Catching variation during fieldwork on Nakh-Daghestanian languages

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26 November 2019, Happy Birthday Ferdinand de Saussure!

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.
  "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]

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

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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	w	j	j	b	r	-	-
Gagatli	sg	w	j	b	b	r	-	-
Gagatli	pl	w	j	j	b	r	-	-
Rikwani	sg	w	j	b	b	r	b	-
Rikwani	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
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]

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- 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*)

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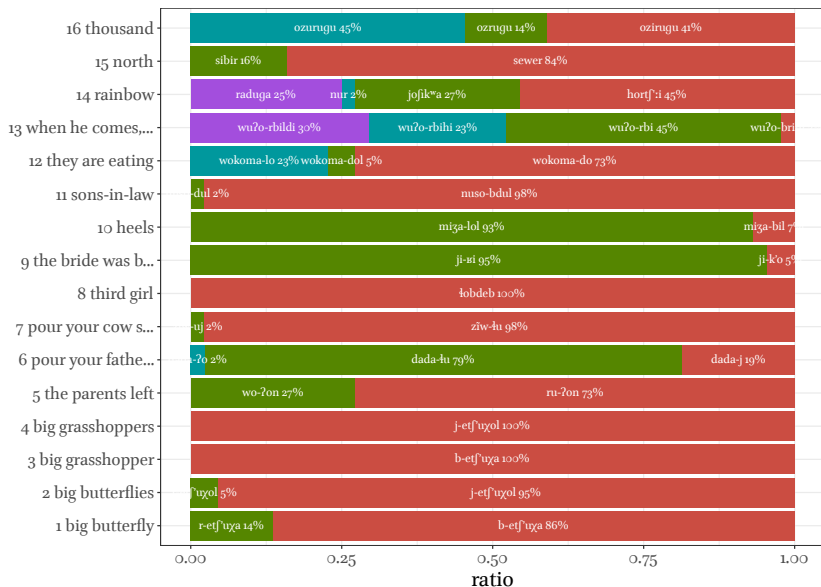- An optional plural suffix *-l* can be added to progressive verb forms in *-rado/-mado* (12)

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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

Zilo questionary (44 speakers): results

	ratio
16 thousand	ozurugu 45% / ozrugu 14% / ozirugu 41%
15 north	sibir 16% / sewer 84%
14 rainbow	raduɡa 25% / nur 2% / joʃikʷa 27% / hortʃʼi 45%
13 when he comes,...	wuʔo-rbildi 30% / wuʔo-rbihi 23% / wuʔo-rbi 45% / wuʔo-bri
12 they are eating	wokoma-lo 23% / wokoma-dol 5% / wokoma-do 73%
11 sons-in-law	-dul 2% / nuso-bdul 98%
10 heels	miʒa-lol 93% / miʒa-bil 7
9 the bride was b...	ji-ʁi 95% / ji-kʼo 5%
8 third girl	ɫobdeb 100%
7 pour your cow s...	-uj 2% / ziw-ɬu 98%
6 pour your fathe...	-ʔo 2% / dada-ɬu 79% / dada-j 19%
5 the parents left	wo-ʔon 27% / ru-ʔon 73%
4 big grasshoppers	j-etʃuχol 100%
3 big grasshopper	b-etʃuχa 100%
2 big butterflies	ʃuχol 5% / j-etʃuχol 95%
1 big butterfly	r-etʃuχa 14% / b-etʃuχa 86%

ratio scale: 0.00, 0.25, 0.50, 0.75, 1.00

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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	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

- in our new experiment:

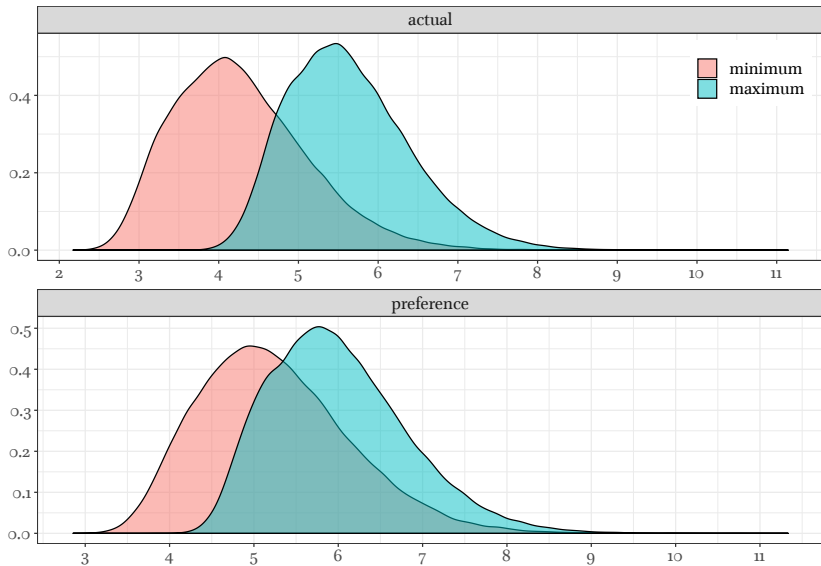| sg	pl	n	class
b-etʃʼuχa	j-etʃʼuχol	38	an
r-etʃʼuχa	j-etʃʼuχol	4	ˤoˤ
r-etʃʼuχa	r-etʃʼuχol	2	inan 2

