

DEVELOPMENTS

Infant Learning Project

Volume 9, Issue 1

CURRENT STUDY

Face-Scanning Study

Infants will view faces of women speaking to examine where they look when they are spoken to.

Requirements: Seeking infants with normal hearing or with hearing loss.

Participant Age Range: 4–20 months old

Interested in participating? Please contact us via email at hannah.pourchot@utdallas.edu

Inside this issue

Page 1: Current Research Projects

Page 2: Article Review and Lab Details

Page 3: Additional Research Opportunities

Page 4: Fall 2017 Lab Events

Page 5: Article Review

UPCOMING STUDY

Foreign Language Infant-Directed Speech Study

Infants will listen to samples of women speaking to babies in a foreign language to examine whether they are able to recognize approving and comforting speech intent when presented in a non-native language.

Requirements: Recruiting infants who hear English most of the time and are exposed to other languages less than 50% of their waking time.

Participant Age Range: 5.5 – 6.5 months old

Interested in participating? Please contact us via email at infantlearningproject@utdallas.edu



Like us on Facebook!



www.facebook.com/infantlearningproject

Musicality and Emotional Attentiveness of Parents

Allie Neenan

As many new parents know, crying is one of the most powerful tools that infants use to communicate their needs. In addition to volume, pitch can also serve as a strong indication of how upset a crying child is. Higher-pitched cries tend to express higher levels of distress than lower-pitched cries, and parents who can easily discriminate between high and low pitched crying are better equipped to address their children's needs. In one study, researchers investigated whether parental factors such as levels of empathy and prior musical training were related to sensitivity to infant cries.

There were 109 participants in this study, with approximately even numbers of men, women, parents, and non-parents. Those who had received at least four years of musical education were considered musically trained in this study. Participants were first asked to complete a measure of empathy known as the Empathy Quotient (EQ). Participants then listened to several pairs of infant cries and were asked to choose which cry sounded "more distressed." The pairs of sounds varied in the difference of pitch, with some having much greater pitch differences than others. Correct responses required participants to rate the higher-pitched cry as being more distressed.

The researchers found that parents with musical training scored significantly higher than parents without musical training. Interestingly, non-parents scored similarly to parents but musical training did not impact performance on the listening task. Additionally, non-parents with greater empathy did better on the listening task than those with lower empathy while empathy did not influence parental performance. It is possible that people experience an increase in empathy when becoming parents, which would render individual differences less significant.

These findings have important implications for parents and non-parent caregivers. Parents who can learn to distinguish between high and low pitches with greater accuracy will be better able to attend to the needs of their infants. Given that most parents will not attain formal musical education, training parents on relevant principles such as pitch discrimination might be useful. For non-parents, musical training was less relevant than empathy, and future research should address that discrepancy. Perhaps those who are not naturally attuned to perceive distress in infant cries may experience greater improvements in their responsiveness if they are trained to notice emotional cues such as facial expressions, which may be more distinctive than cries. Going forward, finding ways to maximize caregivers' responsiveness to infants will help ensure that all babies have their needs met during their first months of life.

Source: Parsons, C. E., Young, K. S., Jeginda, E. E., Vuust, P., Stein, A., and Kringlebach, M. L. (2014). Music training and empathy positively impact adults' sensitivity to infant distress. *Frontiers in Psychology*, 5(1440).

*many
thanks!*

We would like to express our sincere gratitude to the parents of the infant participants in our studies. Without you, our research would not be possible!

Lab Details:

Infant Learning Project
UT Dallas
School of Behavioral
and Brain Sciences
Faculty Lab Director:
Melanie Spence, Ph.D.



Years of Caring

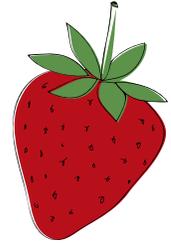
Callier Center for
Communication Disorders

Looking for More Ways to Participate in Research at UTD?



Families with kids ages 3-5:

Want to help us learn more about children's healthy development



Healthy Families Project

Participating families can earn up to **\$150** and receive a goodie bag. Kids will receive a fun prize and certificate!

Project involves:

- Initial online survey
- Brief online surveys for 7 days
- 4 quick home visits
- 7 video recordings of dinner time in your home

Interested?

Contact us for more information!

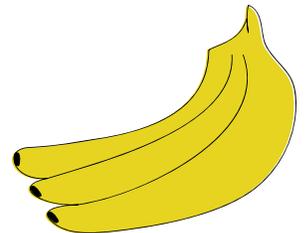
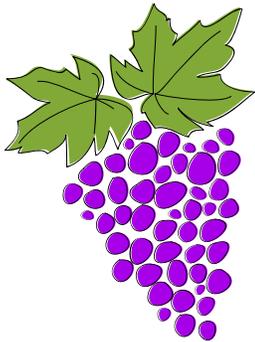
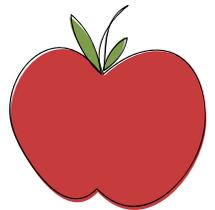
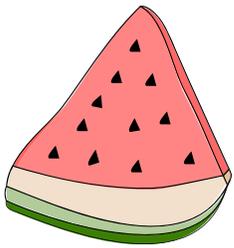
 972-883-4122

OR

 972-883-6073

 healthyfamilies@utdallas.edu

Project approved by the UT-Dallas Institutional Review Board



PAID RESEARCH STUDY FOR CHILDREN

The University of Texas at Dallas Callier Center for Communication Disorders is conducting a paid research study exploring how children learn and process language.

