# Teasing apart attitudes from social contact using a quantitative variationist approach

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# Attitudes in speech convergence

- Communication Accommodation Theory (CAT, Giles & Coupland, 1991)
- Deterministic view of accommodation (Trudgill 2004; 2008)

- Practical issues:
- 1) Attitude-language correlation the complicated nature of attitudes
- 2) Teasing apart attitudes from social contact engage with those they think favorably of (Labov, 2001)

1) Attitude-language correlation - the complicated nature of attitudes

## Studies that found attitude-language correlation

- qualitative: Llamas, 2007; Clark & Watson, 2016
- quantitative: Haddican et al, 2013; Røyneland, 2005

#### Studies that focus on attitudes

- Ladegaard, 2000; Stuart-Smith et al., 2013 correlation not found
- Kristiansen, 2009 correlation found only for subconscious attitudes

#### Question

• Will speakers' linguistic variation be conditioned by their social attitudes? If so, how will speakers' attitudes influence their linguistic production?

2) Teasing apart attitudes from social contact – engage with those they think favorably of (Labov, 2001)

#### **CAT**



Argue for both attitudes and social interaction

## Interaction-only model



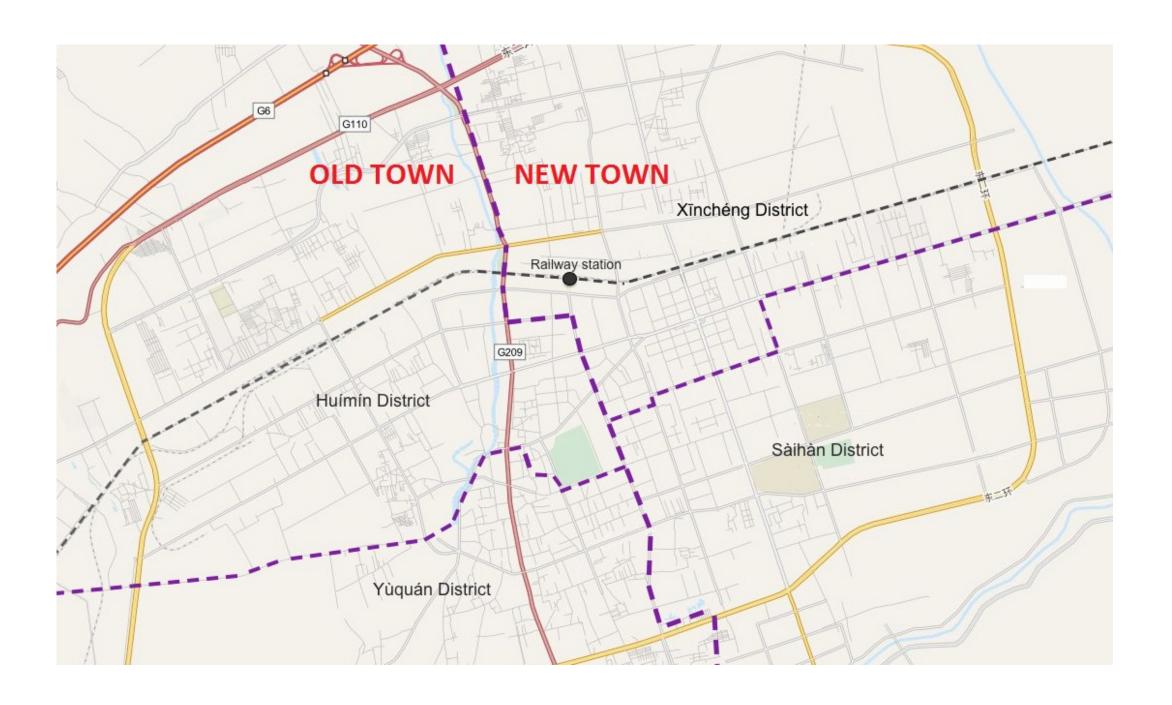
"who interacts most often with whom" (Trudgill 2008, p.251)

