

A Paternal Voice Preference: Father Involvement as Part of the Language Environment

Alexis E. Kozak

Honours Presentation April 2011

University of Manitoba

Advisor: Dr. Melanie Soderstrom

Baby Language Lab



*This powerpoint talk is posted on our website for the information of our research participants.

*If you wish to cite this research, please contact the lab for a current citation:
info@babylanguagelab.ca



Principal Investigations

Adult-Directed Speech versus Infant-Directed

- very young infants show a preference for infant-directed speech (Pegg, Werker, & McLeod, 1992)

Maternal versus Paternal Speech

- newborns show a maternal voice preference (DeCasper & Fifer, 1987; DeCasper & Prescott, 1984)
- four-month-old infants do not show a paternal voice preference (Ward & Cooper, 1999)
- newborns and 4-month-old infants do show a male voice discrimination for infant-directed speech

Lack of Experience with Father's Speech

- infants are closer in proximity to their mothers
- any prior experience with a voice may influence attentional preference patterns

Research Problem

- Infants do not show a preference for their father's voice. Investigators have looked at infants up to 4 months of age; older infants have not been tested. Investigators have not looked at variables that may affect a paternal voice preference.

Hypothesis

- It was predicted that infants whose fathers were more involved in their lives would show a preference for their father's voice. These infants would listen longer to passages read by their father than to passages read by an unfamiliar male.



MR. MOM

Method

- **Participants**

- Eighteen infants
 - 8 males and 10 females
 - mean age of 516 days
- Fathers
 - mean age of 35 years
 - twelve of the fathers were Caucasian, two were European, one was Philipino

Method

- **Materials**

- the storybook titled *Thumper's First Snow*
- microphone
- BLISS 9 software
- one questionnaire
- two consent forms

- **Procedure**

- father recordings
- assessment of attentional preference

Method



- **Father Recordings**

- completed questionnaire
 - obtained demographic information
 - the amount of their involvement in their infant's life
- completed one consent form
- read the storybook
- received compensation in the form of either \$10 or a baby toy

Method

- **Father-Infant Pairs**

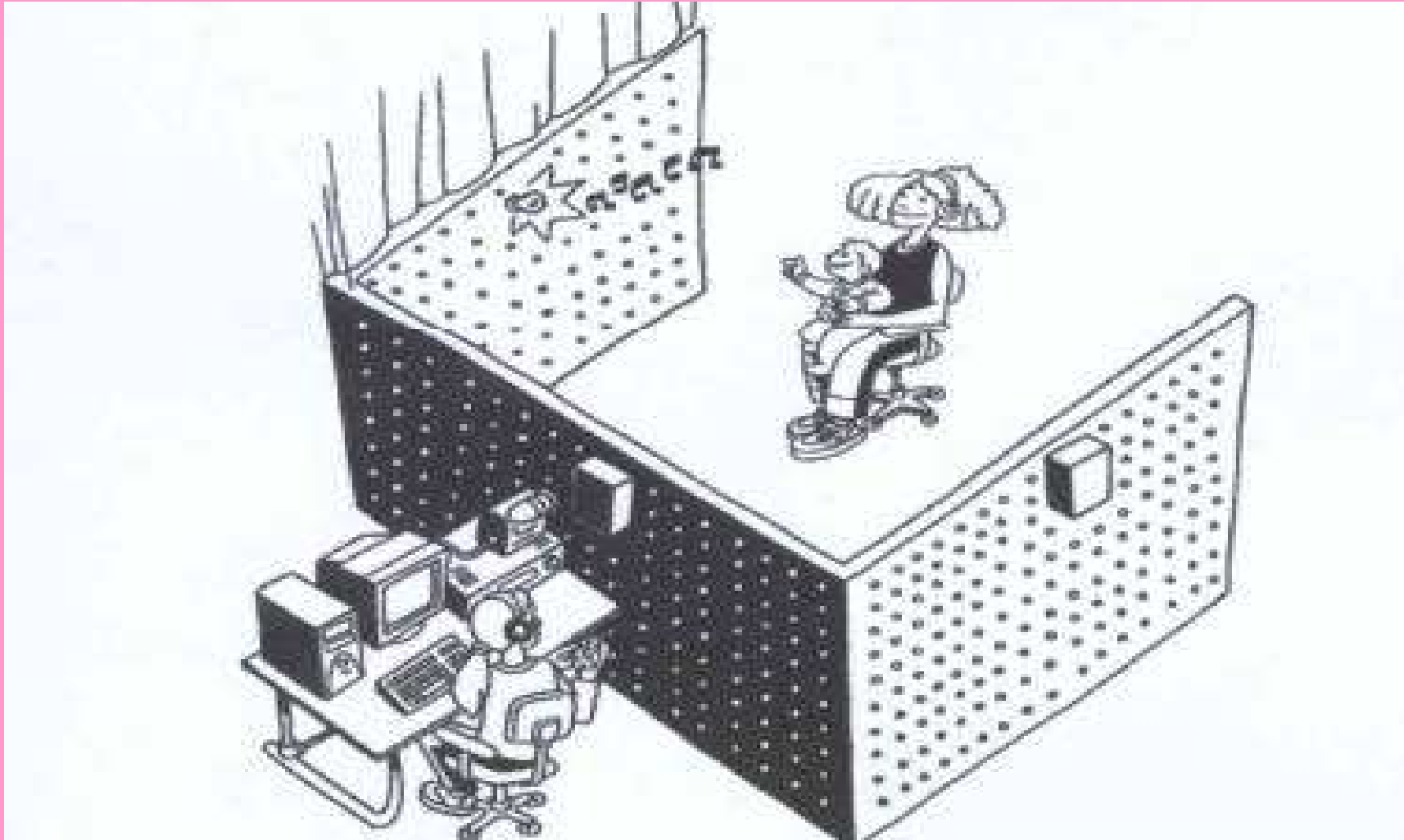
- infants who were two to three months apart were paired together
- the fathers' recordings were combined to create the sound stimulus that was presented to each infant in the pair during the experiment

