

The timecourse of toddlers' recognition for native-accented vs. non-native-accented speech

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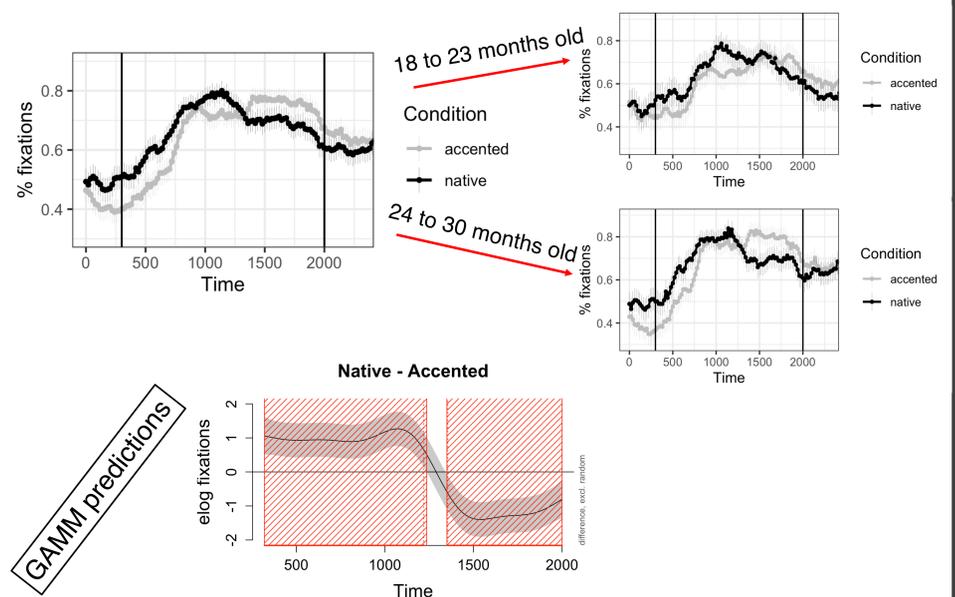
Introduction

- Learning words is challenging
 - Phonetic cues vary (different speakers, rate of speech)
- Exposure to multiple accents in multilingual context
 - Impact on word recognition abilities [1, 2]
 - Development in toddlerhood is still being discovered
- Eye tracking can be used to measure lexical activation [3]
 - Preferential looking paradigm
 - *Simultaneous presentation of auditory and visual stimuli on a display*
 - *Measuring eye movements*
- Lack of studies on ONLINE processing in toddlers, i.e., as the acoustic signal unfolds

How do 18-30 month old toddlers process accented vs. non-accented words?

Results

- General fixation patterns suggest good overall recognition
- Significantly more fixations to the target
 - In the non-accented condition between 300 and 1200 ms
 - In the accented condition between 1350 and 2000 ms



Lexical access is slowed down by accented speech in young monolingual toddlers.

Methods

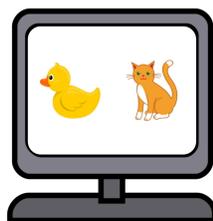
PARTICIPANTS

- 22 English-speaking toddlers
 - Monolingual
 - Aged between 18 and 30 months old ($M = 23.5$)

PROCEDURE

- Two images on a display: TARGET + DISTRACTOR

-  Audio prompt: "Look at the cat"
 - Accented or Non-accented



MEASURE

- Proportions of fixations to the target

ANALYSES

- Generalized additive mixed-effects models [4]
 - Nonlinear timecourse analysis

Discussion

- Toddlers reach maximum fixations faster when words are not accented
- They also correctly recognize accented words
- Main difference between accented and non-accented words: SPEED of lexical access
- Next step:
 - How do bilingual children, who are more extensively exposed to accented speech, recognize spoken words?

References

- [1] Bent, T. (2014). Children's perception of foreign-accented words. *Journal of Child Language*, 41, 1334-1355.
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