

Negation in Russian polar questions

Syntactic and semantic/pragmatic aspects

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Overview

- 1. Intro**
- 2. Background**
- 3. Experiment**
- 4. Results and discussion**
- 5. Conclusion**

Russian polar questions (*yes/no*; PQs)

Restan (1972); King (1994); Šatunovskij (2005); Esipova & Romero (2023)

- (1) a. Kupil **li** Maks v magazine xleb? V1 *li*
bought LI Max in shop bread
'Did Max buy bread in the shop?'
- b. Maks **kupil**_{L+H*} v magazine xleb? intonation = V2
Max bought in shop bread
'Did Max buy bread in the shop?'

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'Did Max buy bread in the shop?'
- (2) a. **Ne kupil li** Maks v magazine xleb? HIGHNPQs
not bought LI Max in shop bread
'Didn't Max buy bread in the shop?'
- b. Maks **ne kupil** v magazine xleb? LOWNPQs
Max not bought in shop bread
'Did Max not buy bread in the shop?'

Research questions

- ① What is the syntactic-semantic status of the negation depending on the question type?

Brown & Franks (1995); Abels (2005); Zanon (2023)

- V1 *li*: HIGH negation corresponds OUTER negation (no NCIs)
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- ② How does negation interact with evidential bias?

Büring & Gunlogson (2000); Sudo (2013); Roelofsen et al. (2013); AnderBois (2019); a.o.

- LOW negation is linked to negative evidence
- HIGH negation is not felicitous with positive evidence

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- evidence for the prejacent and epistemic bias against it

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→ Russian NPQs are never more natural in negative contexts

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- evidence for the prejacent and epistemic bias against it
- confirmed: evidential bias affects naturalness

Negation in PQs

HIGH × LOW: syntactic distinction

- (3) a. Didn't Sasha come to the party?
- b. Did Sasha not come to the party?

Negation in PQs

HIGH × **LOW**: syntactic distinction

- (3) a. **Didn't** Sasha come to the party?
b. Did Sasha **not** come to the party?

OUTER × **INNER**: semantic distinction

Ladd (1981); Buring & Gunlogson (2000); Romero & Han (2004)

- (4) Ad: We need a person with a spouse for the experiment.
Sp: Isn't Natasha married? **OUTER** = checking p
- (5) Ad: Natasha is going out for a date tonight with a new partner.
Sp: Is Natasha not married? **INNER** = checking $\neg p$
- (6) Gibt es hier { **nicht ein** / **kein** } vegetarisches Restaurant?
exists it here not INDF.SG NEG-INDF.SG vegetarian restaurant
'Is there no vegetarian restaurant?'

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Negation in PQs

polarity items *too* and *either* to disambiguate readings in (American) English

- HIGH → OUTER or INNER
- LOW → INNER

e.g. Romero & Han (2004)

- (7)
- a. Isn't Jane coming too?
 - b. Isn't Jane coming either?
 - c. *Is Jane not coming too?
 - d. Is Jane not coming either?

- HIGH → OUTER
- LOW → INNER

AnderBois (2019); Goodhue (2022)

- (8)
- a. Isn't Jane coming too?
 - b. *Isn't Jane coming either?
 - c. *Is Jane not coming too?
 - d. Is Jane not coming either?

Negation in PQs: bias

BIAS

Questioner's inclination towards one answer.

Büring & Gunlogson (2000); Sudo (2013); Gärtner & Gyuris (2017)

- EPISTEMIC: private questioner beliefs, knowledge, hopes, etc.
- EVIDENTIAL: contextual cues available to all interlocutors

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 - positive (for p), negative (for $\neg p$), neutral
 - non-truth-conditional aspect of PQs meaning

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- positive (for p), negative (for $\neg p$), neutral
- non-truth-conditional aspect of PQs meaning

(9) a. Isn't Natasha married?

HIGHNPQs

(i) epistemic: she is married – positive

(ii) evidential: negative or neutral

b. Is Natasha **not** married?

