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## BACKGROUND

- During in-person music performances, infants attend longer to live vs. recorded performances (Kragness et al., 2023)
- Toddlers exhibit a *video deficit*, that is, they learn more words in synchronous vs. asynchronous virtual learning environments (Myers et al., 2017)
- **Do infants attend differently to synchronous vs. asynchronous music performances in virtual settings?**
- **If so, how does this affect their sociality and memory?**

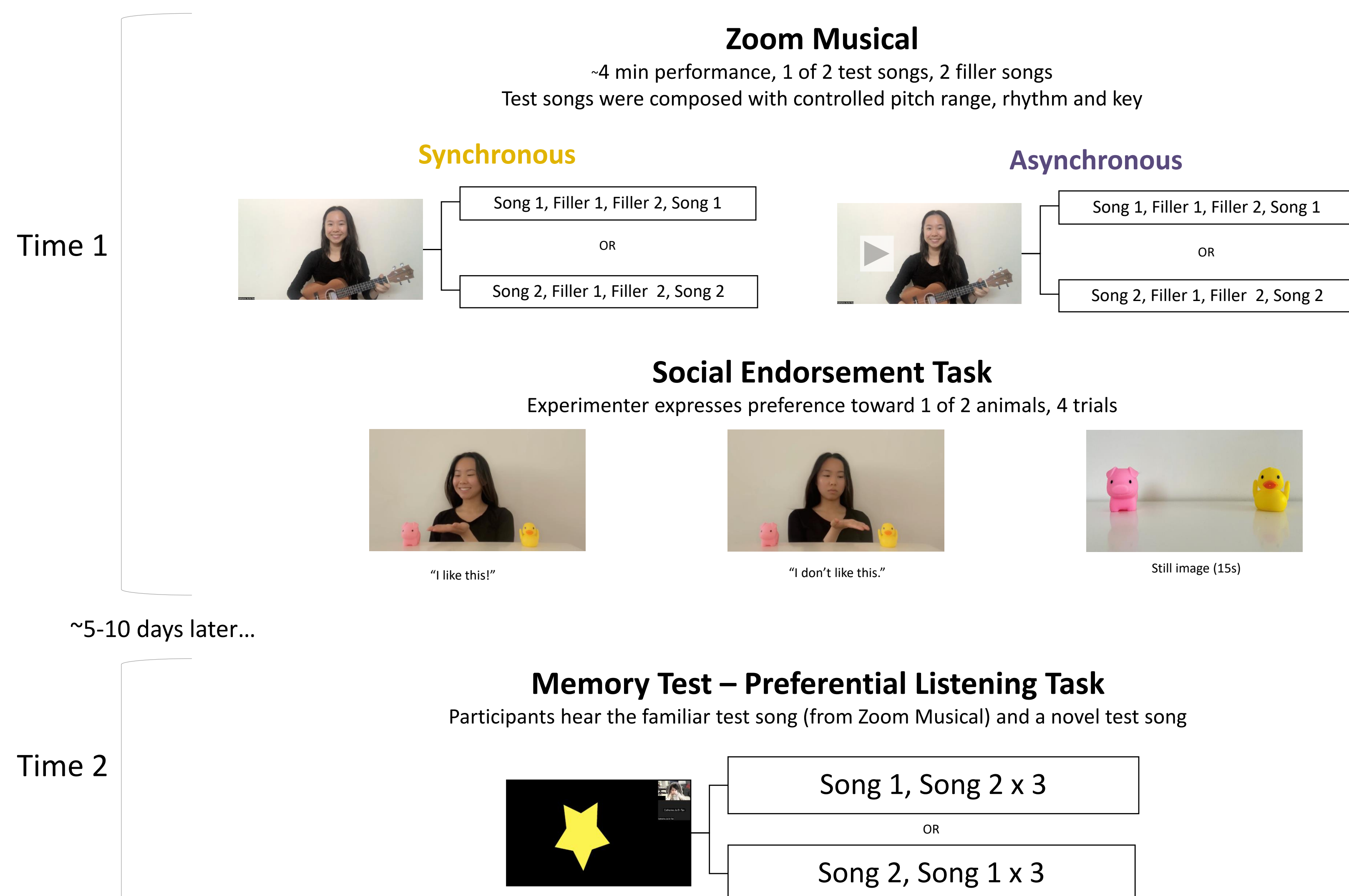
## METHOD

### PARTICIPANTS

- 87 infants ( $M_{age} = 13.44$  months;  $SD = 0.82$  months)

### PROCEDURE

- Participants completed the study in their homes across two virtual meetings with the experimenter. Over Zoom, they watched a music performance, social endorsement task and later completed a memory test.
- Participants were randomly assigned to the synchronous or asynchronous condition and were shown stimuli that was counter-balanced across the sample



