

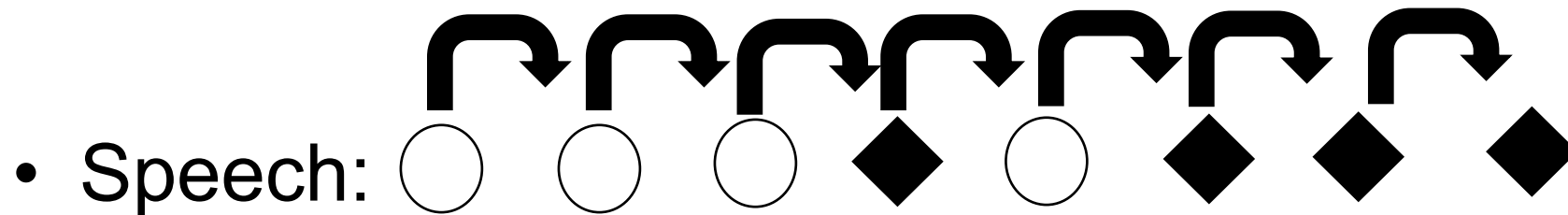
Priming and “anti-priming” in intra-and inter-speaker variation

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Background

- In sociolinguistic variation, there is a tendency for people to repeat a linguistic variant they have just used-often called “priming”. (Szmrecsanyi 2006)



Background

- Previous studies have occasionally attributed repetitiveness to:
 - Priming in the psycholinguistic sense;
 - Socially-motivated intraspeaker style-shifting;
 - Interspeaker convergence/accommodation;
- (Szmrecsanyi 2006, Tamminga 2016, Pickering and Garrod 2017).

- This study compares repetitiveness **within speakers** and repetitiveness **across speakers** in locative variation in Chengdu dialect of Mandarin.

The sociolinguistic variable

- The national promotion of Putonghua has ‘standardized’ the vernacular Chengdu dialect, giving rise to the variation between locative markers *-tou* (头 ‘head’) and *-mian*(面 ‘face’)

- Expressing location in mandarin Chinese:
Preposition + place nouns + postposition

(1) (在)学校里-(面/头)

(zai)-xuexiao-li-(mian/tou)

at-school-inside-(MIAN/TOU)

‘at school’

- Locative Alternation in Chengdu dialect

(2) Cases where only *-tou* can be used:

a. 屋头 *wu-tou* (house-TOU) ‘inside the house’

b. 学校头 *xuexiao-tou* (school-TOU) ‘inside the school’

(3) Cases where *-tou* alternates with *-mian*:

a. 屋里面/头 *wu-li-mian/tou*
(house-inside-MIAN/TOU)
‘inside the house’

b. 学校里面/头 *xuexiao-li-mian/tou*
(school-inside-MIAN/TOU)
‘inside the school’

(1964 *Dialectal Words in Chinese*)

- Locative Alternation in Chengdu dialect

Table 1. Summary of cases where *-tou* alternates with *-mian*

Meaning	Chengdu dialect	standard Chinese
‘on/above’	shang ²¹³ /kau ⁴⁵ tou ²¹ (up/tall-TOU)	shang ⁴ mian ⁰ (up-MIAN)
‘below’	xia ²¹³ tou ²¹ (down-TOU)	xia ⁴ mian ⁰ (down-MIAN)
‘front’	qian ²¹³ tou ²¹ (front-TOU)	qian ² mian ⁰ (front-MIAN)
‘back’	hou ²¹³ tou ²¹ (behind-TOU)	hou ⁴ mian ⁰ (behind-MIAN)
‘inside’	li ⁴² /hou ¹³ ₅₃ tou ²¹ (inside-TOU)	li ³ mian ⁰ (inside-MIAN)
‘outside’	wai ²¹³ tou ²¹ (outside-TOU)	wai ⁴ mian ⁰ (outside-MIAN)

Cases like front-*tou*/*-mian* can also have a temporal meaning, i.e. “before...”

Research Questions

- **Q1:** Do speakers tend to repeat the variant that they have recently used in conversational speech, i.e. is there priming?
- **Q2:** What are the differences between intra- and inter-speaker priming? And what are the differences between same-meaning and different-meaning priming (spatial vs. temporal)?