LOWNPQs

(i) epistemic: she is married – positive

(ii) evidential: she is not married – negative

Bias in Russian PQs: *razve*

Repp & Geist (to appear); Korotkova (2023)

- (10) a. Razve Egor uexal v Venu?
RAZVE Egor left in Vienna
'Did Egor go to Vienna? (I believe he didn't.)'
(i) epistemic: he is not in Vienna – negative
(ii) evidential: he is in Vienna – positive
- b. Razve Egor ne uexal v Venu?
RAZVE Egor not left in Vienna
'Didn't Egor go to Vienna?'
(i) epistemic: he is in Vienna – positive
(ii) evidential: he is not in Vienna – negative

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Todorović (2023); Staňková (2023); Antonina Mocniak, Egor Timoshenko, Oleksandra Koshchii p.c.

- Serbian *zar*, Czech *copak*, Polish *czyżby*, Ukrainian *xiba*

Negation and indefinites in Russian

Brown (1999); Haspelmath (2001); Geist (2008); Martí & Ionin (2019)

- strict negative concord language
 - negative concord items (NCIs): e.g. *nikakoj* ‘no-which’
 - narrow scope non-specific indefinites – *wh-nibud’*
 - appears in the scope of some operators
- (11) a. Nastja pročitala {**kakuju-nibud’* / **nikakuju*} knigu.
Nastja read which.NIBUD’ which.NCI book
‘Nastja read a book.’
- b. Nastja ne pročitala {**kakuju-nibud’* / *nikakuju*} knigu.
Nastja not read which.NIBUD’ which.NCI book
‘Nastja didn’t read a book.’
- (12) Nastja xočet pročitat’ *kakuju-nibud’* knigu.
Nastja wants to-read which.NIBUD’ book
‘Nastja wants to read any book.’

Negation and indefinites in Russian PQs

Brown & Franks (1995); Abels (2005); Zanon (2023)

- (13) a. Nastja pročitala {kakuju-nibud' / *nikakuju} knigu? V2
Nastja read which.NIBUD' which.NCI book
'Did Nastja read any book?'
- b. Nastja **ne pročitala** {kakuju-nibud' / nikakuju} knigu? LOW
Nastja not read which.NIBUD' which.NCI book
'Did Nastja not read any book?'

Negation and indefinites in Russian PQs

Brown & Franks (1995); Abels (2005); Zanon (2023)

- (13) a. Nastja pročitala {kakuju-nibud' / *nikakuju} knigu? V2
Nastja read which.NIBUD' which.NCI book
'Did Nastja read any book?'
- b. Nastja **ne pročitala** {kakuju-nibud' / nikakuju} knigu? LOW
Nastja not read which.NIBUD' which.NCI book
'Did Nastja not read any book?'
- (14) a. Pročitala li Nastja {kakuju-nibud' / *nikakuju} knigu? V1 *li*
read LI Nastja which.NIBUD' which.NCI book
'Did Nastja read any book?'
- b. **Ne pročitala li** Nastja {kakuju-nibud' / *nikakuju} knigu? HIGH
not read LI Nastja which.NIBUD' which.NCI book
'Did Nastja read any book?'

Negation in Russian PQs: predictions

HIGHNPQs

- Brown & Franks (1995); Abels (2005): negation is too high for NCIs licensing → **OUTER**
 - Zanon (2023): polarity items *eščě* ‘still, yet’ and *uže* ‘already’ are available → **OUTER** and **INNER**
- evidential bias:
 - **OUTER**: checking p → neutral or positive

Negation in Russian PQs: predictions

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- evidential bias:
 - **OUTER**: checking p → neutral or positive

LOWNPQs

- negation can properly license NCIs → **INNER**
- **OUTER** is available
- evidential bias:
 - **OUTER**: checking p → neutral or positive
 - **INNER**: checking $\neg p$ → negative

Participants and method

naturalness judgment task (replication of Staňková 2023)

- rate PQs in context
- Likert scale from 1 ‘completely unnatural’ to 7 ‘completely natural’
- run on L-Rex (Starschenko & Wierzba 2023)
- 68 participants found online, not paid

Design and materials

82 items in total

- 32 items – NPQs experiment (main)
- 50 items – secondary experiments
 - PPQs vs NPQs – 8 items
 - *razve*-PQs – 8 items
- within-items and within-subjects manipulation
- written stimuli distributed on lists (Latin square)

NPQs main	$2 \times 2 \times 2$	CONTEXT, STRATEGY, INDEFINITE
PPQs vs NPQs	$2 \times 2 \times 2$	CONTEXT, STRATEGY, POLARITY
<i>razve</i> -PQs	3×2	CONTEXT, POLARITY