IF YOUR CHILD IS

- » Between 8-15 Years Old
- » Proficient in English
- » Has Normal Hearing
- » Not Taking Any Medication

Our study will take approximately 3 hours to complete, during which we will perform an EEG as well as a variety of reading, vocabulary, and memory assessments on each participant.

For your time and participation, your child will receive a **\$50 Gift Card and a T-Shirt**

If your child qualifies and you are interested in participating please contact us.

Appointments Available

- » Mon: 9 am - 5 pm
- » Tues: 9 am - 8 pm
- » Wed: CLOSED
- » Thurs: 9 am - 8 pm
- » Fri: 9 am - 5 pm
- » Sat: 9 am - 5 pm
- » Sun: 9 am - 5 pm

Address: Developmental Neurolinguistics Lab
1966 Inwood Road Dallas, TX 75235

Phone: (214) 905-3164 Email: utd.dev.neuro.lab@gmail.com



The Think Lab at UTD, headed by Dr. Candice Mills, is a research lab at UTD similar to the Infant Learning Project. This lab studies how children and adults think about and learn from the world around them.

Recruiting families with children between the ages of 4-10 years old!

Current projects examine how preschool- and elementary school-aged children think about what others are likely to know, and how this influences their learning.

Parents will receive gift cards as thanks for their participation, and children receive a prize.

For more information, visit: www.utdallas.edu/thinklab

Contact: utdallas.thinklab@gmail.com or (972) 883-6075



Fall 2017 Lab Events

Center for Children and Families Research and Resource Fair

On November 2nd, our lab attended the annual Research and Resource fair at the UT Dallas Visitor Center Atrium. We loved sharing our research with students and members of the community! We are very excited about our upcoming study and look forward to sharing our progress next semester.



Fall 2017 Forum

On Friday, October 20th from 9am - 2pm at Communities Foundation of Texas, the **Center for Children and Families** hosted its eighth annual forum on "Biobehavioral Effects of Early Adversity: Implications for Prevention and Intervention". We greatly enjoyed Dr. Seth Pollack's lecture on how childhood abuse can impact neural development in significant and surprising ways.

Spring 2018 Lecture Series

Save the date for the tenth annual CCF lecture series on "Building Bridges from Adversity to Resilience." Talks will be held on Friday mornings, from 9:30am - 10:30am in the Davidson Auditorium (JSOM 1.118) at The University of Texas at Dallas (800 W. Campbell Road, Richardson, TX 75080). The lectures are free and open to the public!

February 16, 2018

March 23, 2018

March 28, 2018 (Special evening lecture hosted by the Center for Values in Medicine, Science, and Technology)

April 13, 2018

April 18, 2018 (Special evening lecture hosted by the Center for Values in Medicine, Science, and Technology)

**Perceiving the World
Through an Infant's Eyes
Ritika Mallavarapu**

Through the course of development, an infant's field of view slowly changes. This change in perspective is related to the shift in infants' posture that occurs as they transition from crawling to walking. To further explore this idea, Kretch, Franchak, and Adolph (2014) conducted an experiment to investigate the visual information accessed by infants while crawling and walking as well as the practical aspect of both types of movement. Based on the location that the infants are drawn to, individuals interacting with the child can make sure that they account for their specific field of view.

Thirty 13-month-olds participated in the study and were evenly split as crawlers and walkers. In order to detect eye movements, a head mounted eye-tracker was placed on the baby. Additionally, a walkway with various colored stripes and numbers was placed on the ground with the caregiver at the opposite side. The caregivers called for the child and held up a toy or a snack at three distinct locations denoted as the low toy condition, middle toy condition, and high toy condition. After the data was collected and coded, the results demonstrated that walkers had increased access to visual information when it came to farther and higher locations, and crawlers had a more magnified view of the floor and near their hands. It was discerned that the highest viewpoint for walkers was nearly double that of crawlers. In the high toy condition, both crawlers and walkers demonstrated a head tilt. However, crawlers were found to tilt their heads at a greater angle to compensate for the proximity to the ground. Additionally, crawlers had their caregiver's face as well as the toys in their field of view approximately half as frequently as walkers did. Due to the decreased field of view that the crawlers experienced, it was found that many of the crawlers began to sit upright in order to obtain.

The information collected from this experiment can be beneficial in various ways. If an individual is trying to comfort a crawler, laying on the ground near the child will allow the child to see the individual's face with greater ease and will also grab the child's attention for longer than standing up in front of him or her. Finally, when trying to stimulate a child to walk or sit up, objects should be placed at a higher altitude to encourage this. In further research, an experimenter can test the effect of various objects/individuals on the amount a crawler tilts his or her head. This research will help provide information regarding an infant's interests based upon the amount in which the child tilt's his or her head. Understanding infants through the behaviors they exhibit can become easier with research that provides us with the knowledge to see through their perspectives.

Source: Kretch, K. S., Franchak, J. M., & Adolph, K. E. (2013). Crawling and Walking Infants See the World Differently. *Child Development*, 85(4), 1503-1518. doi:10.1111/cdev.12206

Fall 2017 Infant Learning Project Team

**Faculty Lab Director:
Melanie J. Spence, Ph.D.**

Graduate Research Assistants:

Mariah Fowler, B.S.

Hannah Pourchot, M.S., CCC-SLP

Undergraduate Research Assistants:

Allie Neenan

Ritika Mallavarapu

David Hughes

