

# DEVELOPMENTS

INFANT LEARNING PROJECT

SPRING 2019

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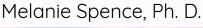
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#### **Infant Learning**

#### **Project** The University of Texas at Dallas School of Behavioral &

Brain Sciences

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## Spring 2019 Infant Learning Project Team

Faculty Lab Director Melanie J. Spence, Ph.D. Graduate Research Assistant Mariah Fowler, B.S.

**Undergraduate Research Assistants** 

Abbie Roberts Meg Mickelson Julia LaFond Samia Razvi Madeline Hale Hollis Ratliff Sarah Rehman

### **CELL PHONES & WORD LEARNING**

BY SARAH REHMAN

In today's world, numerous cell phone calls, text messages, emails, and social media notifications are an inevitable part of the day. It may seem trite to say that these disruptions affect parent and child relationships, but a new study indicates that these common disturbances stifle language learning. Children need caregivers who are not only sensitive and responsive, but also give timely and contingent responses (Tamis-LeMonda, Kuchirko, & Song, 2014). In a study of thirty-eight pairs of mothers and their two-year olds, researchers investigated whether a thirty-second phone call interruption would create a difference in word learning (Reed et al., 2017).

In order to gauge word learning ability, this study followed the experimental method used in similar word learning studies. Mothers were to teach their children two novel (non) words using visual demonstrations. Children's understanding of the word would be measured using preferential looking techniques (IPLP; Golinkoff, Ma, Song, & Hirsh-Pasek, 2013; Hirsh-Pasek & Golinkoff, 1996). Children were shown two videos side by side, one showing the word illustrated correctly and the other illustrating another (incorrect) word. If the child has learned the word, he/she should focus his/her gaze on the correct video preferentially (i.e. he/she will gaze at the video for a longer time). In order to ensure that the preference was due to knowing the word (and not simply a preference for the video itself), the children were shown the same side-by-side videos beforehand, and no preference for the correct video was shown. Prior to the teaching session, mothers were trained by an experimenter on the action associated with each novel word. *Blicking* was synonymous with bouncing, and mothers were instructed to bounce a baby doll on their knee. Similarly, *frepping* was synonymous with shaking, and mothers were instructed to shake a maraca. Mothers were also told to expect a phone call in the middle of one of their teaching sessions.

#### **CELL PHONES & WORD LEARNING (Contd.)**

The experiment began with an unstructured 2.5 minutes of the mother and child playing with blocks. When the time was over, mothers received a brief (<5 seconds) phone call instructing them to begin teaching the first novel word. Sixty seconds were given for each word, and one of these 60 second sessions was interrupted with a 30 second phone call. They were unaware as to which session would be interrupted. After the teaching period, children watched the side-by-side videos again, this time with instructions to look for the novel word (e.g. "find blicking!"). The results revealed that children learned the word (i.e. showed preference for the correct video) when there was no interruption. However, children did not show comprehension when the teaching period was interrupted. There was no significant difference in the number of times the mothers used the novel word in the interrupted versus uninterrupted sessions. These results reflect children's sensitivity to contingent and responsive interactions (Reed et al., 2017).

Contingent responsiveness is imperative for word learning because, in the form of joint attention, toddlers narrow the possibilities when encountering a new word (Tomasello, 2008). Through joint attention (Adamson, Bakeman, Deckner, & Nelson, 2012, 2014), parents take advantage of children's readiness to learn new words (Reed, et al., 2017). Cell phone interruptions are an unavoidable part of life, and this study sheds light on the unintended consequences they have for children's language learning.

**Source**: Reed, J., Hirsh-Pasek, K., & Golinkoff, R. M. (2017). Learning on hold: Cell phones sidetrack parent-child interactions. *Developmental Psychology*, 53(8), 1428–1436. https://doi.org/10.1037/dev0000292





We greatly appreciate all of the infants & parents who have participated in our studies. Without you, our research would not be possible!



Our research evaluates how children discriminate and produce words.

#### Eligibility:

Children with Cochlear Implants (ages 5 to 8) Children without Cochlear Implants (ages 4 to 7) In this study, your child will be asked to listen to words and repeat them.

Payment is \$20 per session + speech & language screening

> Please contact Olga Peskova oxp100020@utdllas.edu (469) 500-3112

#### The Think Lab is looking for young scientists!

Children will play games, view pictures, &/or hear stories and will answer questions.

#### Eligibility:

Children ages 4 to 10 are invited to participate in our studies about how children evaluate information. Testing lasts 30 to 60 minutes.

Payment is a \$10-30 gift card as a thank you! Please contact utdallas.thinklab@gmail.com (972) 883-6075



# Congratulations, Mariah!

Congratulations to Mariah Fowler on receiving her Master's degree in Psychological Sciences and launching her career in child learning and development. She has been the lead researcher in our lab for 5 years, and we will miss her! We wish her all the best for her future aspirations.

#### Lab Updates!

This semester in the lab, we are looking at recordings of free play mother-infant interactions and coding for the mother's use of mental state terms. We are exploring how the mother's acknowledgement of the infant as a separate sentient entity affects language outcomes. To complete this analysis, we will use scores from the MacArthur-Bates Communicative Development Inventory (CDI), which was administered when the children were two years old.



# CONGRATUATIONS Hollis Katliff B.S. in Neuroscience with a minor in Child

### Learning & Development

Hollis will continue her education as a Ph.D student at the University of Tennessee. She will study executive functioning in infants.

