Does live interaction facilitate accent adaptation by 16- to 24-month-old infants?

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Introduction

Children under 19 months of age have difficulty recognizing familiar words in unfamiliar accents (e.g., Best et al., 2009). Only one study has found adaptation in children under 19 months, which involved pre-exposure to the unfamiliar accent with a familiar storybook (e.g., van Heugten et al., 2014).

What factors underlie young children’s ability to adapt to an unfamiliar accent?

Social interaction has been found to enhance foreign-language phonetic learning in young infants (Kuhl et al., 2003).

➢ Live interaction with an accented speaker predicted to enable children under 19 months to adapt to the accent.

Methods

Participants & Stimuli

➢ Three groups of Canadian English-learning infants:
  • 15-17 months (n=16)
  • 18-20 months (n=13)
  • 21-24 months (n=16)

➢ 24 familiar words produced by an Australian-accented and a Mandarin-accented speaker

Procedure

Storybook Reading

Children received an engaging 10-minute live storybook reading
Reader was either the Australian- or Mandarin-accented speaker

➢ Caregivers brought their child’s favourite books (which were thus highly familiar to the child) to be read by the speaker

Preferential Looking Paradigm

Heard words in sentence contexts (24 total)

Half of the trials produced by the Australian speaker, the other half by the Mandarin-accented speaker

Results

Mean target recognition

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<th>15-17 months</th>
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Shift response time

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Discussion

All three age groups recognized words spoken in the familiarized and unfamiliarized accents, contrasting with prior work demonstrating their difficulties with unfamiliar accents (Best et al., 2009).

How can we explain these children's success?

Live exposure may have facilitated accent adaptation. But if so, why was there no effect of accent exposure? One possibility is that children adopted a general expansion strategy, whereby they were more willing to accept deviations from stored representations (Schmale et al., 2015). This is in contrast to work suggesting children adapt by making targeted adjustments to specific categories (e.g., White & Aslin, 2011).

Ongoing work is testing an additional group using live interaction with Canadian-accented speakers to examine the relative contribution of interaction and accent exposure in adaptation.