

Abstract

The present study examined sociophonetic variation in a small sample of Asian Americans in Boston, Massachusetts, representing four ethnic groups—Chinese, Filipino, Korean, and Vietnamese. Analyzing these speakers' English production in two speech styles (casual, careful), we focused on four linguistic features previously observed in New England or in certain Asian groups: **R-Deletion**, **Low Back Raising** (of /a/ to /ɔ/), **L-Vocalization**, and **L/R-Conflation**. Mixed-effects modeling results indicated that Ethnicity was a significant predictor of the occurrence of **R-Deletion** ($M = 6.0\%$ overall), **L-Vocalization** ($M = 86.6\%$ overall), and **Low Back Raising**, but not of **L/R-Conflation** (which did not occur at all). Significant effects of style were found for all features showing variation. These findings reveal similarities and differences in speech production among ethnically diverse Asian Americans, point to a role of style, and highlight the need for further investigation of phonetic variation within this community.

1. Background & Research Questions

There is considerable research on the shared linguistic norms of Latinx and African American speech communities [5, 9, 10, 12, 13] but Asian Americans remain understudied (cf. [3, 4, 8, 14]).

No variationist research has examined, within the same region, *Asian Americans of different ethnicities in tandem* to determine if they talk alike, or like locals.

Goal: investigate the extent to which individual Asian Americans residing in the Boston area share norms for four linguistic features across ethnicities.

Research Questions:

Q1. Do Asian Americans living in Boston produce features associated with the New England dialect of English (**R-Deletion**, **Low Back Raising**)? [2, 6, 7]

Q2. Regardless of language background (e.g., speaking additional languages), do Asian Americans living in Boston produce features associated with perceptual accounts of Asian American speech (**L-Vocalization**, **L/R-Conflation**)? [1, 8, 11]

Q3. Do Asian Americans use these features differently when producing casual vs. careful speech?

2. Methodology

Participants: 8 young adult Asian Americans residing in Boston (4f, 4m; $M_{age} = 23.1$), identifying with one of four ethnic groups (2 Chinese, 2 Filipino, 2 Korean, 2 Vietnamese).

Tasks: sociolinguistic interview with Asian American researcher (eliciting casual speech); picture naming, sentence reading, passage reading (eliciting careful speech).

Analysis: impressionistic auditory coding or acoustic analysis, according to feature.

- **R-Deletion:** coda /ɹ/ coded auditorily as “present” or “absent”
- **Low Back Raising:** /a/ and /ɔ/ annotated in spectrogram, mean F1 and F2 taken
- **L-Vocalization:** coda /l/ coded auditorily as “at least some vocalization” or “not vocalized”
- **L/R-Conflation:** onset /r/ or /l/ coded auditorily as “conflated” (e.g., target /l/ sounding like /r/) or “not conflated”

Dataset included ~1,500 tokens of each feature, for a total of ~6,000 tokens.

Mixed-effects regression models were run, including relevant predictors for each feature: logistic models for auditorily-coded features (e.g., $RDeletion \sim Ethnicity + Style + FollowingSound + (1 | Word)$), linear models for vowel formants ($NeareyF1 \sim Ethnicity + Style + FollowingSound + PreviousSound + Vowel + Sex + SpeechRate + (1 | Word)$).