Method

- Data (1193 tokens, 40 speakers) are drawn from 31 sociolinguistic interviews of native speakers of Chengdu dialect of Mandarin (Li 2019)
- Coded auditorily for variant, then coded previous variant plus whether previous speaker and meaning are the same

Variant	Meaning	Prev_speaker	Prev_word	Prev_variant	Prev_meaning	Same_speaker	Same_word	Same_variant	Same_meaning
面	spatial	IV	里面	面	spatial	no	yes	yes	yes
头	temporal	SP2	里面	面	spatial	no	no	no	no
头	temporal	SP1	后头	头	temporal	yes	yes	yes	yes

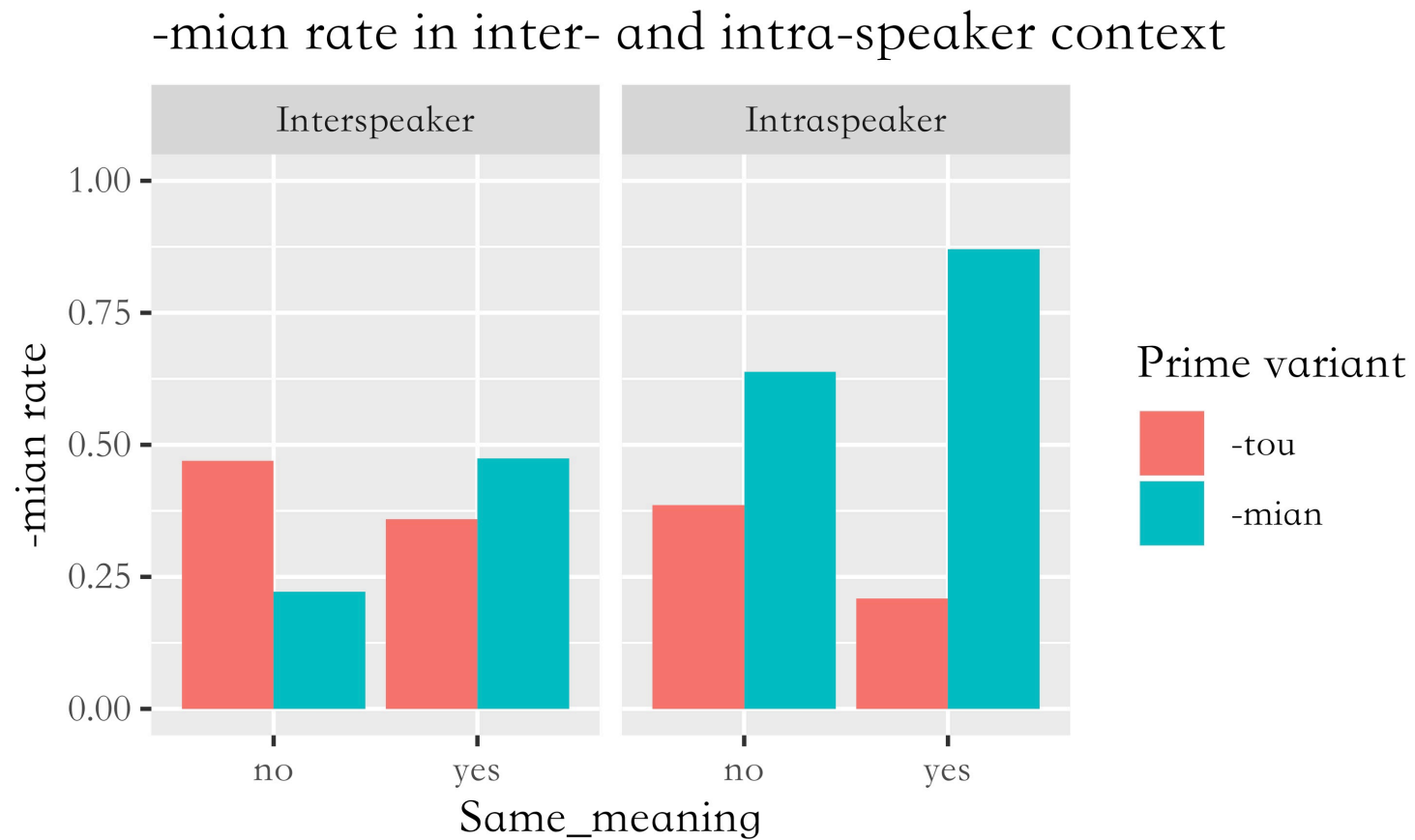
Method

- Summary of number of tokens in each context

Same speaker	Same meaning	Prime variant	Count