#### **Questions:**

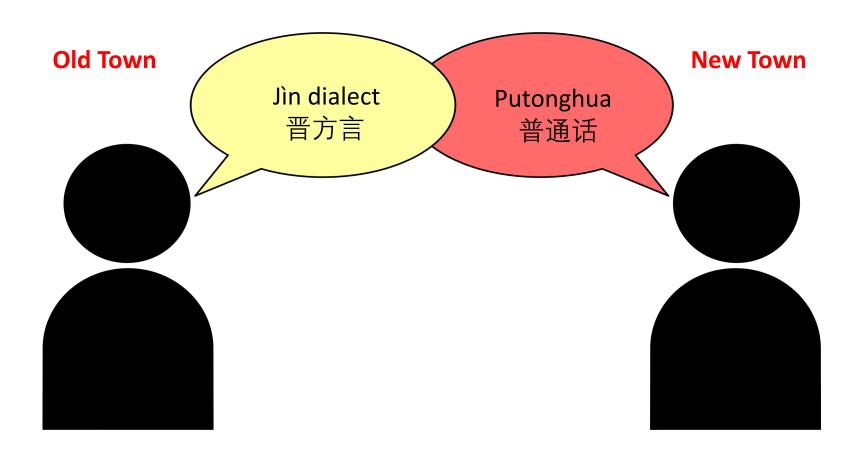
- Will speakers' attitudes play an independent role in language change if their social contact is also taken into consideration?
- How will attitudes interact with social contact to influence speakers' linguistic production?

# The case of Hohhot

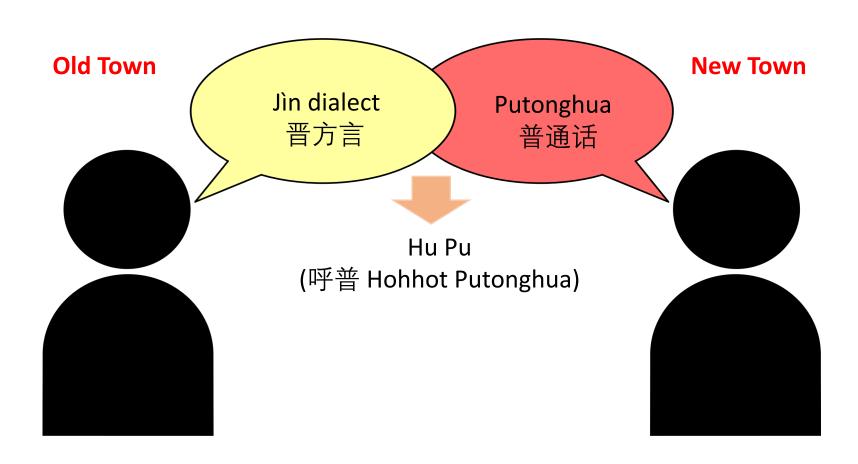




## A new urban dialect: Hu Pu



## A new urban dialect: Hu Pu



# Linguistic feature

#### Features of Hū Pǔ

- Phonologically closer to Půtonghuà
- Absorbing numerous lexical and grammatical features from Jin

### A set of di-syllabic words

- used by both communities
- Variation in different linguistic levels: stress, vowels, tones, consonants

# Linguistic feature: stress pattern

#### **Stress pattern variation**

- weak-strong pattern (W-S) local Jin dialect
- strong-weak pattern (S-W) standard Mandarin
- e.g.