Method

- **Assessment of attentional preference**
 - completed second consent form
 - multiscreen headturn preference procedure
 - received compensation in the form of a baby toy



Multiscreen Headturn Preference Procedure



Method

- **Experimental Trials**

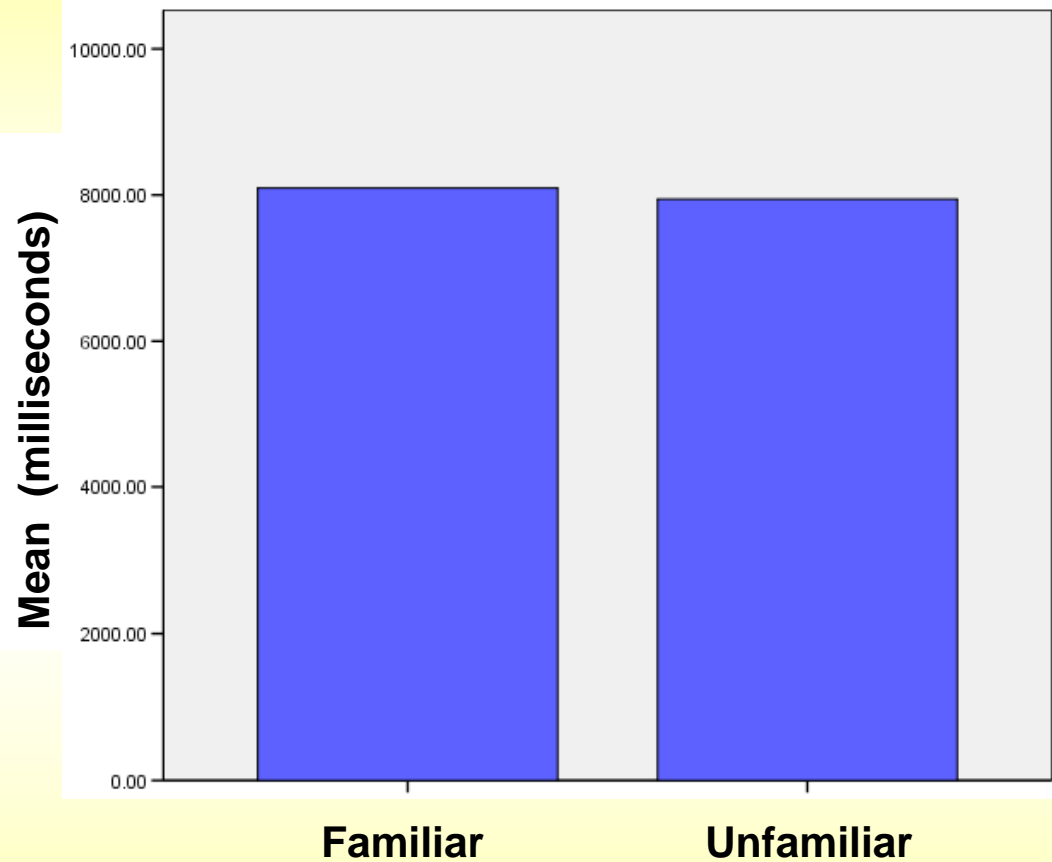
- **Pretest trials**

- consisted of classical music

- **Test trials**

- consisted of the infant's father or an unfamiliar male reading the storybook
 - the storybook was divided into three parts
 - played in a block randomized order
 - the average length of the test trials was 15.7 seconds