Table: Experiments to report

Design and materials

CONTEXT: evidential bias manipulation

- neutral (A): no implication of p or $\neg p$
- negative (A'): context implies $\neg p$

(15) **Neutral**

A: U Kiry na dače est' teplica, **kotoruju ej sobrali v prošlom godu.**
at Kira on dacha is greenhouse which her built in last year
'Kira has a greenhouse at her dacha **that was built last year.**'

Negative

A': U Kiry na dače est' teplica, **v kojoj ona vyraščivaet cvety.**
at Kira on dacha is greenhouse in which she grows flowers
'Kira has a greenhouse in her dacha **where she grows flowers.**'

Question: to be rated from 1 to 7

B: Doesn't Kira grow some vegetables there?
 p = Kira grows some vegetables there

Design and materials

CONTEXT: evidential bias manipulation

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A': U Kiry na dače est' teplica, **v kotoroj ona vyraščivaet cvety.**
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'Kira has a greenhouse in her dacha **where she grows flowers.**'

Question: to be rated from 1 to 7

B: Doesn't Kira grow some vegetables there?
 p = Kira grows some vegetables there

- additionally for the secondary experiments – positive (context implies p)

Design and materials

STRATEGY: HIGHNPQs and LOWNPQs manipulation

INDEFINITE: NCIs \approx INNER and *wh-nibud'* \approx OUTER manipulation

- (16) B: Ne posadila li tuda Kira {nikakie / kakije-nibud'} ovošči?
not planted LI there Kira which.NCI which.NIBUD' vegetables
'Didn't Kira plant there any/some vegetables?'
- B': Kira ne posadila tuda {nikakie / kakije-nibud'} ovošči?
Kira not planted there which.NCI which.NIBUD' vegetables
'Did Kira not plant there any/some vegetables?'

Design and materials

STRATEGY: HIGHNPQs and LOWNPQs manipulation

INDEFINITE: NCIs \approx INNER and *wh-nibud'* \approx OUTER manipulation

(16) B: Ne posadila li tuda Kira {nikakie / kakije-nibud'} ovošči?
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B': Kira ne posadila tuda {nikakie / kakije-nibud'} ovošči?
Kira not planted there which.NCI which.NIBUD' vegetables
'Did Kira not plant there any/some vegetables?'

- additionally for the secondary experiments – POLARITY (PPQs/NPQs)

Design and materials

А: Лёша подрабатывал летом в службе доставки, где ему нужно было развозить еду. negative context

Б: Не доставлял ли Лёша какие-нибудь посылки?
highNPQs wh-nibud'

Насколько естественно звучит вопрос от Б в данном диалоге?

1	2	3	4	5	6	7
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1 = абсолютно неестественно, 7 = абсолютно естественно

Продолжить

Figure: Item example from L-Rex

Results: NPQs

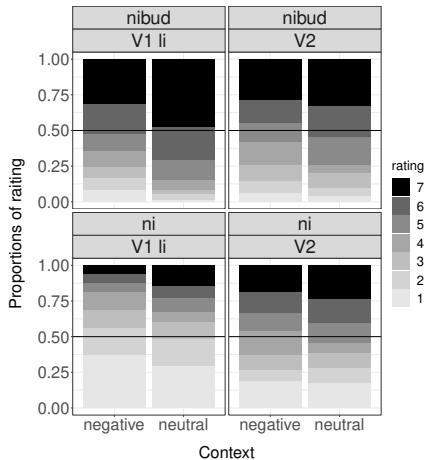


Figure: Raw; horizontal line = medians

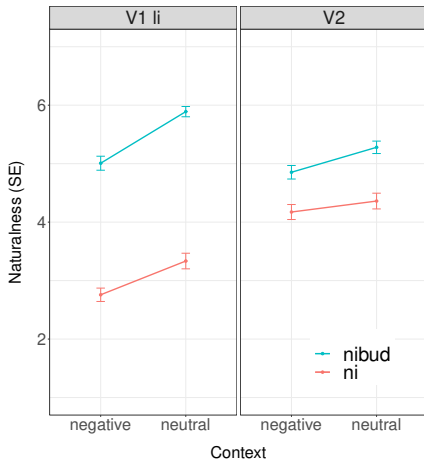


Figure: NPQs means

Results: NPQs

c1mm by Christensen (2022)

