

# INFANT COGNITION LAB



Texas A&M University

Spring 2016

## Welcome to Aggie Baby University!

Our lab is interested in how babies think about and understand objects. Specifically, we are investigating the kinds of information babies use to individuate objects. That is, when an object disappears from view and then reappears, what information do infants use to determine whether it is the same object or a different object than seen before? Traditionally, we have relied on violation-of-expectation (VOE) methods to study object individuation in infancy. In VOE studies, infants' duration of looking to an event is measured. Infants generally look longer at events they find surprising or unexpected. Using this method we can identify the kinds of object information to which infants attend, the expectations that infants hold for objects as they move about in the world, and how these change with age.

Thanks to technological advances, we are now able to examine infants' cognitive development through neuro-imaging and eye-tracking techniques.



## Spring Schedule

Monday: 9:00 am -1:00 pm

Tuesday: 2:00 pm - 6:00 pm

Wednesday: 9:00 am -1:00 pm

Thursday: 2:00 pm -6:00 pm

For easy & convenient booking, go to:

[infantcoglabtamu.youcanbook.me](http://infantcoglabtamu.youcanbook.me)



**Get your Aggie Diploma!**

**What to do at**

**Aggie University:**

We currently have 7 different experiments, so your infant will be able to attend several classes at the Aggie Baby University. Our current experiments include: NIRS\_SM, MoralPrime, PpourRobot, RollerCutter, Facetime, SFM, and ApeMoD.

## **Aggie Baby University: Meet our Aggie Staff**

**President of the Infant Cognition Lab:** Dr. Teresa Wilcox

**Dean:** Marisa Biondi

**Professors:** Lynee and Sydney

**TA:** Mari, Andrew, Alyssa, Juliane, Samira, Delaney

**Admissions-** Rebecca, Audrey



## **What our staff likes the most about Baby Lab:**

“I enjoy the close relationships I have formed with the ICL staff and love getting to see all of the babies’ different personalities!” – Marli

“My favorite thing about the ICL has been the opportunity to see and experience what research is like. I have enjoyed seeing the babies grow and change from the time they first come in until they graduate! It’s fascinating to see how much a pre-verbal child can tell us about the way they process the world around them.” – Alyssa

“I’ve enjoyed working in a research environment where I’ve been able to experience the different aspects of research, from observing the infant to coding the data.” – Juliane



## About Our Experiments

### Object Individuation and Knowledge Acquisition

Much of our research on object knowledge has focused on infants' developing capacity to individuate objects. Research conducted in our lab has revealed developmental hierarchies, in both the visual and the auditory domain, in the type of information to which infants are most sensitive when faced with an individuation problem. Another component of our work investigates infants' emerging capacity to map one object-related event representation onto another. We are currently using eye tracking technology to identify specific processes that underlie the differences observed.

### Brain and Cognition

Studies conducted in our lab were some of the first to establish the feasibility of using near-infrared spectroscopy (NIRS), an optical imaging technique that uses changes in blood flow and oxygenation as an indicator of neural activation, to study perceptual and cognitive processing in awake, active infants. Since then, we have identified distinct patterns of neural activation associated with processing of shape and color information in the infant.

### Learning within the Social Context

One area of our research focuses on how babies learn within the context of the social world. For example, one project investigates how infants learn to use color for knowing that one object is different from another object (object individuation). Another area of our research focuses on emotional communication between adults and infants.



## **A Special Thanks to Our Parents:**

Thank you for you and your infant's generous support and dedication in participating in our research. With your help, we've learned more about what infants know about the world!

### **Contact Us**

We are located on the Texas A&M University campus in Coke Building, room 101.

Give us a call at:

**(979) 862-8934**

Send Us an Email:

**infantcoglab@tamu.edu**

Visit our website at:

**<http://infantcognition.tamu.edu>**

