APA Midterm

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Abstract

Five-month old infants listened to songs sung by their parent, a toy,or someone unfamiliar for one to two week period. These songs had the same lyrics and rhythms. However, the melodies were different. The researchers tested the infants selected attention when a random person sang the song they were familiar with and the song they were not. The results indicated that infants paid more attention to the song they were familiar with, and that exposure time predicted preference time. This suggests that melodies may carry social meanings for infants.

Keywords: music,social cognition,memory,infant development,open data

Word count: X

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Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

The participants were 32 infants and both their parents. However, only one of the paretns was active in their participation.

Material

The materials for this study consisted of two adpated versions of lullabies from folk collections.These were also provided through a website with the recordings of the songs and printed versions of the lyrics. The advanced measures of music audiation assesment was also used.

Procedure

This study was compromised of 4 overall experiments. During the first lab visit for experiment 1, parents were randomly assigned to either music condition. Once they got their condition with the song they would have to sing, they were given a music lesson. Parents were also instructed to visit a website that had the recording of the song so they could practice. Lastly, parents completed an standard assesment for music perception skill.

Everyday, participants were emailed a survey to assess the number of times the infant

heard the song. The researchers took the average of those surveys and mulitpled it by the days of the study to determine how much exposure they had to that song.

On the last day of the study, the infants were given an attention test. They sat on their parent's lap while they watched a projection screen with another two people on it singing the familar song and unfamilar song.The first were presented with vidoe recordings of the individuals smiling. Then they viewed the recordings with the individuals singing. Lastly, the viewed the the first recording again of the smiling individuals.

In experiment two, the overal procedure was replicated from, experiment 1. However, instead of having the parent sing the song to them duriing the study, they had a toy with a reocding of the song sing it during the study.

In experiment three, the overall procedure was replicated fro, experiment 1. However, instead of having the parent sing the song to them duriing the study, they had a friendly adult.

Data analysis

We used R (Version 3.5.2; R Core Team, 2018) and the R-packages *data.table* (Version 1.12.0; Dowle & Srinivasan, 2019), *dplyr* (Version 0.8.0.1; Wickham, François, Henry, & Müller, 2019), *ggplot2* (Version 3.1.0; Wickham, 2016), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), and *summarytools* (Version 0.9.2; Comtois, 2019) for all our analyses.

```
## [1] 0.5210967
```

```
## [1] 0.1769651
```

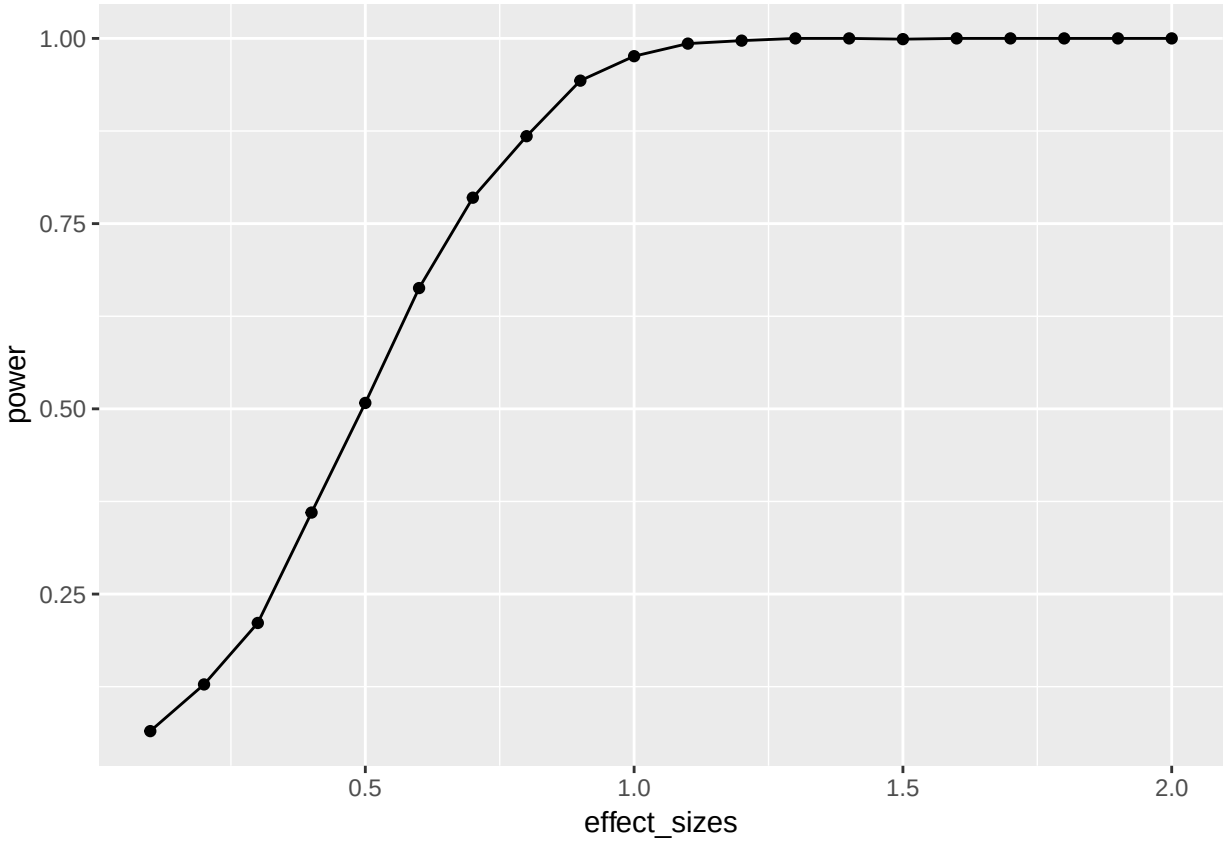
T-test analysis

```
##
```

```
##  One Sample t-test
##
## data:  baseline
## t = 0.67438, df = 31, p-value = 0.5051
## alternative hypothesis: true mean is not equal to 0.5
## 95 percent confidence interval:
##  0.4572940 0.5848994
## sample estimates:
## mean of x
## 0.5210967
```

