

ACCEPTABILITY JUDGEMENTS ON CONTRASTIVE DIALOGUES INVOLVING ELLIPSIS

Master's thesis

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CONTRASTIVE DIALOGUES INVOLVING ELLIPSIS



Fragment theory



Research question & hypotheses



Study design



Participants



Results



Conclusions



Discussion

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter.

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter ~~stole the cookie~~.

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter ~~stole the cookie~~.

Fragment

remnant of ellipsis

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, [Peter]_F

Contrastive focus F

- given alternative element for which the predicate actually holds
- must bear pitch accent

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter.

assign
category to
remnant



find correlate
in antecedent
clause



construct
elided phrase

FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter **DP=Remnant**

assign
category to
remnant



find correlate
in antecedent
clause



construct
elided phrase

FRAGMENT THEORY

A: **Mary**_{DP=Correlate} stole the cookie.

B: No, Peter_{DP=Remnant}

assign
category to
remnant



find correlate
in antecedent
clause



construct
elided phrase

FRAGMENT THEORY

A: Mary_{DP=Correlate} stole the cookie.

B: No, Peter_{DP=Remnant} ~~stole the cookie.~~

assign
category to
remnant




find correlate
in antecedent
clause



**construct
elided phrase**

RESEARCH QUESTION



What is the most effective medium
for obtaining acceptability
judgements about dialogues
involving contrastive focus?

HYPOTHESES



Modality



Emphasis



Fragment type

HYPOTHESES



Modality

written

A: Peter showed his identity card to the police officer.
B: No, the bouncer.

auditory



HYPOTHESES



Modality

written

fragments are less common in
written language

auditory

fragments are more common in
spoken language

HYPOTHESES



Modality
auditory > written

HYPOTHESES



Emphasis

with
emphasis

A: Peter showed his identity card to the POLICE OFFICER.
B: No, the BOUNCER.

without
emphasis

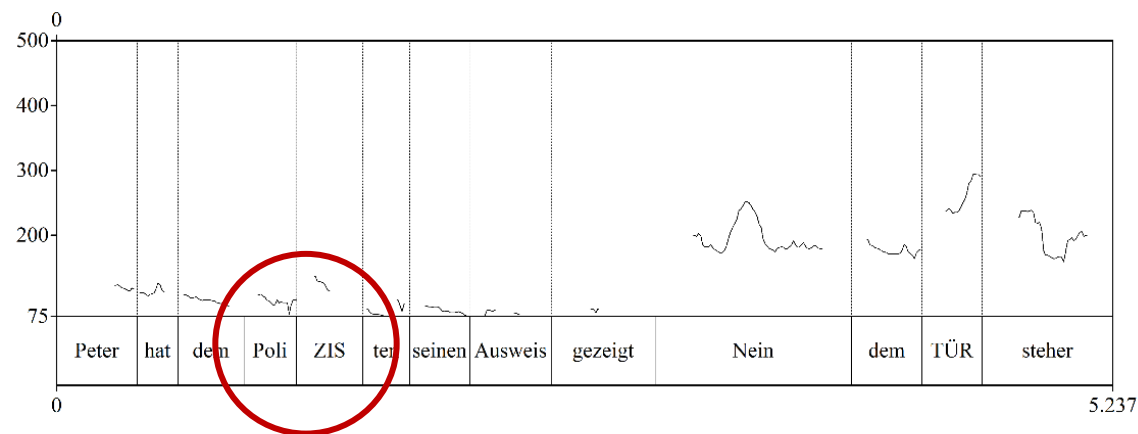
A: Peter showed his identity card to the police officer.
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HYPOTHESES

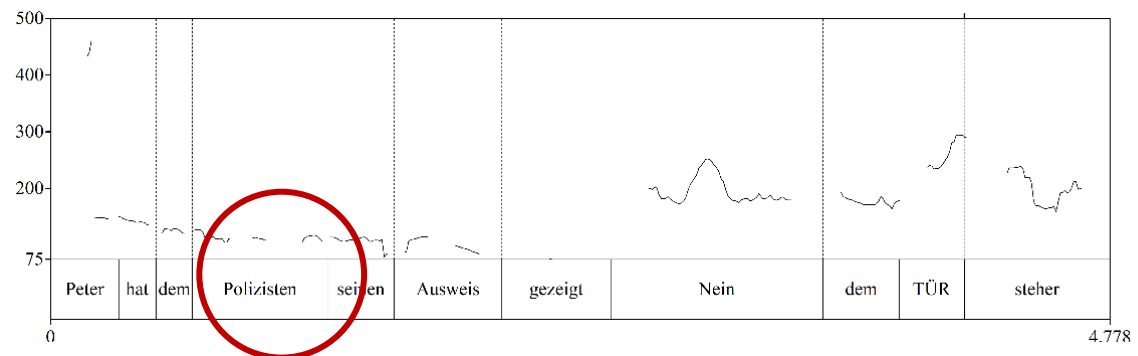


Emphasis

with
emphasis



without
emphasis



HYPOTHESES



Emphasis

with
emphasis

easier to identify
correlate-remnant pairing

without
emphasis

more difficult to identify
correlate-remnant pairing

HYPOTHESES



Modality

auditory > written



Emphasis

emphasis on contrasting words > lacking emphasis

HYPOTHESES



Fragment
type

lexical

A: Peter showed his identity card to the POLICE OFFICER.
B: No, the BOUNCER.

functional

A: Peter worked at the cinema FROM 6pm.
B: No, UNTIL 6pm.

HYPOTHESES



Fragment
type

lexical

- bear stress
- more focussed on in reading

functional

- do not bear stress
- less focussed on in reading

HYPOTHESES



Modality

auditory > written



Emphasis

emphasis on contrasting words > lacking emphasis



Fragment type

lexical fragments > functional fragments

STUDY DESIGN

Modality

- written
- auditory

Emphasis

- with
- without

Fragment type

- lexical
- functional

STUDY DESIGN

Modality

- written
- auditory

between-subject

Emphasis

- with
- without

within-subject

Fragment type

- lexical
- functional

STUDY DESIGN

Acceptability Judgement Task

- rate naturalness of speaker B's answer
- 7-point Likert scale
- forced choice
- no time limit

STUDY DESIGN

Acceptability Judgement Task

- rate naturalness of speaker B's answer
- 7-point Likert scale
- forced choice
- no time limit

Ihre Bewertung

In der Studie werden Ihnen die Dialoge als Text präsentiert. Großbuchstaben stellen dar, welche Wörter von den Sprecher:innen betont werden. Bitte lesen Sie sich den Dialog durch.

Wie natürlich wirkt die Aussage der Sprecherin B auf Sie?

A: Peter hat BIS August Miete gezahlt.

B: Nein, AB August.

völlig unnatürlich ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 völlig natürlich

Bitte geben Sie eine Bewertung ab.

STUDY DESIGN

Acceptability Judgement Task

- rate naturalness of speaker B's answer
- 7-point Likert scale
- forced choice
- no time limit

Ihre Bewertung

In der Studie werden Ihnen die Dialoge als Text präsentiert. Großbuchstaben stellen dar, welche Wörter von den Sprecher:innen betont werden. Bitte lesen Sie sich den Dialog durch.

