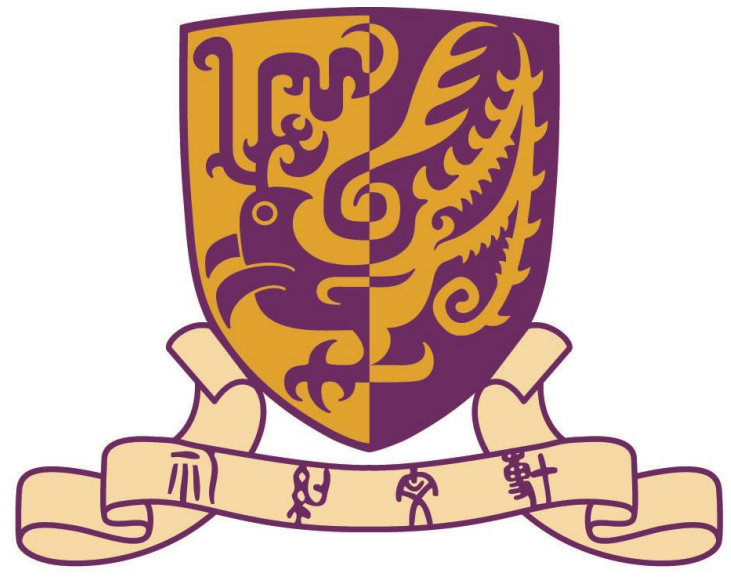


Language attitudes and individual sound change features: Insights from phonetic accommodation by elderly speakers of Hong Kong Cantonese



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Introduction

Sound Change

- Sound changes progress at different paces within a language
- Sound Changes in Hong Kong Cantonese (HKC)**
 - Feature-level variation in the status of merger

Sound Change Features	Examples	Status
[conservative]–[new]		(To et al., 2015)
[ŋ]–[m]	午 [ŋ ²³]–[m ²³] ‘noon’	Complete (95.5%)
[n]–[l]	鳥 [ni:u ²³]–[li:u ²³] ‘bird’	Complete (94.6%)
[kʷɔ:-]–[kɔ:-]	果 [kʷɔ: ²⁵]–[kɔ: ²⁵] ‘fruit’	Half-way (50.9%)
[ŋ]–∅	牛 [ŋeu ²¹]–[eu ²¹] ‘cow’	Half-way (37.5%)
[-ŋ]–[-n]	等 [ten ²⁵]–[ten ²⁵] ‘wait’	Half-way (24.1%)
[-n]–[-ŋ]	問 [men ²²]–[meŋ ²²] ‘ask’	Rare (0.8%)

Can **speakers’ language attitudes** explain this **feature-level variation**?

- Previous research focused on general attitudes toward sound change features in HKC, comparing 'lazy' versus standard pronunciation (Lin et al., 2021)
- Sociophonetic impact of language attitudes on individual ongoing merger remains unexplored in this community

Research Question

- Do native HKC speakers have different language attitudes towards individual sound change features?
- Do native HKC speakers with **more positive attitudes** towards specific sound change features tend to **converge more frequently**?

Method

Participants: 16 native HKC seniors (8M/F; 67.8±4.7)

Experiment Design:

1. Speech Shadowing Paradigm (Goldinger, 1998)

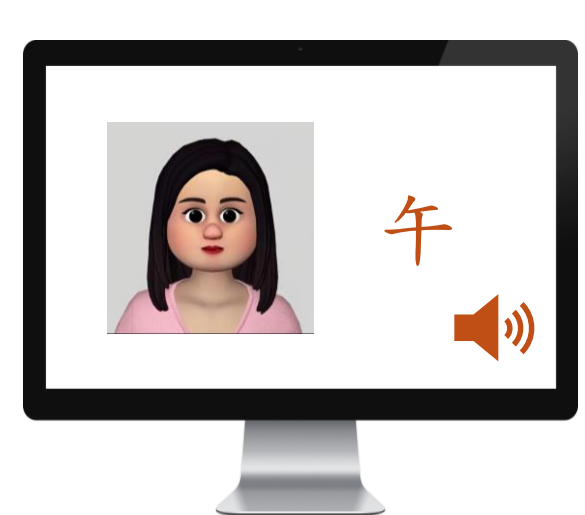
- Assess **phonetic accommodation**, a short-term speech behaviour resembling the process of long-term sound change
- Stimuli: 6 Chinese characters for each sound change feature
 - 4 pre-recorded in conservative form; 2 in new form
- Two-step procedure:

a. Baseline reading task



[ŋ²³]–[m²³]
‘noon’

b. Shadowing task (Stimuli → Response)

