



The Social Cognition Chronicle

About Us

Hello from the Social Cognition Lab at Vanderbilt University! We are excited to be publishing our second newsletter for the parents and educators who have helped us with our research. Since 2015, our lab has been studying the development of children's social cognition—how they think about other people and how they learn from other people. Our studies examine how children come to understand and believe things that other people tell them, especially things that are unusual or imperceptible. We also study how social messages influence children's impressions of individuals and different groups of people. Read on to learn more about our recent findings and next steps!

Understanding Invisible Entities: What We Know So Far

Globally, children are taught and hear about different types of invisible entities (for example, oxygen, germs, atoms, souls, and God) that play important roles in their understanding of the world. When young children are introduced to a new invisible entity and its properties (for example, when they're taught about germs that can make you sick, or a heavy gas that can snuff-out a candle flame), to what extent do children understand this information? Can they imagine the invisible entity? Do they report that future instances of an outcome (for example, getting sick) were produced by those entities? We recently completed two studies examining children's reasoning about such things (Lane & Shafto, 2017).

In one study, children 2- to 5-years of age were told about a new invisible substance that could cause a special outcome—it could make a box light up green. During the verbal instruction, children watched as one container (which was *actually* empty) was turned upside-down over a box, and the box lit up green! Then another

identical container was turned upside-down over the box, but the box did not light up. Later, the experimenter inserted a spoon into different types of containers (that were also empty). Again, they turned the spoon over the box, which either lit up green or did not light up. When asked whether there was something in each container, children across this age range correctly reported that an invisible substance was present *only* when the box lit up. In a second study, children 2- to 4-years watched similar demonstrations but were *not* told about the invisible substance. We found that 3- to 4-year-olds assumed that when the box lit up, the invisible substance was present; but when the box did not light up, the substance was absent. It seems that even preschoolers can learn about and understand some types of invisible entities!





Invisible Entities: Current Directions

We are in the midst of conducting several more studies on children's understanding of invisible entities. In these experiments, we explore whether children understand unusual properties that some invisible entities possess. Some invisible entities can pass through solid objects (for example, WiFi signals) and other invisible entities can rise (for example, helium). Prior research has revealed that even infants expect that visible, solid objects will typically fall instead of rise, and infants expect



that objects will not pass through one another. So, these properties of invisible entities may be particularly counterintuitive for children, and perhaps especially difficult for them to understand. We are exploring whether children do indeed find these ideas difficult to comprehend and how their understanding of these entities unfolds across early childhood.

Learning about Social Groups: What We Know So Far

Many factors may influence children's attitudes towards other social groups, including other groups' food, clothing, accent, and appearance. In some cases, children's opinions about social groups may be fostered by the opinions expressed by others. However, little preceding research has directly examined how children's exposure to messages about new groups can influence their attitudes towards those groups.



We aim to learn whether and how children form opinions of new social groups based on what others say. We also want to learn whether children's attitudes are influenced by being directly taught about the groups versus merely overhearing others' claims about the groups.

In our first studies on this topic, we investigated the extent to which hearing brief negative messages about new groups of people (called "Gearoos" or "Shogies") influenced children's (4- to 9-year-olds') attitudes about

those groups. We examined the influence of messages that were provided directly to children (while the experimenter made eye contact with the child and used a child-friendly voice) versus when children overheard messages (as the experimenter spoke on the phone, supposedly with another adult). Using a variety of measures (for example, asking children whether they would be friends with a new group member, or whether they think people from the new group are good), we found that children rapidly internalized messages demeaning novel groups, forming negative attitudes toward groups merely on the basis of hearsay. These effects tended to increase with age and were particularly pronounced when the message was provided directly to children.





Learning about Social Groups: Next Steps

We are conducting a new study on how children's impressions of social groups are influenced when they overhear messages. In this study, 3- to 9-year-olds who are playing a picture-finding game with a researcher are interrupted by a staged video call that rings on a nearby laptop computer. The caller is either a child or an adult. For some participants, the caller delivers a negative message about a fictional social group. After the call, the participant and researcher return to the picture-finding game. The child is then asked questions and completes tasks to measure their attitudes toward the fictional group (for example, children are given an opportunity to donate stickers to an individual from that group, and they're asked if they would be friends with someone from the group).

Findings from this study will help us determine whether messages provided by people who are physically absent (for example, people on TV)

can influence children's feelings about other social groups. We'll also learn whether that influence differs based on the age of the speaker (whether they are a child or an adult).



In future work, we'll evaluate the effect of *positive* messages on children's impressions of new groups. For example, children will overhear a video call during which the caller makes positive statements about a new group of people, and children's attitudes toward that group will later be measured. Collectively, this line of work will inform us about how biases toward others may develop and how to counteract the development of those biases.

Want to participate in another study? Call us at: (615) 343-3997; or email us at: SC3Lab@gmail.com!

You can also visit our website: <http://my.vanderbilt.edu/socialcognitionlab>

THANK YOU!

TO ALL THE PARENTS, EDUCATORS, AND
CHILDREN WHO MAKE THIS WORK
POSSIBLE!