W-S	S-W	meaning
/xuəʔ <sup>43</sup> la <sup>35</sup> /	/xua <sup>35</sup> la/	"scribble" 划拉
/təʔ <sup>43</sup> la <sup>31</sup> /	/ta <sup>55</sup> la/	"droop, hanging" 耷拉
/kuəʔ <sup>43</sup> lu <sup>35</sup> /	/ku <sup>55</sup> lu/	"roll" 骨碌

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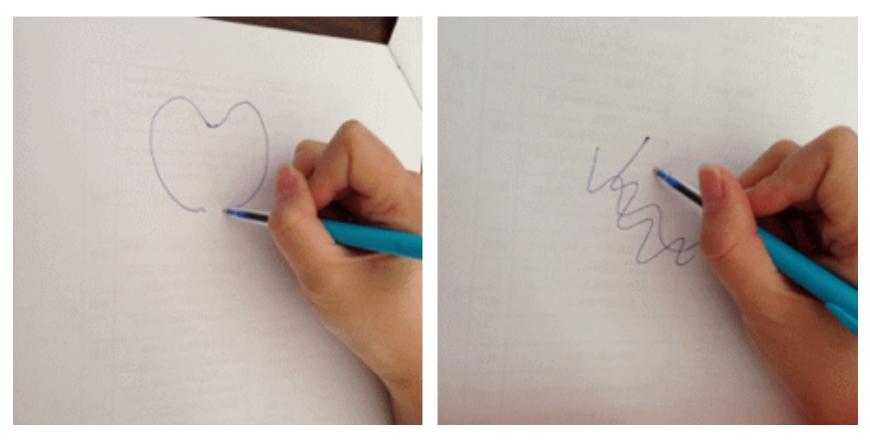
# Participants

- Fieldwork: Aug Oct, 2014
- 35 speakers from the migrant community

residence	New Town					
age	Older		Middle		Younger	
sex	М	F	M	F	M	F
No.	7	6	4	6	5	7
total	35					

## Word Elicitation Task

• 1529 tokens with stress pattern variation were collected and analysed in Praat



"scribble" 划拉

## Attitude data

#### **Attitudinal questionnaire**

I will live and work in Hohhot in the future.

同意 I agree

- Attitude Analog Scale (AAS; Llamas and Watt, 2014)
- Magnitude estimation (Redinger, 2010)

16. 如果我孩子的男/女朋友是旧城人,我会反对他们交往。

If my child is seeing or dating someone from old town area, I would oppose.

同意 I agree 不同意 I disagree

17. 此地话很幽默。
Jin dialect is humorous.

同意 I agree 不同意 I disagree

18. 我今后会一直在呼市生活和工作。

不同意 I disagree

## Attitudinal index score

Principal Component Analysis (PCA) (e.g. Field et al, 2012)

- Find underlying clusters of the questions questionnaire responses
- Loadings proportion of variance
- Calculating factor scores for each speaker

 Principal Component Analysis (PCA) revealed 4 attitudinal factors in the questionnaire **ATTJIN**: attitudes to Jin dialect

**ATTOT**: attitudes to Old Town and Old Town people

**IDMIG**: emphasis of migrant identity

**HOHORE**: stay in Hohhot

No.	Speaker	ATTJIN(PC1)	IDMIG(PC2)	ATTOT(PC3)	HOHORE(PC4)
1	NOM1 <sup>12</sup>	-1.37601	-2.49214	-0.49492	-0.86082
2	NOM2	1.408693	0.821118	-0.569	-0.33241
3	NOM3	1.415084	0.338748	1.158277	-1.00561
4	NOM4	0.11272	-0.91978	0.017754	-0.52859
5	NOM5	1.076835	0.74987	0.761199	-0.90444
			•••		•••
34	NYF6	0.01835	-0.70607	0.870941	-0.02725
35	NYF7	0.244372	0.013804	-0.51703	1.248484

## Social interaction score

- Give a set of scores for each speaker on their networks in different life circles, like family, colleague, classmates, etc.
- 2: Jin speakers > non-Jin speakers
- 1: Jin speakers = non-Jin speakers
- 0: Jin speakers < non-Jin speakers
- the percentage of Jin speakers in all these settings were calculated:
   SOCNET

Speaker	parents	spouse	family	work	school	friends	JìnExp	SOCNET
NOM1	0	0	0	0	0	0	1	0.071
NOM2	2	2	1	2	1	1	1	0.714
NMF6	0	2	1	0	0	0	0	0.214
NYM1	1	NA	2	1	0	0	1	0.417
NYM2	2	NA	2	0	0	0	1	0.417
NYM5	1	0	2	1	0	0	1	0.357
	•••	•••		•••		•••		
NYF1	0	NA	0	NA	0	0	0	0

# Exploring attitudes effects

Binomial mixed effects model in R

#### **Dependent variable:**

the stress pattern – W-S pattern.

