



The Laboratory for Developmental Studies at Harvard University

Greetings from LDS! Recently, your child participated in one of our studies. We appreciate your interest and support, and want to share with you what we've found! We have included in this newsletter summaries of many of the studies that we've run over the last few months. Some are new, some you might recognize from our last newsletter. Many are still in progress, but some are finally finished! None of them, however, could be possible without your help.

A lot has been happening with us recently. Our new built-in navigation lab in the Vanserg building is now fully functional and in constant use for studies. Our most heartfelt thanks to the many children who came in to help us test it!

If you have any questions about these studies or the lab in general, please feel free to call us at (617) 384-7930 or (617) 384-7777. We also have a webpage for the lab where you can find out more about us and our studies (and also view copies of past newsletters):

www.wjh.harvard.edu/~lds

We hope to have you come visit for more studies soon!

Thank You!

For more details, contact:
Lab for Developmental Studies
Harvard University
Cambridge, MA 02138
Phone : (617) 384-7930; (617) 384-7777

This project investigated how young children learn color adjectives such as *red*, *green*, or *yellow*. Color adjectives are usually very difficult for children to learn, and they appear in children's speech several months later than size and texture adjectives.

We hypothesized that children may be able to learn novel color adjectives when

Learning Adjectives

Genya Steingold, Post-Doctoral Fellow

they are applied to substances, because when children reason about substances they don't need to attend to other salient features such as shape and size.

To probe how children begin to learn color adjectives we introduced them to a puppet, who taught them a special puppet word from his puppet language. Thus, when we showed children red and yellow shampoo, the puppet called the red shampoo the "blicket" shampoo. After children learned the new puppet word "blicket" applied to the original substance, we investigated how children extended this adjective across different substances. For example, after children learned that the red shampoo was the "blicket" one, we showed them some red and some yellow lotion, and asked them which lotion was "blicket."

Our first study showed that children between 2 and 3 years old can learn nonsense color adjectives that were applied to substances and generalize these adjectives across different

substances. We replicated this finding for both edible (e.g., frosting, jelly) and non-edible substances (e.g., lotion, soap).

The second study tested how children generalize novel color adjectives from substances to solid objects in the domains of food (e.g. apples, pears) and artifacts (e.g. combs, hairclips). We

hypothesized that generalization in the domain of food might be easier, because

food objects may also be presented as substances. We found that

young children easily generalized novel color adjectives from edible substances to solid foods and vice versa. We also found that young children can generalize novel color adjectives from non-

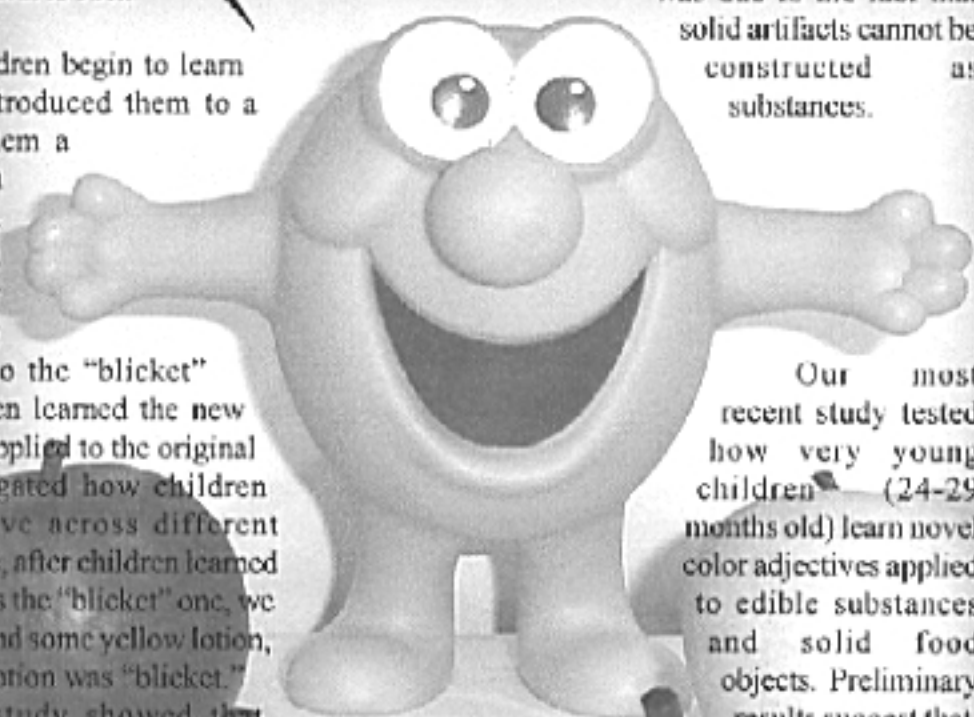
edible substances to solid artifacts, however this was more difficult for children than in the domain of food. We think that this performance cost when generalizing to the domain of artifacts

was due to the fact that solid artifacts cannot be constructed as substances.

Our most recent study tested how very young children (24-29 months old) learn novel color adjectives applied to edible substances and solid food objects. Preliminary results suggest that, although young

children can learn novel color adjectives applied to the original food objects, generalization by color across many different objects and substances is difficult for this group of very young children

Recently
Finished!



In the toddler ramp studies we have been examining the conditions under which toddlers are able to successfully search for an object that goes out of view.

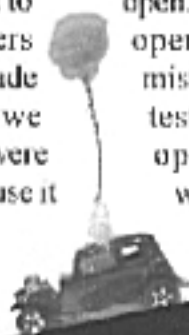
Toddlers are introduced to a small toy car that rolls down a ramp. On each test trial, a panel with two doors is placed in front of the ramp, the car is released to roll down the ramp, and then the toddler is asked to simply "find the car" by opening one of the two doors. The car can stop behind either door depending on where the experimenter places a bright green stop wall.

In previous studies like this one, we found that toddlers are not very good at using the location of the stop wall to determine where the car will stop even when the experimenter draws a lot of attention to the wall (for example, by

the panel as it rolled down the ramp. This change helped toddlers a little bit, but not much. In Study 2, we attached a short antenna with a bright pink pompom to the car AND we made little "windows" in the previously opaque doors so that toddlers could see part of the car (i.e. the pompom) behind the door they needed to really helped toddlers door – they rarely made open. This change really helped toddlers open the right mistakes!

In Study 3, we tested whether toddlers in Study 2 were opening the correct door just because it was more interesting (since it had a pompom

w u s



Toddler Ramp Studies

Kristin Shutts, Graduate Student

tapping on it and saying "the wall stops the car").

In these newest toddler ramp studies, we were interested in asking whether we could help toddlers succeed by changing various things about the game. In Study 1, we attached a tall antenna with a bright pink pompom to the car so that toddlers could see part of the car (i.e. the pompom) sticking up above

behind it) or if they really understood the pompom was attached to the car. Therefore, in Study 3, we placed a distractor (e.g. a little blue flng) in the wrong door on each trial. Toddlers in Study 3 did as well as toddlers in Study 2 (they rarely opened the distractor door), demonstrating that the children were really using the pompom to find the car.

We think these studies suggest that in order to succeed on a complex search task, toddlers might need a little more help than we previously realized. Specifically, it seems that they need to be able to see part of the object they are trying to retrieve and that the cue might need to be close to where they need to reach. We are currently testing this hypothesis with further studies on the ramp. We'll be sure to keep you posted!