3. Results

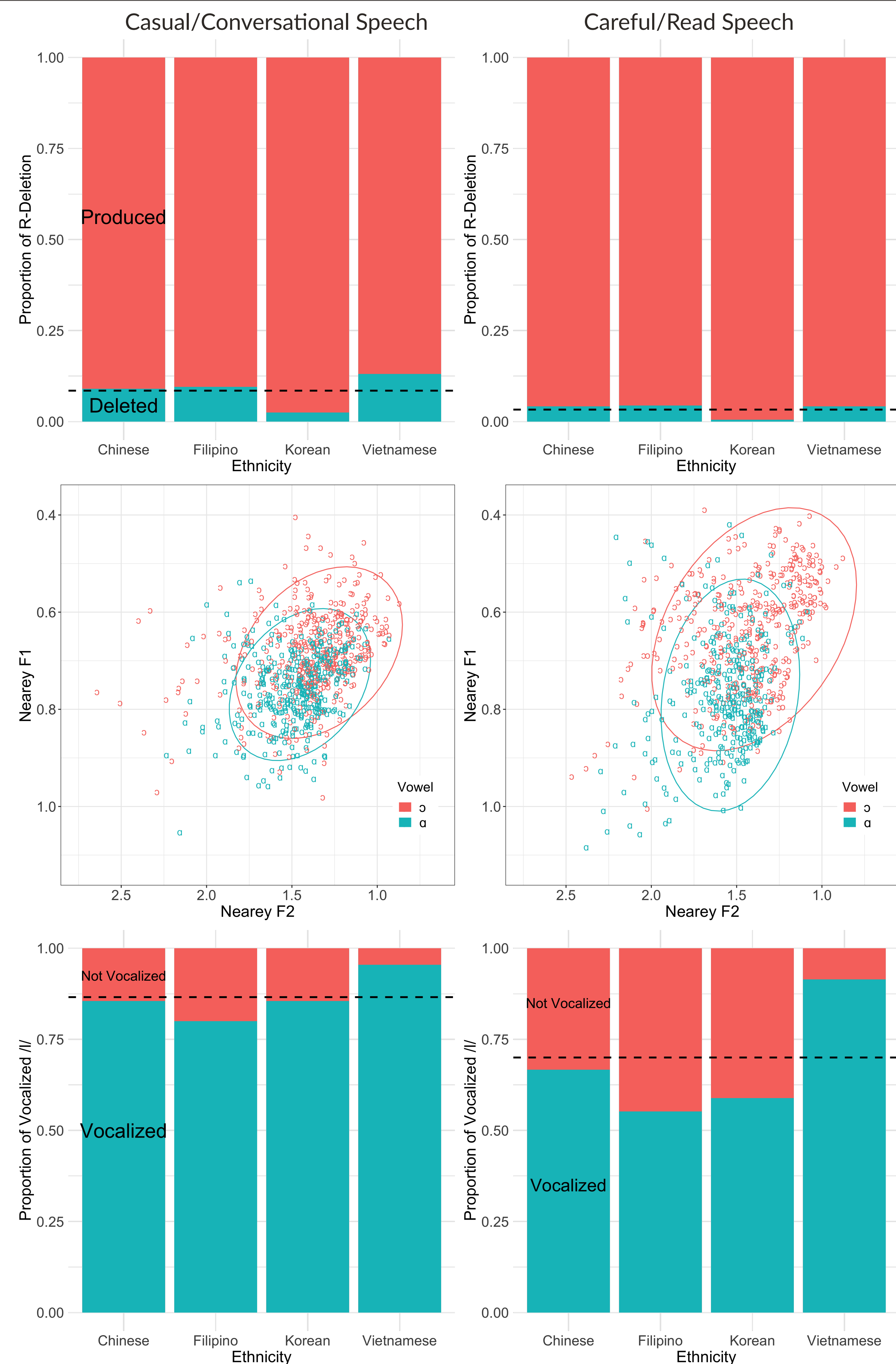


Figure 1. R-Deletion, Low Back Raising, and L-Vocalization by style (left: casual, right: careful). Dashed lines indicate overall rates. Vowel plots show tokens over all speakers. Bar plots show results by ethnicity (group).

4. Summary

R-Deletion

- more likely in Vietnamese group ($\beta = -3.91, p = 0.001$)
- less likely in Korean group ($\beta = -1.33, p < 0.001$)
- less likely in careful speech ($\beta = -0.43, p = 0.003$)

L-Vocalization

- less likely in Chinese, Filipino, and Korean groups ($p's < 0.05$)
- less likely in careful speech ($\beta = -0.624, p < 0.001$)

Low Back Raising

- higher F1 for /a/ → incomplete raising ($\beta = 0.051, p < 0.001$)
- lower F1 in Filipino, Korean, and Vietnamese groups ($p's \leq 0.001$)
- higher F1 in casual speech ($\beta = 0.018, p = 0.008$)
- higher F2 in Filipino, Korean, and Vietnamese groups ($p's \leq 0.002$)
- lower F2 in casual speech ($\beta = -0.089, p < 0.001$)

L/R-Conflation

- zero instances observed

5. Discussion & Conclusions

Evidence of unity: Groups were similar in terms of showing overall little to no R-Deletion, L/R-Conflation, or Low Back Raising but ample L-Vocalization.

Evidence of diversity: Groups differed significantly in terms of rates of R-Deletion and L-Vocalization and F1 and F2 measurements for Low Back Raising.

Although the limited sample size prevents us from drawing strong conclusions, these patterns provide suggestive evidence of *both unity and diversity* in the English of Asian Americans.

Future research: explore linguistic variation among Asian Americans on a larger scale across a wider range of linguistic features (e.g., T/D-Deletion) and ethnicities (e.g., South Asian ethnicities).

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