Vowel production in congenitally blind and sighted Australian English speakers

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Introduction

- Unclear how visual deprivation influences vowel production.
- Compared to sighted, congenitally blind speakers:
  - may produce vowels spaced closer together (Ménard et al., 2009),
  - or spaced further apart (Everhardt, 2017),
  - or they may not differ acoustically (Turgeon et al., 2020).

Method and RQs

- 10 blind and 10 sighted speakers of Australian English produced 11 vowels in 3 contexts.
- Calculated VSA, AVS, EDs between key pairs, dispersion (Mel-scale).
- Do blind and sighted speakers differ in their vowel production?
- Do results differ comparing manual vs. automatic analysis?

Vowel space areas

- Blind speakers: smaller VSAs.
- AVS difference between groups depends on context.
- No difference in EDs between groups.
- Long vowels are more dispersed in blind than sighted speakers.
- Automatic analysis shows similar patterns.

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