- main effect of all factors

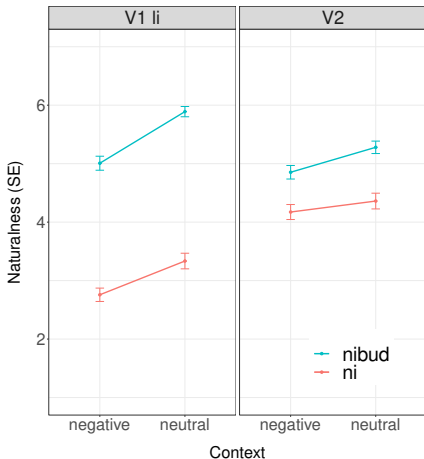


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Results: NPQs

c1mm by Christensen (2022)

- main effect of all factors
- interaction between STRATEGY and INDEFINITE

($z = 10.046, p < .001$)

- *wh-nibud'*: fine among all
- NCIs: worse in general but much more in V1

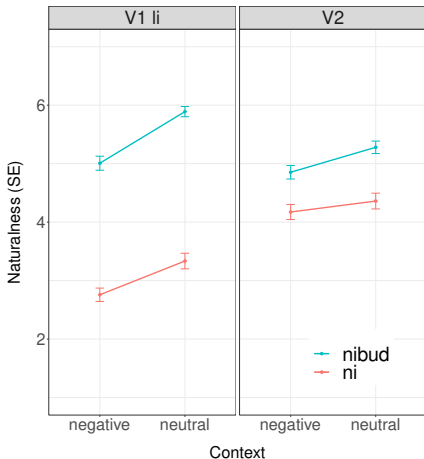


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- *wh-nibud'*: fine among all
- NCIs: worse in general but much more in V1

- interaction between STRATEGY and CONTEXT

($z = 2.855, p = .004$)

- neutral context better in general but much more in V1

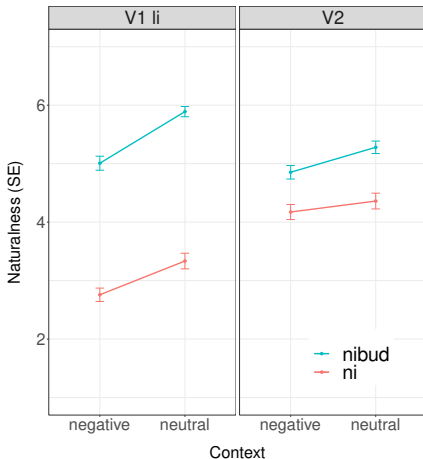


Figure: NPQs means

Discussion: NPQs

- ① What is the syntactic-semantic status of the negation depending on the question type?

STRATEGY/INDEFINITE interaction

- NCI in V1 *li* (= HIGHNPQ) unnatural → OUTER
- V2 (= LOWNPQ) → OUTER and INNER

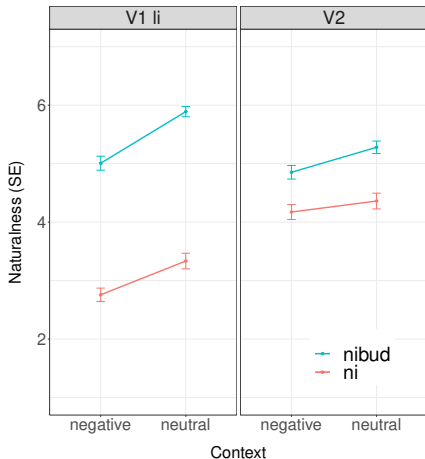


Figure: NPQs means

Discussion: NPQs

- ② How does negation interact with evidential bias?

STRATEGY/CONTEXT interaction

- NPQs are more natural in neutral (unlike in English)
- NCIs + V2 (= **LowNPQ**) + neutral → **OUTER**