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völlig unnatürlich ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐ 6 ☐ 7 völlig natürlich

WEITER

PARTICIPANTS



n = 100



crowdsourced from Prolific



German native speakers



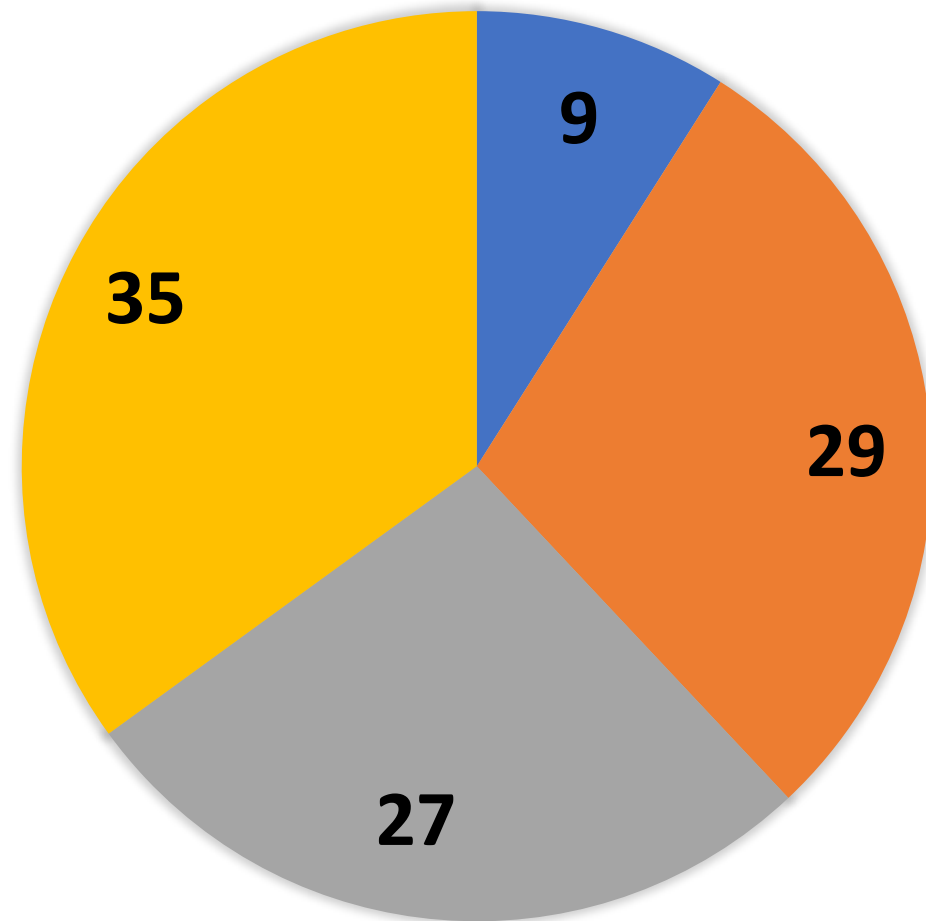
age between 19-73 years (m = 35.5)



69 males, 29 females, 2 diverse

PARTICIPANTS' HIGHEST DEGREE

- without high school diploma
- completed high school
- with bachelor's degree
- with higher degree



