

f zou zu zui zun zuo zu4 au bu za zau ze zN
 su tu uu xu zu zu ku2 au bu zu cu gu hu
 uo tu uu xu zu zu su3 au bu zu cu gu hu
 su tu uu xu zu zu cu3 au bu ca cau ce cN
 te tie xie ye ze ze ie4 be ze ce e ge he
 su tu uu xu zu zu ru1 au bu zu cu gu hu
 te tie xie ye ze ze ie1 be ze ce e ge he
 te tie xi nu1 au bu zu cu gu hu
 su tu uu xu zu zu mu1 au bu zu cu gu hu
 tan uan yan zan zan lan1 an ban zan can gan f
 saN taN uaN zaN zaN pa1 au bu zu cu gu hu
 su tu uu xu zu zu qu3 au bu zu cu gu hu
 di xiu xue xun zu zu au bu zu cu gu hu
 tan uan yan zan zan san2 an ban zan can gan f
 tan uan yan zan zan gan2 an ban zan can ga g
 ri sei ti uei xi ze ei3 ai bi ji qi e eQ
 su tu uu xu zu zu ju2 au bu zu cu gu hu

Mandarin Nonsense in the Taiwanese Neighborhood

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First, some thanks....

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Overview

- The more Mandarin neighbors that a fake word has, the more Mandarin-like it sounds
- But what about Taiwanese neighbors...?
- Sociolinguistic factors affect neighbor effects
 - Gender and home language
- Psycholinguistic factors modulate the above
 - Memory and response time

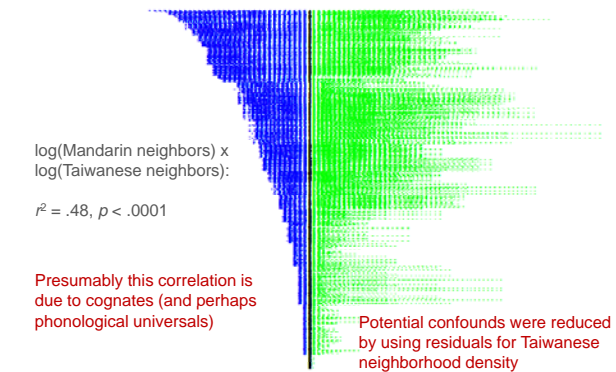
Bilingual neighborhood effects

- Nonword judgments are known to be affected by **lexical neighbors** (Bailey & Hahn, 2001)
 - blick** sounds more like English than **bnick** because **blick** has more lexical neighbors (*black, blink, bliss, slick,...*)
- But so far no cross-language neighborhood effect has been observed
 - Not in Spanish/English (Frisch & Brea-Spahn, 2010)
 - Not in French/English, German/English, Dutch/English (word identification - Lemhöfer et al., 2008)

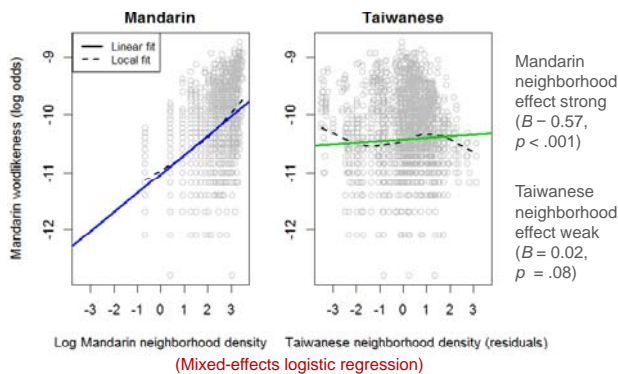
Experimental methods

- Megastudy approach (Balota et al., 2012)
 - Many items (and speakers) analyzed by regression
- Participants
 - 110 **Mandarin speakers** living in Southern Taiwan
- Materials
 - 3,274 non-lexical syllables written in 注音符號
 - Neighbors differ by one segment (ignoring tone)
- Task
 - Wordlikeness (像國語) on a binary scale (yes/no)