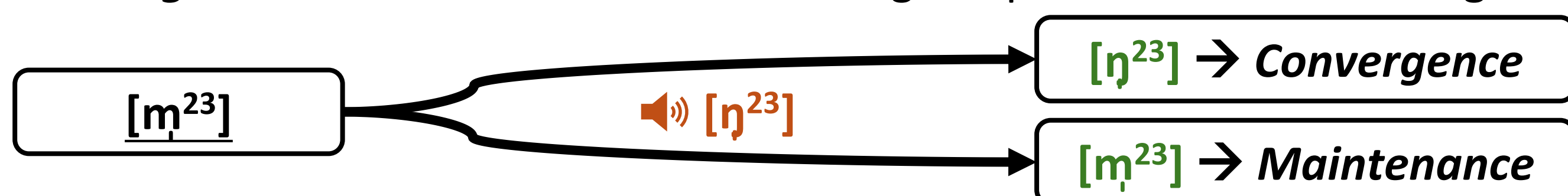


[ŋ²³]
(pre-recorded)



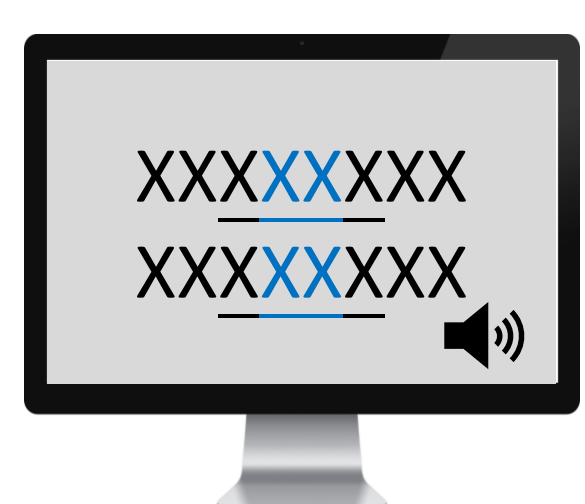
[ŋ²³]–[m²³]
‘noon’

- Auditory coding of baseline-stimuli-mismatched response (Two phonetically trained native HKC raters)
 - Convergence OR Maintenance** → Mirroring the process of sound change



2. Matched-guise Technique (Lambert et al., 1960)

- Assess **covert language attitudes**
- Two-step procedure:
 - Hear 2 sentences with monosyllabic target word produced in conservative or new form by the same speaker, e.g.,
 - Standardness, acceptability, and perceived oddness were rated using *4-point Likert scales*



啊婆下_午去買提子
[a:33pʰɔ:21 ha:22ŋ23 hey33 ma:i23 tʰei21 tsi:25]
Grandma afternoon go buy grape
‘Grandma is buying grapes this afternoon’



Criteria of stimuli

- Declarative sentences
- 8-10 characters
- Consist one and only one of the sound change features investigated
- Target character in sentence-medial position
- Even distribution of target character in disyllabic constituent
- No segmental or suprasegmental co-articulation in target character