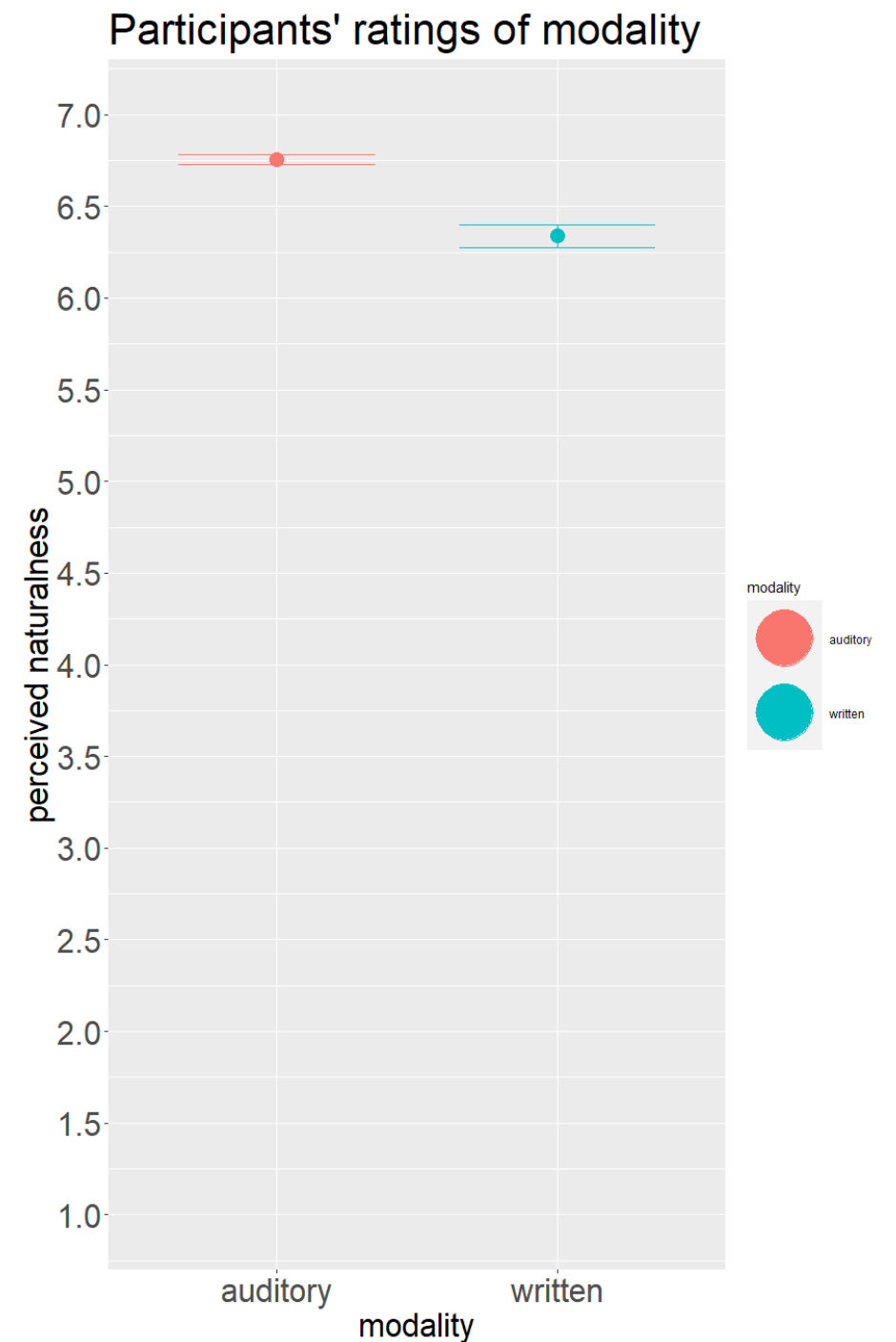


RESULTS

RESULTS

Modality

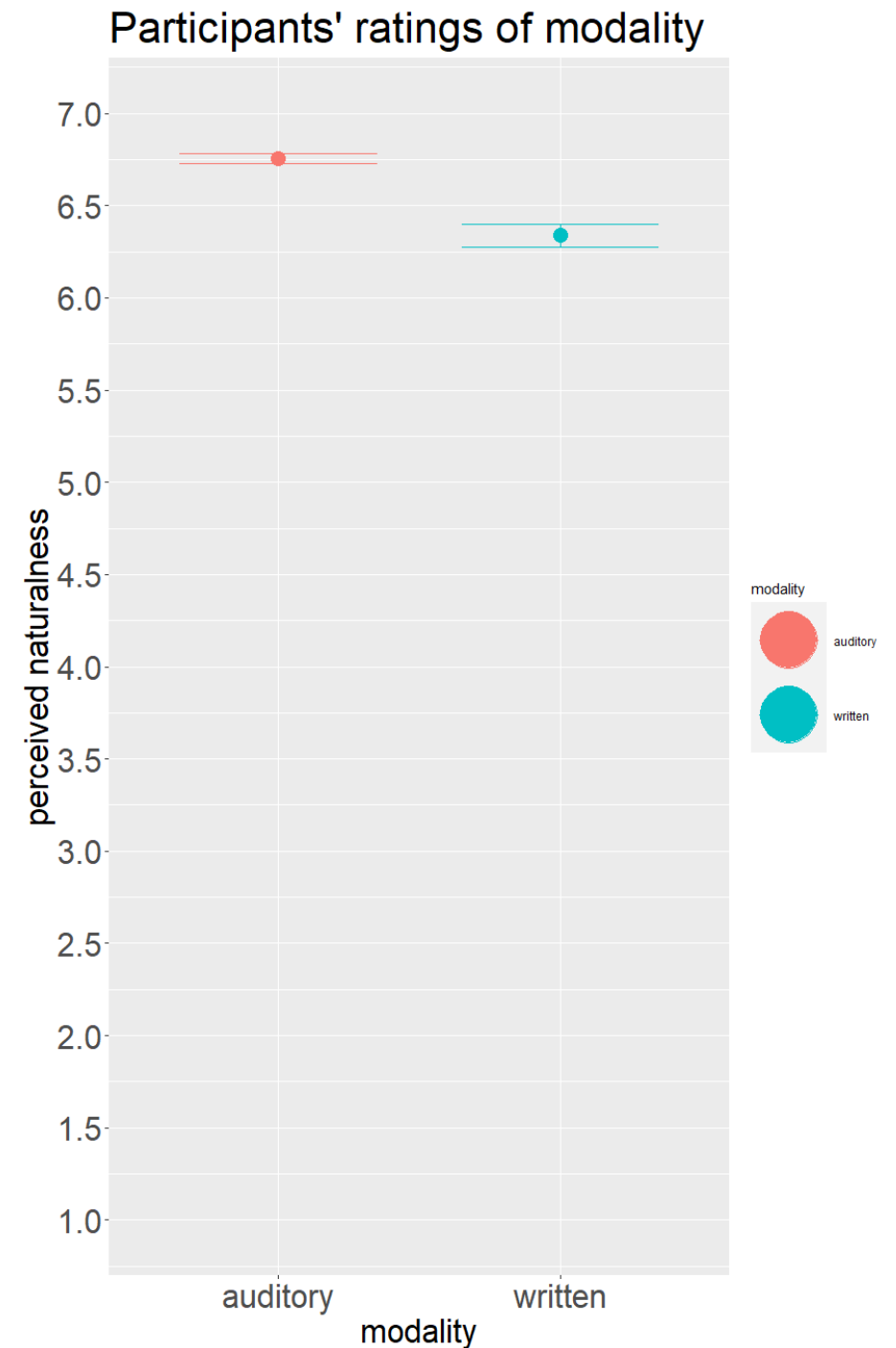
- **auditory:**
 $m = 6.76$, $sd = 0.53$
- **written:**
 $m = 6.34$, $sd = 1.11$



RESULTS

Modality

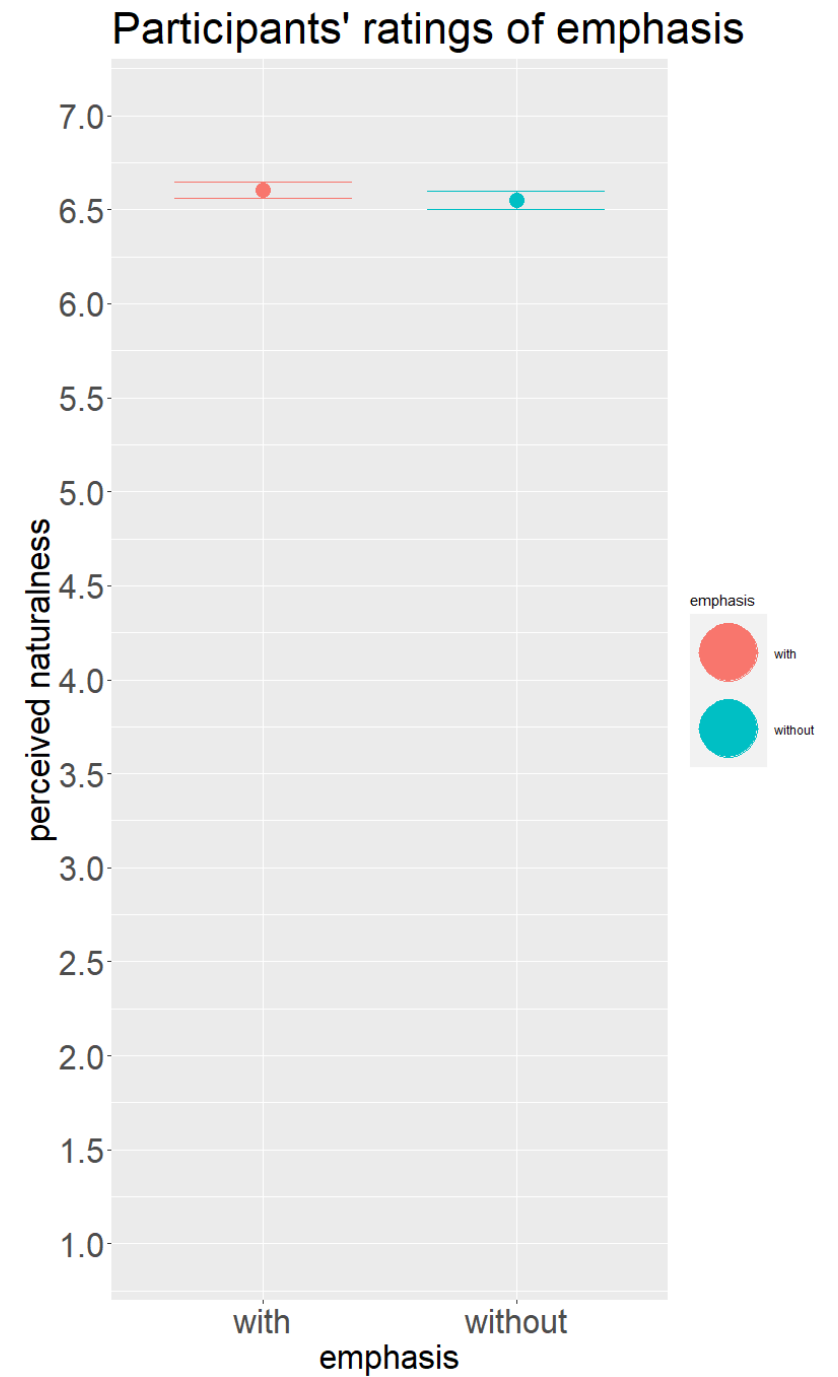
- **written:**
 $\beta_1 = -1.99$
- as hypothesised
- significant effect:
 $p = 0.016$



RESULTS

Emphasis

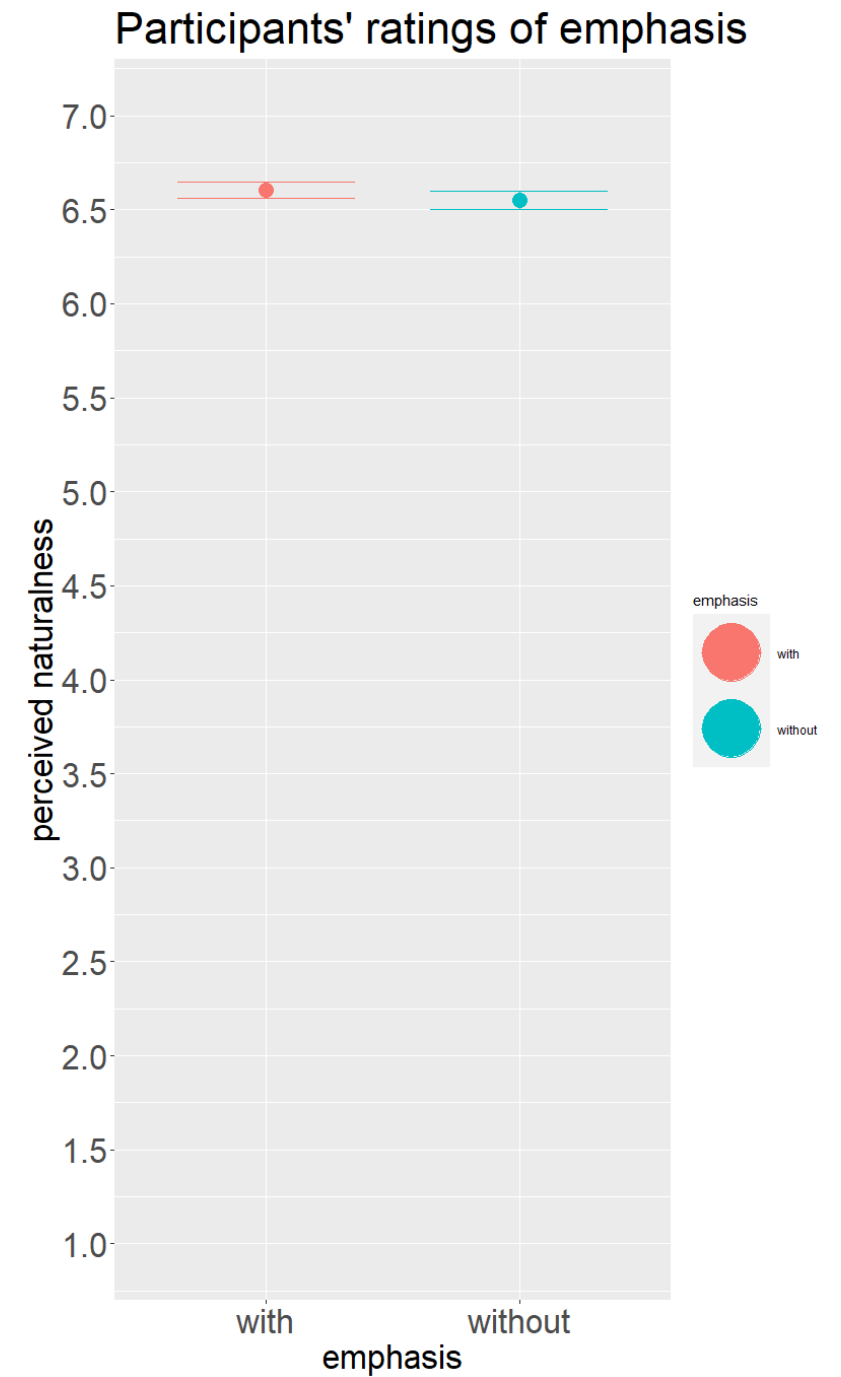
- **with emphasis:**
 $m = 6.60, sd = 0.80$
- **without emphasis:**
 $m = 6.55, sd = 0.91$