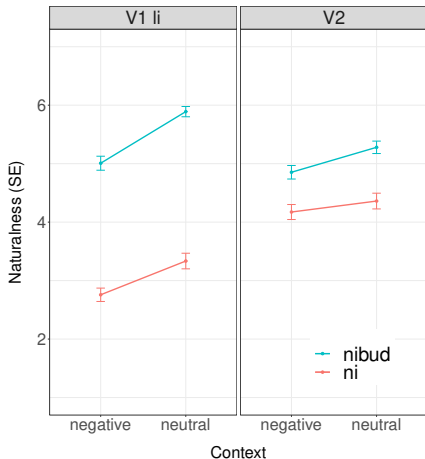


Figure: NPQs means

Results: PPQs vs NPQs

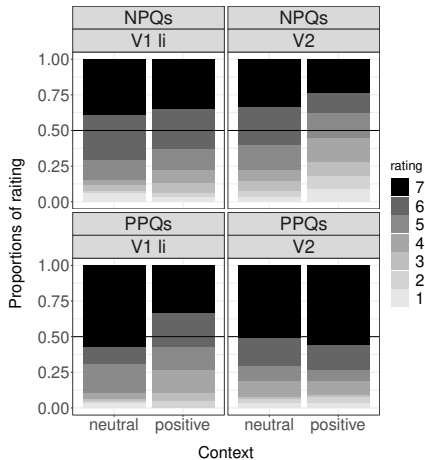


Figure: Raw; horizontal line = medians

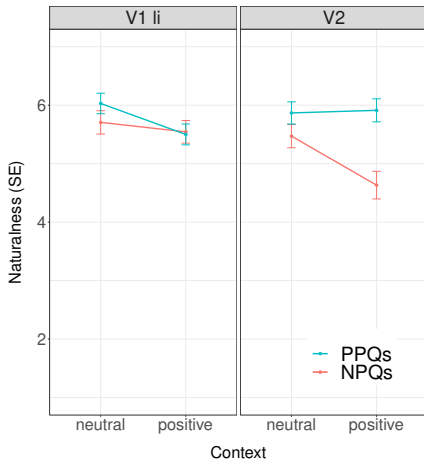


Figure: PPQs vs NPQs means

Discussion: PPQs vs NPQs

wh-nibud' indefinites only

- 1 What is the syntactic-semantic status of the negation depending on the question type?
 - V1 *li* no effect/impact of polarity

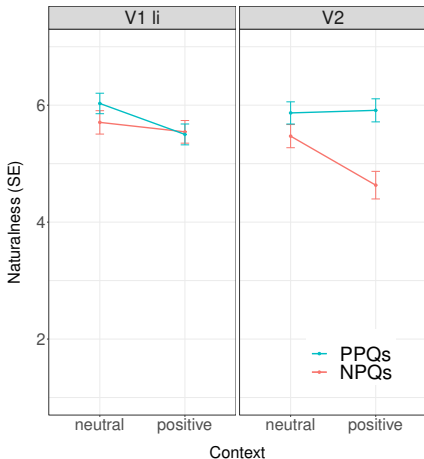


Figure: PPQs vs NPQs means

Discussion: PPQs vs NPQs

wh-nibud' indefinites only

- 1 What is the syntactic-semantic status of the negation depending on the question type?
 - V1 *li* no effect/impact of polarity
- 2 How does negation interact with evidential bias?
 - CONTEXT/STRATEGY/POLARITY interaction
 - **LOW**NPQs unnatural to express positive
 - **HIGH**NPQs in positive context natural