no	no	<i>-tou</i>	66
no	no	<i>-mian</i>	45
no	yes	<i>-tou</i>	89
no	yes	<i>-mian</i>	78
yes	no	<i>-tou</i>	114
yes	no	<i>-mian</i>	141
yes	yes	<i>-tou</i>	278
yes	yes	<i>-mian</i>	354

Results

- Observed values



Results

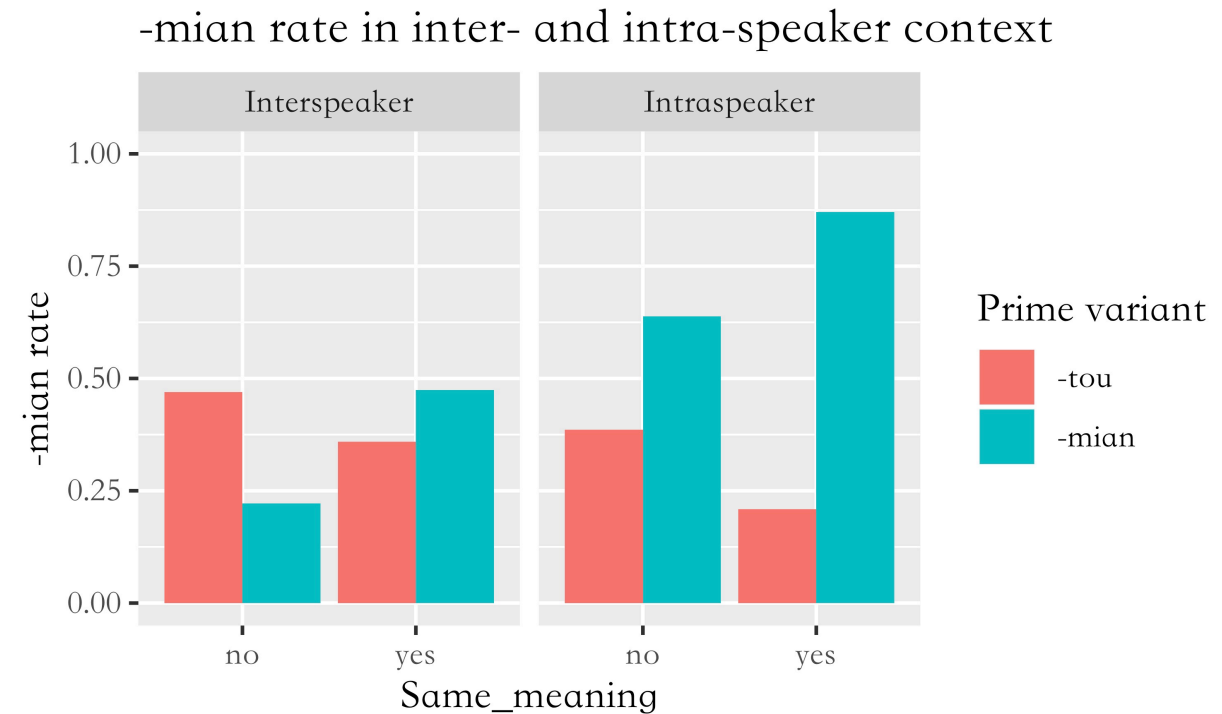
Logistic Mixed-effects Regression Model:

- DV: the probability of choosing the standard variant *-mian*
- Fixed effects: Previous variant (*-tou/-mian*) and Previous meaning(same/different)
- Random effects: previous variant by speaker as random slope
- Target variant \sim prime variant * meaning * speaker + (prime variant|speaker)