RESULTS

Emphasis

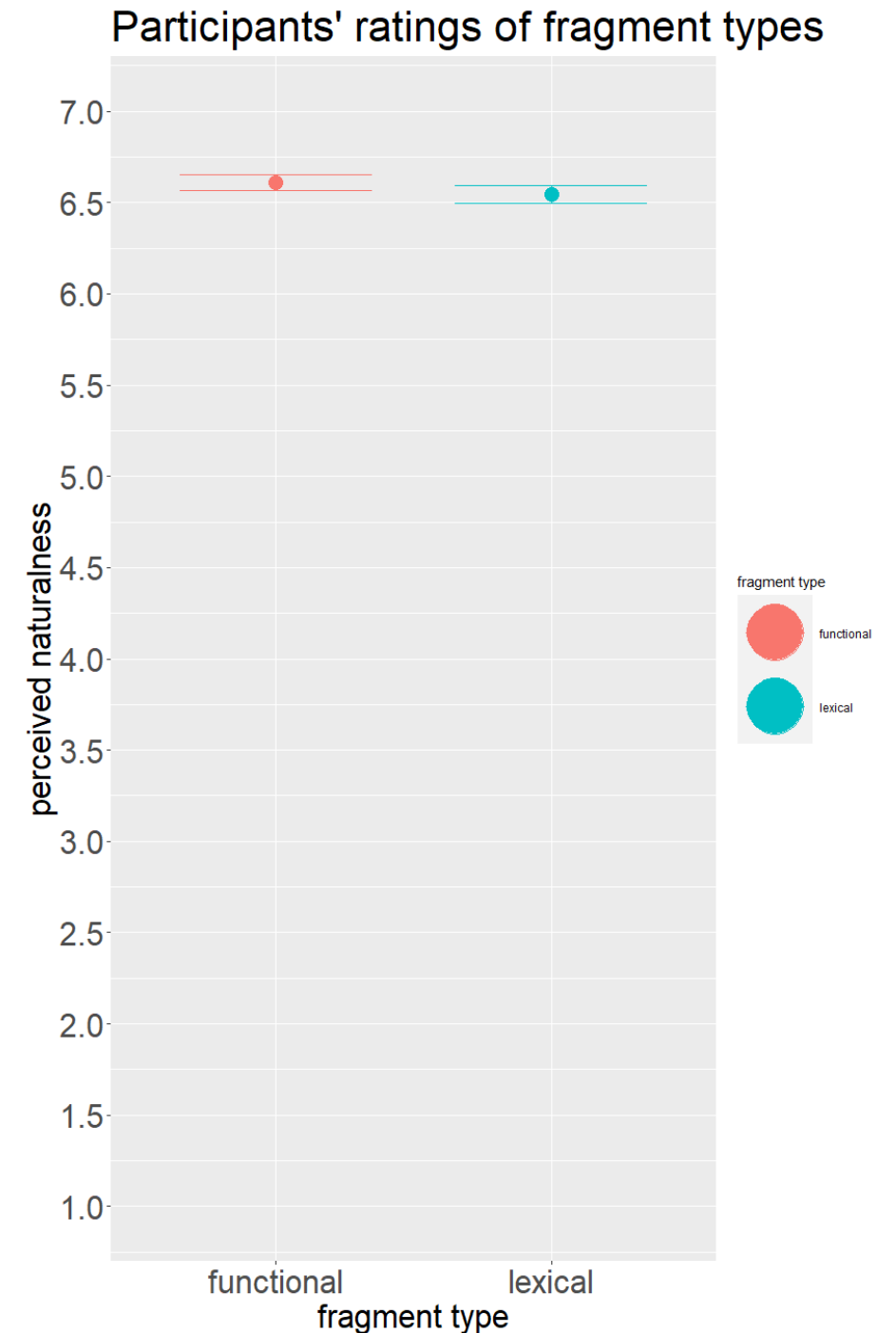
- without:
 $\beta_1 = -0.25$
- as hypothesised
- significant effect:
 $p = 0.027$



RESULTS

Fragment type

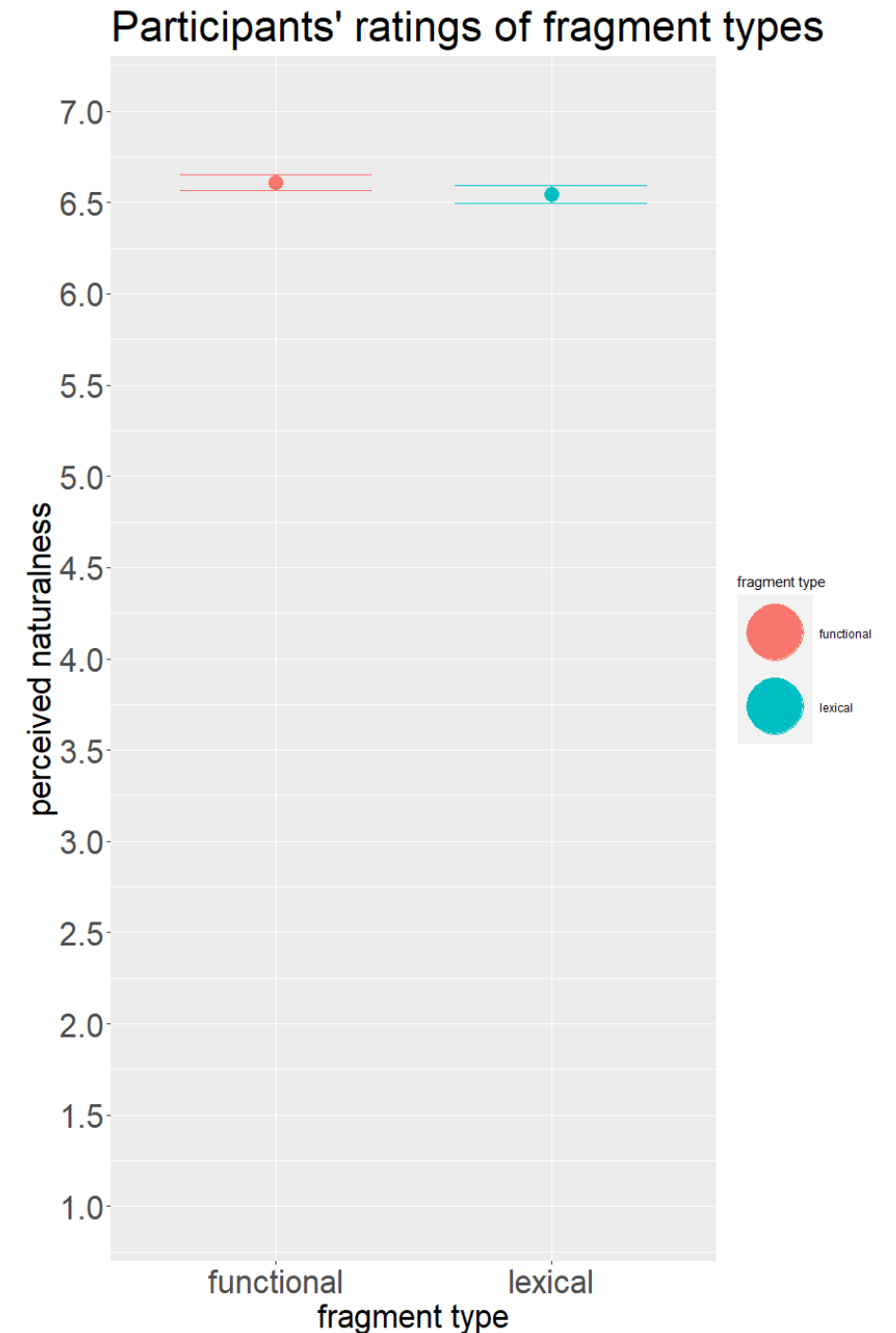
- **functional:**
 $m = 6.61, sd = 0.82$
- **lexical:**
 $m = 6.55, sd = 0.90$