Paired samples t-test



No significant difference in the looking times to the familiar voice ($M = 8.1$, $SD = 3.6$) and unfamiliar voice ($M = 7.9$, $SD = 3.3$) at the specified .05 level, $t(17) = .176$, $p = .862$

Bivariate Pearson Correlations

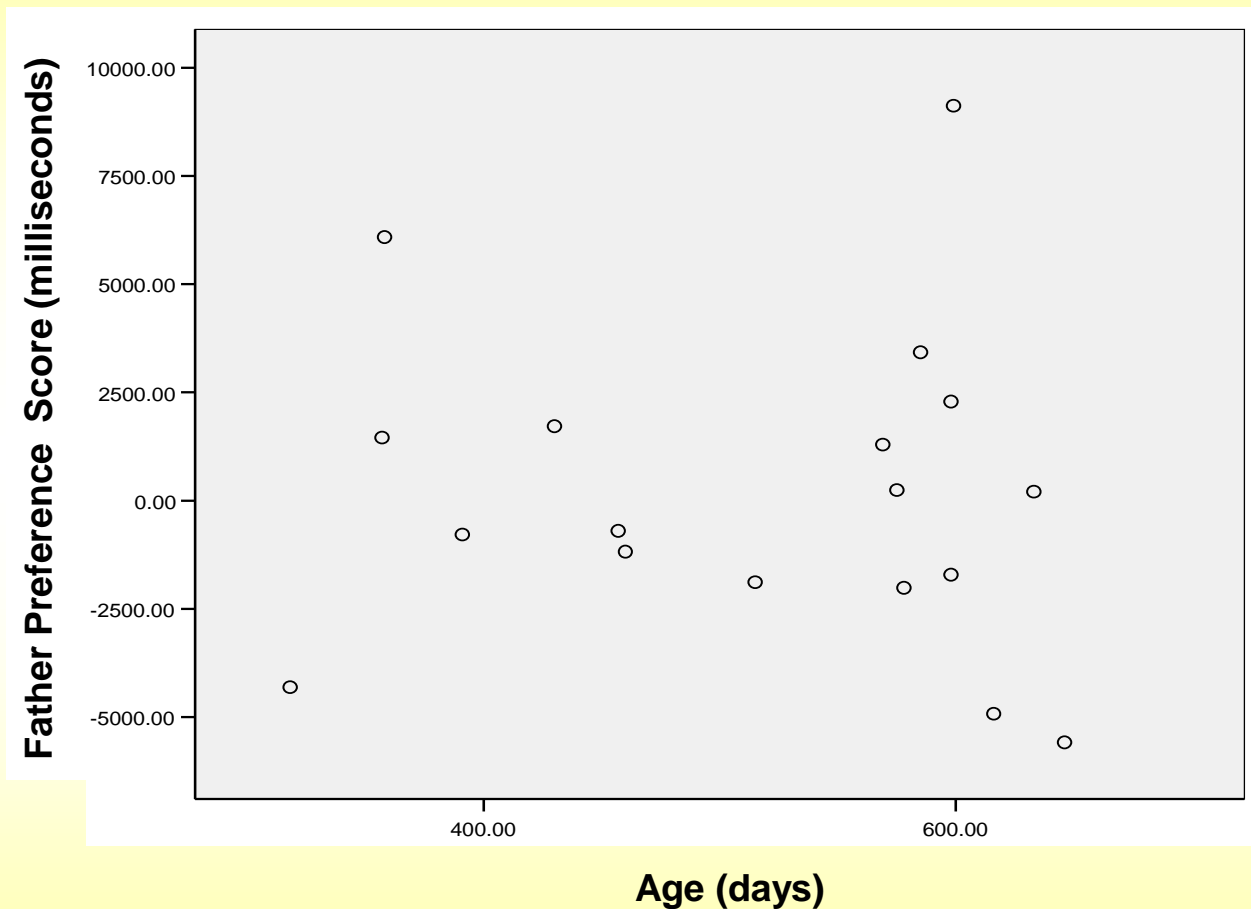
Father Preference Score

- the difference between mean looking time to the familiar voice and mean looking time to the unfamiliar voice

