

# Testing the Role Of L1 Influence in Phonetic Accommodation by Indian English Bilinguals

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## The Question

How do early sequential bilingual speakers of Indian English (IE) phonetically accommodate to American English (AE) in producing the alveolar lateral /l/?

This study focuses on the influence of first language (L1) on second language (L2) production & accommodation in two groups:

- Hindi-IE bilinguals: produce clear [l] in all word positions (1)
- Telugu-IE bilinguals: produce clear [l] word-initially but retroflex [ɭ] word-finally (2)

## Hypothesis

Previous studies report **greater phonetic dissimilarity** leads to **greater accommodation** in the form of **convergence** by L2 speakers (3).

→ Hindi-IE speakers’ IE laterals in word-final position will differ more from AE’s laterals than Telugu-IE speakers’ laterals, resulting in more convergence towards AE for Hindi-IE speakers.

## Methodology

- 28 participants (14 Hindi-IE & 14 Telugu-IE)
- Baseline Production Task: read words off a screen
- Shadowing Task: repeat words spoken by an AE interlocutor
  - Words with /l/ in initial and final positions : *lateral* [ˈlæərələt], *lentil* [ˈlɛntəl], *lethal* [ˈliθəl], *loofah* [ˈlufo]
- Mean F1 and F2 were measured within a 30-ms steady-state interval annotated for each lateral (4)
- Statistical analysis: mixed effects linear regression analysis conducted in R
  - `model_f1/f2 <- lmer(f1/f2 ~ language_group * task + (1 | participant_id) + (1 | phoneme), data = formants_clean)`

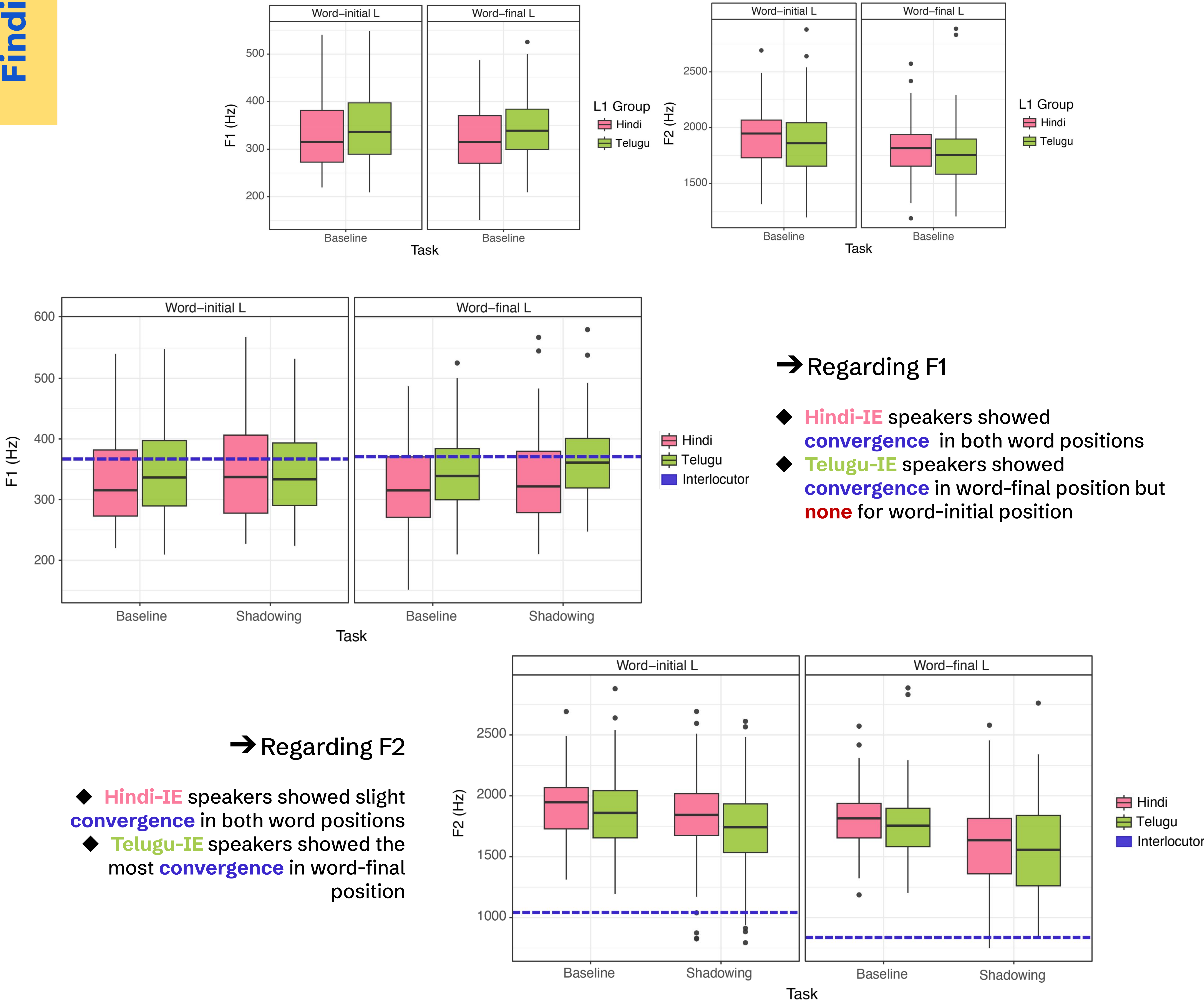
### Acknowledgements

This study is part of a larger project funded by a Graduate Research Abroad Fellowship from Boston University and a Doctoral Dissertation Improvement Grant from the National Science Foundation (BCS 2438633).



## Findings

Baseline IE laterals : **Hindi-IE** speakers differed from **Telugu-IE** speakers in both word positions



## Conclusion

- Hindi-IE speakers’ baseline IE laterals in both positions differed from Telugu-IE speakers’ baseline, providing evidence for L1 influence on L2
  - However, greater distance did not result in greater convergence. Telugu-IE speakers’ baseline laterals –closer to AE laterals– showed most convergence
- Phonetic proximity may actually facilitate convergence. The greater convergence shown by Telugu-IE speakers—whose laterals were phonetically closer to AE—suggests that phonetic proximity, rather than distance, facilitates accommodation.
  - This points to a broader mechanism where perceived similarity promotes sound change, not just in interactional contexts but also in long-term, community-level phonetic shifts.
- Possible factors include categorical perception of the AE lateral as being closer to the Telugu-IE lateral or extrinsic sociolinguistic factors such as greater exposure to AE.

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