RESULTS

Fragment type

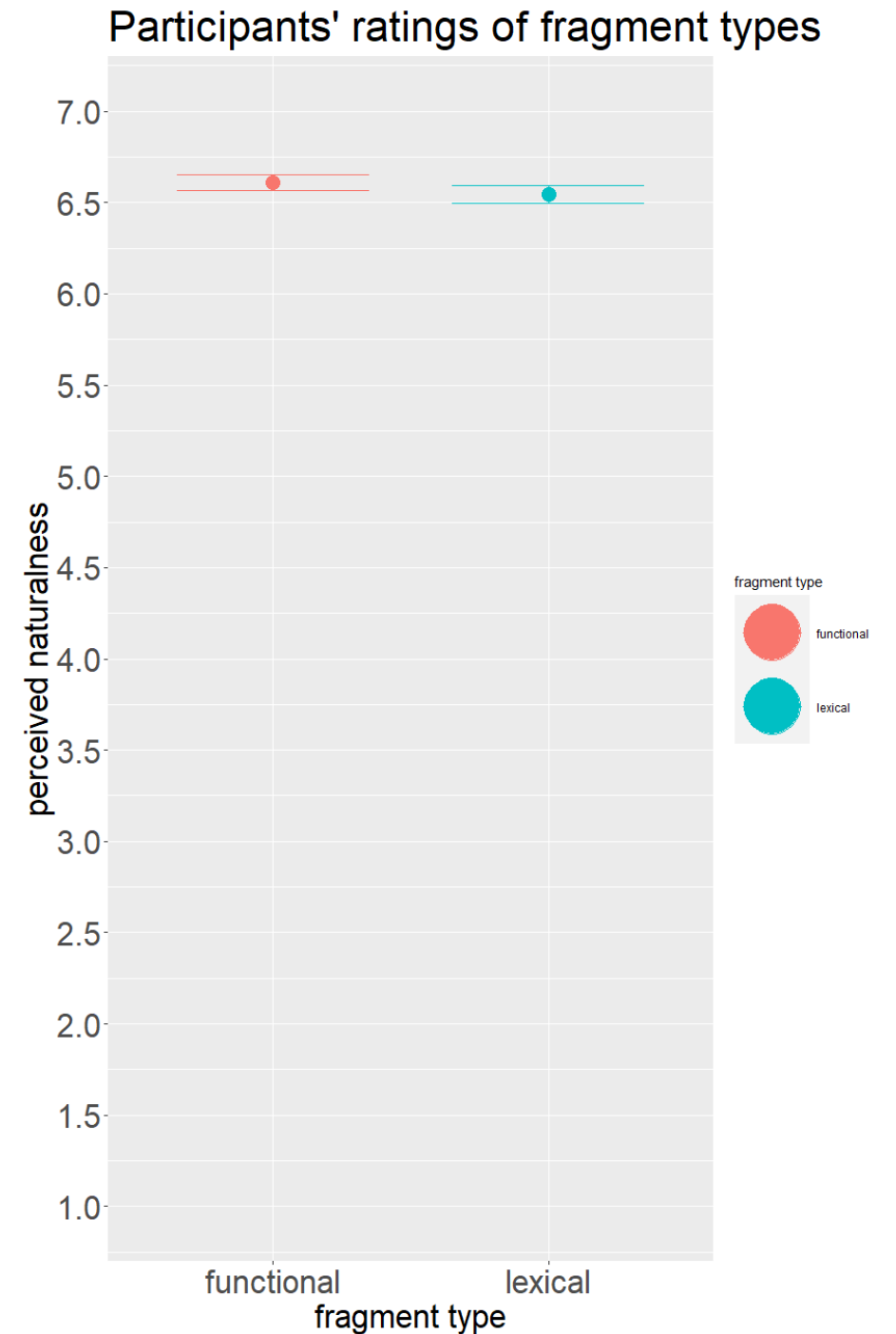
- **lexical:**
 $\beta_1 = -0.49$
- **inverse** to hypothesis
- **significantly effect:**
 $p < 0.01$



RESULTS

Fragment type

Potential explanation for
inverse trend?



INVERSE TREND

functional

A: Peter worked at the cinema FROM 6pm.

B: No, UNTIL 6pm.

lexical

A: Peter showed his identity card to the POLICE OFFICER.

B: No, the BOUNCER.

INVERSE TREND

functional

A: Peter worked at the cinema FROM 6pm.

B: No, UNTIL 6pm.

prepositions have
opposing meaning:
binary contrast

lexical

A: Peter showed his identity card to the POLICE OFFICER.

B: No, the BOUNCER.

INVERSE TREND

functional

A: Peter worked at the cinema FROM 6pm.

B: No, UNTIL 6pm.

prepositions have
opposing meaning:
binary contrast

lexical

A: Peter showed his identity card to the POLICE OFFICER.

B: No, the BOUNCER.

nouns denote
alternative referents:
non-binary contrast

INVERSE TREND


prepositions have
opposing meaning:
binary contrast

nouns denote
alternative referents:
non-binary contrast

INVERSE TREND

prepositions have
opposing meaning:
binary contrast

nouns denote
alternative referents:
non-binary contrast



The clearer the contrast, the
more natural the dialogue?

CONCLUSIONS



CONCLUSIONS

accepted hypotheses

emphasis and
modality affect
judgements on con-
trastive fragments

CONCLUSIONS

accepted hypotheses

emphasis and
modality affect
judgements on con-
trastive fragments

inverse trend

- functional
fragments rated
more natural
- perhaps due to
clearer contrast?

CONCLUSIONS

accepted hypotheses

emphasis and modality affect judgements on contrastive fragments

inverse trend

- functional fragments rated more natural
- perhaps due to clearer contrast?

further research

- influence of clarity of contrast
- compare phrasal answers to one-word answers

Thank you for listening!

DISCUSSION



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FRAGMENT THEORY

A: Mary stole the cookie.

B: No, Peter ~~stole the cookie~~.

Licensing condition

only given material can be omitted

PREVIOUS STUDIES



Parallelism

A: Marie stellt **ihrem** **Vater** ihren Freund vor.

Mary introduces her.**SG.DAT** father.**SG.DAT** her friend PART

‘Mary introduces her friend to her father.’

B: Nein, **ihrem** **Bruder**.

no her.**SG.DAT** brother.**SG.DAT**

‘No, her brother.’

