

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

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Introduction: In Hong Kong Cantonese (HKC), there are various ongoing segmental sound changes. Among them, variations in the status of merger have been observed (e.g., [1], see Table 1). Yet the sociophonetic impact of language attitudes on individual sound change features remains unexplored in this community, as previous research has focused primarily on general attitudes towards the accent (e.g., [2]). While specifically accounting for attitudinal effects on individual sound change features, this study employs a speech shadowing task, an experimental procedure for assessing phonetic accommodation [3], to provide insights into how short-term speech behaviour resembles the process of long-term sound change. Thus, this study asks: Do individuals with more positive attitudes towards specific sound change features tend to converge more frequently?

Method: 16 L1-HKC elderly speakers (8M, 8F; age: 67.8±4.7), born and raised in Hong Kong, were recruited. Following the shadowing paradigm, participants completed a baseline recording and were exposed to a fixed set of both conservative and new variants in the shadowing task (see Table 1). As the stimuli were pre-recorded, participants were occasionally primed with the variants they already used, so only tokens involving a baseline-stimuli mismatch were analyzed to account for the convergence effect. For example, as only the conservative [ŋ²³] was recorded for 五 ‘five’ as the shadowing stimulus, only trials involving participants who produced the new [m²³] in baseline were analyzed. Two phonetically trained L1-HKC raters independently coded each trial as convergence (adopting the variant) or maintenance. Discrepancies were resolved by a third L1-HKC rater via majority rule. After that, a matched-guise task was employed to assess language attitudes. In each round, they heard two sentences, each containing a monosyllabic target word in the medial position produced in either the participant’s habitual variant or the opposite. Then, they rated these stimuli using four 4-point Likert scales across three dimensions: perceived oddness, standardness, and acceptability. Composite attitude scores were calculated from a Principal Component Analysis, where a higher score suggests a more positive overall attitude towards a sound change feature (see Table 1). A binomial generalized linear mixed-effects model was used to examine the fixed effects of language attitude and sound change features on convergence.

Results and Discussion: Overall, the fixed effects explained 43.6% of the variance in convergence. Language attitude and sound change features uniquely accounted for 8.7% and 25.7% respectively, with an additional 9.2% shared between them. The model indicated that a more positive attitude predicted a higher likelihood of convergence ($OR = 1.93$, 95% $CI [1.33, 2.81]$; $\beta = 0.66$, $SE = 0.19$, $z = 3.46$, $p = .0006$). The model also revealed that convergence likelihood varied significantly across different features (see Figure 1). This study shows that short-term phonetic accommodation is not uniform across features, reflecting the disparate merger status observed in the long-term sound change processes in HKC. Importantly, the findings demonstrate that speakers’ subjective attitudes towards specific variants contribute to shaping their accommodation behaviour. Taken together, fine-grained sociolinguistic evaluations at the level of individual sound change features modulate the likelihood of phonetic convergence and may function as a mechanism facilitating the spread of sound change features within the speech community, ultimately resulting in varying degrees of merger completion.

Table 1. Sound change features investigated in this study.

Sound Change Features [conservative]–[new]	Examples [conservative]–[new]	Status* (To et al., 2015)	Attitude Scores** Mean (SD)
[n]–[l] merger	鳥 [ni:u ²³]–[li:u ²³] ‘bird’	Complete (94.6%)	0.66 (0.54)
[ŋ]–Ø merger	牛 [ŋeu ²¹]–[eu ²¹] ‘cow’	Half-way (37.5%)	0.77 (0.30)
[ŋ]–[m] merger	五 [ŋ ²³]–[m ²³] ‘five’	Complete (95.5%)	0.50 (0.79)
[-ŋ]–[-n] merger	等 [tɛŋ ²⁵]–[tɛn ²⁵] ‘wait’	Half-way (24.1%)	0.14 (0.92)
[k ^w ɔ:-]–[kɔ:-] merger	果 [k ^w ɔ:- ²⁵]–[kɔ:- ²⁵] ‘fruit’	Half-way (50.9%)	0.09 (1.01)
[-n]–[-ŋ] merger	問 [mɛn ²²]–[mɛŋ ²²] ‘ask’	Rare (0.8%)	-0.50 (1.04)

*Categorization follows the analysis in To et al. (2015), incorporating the percentage of adults pronouncing the new variant. Although the original table lists the [ŋ]–[m] merger as ‘half-way’, the accompanying text describes it as ‘appears to be close to completion’, the exact phrasing used for the [n]–[l] merger.

**Scores were derived from a Principal Component Analysis conducted in this study. Higher values indicate a more positive attitude towards the merger, regardless of directionality.

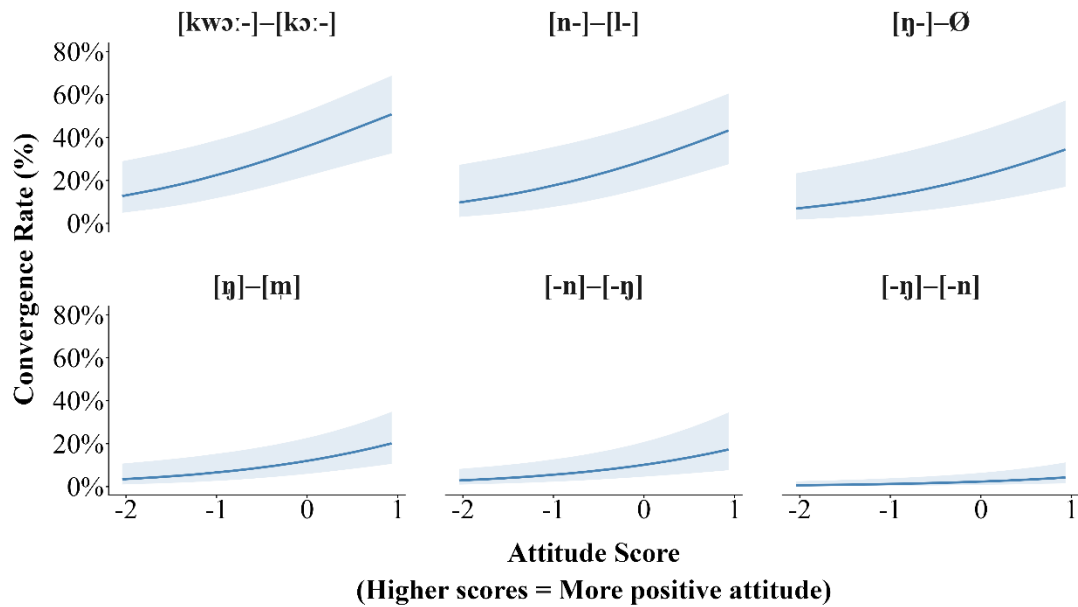


Fig. 1. The effect of language attitude on convergence rate for each sound change feature.

References

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