Father Involvement

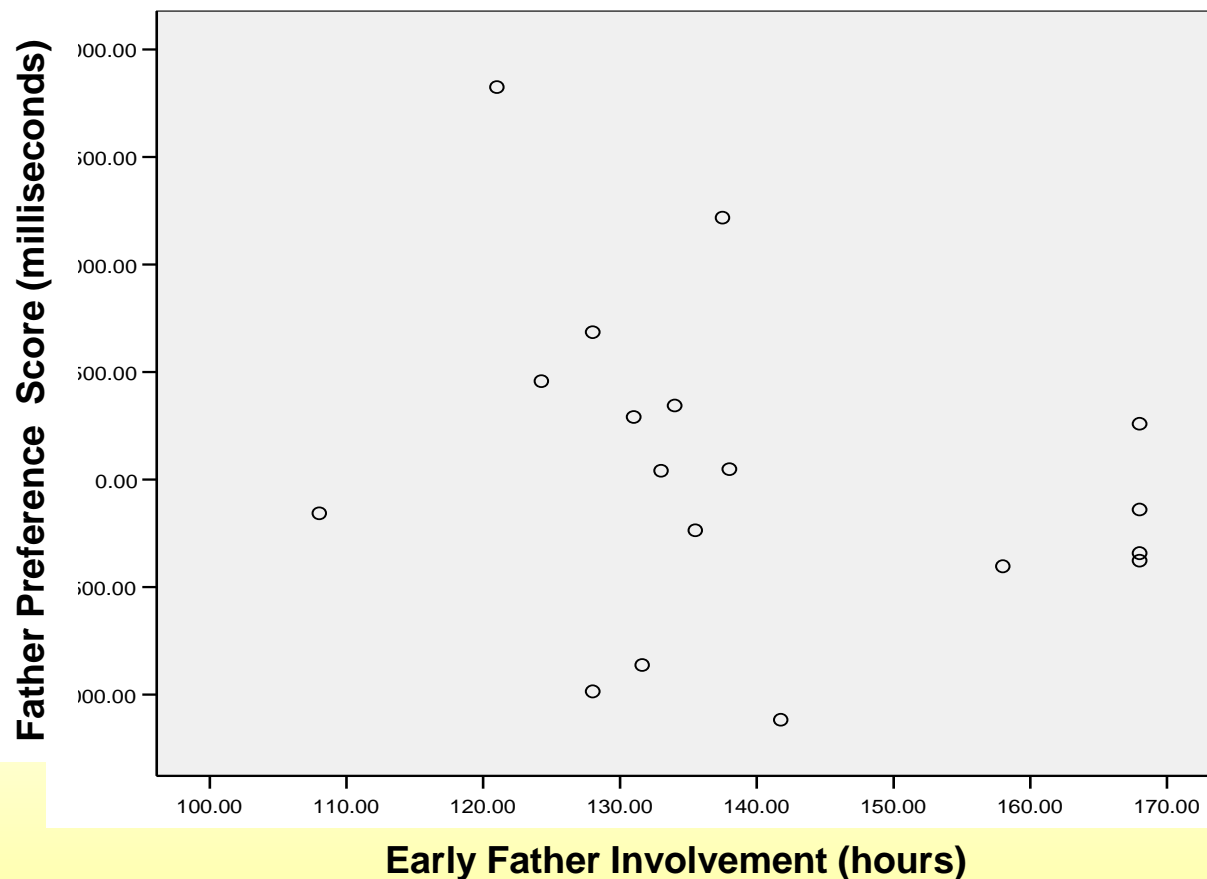
- the number of hours per week the fathers were home with their infant
- early father involvement
- late father involvement

The relationship between age and father preference score



- Overall, there was no correlation between the age of the infants and their father preference score, $r = -.071$, $p = .780$

The relationship between early father involvement and father preference score



- Overall, there was no correlation between early father involvement and their father preference score, $r = -.259$, $p = .300$

Discussion

This study found no evidence for a paternal voice preference

Reasons why this is a reasonable finding:

- there is no trend of a paternal voice preference in the data
- consistent with literature
 - newborns and four-month-old infants also do not show a paternal voice preference

(DeCasper & Prescott, 1984; Ward & Cooper, 1999)

Discussion

Father involvement had no effect on preference

- these findings disconfirm the hypothesis
- lack of true full-time stay-at-home fathers

Infants may perceive their parents' voices differently

- newborns consistently orient toward the voices of their mothers but away from the voices of their fathers
(Lee & Kisilevsky in 2011)
- this difference in perception may exist regardless of exposure to and experience with a voice

Questions?