- category
- case
- number
- thematic role
- prosodic weight

PREVIOUS STUDIES



Locality

H1

Local contrasts (B) are preferred over nonlocal contrasts (B')

stimuli

A: John took the poodle to the park.

B: No, the zoo. (local contrast with *the park*)

B': No, the pug. (nonlocal contrast with *the poodle*)

result

processors rate local contrasts as more natural

PREVIOUS STUDIES



Emphasis:
Pitch accent

H1

Does pitch accent influence the interpretation of ambiguous replacives?

stimuli

- (1) ROGER insisted that Alice was reliable, not ANDREW
- (2) Roger insisted that ALICE was reliable, not ANDREW

result

Pitch accent significantly affects the choice of the correlate

PREVIOUS STUDIES



Emphasis:
Orthography

capitalisation

- nouns are capitalised in German
- L1 and L2 speakers use orthography to process word-class information

colour highlighting

- input enhancement for second language learning
- orthographic marking facilitates noticing and understanding of L2 patterns

PREVIOUS STUDIES



Modality

H1

“Spoken constructions” receive higher ratings in an auditory questionnaire

stimuli

Their being unaware of the situation annoyed Rob

result

modality had no significant effect

PREVIOUS STUDIES



Modality

H1

Do orthographic cues influence subject-verb agreement?

stimuli

chanson 'song' / *chansons* 'songs' vs. *refus* 'refusal-S,P'

result

- less errors if number is marked orthographically
- orthographic marking is irrelevant in speaking
- suggests modality-specific effects of orthography

PREVIOUS STUDIES



Meaning

types

lexical vs. functional words

spoken

stress is usually placed on lexical words

textual

- functional words are more likely to be eluded
- functional words are fixated less often and with shorter gaze durations

STUDY DESIGN

112 critical items in total

- 56 critical items (28 written items, 28 auditory items)
- 56 filler times (28 written items, 28 auditory items)

each participant

- encountered 28 critical items and 28 filler items in random order
- either in written or all in auditory form
- with and without emphasis
- with functional and lexical fragments

DESIGN OF STIMULI

Critical items

- past tense and starting with *Peter*
- only masculine nouns marked overtly with dative case → unambiguous
- two objects in stimuli with lexical fragments, one object and PP in stimuli with functional fragment → comparable sentence length
- contrasting words precede (direct) object → not in final position

Filler items

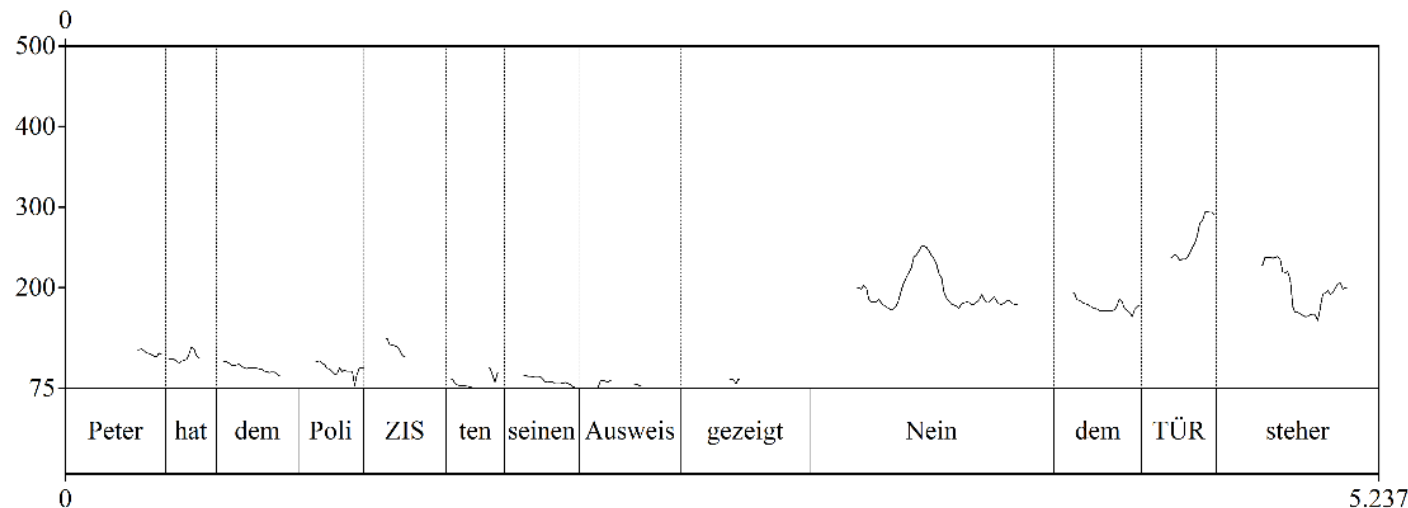
- past tense and starting with *Peter*
- varying acceptability
- half included emphasis, half did not → mirroring critical items
- half included fragmentary answers without contrasts, half included contrastive non-fragmentary answers

STIMULI

A: Peter showed his ID to the POLICE OFFICER.

B: No, the BOUNCER.

written



auditory

STIMULI

A: Peter showed his identity card to the POLICE OFFICER.

B: No, the BOUNCER.

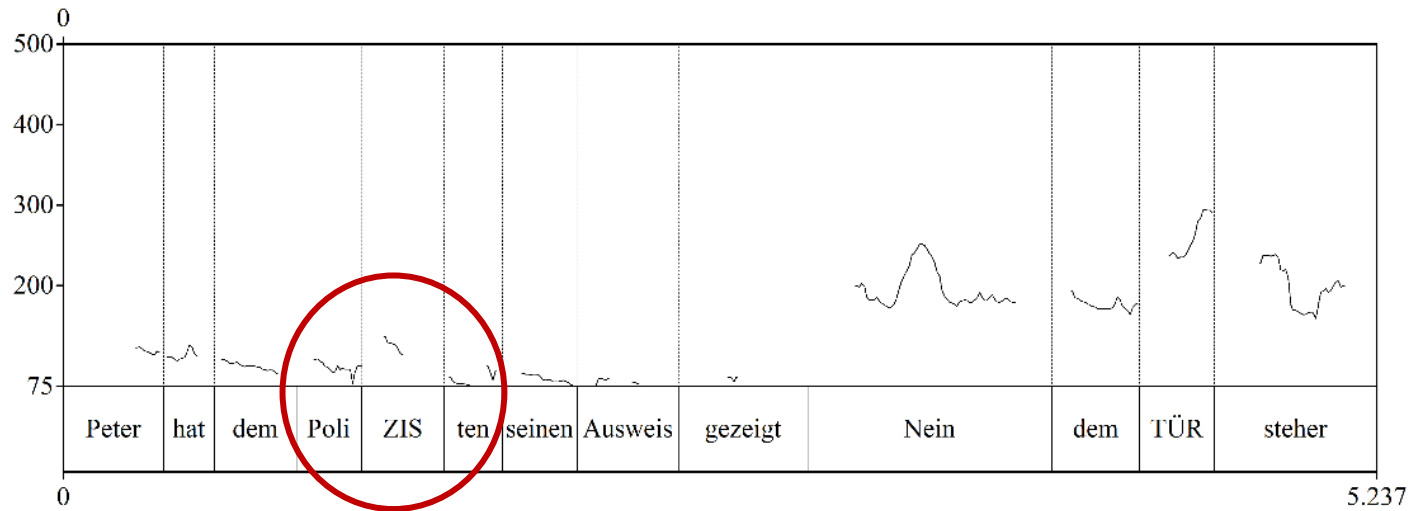
**with
emphasis**

A: Peter showed his identity card to the police officer.

