Non-faithful accommodation of coincident phonetic cues
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Background
- Accommodation: speaker changing behavior upon interlocutor input.
- Accommodation is not expected to be perfectly faithful to the received signal.
- Can accommodate much in the introduction of non-phonetic material to the pool of variation?
- If so, are these individual differences in strategies for non-faithful accommodation?

Goals
- Elicitance of nonce-phonetic variation through accommodation.
- Aply novel VOT duration stimuli. Look at changes to coincident cues of VOT after accommodation. Longer VOT cues.
- Display with constant vowel F0 (Henderson 1958).
- Enunciate with short vowel duration (Salabon 1976).
- Display with longer following vowel duration (Nakada 2002).
- Adjustment of these coincident cues constitutes innovation.

Methods
- Stimulus: 20 English words, 35 with canonical stop initial stimuli first or second syllable.
- Model: Rectangular patch from female, undergraduate college student, mid-accent speaker, with VOT derived via Panit script (modified from Pauly 2009).
- Participants: 30 undergraduate college students (18-22).
- Procedure: Participants read words presented one at a time. Displayed, after each word, the model word was placed at a time to provide a word for the model word, read, and written practiced at a time (Harvey 2004).
- Acoustic stimuli: Durations were measured hand-held in Panit.

Results
- Participants converted to model VOT (closest match to spoken, with shorter average block VOT tone than to duration format.
- Six participants – time with shorter average closest than the model model, some with longer average closer – converted toward mean model closest duration.
- Three participants “sounded” in moving toward model closer duration.
- Six participants converted toward mean model closer, two who did not, 20 were among the same closest to accommodating to shorter closer duration, these two also changed from model VOT.
- Participants converted toward mean model closer, six of one duration pair, 32% of closer cues.

Conclusions
- Step closer duration and vowel duration showed more faithful accommodation effects by some participants. This is non-faithful variation.
- Great model VOT showed little change round 10% global change across condition, and not significantly correlate with VOT. (Kredich 2005; Mostow 2005; Mostow (2005))
- Individual differences in accommodation strategies:
  - 20% appear to have accommodated to step closer than VOT.
  - 20% appear to have accommodated to closer cues.
  - 32% of closer cues.
- Differences in control across conditions.

Discussion
- What explains these individual differences?
- Model VOT was described as “natural” and “spontaneous.”
- Different models can accommodate strategies equally.
- Correlation of model versus VOT with VOT has been argued to be a learned association rather than a phonetic mechanism (Harvey & Dahl 1994). The lack of subjectivity by participants appears to support this hypothesis.
- Differences in cue combinations with individual variation for accommodation a potential mechanism for sound change acquisition?

References

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