INTRODUCTION

Background
- Native (L1) speech perception is enhanced by visual information [1,2,3].
- Nonnative (L2) perceivers may be impeded in correct use of L2 visual cues non-existent in their L1, although perception can be affected by linguistic experience and training [4,5,6,7].

Current study
- Examined the effects of audio, visual, and audio-visual (AV) training on the perception of nonnative places of articulation (English labiodental, interdental, and alveolar fricatives) by learners of English whose L1 does not contain the intermediate place of articulation (i.e., interdentals).
- Questions addressed: (1) how the effects of training correspond to the type of training input (A, V, or AV); (2) how training differentially affects familiar (labiodental, alveolar) versus unfamiliar (interdental) L2 sounds, and visually salient (labiodental, interdental) versus non-salient (alveolar) L2 sounds.

METHOD

Participants
- 44 native speakers of Mandarin Chinese; Mean age: 23; Students at SFU, Canada
- English proficiency: intermediate
- Age of learning: 12 (classroom setting); Length of residence in Canada: 1-4 years

Stimuli & Procedure
- Randomly assigned to 4 groups: A-train, V-train, AV-train, Control

RESULTS

Pre- & Post-training comparisons
Percent correct responses for place of articulation at pretest, posttest, and generalization test by perceivers in A-train, V-train, AV-train, and control groups. (Results for labiodental perception are not included since no differences have been observed across groups and tests.)

- **Summary**
  - A-train group: Improvement in perceiving A modality;
  - V-train group: Improvement in perceiving V & AV modalities;
  - AV-train group: Improvement in perceiving AV modality;

CONCLUSIONS

- Patterns of improvement are consistent with type of training (i.e., A-train group improved most in the perception of A modality; V-train group improved most in the perception of V or AV modality).
- Greater degree of improvement with the less visually distinct alveolars familiar in L1.
- Interdentals showed decreased correct AV perception after AV training. Implications: Stepwise training: e.g. one modality first?

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References