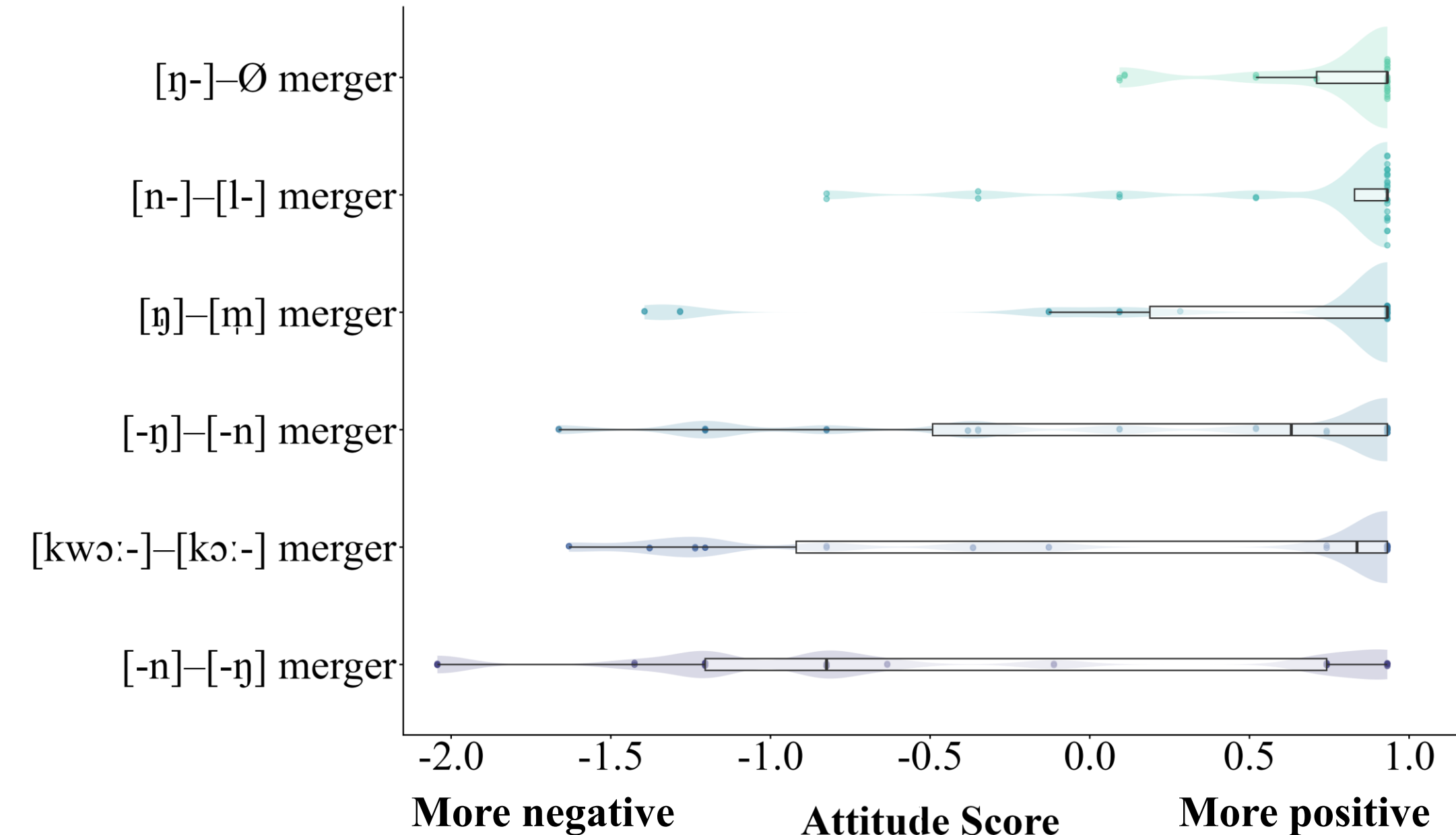
Results

Principal Component Analysis (PCA)

- Calculated **composite scores** for all variants using **three attitudinal ratings**
- Averaged the scores of the two variants for each sound change feature
- A **higher score** indicates a **more positive attitude** towards the merger, independent of the specific variants