## PRELIMINARY RESULTS

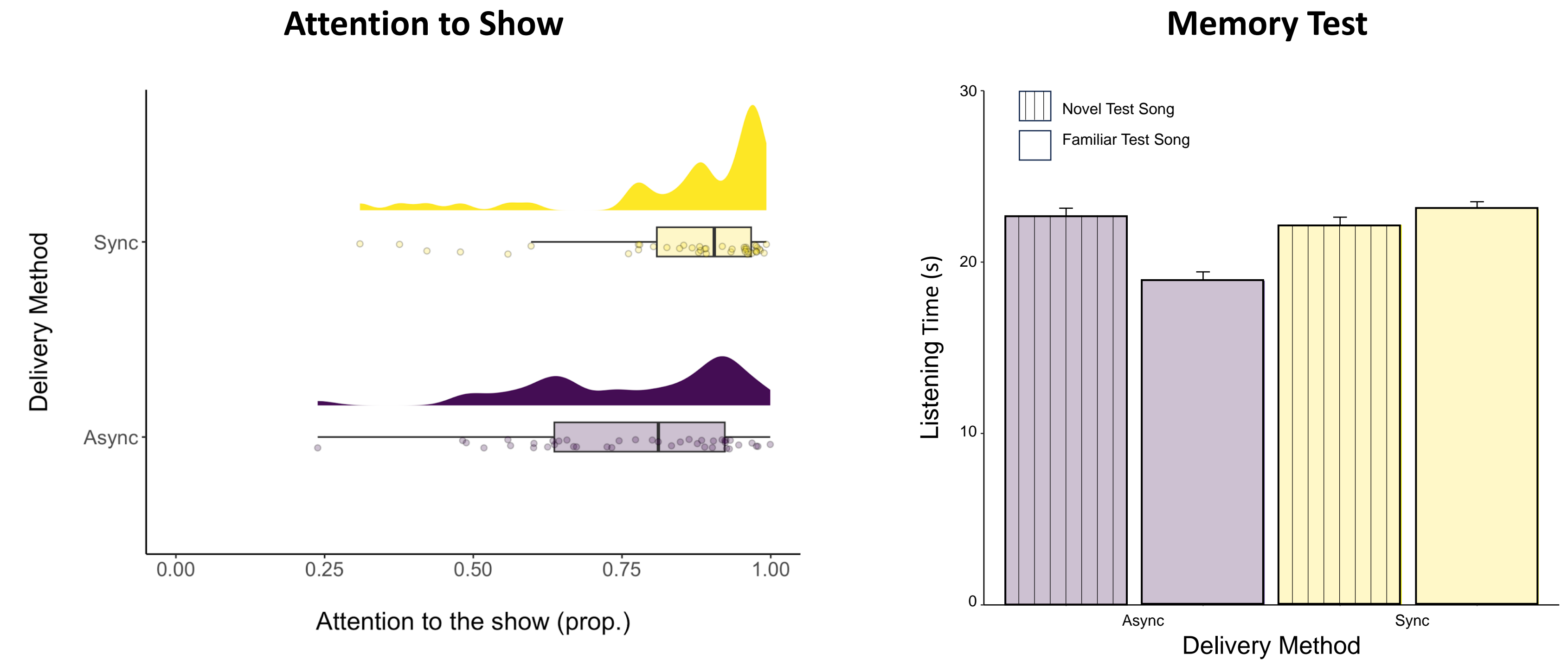


Figure 1. All participants ( $N = 83$ ) watched the *Zoom Musical*, but synchronous participants paid attention to a longer proportion of the show ( $M = 85\%$ ) than asynchronous participants ( $M = 77\%$ ).

Figure 2. Asynchronous participants ( $N = 39$ ) displayed a preference for the novel test song. Synchronous participants ( $N = 39$ ) listened to both test songs equally during the memory test.

**NEXT STEPS:** Complete social endorsement task measures: looking time, pointing and reaching

## DISCUSSION

- The COVID-19 pandemic brought forth unforeseen difficulties in running in-person children's musical programs. Many shows adapted to virtual setting, some preserving performer-audience engagement and some not; however, little research has been conducted to examine how infants engage in such settings.
- In this study we found that the *Zoom Musical* captured the attention of all participants but synchronous virtual performances engaged infants more than asynchronous virtual performances.
- Asynchronous participants listen less to the familiar test song at time 2, demonstrating memory for the song. Synchronous participants do not show this drop in interest for the familiar song, which may suggest that its social relevance keeps this song salient.

### IMPLICATIONS & FUTURE DIRECTIONS

- Synchronous virtual musical experiences may have social and emotional benefits for isolated populations
- Future studies can explore how effective these performances are for other groups including: hospitalized children, older adults who are living alone etc.
- These performances may also help foster intergenerational bonds between infants, parents and relatives living afar

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