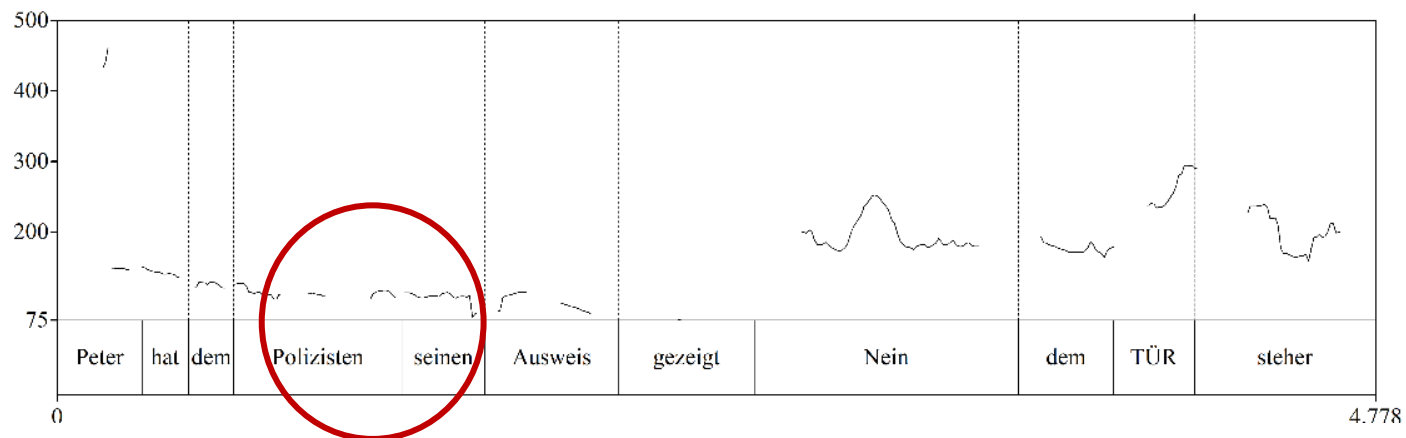
B: No, the bouncer.

**without
emphasis**

STIMULI



**with
emphasis**



**without
emphasis**

STIMULI

A: Peter showed his identity card to the POLICE OFFICER.

B: No, the BOUNCER.

lexical

A: Peter worked at the cinema FROM 6pm.

B: No, UNTIL 6pm.

functional

ANALYSIS

z-score

- X = individual data point
- μ = mean
- σ = standard deviation

$$Z = \frac{X - \mu}{\sigma}$$

CLMM

- Cumulative Link Mixed Model
- Emphasis: without $\beta_1 = -0.25, p = 0.03$
- Modality: written $\beta_1 = -1.99, p = 0.02$
- Fragment type: lexical $\beta_1 = -0.4486, p < 0.01$

ANALYSIS: HYPOTHESES

Modality

- H0: There is no significant difference between auditory and written stimuli.
- H1: Auditory stimuli receive higher acceptability ratings than written stimuli.

```
mod.clmm = clmm(as.factor(response) ~ modality +  
(1|submission_id) + (1|trial_number), data =  
dat)summary(mod.clmm)
```

We judge there to be evidence in favour of the second hypothesis, if the p-value is less than 0,05.

p-value = 0.0158

ANALYSIS: HYPOTHESES

Emphasis

- H0: There is no significant difference between stimuli with and without emphasis.
- H1: Stimuli with emphasis receive higher acceptability ratings than stimuli without emphasis.

```
method:emp.clmm = clmm(as.factor(response) ~ emphasis  
+ (1|submission_id) + (1|trial_number), data = dat)
```

We judge there to be evidence in favour of the first hypothesis, if the p-value is less than 0,05

p-value = 0.0268

ANALYSIS: HYPOTHESES

Fragment type

- H0: There is no significant difference between stimuli with lexical and functional fragments.
- H1: Stimuli with lexical fragments receive higher acceptability ratings than stimuli with functional fragments

```
frag.clmm = clmm(as.factor(response) ~ fragment_type  
+ (1|submission_id) + (1|trial_number), data = dat)
```

We judge there to be evidence in favour of the third hypothesis, if the p-value is less than 0,05.

