

Infants' Musical Environment at Home: Individual Variability in Pitch and Tempo of Song Renditions

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Overview

- **Background**
 - Infants were able to generalize pretty different renditions of the same tune
 - Parents' renditions of the same song were highly consistent in experiment setting
- **Research Question**
 - How consistent (or variable) are parents' renditions of tunes at home?
- **Methods**
 - Day-long recordings from infant's natural environment
 - Pitch and tempo coding of repetitive renditions of the same songs
- **Result**
 - In real-life environment, more variability comparing to in experimental setting



Background

- Parents' renditions of the same song were highly consistent in experiment setting (Bergeson & Trehub, 2002)
- Infants generalize different renditions of the same familiar tune (Kragness et al., 2021)

How consistent (or variable) are parents' renditions of tunes at home?

Daylong recordings of music in the home

Everyday Music in Infancy (Mendoza & Fausey, 2019)

- **Archive Data**
 - Obtained from an infant-worn LENA recorder ((LENA; Ford et al., 2008) worn on the infants' clothing throughout the day
- **Excerpt Selection**
 - Live and vocal
 - No background music
 - Repeated tunes by same singers



Daylong recordings of music in the home

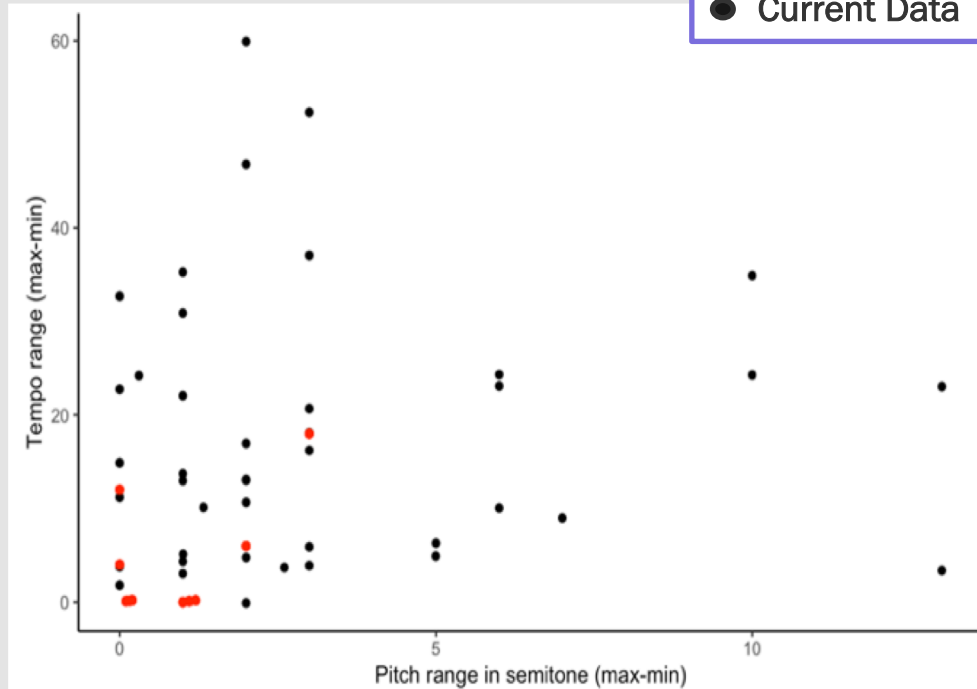
- **Pitch & Tempo Coding**

- 173 clips from 44 singers (28 infants)
- Musically trained coders listened to and identified the same phrase of each repeated bout
- Pitch extraction: Praat (Boersma & Weenink, 2021) & piano keyboard
- Tempo extraction: Trained musician tapping along to the first phrase



Results

Real-Life vs.
Experiment



● Bergeson & Trehub (2002)

● Current Data

Conclusion

How consistent and/or variable are parents' renditions of tunes at home?

- In real-life environment, more variability comparing to in experimental setting
- Previous lab-based research may not capture parent song variability in the home
- Future research should specify the reasons contributing to the individual differences in parental singing
 - Singers' musical ability/training
 - Singing contexts (e.g., time of day)
 - Infants' physiological/emotional status

References

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Thank you!