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
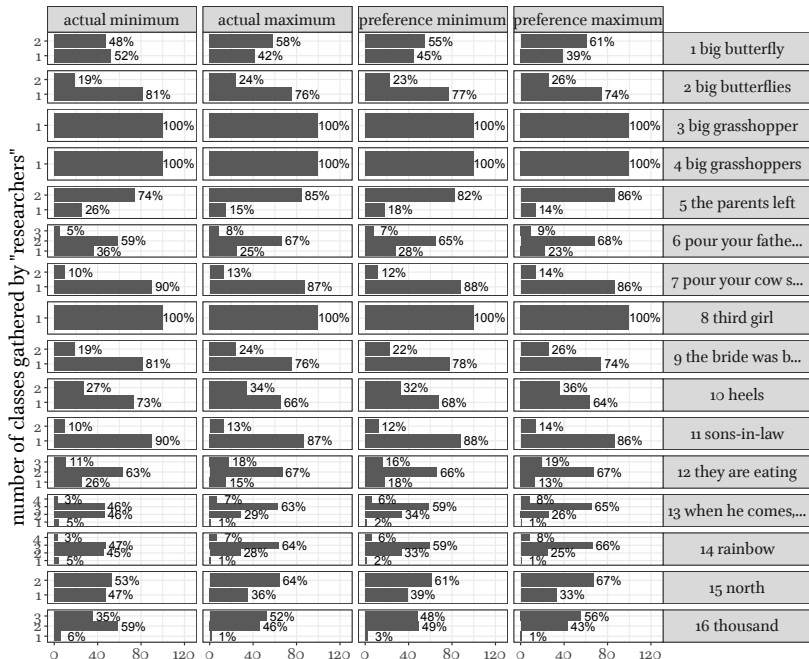
Number of speakers
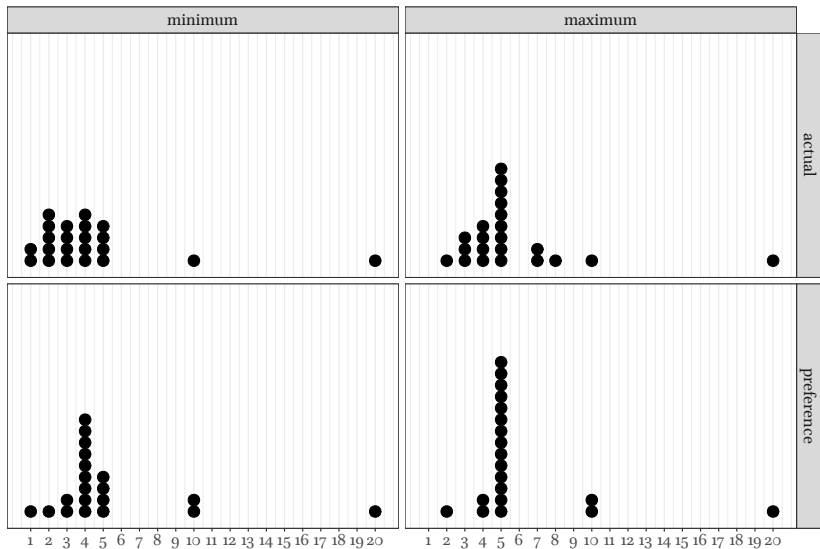
Bootstrapped mean number of speakers (10^5 iterations)

What if 10^5 "average researchers" ...
come to Zilo?

10^5 samples from experiment results

number of classes gathered by "researchers" (y-axis)

	actual minimum	actual maximum	preference minimum	preference maximum	label
2 / 1	48% / 52%	58% / 42%	55% / 45%	61% / 39%	1 big butterfly
2 / 1	19% / 81%	24% / 76%	23% / 77%	26% / 74%	2 big butterflies
1	100%	100%	100%	100%	3 big grasshopper
1	100%	100%	100%	100%	4 big grasshoppers
2 / 1	74% / 26%	85% / 15%	82% / 18%	86% / 14%	5 the parents left
3 / 2 / 1	5% / 59% / 36%	8% / 67% / 25%	7% / 65% / 28%	9% / 68% / 23%	6 pour your fathe...
2 / 1	10% / 90%	13% / 87%	12% / 88%	14% / 86%	7 pour your cow s...
1	100%	100%	100%	100%	8 third girl
2 / 1	19% / 81%	24% / 76%	22% / 78%	26% / 74%	9 the bride was b...
2 / 1	27% / 73%	34% / 66%	32% / 68%	36% / 64%	10 heels
2 / 1	10% / 90%	13% / 87%	12% / 88%	14% / 86%	11 sons-in-law
3 / 2 / 1	11% / 63% / 26%	18% / 67% / 15%	16% / 66% / 18%	19% / 67% / 13%	12 they are eating
4 / 3 / 2 / 1	3% / 46% / 48% / 5%	7% / 63% / 29% / 1%	6% / 59% / 34% / 2%	8% / 65% / 26% / 1%	13 when he comes,...
4 / 3 / 2 / 1	3% / 47% / 45% / 5%	7% / 64% / 28% / 1%	6% / 59% / 33% / 2%	8% / 66% / 25% / 1%	14 rainbow
2 / 1	53% / 47%	64% / 36%	61% / 39%	67% / 33%	15 north
3 / 2 / 1	35% / 59% / 6%	52% / 46% / 1%	48% / 49% / 3%	56% / 43% / 1%	16 thousand

x-axis: 0, 40, 80, 120 (for each panel)

Conclusions

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- 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...

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  - Is it possible to study variation in syntax in this manner?
  - 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

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