1. Attitude scores towards ongoing mergers

- Feature-level variation



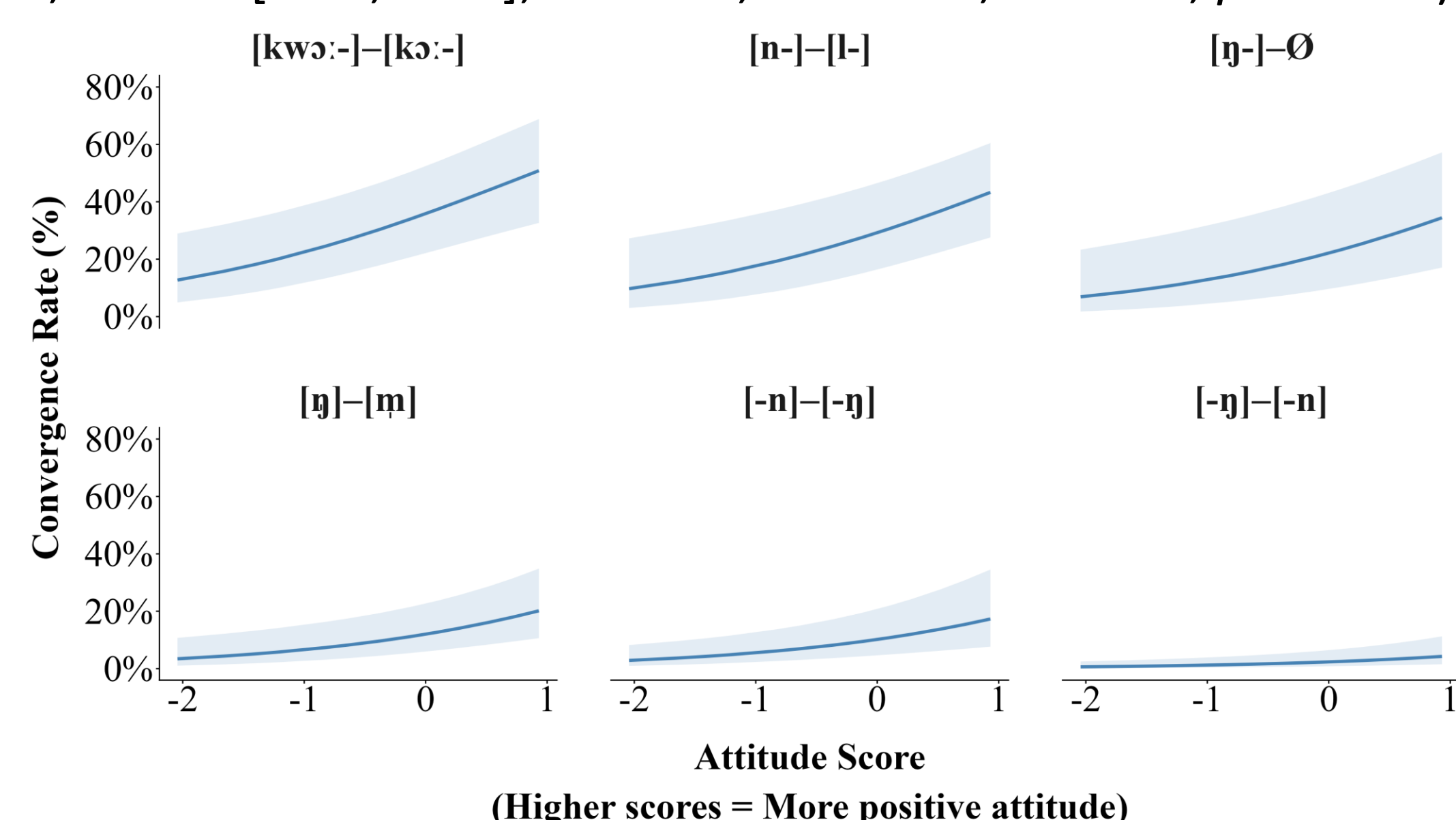
Binomial Generalized Linear Mixed Model (GLMM)

- Convergence Rate** ~ **Attitude Score** + **Sound Change Feature** + (1 | Subject)

2. Convergence rates vary by feature ($\chi^2(5)=52.22, p < .0001$)

Sound Change Features	Predicted Convergence Rate (95% CI)
[kʷɔ:-]–[kɔ:-]	0.40 (0.25,0.57)
[n]–[l]	0.33 (0.19,0.50)
[ŋ]–∅	0.25 (0.11,0.47)
[ŋ]–[m]	0.14 (0.07,0.26)
[-n]–[-ŋ]	0.12 (0.05,0.24)
[-ŋ]–[-n]	0.03 (0.01,0.07)

3. More Positive Language Attitude → Higher Likelihood of Convergence (OR = 1.93, 95% CI [1.33, 2.81]; $\beta = 0.66, SE = 0.19, z = 3.46, p = .0006$)



Conclusion

- Speakers’ subjective attitudes **shape** their speech accommodation behaviour
 - Sociolinguistic evaluations at the level of individual sound change features may function as the potential mechanism **facilitating or inhibiting the spread of individual sound changes**
- Non-uniform** short-term phonetic accommodation across features
 - Speech shadowing task mirrors the **varying** statuses of ongoing sound change mergers, demonstrating its **validity** for investigating sound change
- Varying** covert attitudes towards individual features
 - Examining general language attitudes is **insufficient**, necessitating a shift towards **feature-level analysis**

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