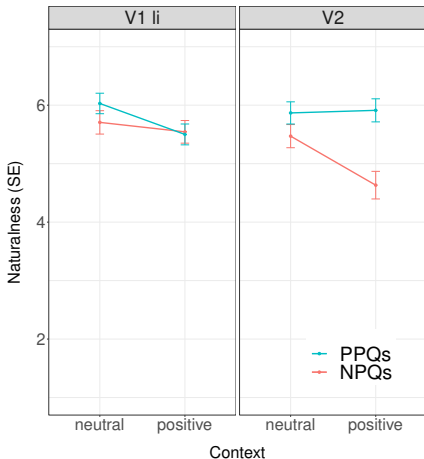


Figure: PPQs vs NPQs means

Results: *razve*-PQs

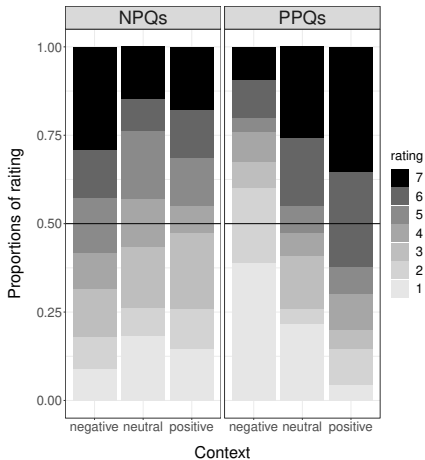


Figure: Raw; horizontal line = medians

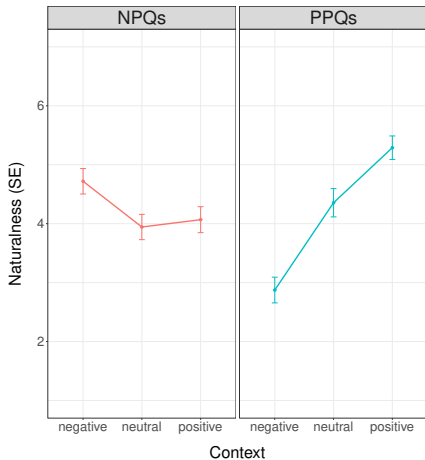


Figure: *razve*-PQs means

Discussion: *razve*-PQs

- ③ How does the particle *razve* correlate with evidential bias?
- effect of negative and positive contexts
 - acceptable in neutral context due to epistemic bias

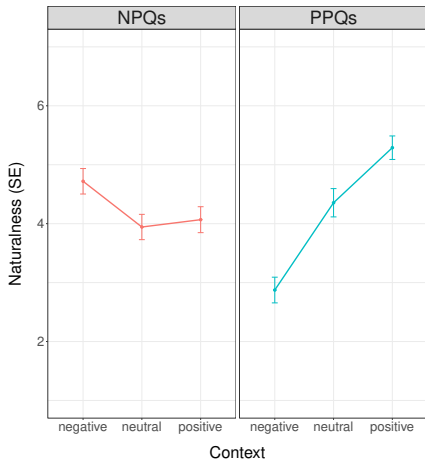


Figure: Caption

Cross-Slavic comparison

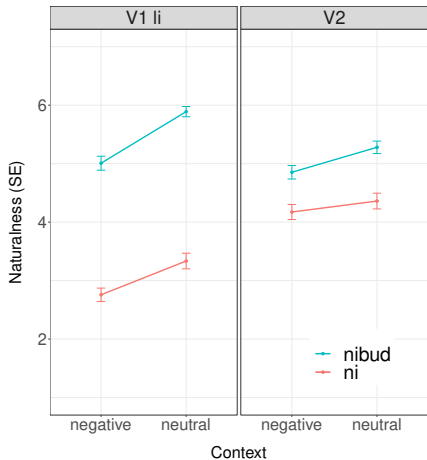


Figure: Russian

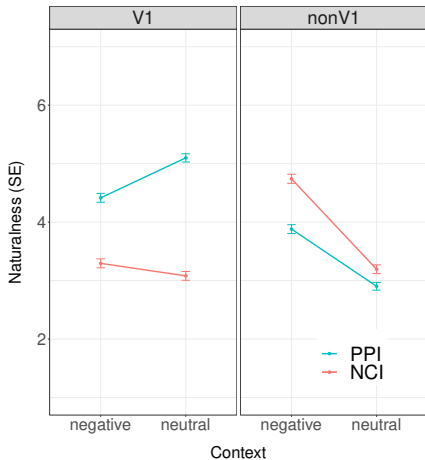


Figure: Czech

Conclusion

- ① Negation in Russian PQs is primarily interpreted as OUTER
 - HIGH → OUTER, LOW → OUTER or INNER
 - LOWNPQs with NCIs in neutral contexts are interpreted as OUTER
- ② Neutral evidential bias is more natural for negative PQs
 - negative bias is not required
 - positive is also available for HIGHNPQs
- ③ Naturalness of *razve*-PQs is affected by evidence

Conclusion

- ① Negation in Russian PQs is primarily interpreted as **OUTER**
 - **HIGH** → **OUTER**, **LOW** → **OUTER** or **INNER**
 - **LOWNPQs** with NCIs in neutral contexts are interpreted as **OUTER**
- ② Neutral evidential bias is more natural for negative PQs
 - negative bias is not required
 - positive is also available for **HIGHNPQs**
- ③ Naturalness of *razve*-PQs is affected by evidence

Hypothesis

The use of negation in Russian (Slavic) PQs might be more closely tied to epistemic than to evidential bias. However, this bias may be weak as compared to the one in English **HIGHNPQs**.

Thank you!

References I

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