#### **Independent variables:**

• age, sex, education, occupation, relation, attitudinal scores (ATTJIN, HOHORE, ATTOT, IDMIG), social interaction scores

To avoid multicollinearity of independent variables:

- Statistical diagnostic Variance inflation Factor (VIF)
- occupation, relation, IDMIG were removed
- Social interaction score was not correlated with attitudinal scores

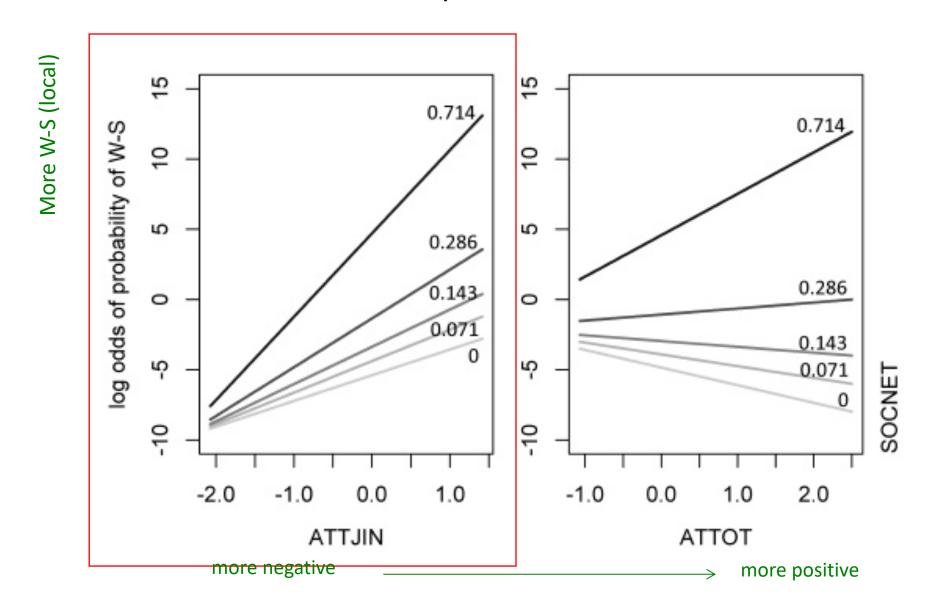
## Exploring attitudes effects

#### **Best model**

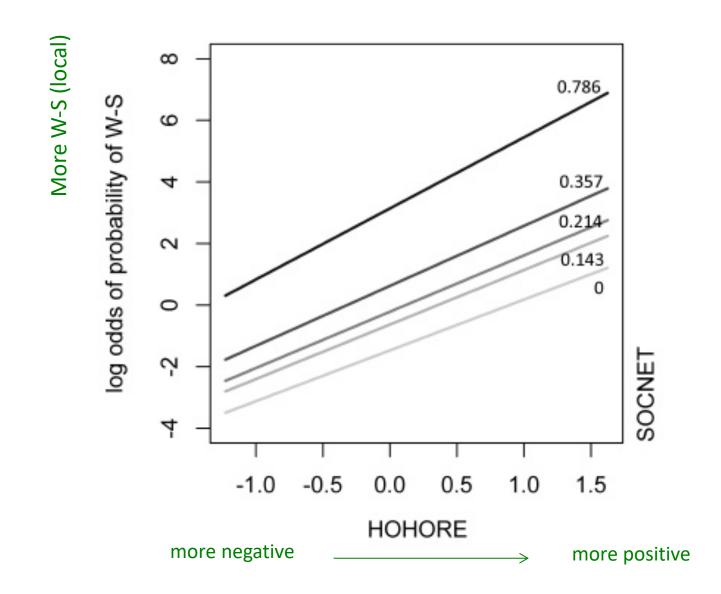
- Fixed effects: three-way interaction between age group, social interaction score and three attitudinal scores (AGE\*ATTITUDE\*NETWORKS), sex.
- Random intercept: Speaker and Word