p-value = 9.6e-05

ANALYSIS: MODEL TESTING

AIC

- difference: -28
- Lower AIC for null model

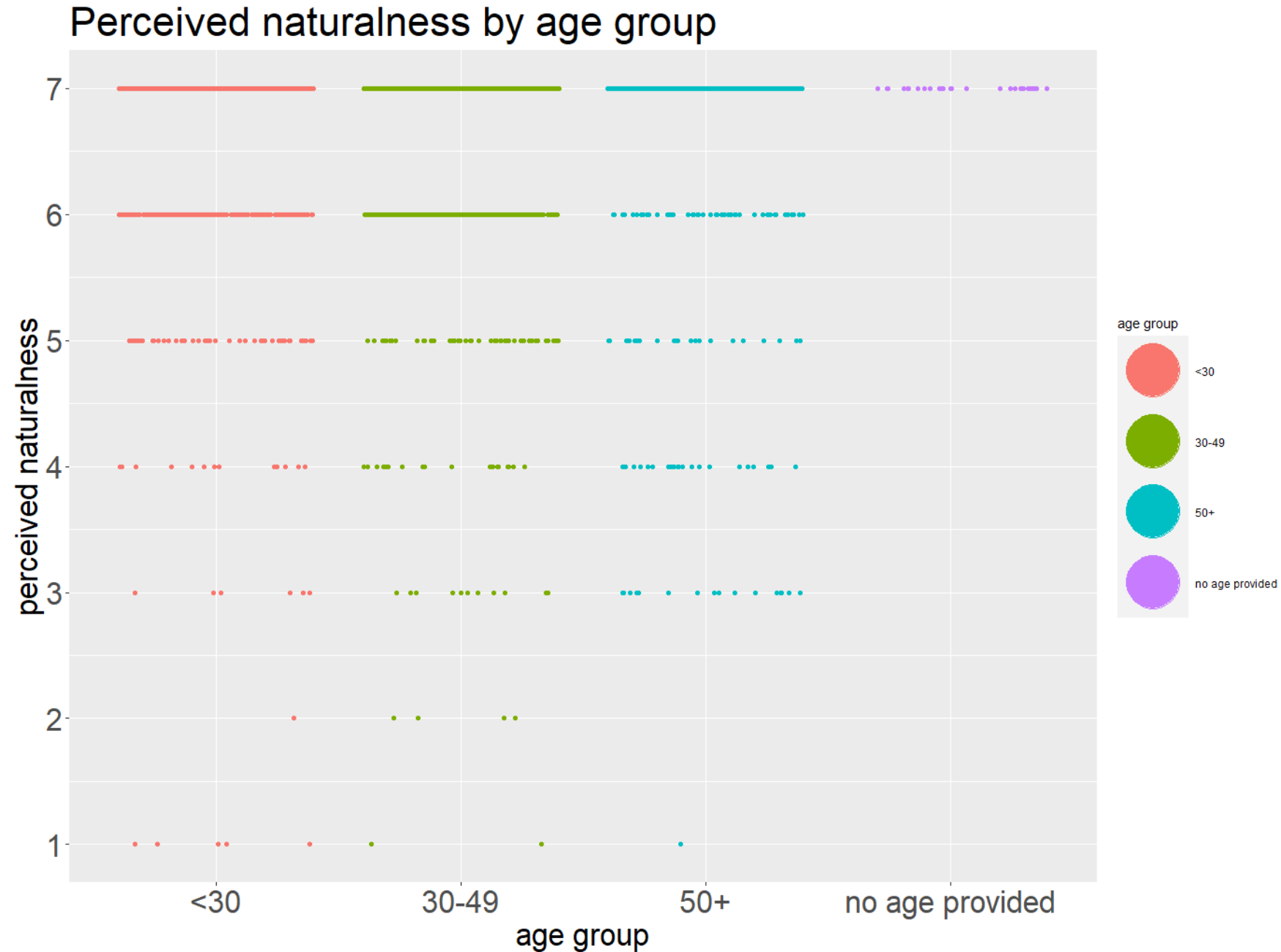
ANOVA

- $p < 0.01$
- significantly better model fit

FURTHER RESULTS

age

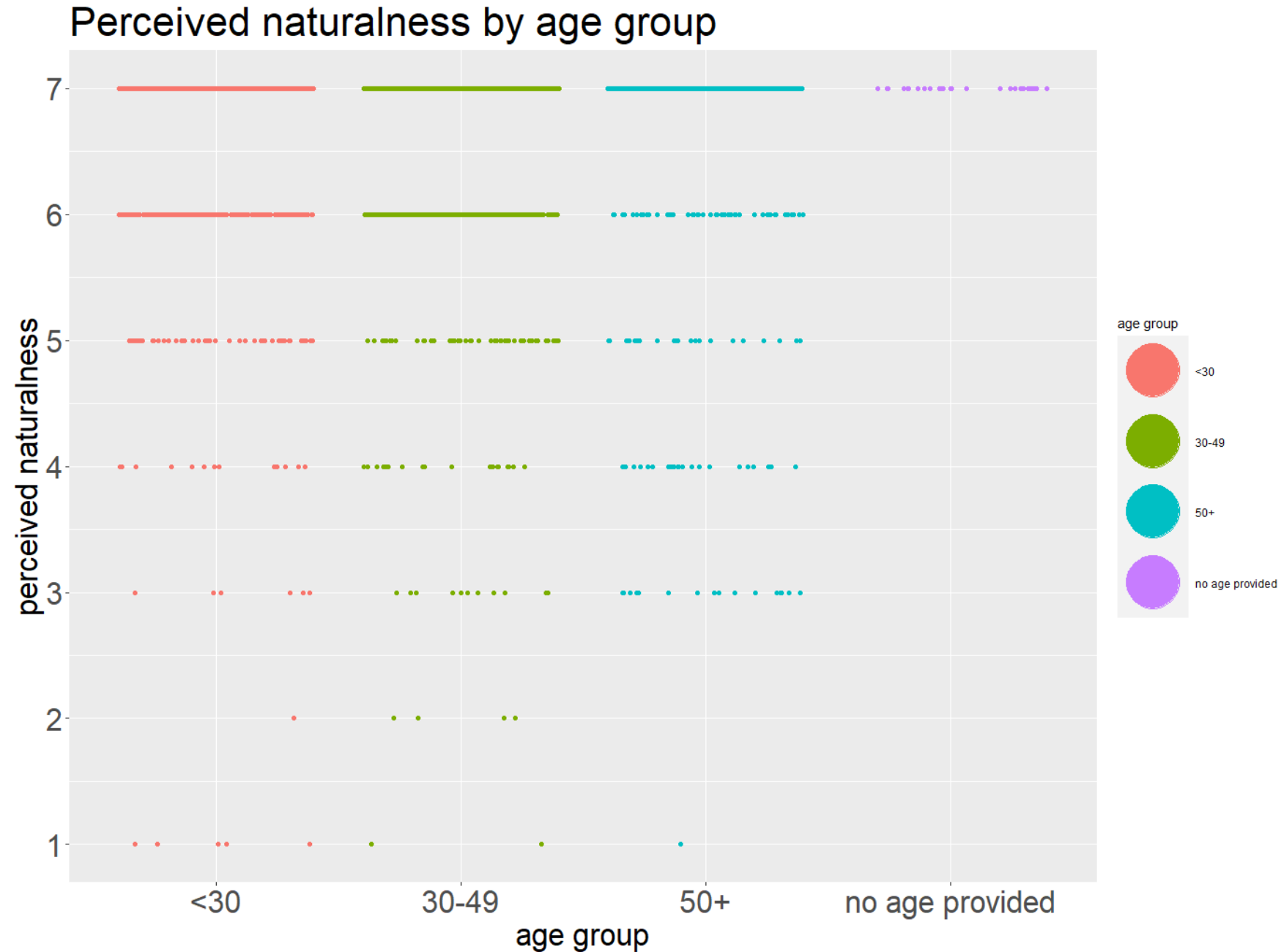
- <30 years:
 $m = 6.66$
- 30-49 years:
 $m = 6.54$
- 50+ years:
 $m = 6.43$



FURTHER RESULTS

age

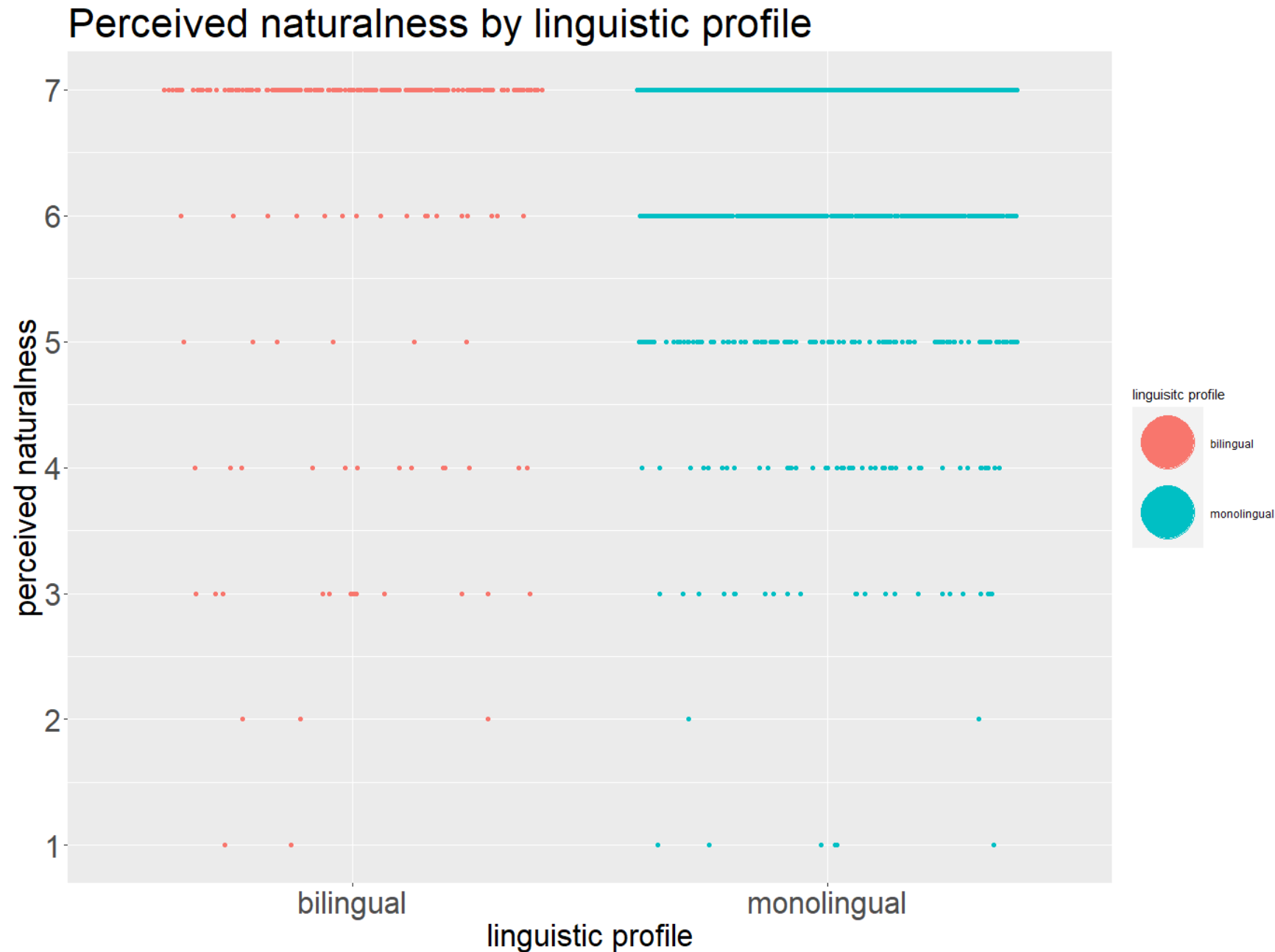
- <30 years:
42 pps
- 30-49 years:
41 pps
- 50+ years:
16 pps



FURTHER RESULTS

linguistic profile

- bilingual:
 $m = 6.43$,
 $sd = 1.29$
- monolingual:
 $m = 6.59$,
 $sd = 0.80$



linguistic profile

- 9 bilinguals
- 91 mono-linguals

- # linguistic profile
- 9 bilinguals
 - 91 mono-linguals