Mandarin & Taiwanese neighbors



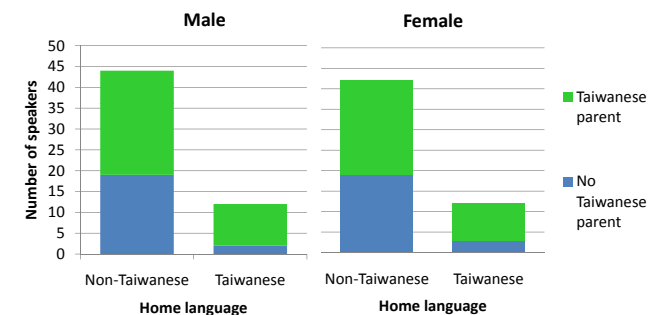
Overall neighborhood effects



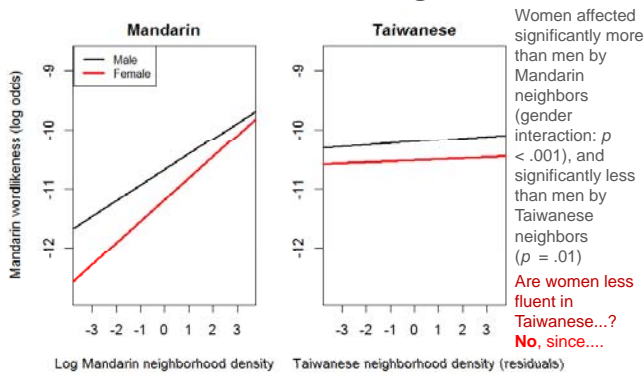
Sociolinguistic factors

- Gender
 - Women are expected to be more concerned with prestige norms (Labov, 2001)
- Home language
 - Taiwanese (perhaps also Mandarin)
 - Non-Taiwanese (Mandarin and/or Hakka)
- Parent language (Not discussed in this presentation)
 - Taiwanese (at least one parent)
 - Non-Taiwanese (no Taiwanese-speaking parent)

Speaker demographics

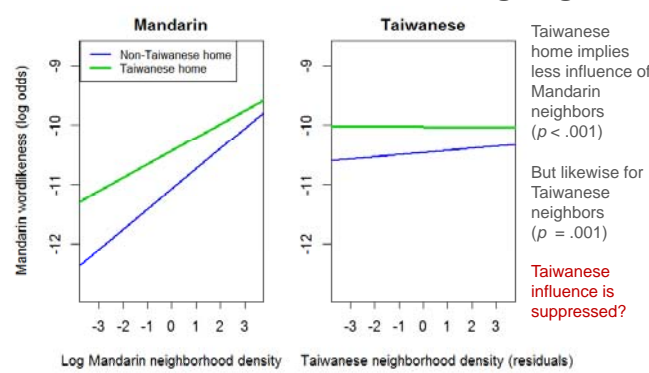


Overall effect of gender



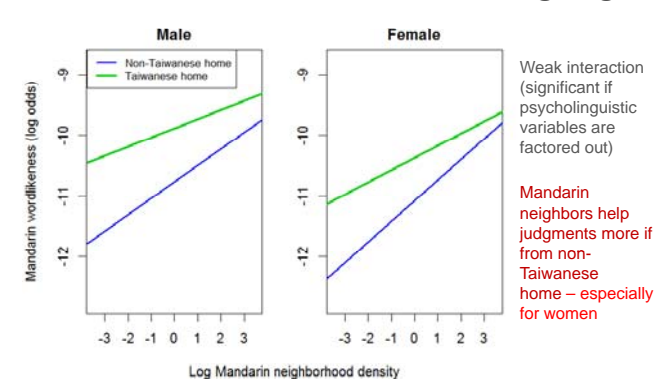
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Overall effect of home language



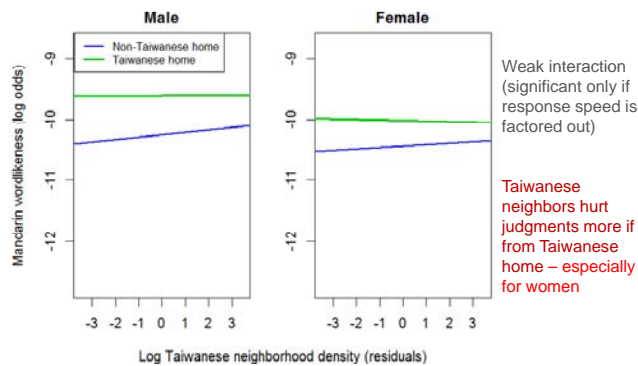
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Mandarin: Gender x Home language