Results

- *Intraspeaker priming*

- Significant priming effect in the same meaning context ($\beta=1.96$, $p < .001$), but not in different meaning context ($\beta=-.83$, $p=.06$)
- The interaction is significant ($\beta=2.8$, $p < .001$)

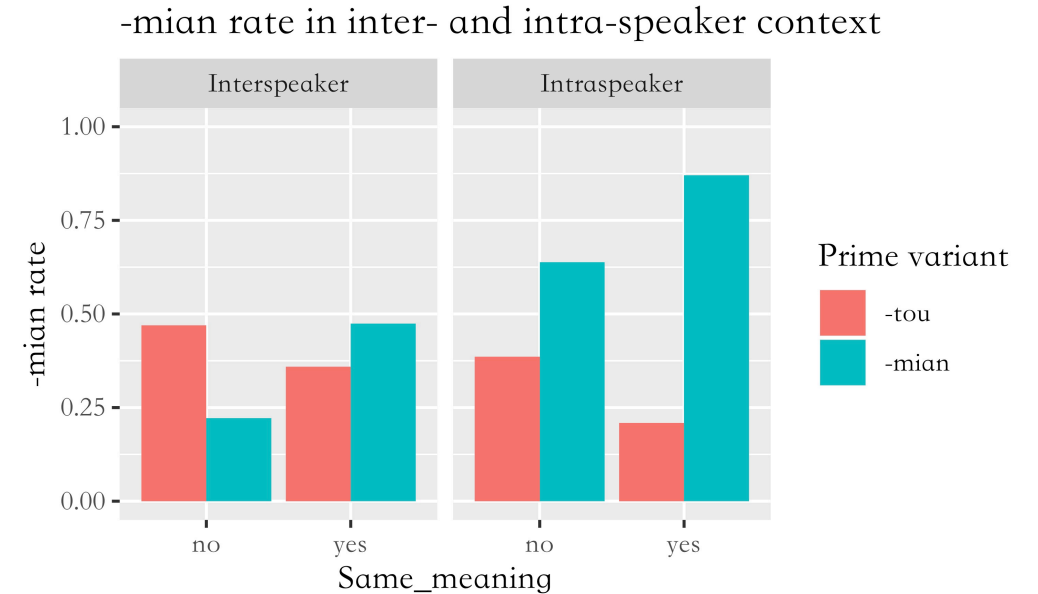


Results

- *Interspeaker priming*

- A small but significant priming effect in the same-meaning context ($\beta=0.97$, $p < .01$), but not in different-meaning context
- The interaction is significant ($\beta=1.88$, $p < .05$)