A single-sample t test revealed that the mean proportion looking time toward the singer was .52, and was not significantly different from .5, during the baseline condition, $t(31) = .67$, $p = .505$.

Power. A simulated power analysis was used to determine what effect sizes we would have with the amount of participants we had. See Figure below.



Results

The results indicate that there was a significant difference between the infants attention towards the familar song in experiment 1 verses experiment 3, t(58.2)=2.04, p=.046. Song measure as a predictor was significant, X^2(3)=11.0,p=.01, R^2=.14. ‘r write something other tick-that treats as r code some this test significant tick r F value p value tick—–a=1,2,3,sapply(a,fun=function(x)return (x+1))

Discussion

Infants were able to remember that the song they were exposed to was different than the other song that had the same lyrics but different melody. They paid more attention to novel people who sang the learned song than novel people who sang the different song.

These findings suggest that there could be a connection between experieincing the song live and social engagement.

References

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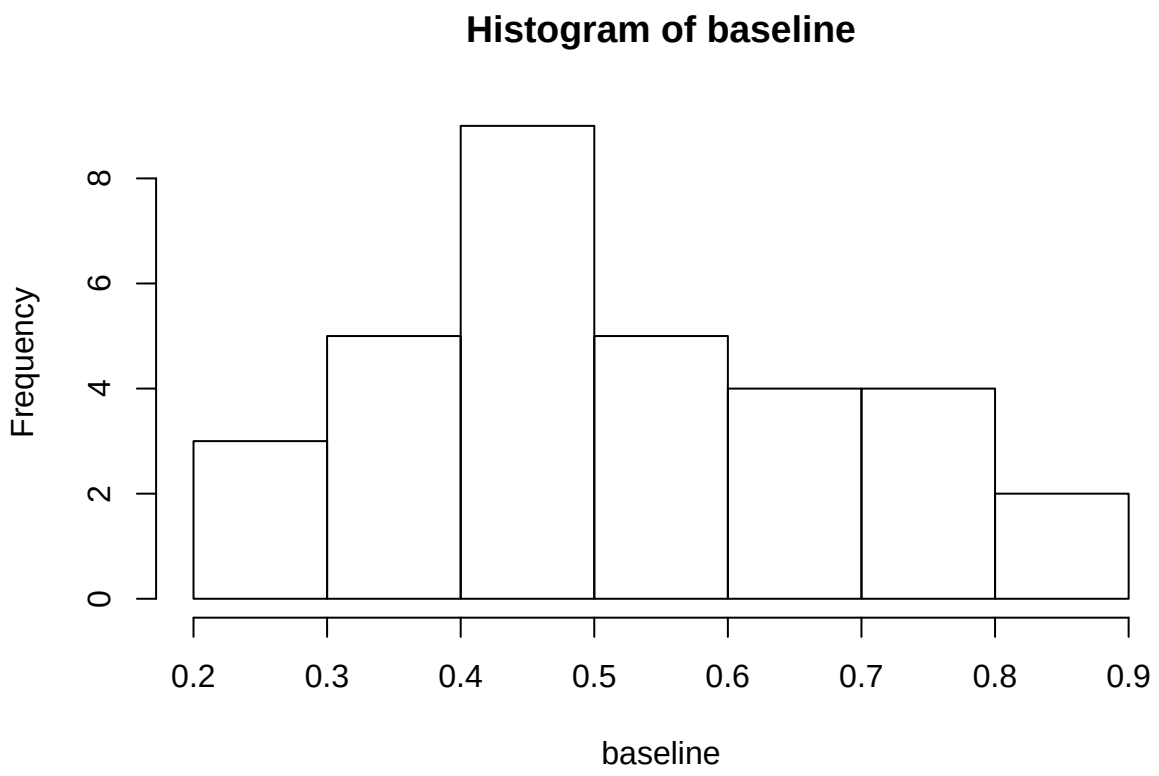

Figure 1. Histogram of the Baseline Condition