GREATER PHONETIC ACCOMMODATION DOES NOT PREDICT GREATER L1 DRIFT

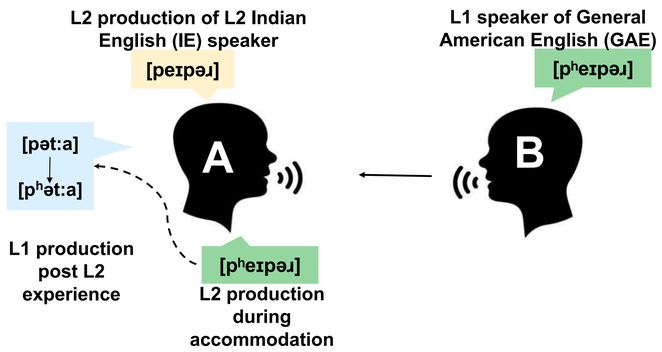
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Accommodation:

- Interacting talkers may start adapting to their partner's speech to sound more alike[1]
- Well documented in L1-L1 dyads but underexplored in bilinguals interacting in their L2 with L1 speakers[2]

Drift:

- Speech adjustments in a speaker's L1, occurring especially after an L2 experience[3]



QUESTIONS

1. Do early sequential bilinguals of Indian English (IE) show accommodation to General American English (GAE)?
2. Does the amount of accommodation of L2 correlate to L1 drift?

HYPOTHESIS

As GAE exhibits longer voice onset time (VOT) for /p/ and shorter (more +ve) VOTs for /b/ than Hindi, Telugu, & IE [4,5,6], accommodation to GAE would **increase L2 /p/** and **/b/ VOTs**, thereby producing **parallel adjustments in L1 VOT** for both groups.

Phoneme	Hindi	Telugu	IE	GAE
/p/	12	22	16	89
/b/	-96	-131	-99	13

Table 1: VOT measures (in ms) across Hindi, Telugu, IE, GAE

METHODS

Participants

- 50 participants: 25 Hindi-IE bilinguals (HEBs), 25 Telugu-IE bilinguals (TEBs)
- Mean age: 21.2 yrs (HEB), 22.6 yrs (TEB); 42 female, 8 male speakers
- L2 AoA English: ~10 years old
- TEBs reported knowing some Hindi
- Recruited and tested in India

Analysis

VOT duration (in ms) was extracted using a Praat script

- L2 accommodation as difference-in-distance:
  |accomm-GAE talker| - |baseline-GAE talker|
- L1 drift as change over time: **post - baseline**

Mixed-effects linear regression model:

Change/Diff_in_Distance ~ Group * Phoneme + (1|Participant) + (1|Item)

Tasks

L1 Baseline Production — name pictures in L1 (items=6, rep=2)

↓

L2 IE Baseline Production — read words aloud in L2 (items=6, rep=2)

↓

L2 accommodation to GAE — repeat words said by pre-recorded GAE talker (items=6, rep=2)

↓

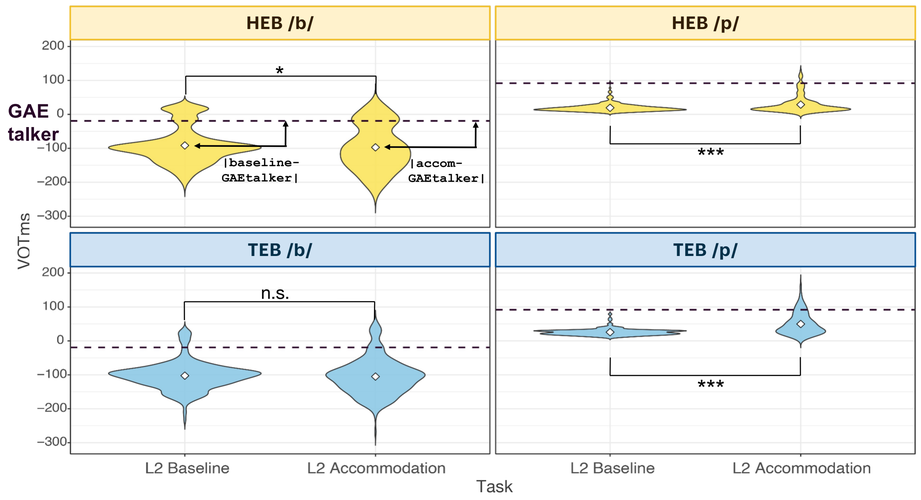
L1 Post Production — repeat L1 baseline task (items=6, rep=2)

DISCUSSION

- Our results partially supported our hypothesis: L2 VOT of /p/ significantly lengthened in both groups during accommodation, while significant /b/ accommodation only happened in HEBs.
  - Contrary finding: L1 VOT did **not** lengthen significantly in either group or across phonemes.
- Absolute distance capturing the magnitude of change for both L1 groups **did not show any correlation** between the two VOT changes.
- While L2 VOT may be unstable during L2 accommodation, it may not lead to drift of the same magnitude in the speakers' L1s.