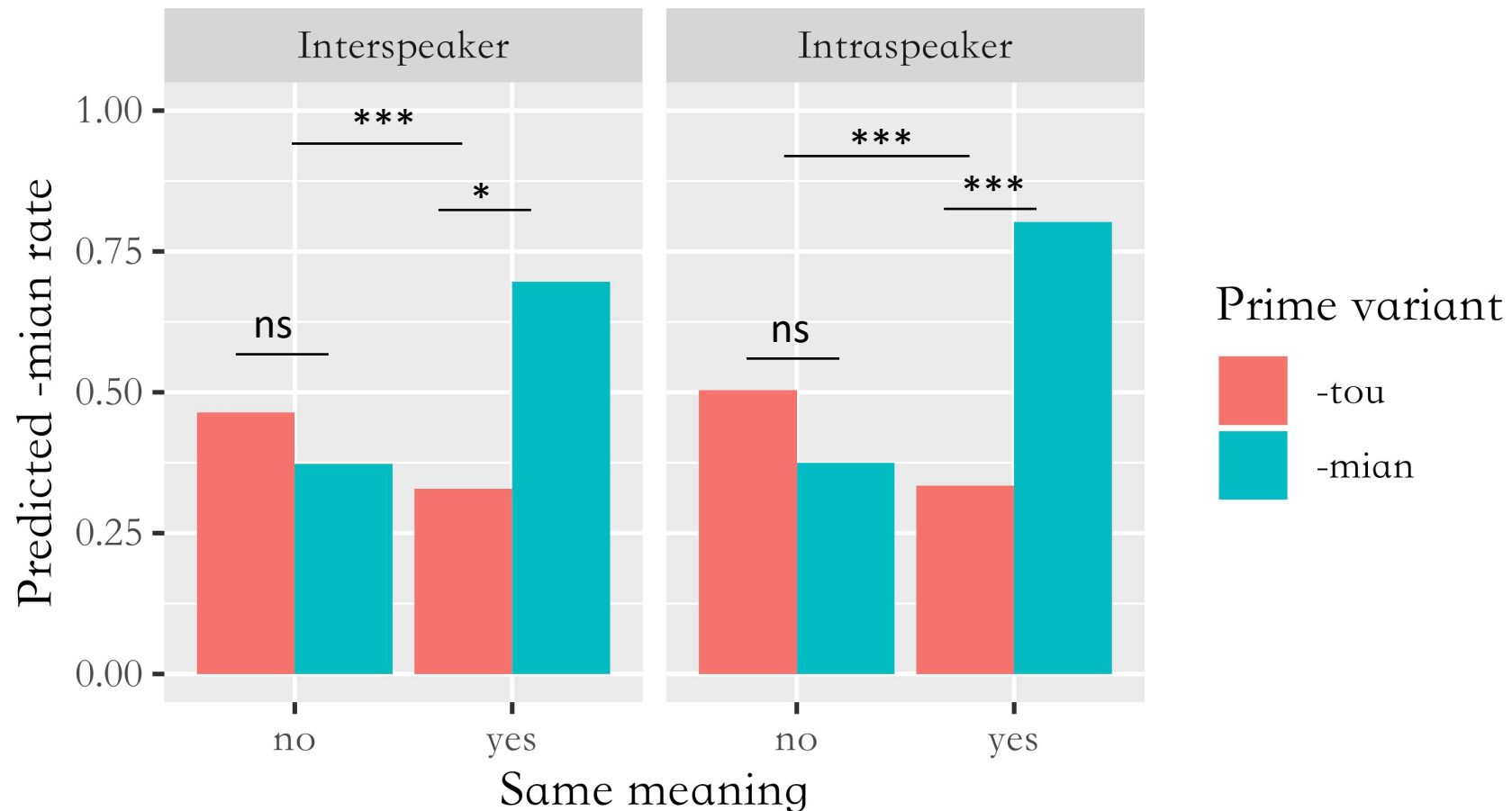
- Three-way interaction is not significant in any of the models ($\beta=0.69$, $p=.35$)



Results

- Predicted values

Predicted -mian rate for an average speaker



Discussion

- Answers to research questions
- **Q1: Do speakers tend to repeat the variant that has been recently used in conversational speech?**
 - ✓ same speaker + same meaning
 - ✓ different speaker + same meaning
 - X same speaker + different meaning
 - X different speaker + different meaning

Conditions	Priming effect	Estimates β	P value
Same speaker, same meaning	Yes	1.96	6.02e-10 ***
Same speaker, different meaning	No	-0.66	0.101
Different speaker, same meaning	Yes	1.41	0.00160 **
Different speaker, different meaning	No	-0.51	0.35540

Discussion

- **Q2: What are the differences of priming under different contexts?**
 - ✓ meaning differences within speaker
 - ✓ meaning differences across speaker
 - X speaker differences in same meaning
 - X speaker differences in different meaning

Conditions	Different?	Estimates β	P value
Meaning differences within speaker	Yes	-2.62	9.99e-10 ***
Meaning differences cross speaker	Yes	-1.92	0.00265 **
Speaker differences in same meaning	No	-0.55	0.2855
Speaker differences in different meaning	No	0.15	0.818

Conclusion

- We find conversational priming effect for locative variation in Chengdu Mandarin, both within and across speakers.
- Our statistical models do not give strong evidence for differences between interspeaker and intraspeaker priming.
- We do find that the priming effects are primarily driven by prime-target pairs with a shared meaning and are not significant in different meaning pairs.

Conclusion

- The observed data show a priming effect reversal that, although not significant in the model, recurs across different subsets of the data in our exploratory analysis. This may merit further inquiry in light of reports of “horreur aequi” effects (Szmrecsanyi 2006) – perhaps a form of inhibition?

References

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