We noticed variability in the formation of plural forms, but the stimuli selected for this topic (10, 11) unfortunately did not vary at all.
- There are two past copulas *b-ik'o* and *b-iki*, the distribution of which does not seem to have a functional motivation
- Temporal clauses of the type "When X happened/happens/will happen" consist of a participle and the noun *rihi* 'time' in Zilo the form has undergone metathesis and fusion of the ptcp suffix and the first consonant of *rihi* (-*b rihi* = -*rbihi*). It can be truncated (-*rbi*) and appear in ergative case (-*rbil-di*)
- An optional plural suffix -*l* can be added to progressive verb forms in -*rado*/-*mado* (12)

Zilo questionary (44 speakers): results





More about 'butterfly':

• previosly we claimed:

lect	number	m	f	an	inan 1	inan 2	inan 3
Rikwani	sg	W	j	b	b	r	b
Rikwani	pl	\mathbf{w}	j	j	b	r	r
Zilo	sg	\mathbf{w}	j	b	b	r	-
Zilo	pl	W	j	j	b	r	-

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

sg	pl	n	class
b-et∫'uχa	j-et∫'uχol	38	an
r-et∫'uχa	j-et∫'uχol	4	$^{h}\mathbf{O}_{h}$
r-et∫'uχa	r-et∫'uχol	2	inan 2



Nakh-Daghestanian Fieldwork

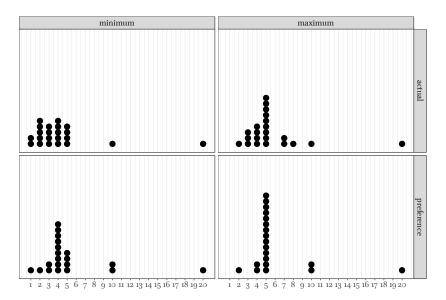
Survey

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
- preferable 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

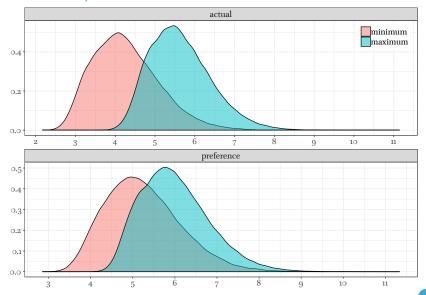


Number of speakers





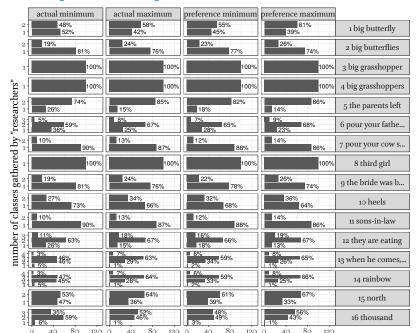
Bootstrapped mean number of speakers (10^5 iterations)



come to Zilo?

What if 10^5 "average researchers" ...

10^5 samples from experiment results







Conclusions:

- An "average researcher" might overlook the variation
- The observed variation should be further explored using the collected sociolinguistics parameters
- The characteristics of the "average researcher" of Nakh-Daghestanian languages should be eloborated using the parameters collected in the survey
- The observed variation remains a collection of isolated lexical, phonological and morphological facts...

Conclusions:

- An "average researcher" might overlook the variation
- The observed variation should be further explored using the collected sociolinguistics parameters
- The characteristics of the "average researcher" of Nakh-Daghestanian languages should be eloborated using the parameters collected in the survey
- The observed variation remains a collection of isolated lexical, phonological and morphological facts...
 - Is it possible to study variation in syntax in this manner?
 - Could variational variables be interrelated?

Conclusions:

- An "average researcher" might overlook the variation
- The observed variation should be further explored using the collected sociolinguistics parameters
- The characteristics of the "average researcher" of Nakh-Daghestanian languages should be eloborated using the parameters collected in the survey
- The observed variation remains a collection of isolated lexical, phonological and morphological facts...
 - 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 (podannim govora s. Rikvani) [Grammar sketch of the Andi language (based on material from the dialect of the village Rikvani)]. PhD thesis, Institut Jazykoznania AN SSSR.

References

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.