RESULTS

Figure 1: L2 Voice Onset Times of HEBs and TEBs



/b/: HEBs significantly accommodated away from the GAE talker (β=7.4, p=0.02); TEBs showed a similar but non-significant trend (β=0.67, p=0.14).

/p/: Both groups accommodated towards GAE, with TEBs showing the larger shift (HEBs: β=–8.7, p<0.001; TEBs: β=–21.1, p<0.001).

Figure 2: L1 Voice Onset Times of HEBs and TEBs

/b/: Both groups showed non-significant VOT shortening (HEBs: β=–2.7 ms, p=0.35; TEBs: β=–2.8 ms, p=0.90).

/p/: Both groups showed non-significant VOT lengthening (HEBs: β=1.66 ms, p=0.16; TEBs: β=3.74 ms, p=0.64).

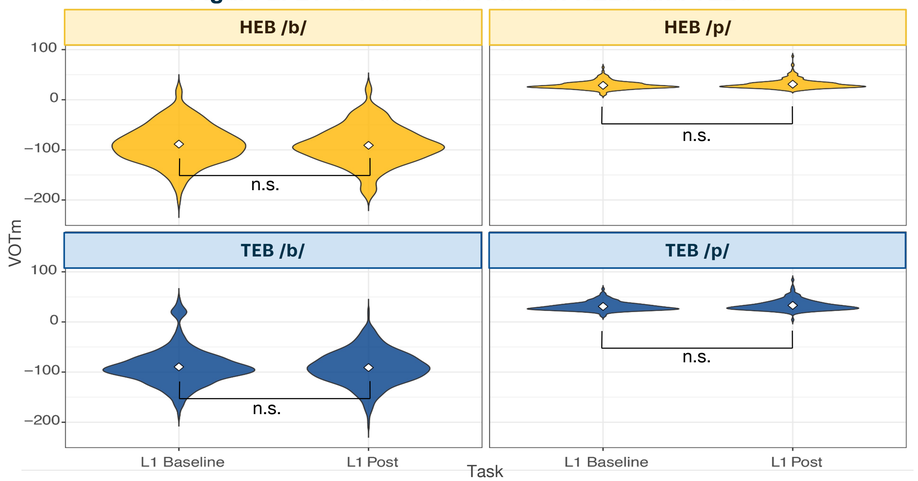
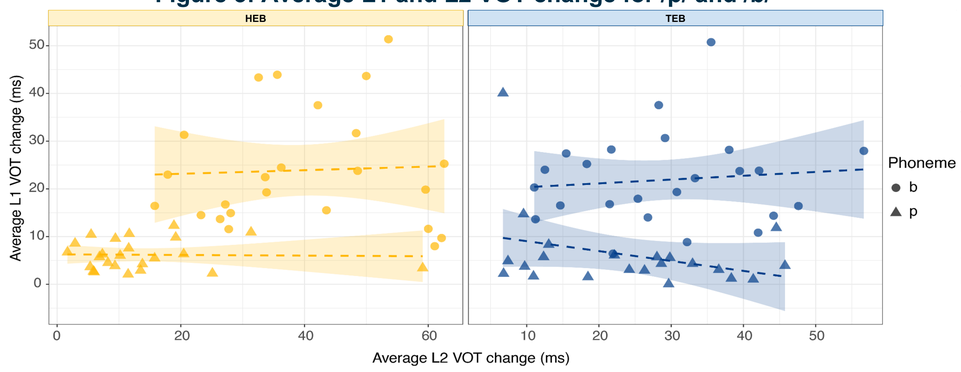


Figure 3: Average L1 and L2 VOT change for /p/ and /b/



Magnitude of change in L2 VOT and L1 VOT do not appear to show any correlation between L2 VOT accommodation and L1 VOT drift.

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