

## **Does experience with animals improve toddlers' understanding of others' sound perception?**

**Rachelle Stover**

**Faculty Sponsor: Rebecca Williamson, PhD**

**Introduction:** Much research has examined what children understand about others' visual perception. For instance, 2-year-olds can determine when an object is hidden from another's viewpoint (Flavell, 1992). Less is known about children's understanding of other's auditory perception, but some results suggest that toddlers may struggle to consider what others hear. For example, 18-month-olds perform loud "forbidden acts" (e.g. pressing a buzzer, eliciting an angry response from an adult; Repacholi & Meltzoff, 2007), and 2- and 3-year-olds have difficulties choosing quiet toys when asked to let a doll sleep (Williamson, Brooks, and Meltzoff, 2013).

One possible explanation for children's struggles understanding audition is the static nature of the human ear. Unlike the eye, which is constantly moving, the human ear remains fixed. This may make it hard for toddlers to understand the function of the ear. Our experiment tests whether experience with more expressive ears improves toddlers' understanding of others' hearing. Children will watch a video of a dog reacting to a variety of sounds before being asked to let a baby sleep. We hypothesize that experience with salient ears will result in increased quiet play.

**Method:** Children ( $N = 12$ , Age = 28.4 months,  $SD = 3.6$  months) are allowed to manipulate two pairs of novel objects; half of the objects produce a loud sound, the rest produce a softer sound. A baby doll is then introduced, and children are prompted to play with the toys while being asked to wake or not wake the baby. The experimental manipulation involves experience with ears. Half of the children will watch a short video of a dog reacting to a variety of sounds before being introduced to the doll.

**Results:** For both conditions, we will compare the children's toy choice and the how much noise they make while playing. If our hypothesis is correct, we expect children who have watched the video to choose the softer toy and play quieter than children who do not see the video. These results would suggest that children's experience with ears promotes their understanding of hearing.

**Keywords:** Psychology, Child development, Sound perception, Social learning, Cognitive development, Toddlers, Non-human animals, Goals, Theory of mind, Social cognition