Mispronunciation Sensitivity

- Infants’ sensitivity to changes in the phonological form of familiar words.

- Index of the phonological specificity with which infants represent familiar words

picture of baby and dog

correct -> baby

mispronounced - > vaby

Swingley & Aslin (2000)

Calculate looking time spent on target on correct and mispronounced trials

* significantly above chance = recognize word as label for object
* significant difference between correct and mispronounced trials = mispronunciation sensitivity

Research Question

Infants are sensitive to mispronunciations and their processing becomes more efficient over time. How does mispronunciation sensitivity change as infants develop?

1. More sensitive with development

Infants begin with phonological broad representations for familiar words and only refine their representations as language experience accumulates (PRIMIR; Werker & Curtin, 2005)

1. Less sensitive with development

Infants initially reject phonetic variation in familiar words and learn latter to accept appropriate variability (Perceptual Attunement; Best, 1994)

1. Sensitivity does not change with development

Infants’ overall language processing becomes more efficient, but sensitivity to mispronunciations does not change.

|  |  |  |  |
| --- | --- | --- | --- |
| Participants | Stimuli | Procedure | Results |
| Age in days | # features changed | # test trials | dv type |
| Sample size (*n*) | Mispronunciation position | Distractor familiarity | recognition score |
| Native Language | consonant vs. vowel | Distractor overlap | misp sensitivity |

25 papers encoded (mostly journal articles)

190 unique experimental conditions

1001 infants

12 to 28 months

age plot\_log

An examination of effect sizes revealed consistent recognition of correctly pronounced words (Hedges’ *g* = 0.88, SE = 0.12, *p* < .0001; no age effect) and an overall mispronunciation effect (Hedges’ *g* = 0.34, SE = 0.07, *p* < .0001). Interestingly, effect sizes for mispronounced words increase over infant age (Hedges’ *g* = 0.04, SE = 0.01, *p* = .001), suggesting that as infants mature, they are more likely to accept mispronounced words as appropriate labels for familiar objects.

Mispronunciation sensitivity

Condition (correct vs. misp)

G = .47, SE = 04, p < .0001

No interaction with age, sensitivity to mispronunciations stays consistent as infants age (Theory 3)

But, as they age, they start looking to target in mispronounced trials (Theory 2)

Future directions

Vocabulary

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Contact us! Katie.m.vonholzen@gmail.com

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