- Data were split into older, middle and younger generation
- explore the interaction effects between attitude and social contact

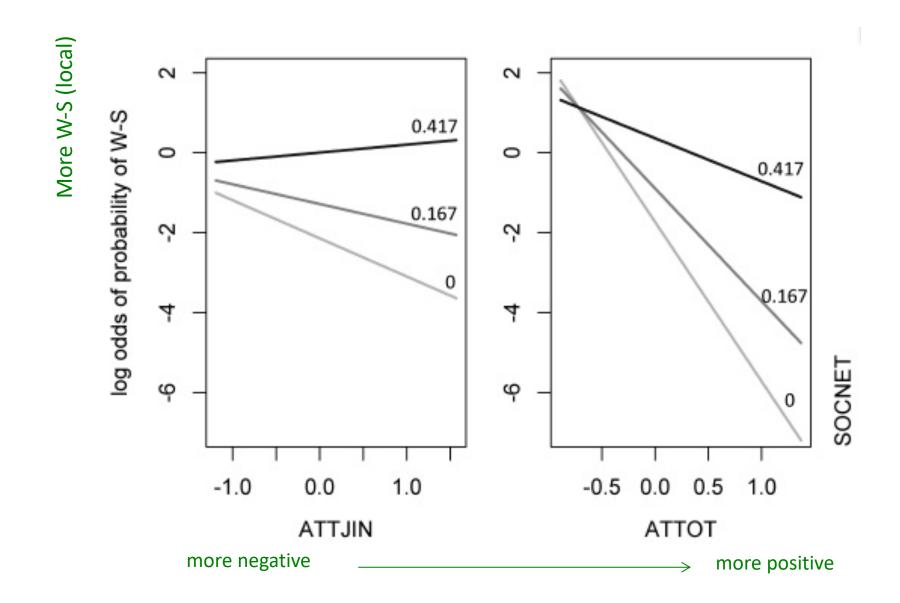
## Attitude\*network: older speakers



## Attitude\*network: middle-aged speakers



## Attitude\*network: younger speakers



 Possible change of social meaning of the weak-strong stress in the younger generation

#### NYF4: New Town, Younger group, female

- XW: Do you use [xua<sup>35</sup> la<sup>0</sup>](s-w)?
- NYF4: No, it's like you're posturing.

#### NYF5 and OYF2: younger group, female

- NYF5: This rabbit, the ears are (drooping)/ta<sup>55</sup>la<sup>0</sup>/(s-w). That rabbit, the ears are standing upright.
- OYF2: As a Hohhotian, you don't say /tə?<sup>43</sup> la<sup>55</sup>/(w-s)?! You're...!
- NYF5: It's true! I never say  $/ta^{43}$  la<sup>55</sup>/(w-s).
- OYF2: You are so not qualified (to be a Hohhotian)!

## Discussion

- Speakers' attitudinal index scores were found to be significant predictors of their stress pattern production.
- Speakers' attitudes were still found to be significantly correlated with their stress pattern use even when speakers' social contact with Jin speakers was taken into consideration.
- Attitudes are likely to play an independent role from the effect of social interaction.
- Interaction effects: for speakers who have the same level of social contact with Jin speakers, their linguistic behavior is still predicted by attitudes.

## General discussion

CAT model vs Trudgill's interaction-only model

- Attitudes predict linguistic behavior
- Attitudes play a role that is independent from the effect of social contact
- overly offered attitudes include indirect questions
- AAS questionnaires + PCA
- Fine-grained measure of attitudes and social contact no collinearity found

Thanks!

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