



INFANT COGNITION NEWS

Review of Research Findings For Participating Families

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What do we do at the Infant Cognition Lab?

Our discovery mission... Much of the research in the Infant Cognition Lab focuses on the early development of categorization, which is among the most fundamental of cognitive skills. In constructing category representations, individuals must detect a perceptual or conceptual equivalence among the objects within a given class. This ability is critical to infants, young children, and adults as a primary means of coding experience, which in turn reduces demands on memory and demands on perceptual and reasoning processes. Our research is intended to provide new information about the nature of the infants' early category representations, and the processes by which infants form these representations.

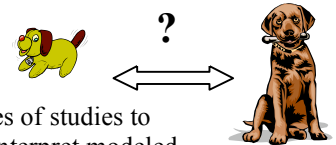
Our teaching mission... In addition to our pursuit of new knowledge about infant development, our laboratory provides opportunities for both graduate and undergraduate students in psychology and related fields of study, to observe and participate in an active research program. Graduate students conduct their own research projects. Currently, Stephanie Furrer is conducting her master's thesis project, studying categorization processes in infants between 4 and 10 months of age. Undergraduate students often participate in our research for course credit. They are involved in the day-to-day conduct of the research – setting up the labs before the participating families arrive, greeting parents who arrive at the lab with their infants, and entertaining infants and siblings while parents complete consent forms and questionnaires. The students also participate in lab meetings where they learn about issues pertaining to the conduct of psychological research with infants. This summer, we have an undergraduate from Wellesley College in Massachusetts doing a research internship with us. She will be helping us develop a lab web page while she is getting some first-hand experience working in a research lab.

We are *MOST* grateful to the families of the infants who have helped us so far in our research. Your support is essential to the success of our programs, and to our ability to understand infants' conceptual development. Thank you!!!

Do infants understand toy objects as symbols for real objects?

We recently presented our initial set of findings at the International Conference on Infant Studies in Toronto. Our studies indicated that at 18 months of age, infants are only beginning to understand toy replicas as symbols for their real world referents. In contrast to the younger infants we tested, 18- and 26-month-olds who were shown toy replicas of animals or vehicles were able to use the toys to guide their attention to the corresponding real objects as depicted in dynamic videotaped scenes. We also found that infants' ability to match the toy to its real referent was more strongly related to the child's vocabulary size than to age.

How do infants figure out what "action words" mean?



We have recently begun a series of studies to try to understand how infants interpret modeled actions of the kind that relate to "action words" such as *sleeping, drinking, rolling, or jumping*. Babies love to look at objects and people in their world, and this may interfere with their ability to focus on relevant actions when adults around them use verbs. For example, hearing a parent say "the horse is jumping" in reference to a jumping horse might be hard for the baby to interpret because (a) their attention is focused on the horse, and (b) actions unfold over time while objects remain pretty constant. We are using a preferential looking procedure to determine whether 16- to 26-month-olds can match a modeled action (e.g., a toy horse jumping) with a "real" dynamic videotaped action (e.g., a real horse jumping). We plan to submit our preliminary results as part of a proposal to the National Science Foundation, requesting funding to begin a broader investigation of infants' categorization of events and actions.



What's next?

We will soon begin a series of studies to examine the breadth of infants' object concepts. It has long been thought that infants' first concepts are at the "basic" level (e.g., dog, cat, car, truck). However, recent evidence has suggested that infants' first concepts of objects may be at the domain level (e.g., animal, vehicle). We will use the preferential looking procedure we've been developing to investigate how broadly or narrowly infants will generalize to other objects when they are familiarized with realistic videotaped scenes depicting an animal or vehicle engaged in an action.

This research was conducted in collaboration with Dr. Kathy Johnson at IU-PU Indianapolis, with the support of the National Science Foundation.