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Taiwanese: Gender x Home language



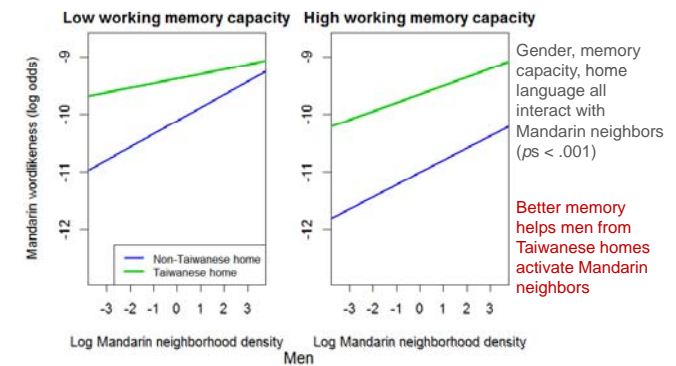
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Psycholinguistic factors

- Working memory capacity
 - Measured with reading span (Kane et al., 2004)
 - Should increase neighbor influence (bigger memory = more room for neighbors)
- Response time
 - Slower responses reflect later processes (Yap et al., 2009)
 - Slower responses should show more neighbor influence (neighbors take time to activate)

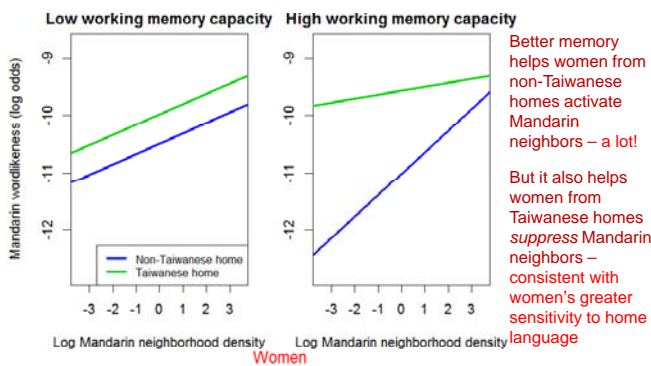
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Men: Memory x Home effects



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Women: Memory x Home effects



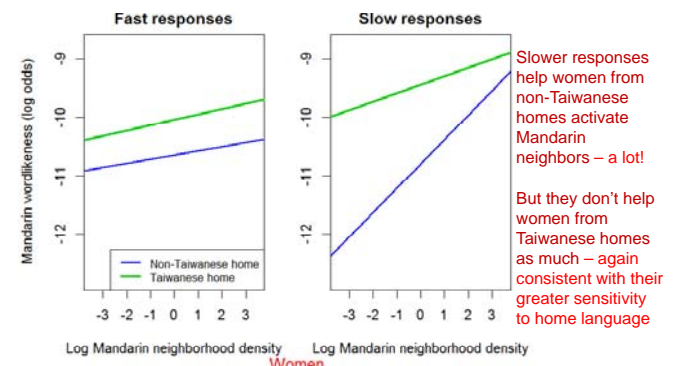
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Men: Speed x Home effects



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Women: Speed x Home effects



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Summary

- Sociolinguistic factors
 - In judging Mandarin nonwords, speakers from Taiwanese homes suppress Taiwanese neighbors
 - Women are more influenced by home language
 - Do they favor the prestige norm (Mandarin)...?
- Psycholinguistic factors
 - Memory and slow responses both boost Mandarin neighbor effects
 - For women these influences are strongly modulated by home language

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Conclusions

- Taiwanese does affect Mandarin wordlikeness
 - Unlike previous studies on English (& Spanish, & French, & German, & Dutch)
 - Due to Taiwan's strong bilingualism, Mandarin / Taiwanese cognates, or...?
- Sociolinguistic influences are psycholinguistic
 - They use memory resources
 - They are processed in real time

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