



## From the Director of the Child Study Center

Dear Parents,

We've survived the heat and the hurricane and are excited to begin the new fall semester at UVA. Our research pace always slows a bit in summer due to the absence of most of our undergraduate research assistants.

The majority of the undergraduates that you encounter when you visit the lab are signed up for course credit for being involved in research. This is an excellent way for students to learn about how research is done and, in our lab, to learn more about child development. To earn scholastic credit, the students do a variety of jobs in the lab, which range from preparing materials for the studies to helping to test the children when they come to the lab.



In addition, they attend lab meetings in which we discuss the studies we're doing with respect to what we hope to learn from the research, how the studies have to be carefully designed to produce useful results, how we analyze the children's behavior, and what we can conclude from the results.

Some of the assistants you encounter are being paid from grant funds for their work in the lab. Usually, they have previously proved themselves to be excellent research assistants while working for course credit.

Thank you for your participation. The only way that researchers can discover more about how infants and young children develop is if families are willing to volunteer to participate in research programs such as ours.

A handwritten signature in black ink that reads "Judy DeLoache".

Judy DeLoache  
Director of the CSC  
William R. Kenan Professor of Psychology

## Current Research Projects

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### *Snake Studies – Looking at EEG*



Many parents are familiar with the Child Study Center's "Snake" Studies – a series of experiments that have been going on in the lab for the past four years. This research is based on an influential theory that people may have a predisposition to learn to fear snakes, which are one of the most commonly feared objects in the world.

In a recent study, graduate student Vanessa LoBue and Dr. DeLoache showed infants two movies side by side, one of a snake and one of a different kind of animal. At the same time, the babies heard either a fearful voice or a happy voice. The infants looked longer at the snake film when they heard the fearful voice, demonstrating that infants find something natural about the relation between a frightened voice and a snake.

Recently, we have begun a new project in collaboration with Dr. Jim Coan's lab at UVA using EEG to examine how infants make the association between a fearful voice and the image of a snake. The human brain is constantly producing small electrical signals, and an EEG, or electroencephalogram, provides a measure of these signals. By recording EEG while infants are looking at pictures of snakes and animals and listening to fearful and happy voices, we

hope to learn more about what's going on in the brain when they associate snakes and fearful voices.

The EEG study is currently being run in the lab for 7- to 9-month-old infants. The results of these experiments will provide especially important information about the origins of snake fears, and about the origins of fears and phobias more generally.

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### *The Marvelous TRANSFORMATION Machine*

Although even infants understand a great deal about the physical world, we have been discovering that older (preschool and early elementary school) children are surprisingly willing to believe that all sorts of impossible transformations can actually occur.

In previous research in our lab, children watched as an experimenter demonstrated that a highly technical looking machine could (supposedly) transform toys in a variety of impossible ways, making big toys turn little and turning toys and pictures into real objects. To find out what the children actually believe about what they see the machine appear to do, we ask the parent who accompanies them to our lab to ask them questions about their session with the transformation machine. We have found that up until seven, almost all children believe that the machine can actually transform the toys.

Using a similar procedure we are currently exploring whether children are willing to believe that the transformation machine can transform live animals in various impossible ways. We are interested in whether children are more or less willing to believe that live animals – compared to inanimate objects – can undergo such transformations. We are also currently exploring just how much children have to see to be convinced. For example, would they believe these transformations are possible if they just hear about them, but do not see a demonstration?

This research is helping us understand more about the development of children's beliefs about reality and about how their beliefs are affected by what they see and hear.

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### ***Very Young Children's Interest in Animals***

Anyone who has spent any time with young children would have a difficult time denying the fascination that young children, from very early in development, have with animals. How often have you encountered an infant stretching out of his stroller to get a closer look at a dog. How many outings have been delayed over an infant's fascination with a squirrel or bird on the side of the road?

The goal of this brand new research project is to explore the nature of children's fascination with animals. In one study, we will simply observe young children's reactions to animals they encounter in public. In another study, we will have animals (e.g. fish, hamsters) in the lab so we can observe whether children notice and respond to the animals during the normal warm-up period for other studies. This research will be the first we know of to examine young children's fascination with animals.

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### ***Musical Chairs and Scale Errors***

If you've been into the lab recently you might have noticed that we have a lot of different child-sized chairs around. Did you try to sit in any of them? Probably not, because you recognized that the chairs were far too small for you.

What's interesting is that when presented with objects that are too small for them, like a miniature chair, young children don't always make the same kind of judgment. Instead, they sometimes commit what we call "scale errors" by trying to sit in a miniature chair, slide down a miniature slide, or get into a miniature car. Through previous studies of scale errors, we've

discovered that they are most common around 2 years of age. We believe that they happen when a child doesn't link visual information (the fact that the chair is so small) with their motor action planning (sit in chair).

Currently, we are exploring whether a lot of recent practice with a particular kind of object (chairs) and the associated motor action with it (sitting) will make it more likely that a child will do a scale error with that object. For this study, the toddlers first interact with a child-sized chair, a child-sized slide, and a child-sized car. After playing with each of these objects, they move into another room where they find 8 different child-sized chairs. They are encouraged to sit in as many different chairs and as many times as they want.

The fun part of the study comes when we take the child back into the original play room, where the child finds miniature versions of the larger objects (a tiny chair, car, and slide). Sometimes, children notice the switch right away and comment about being "too big" or about the objects being "too little." Other times children interact with the miniature objects as they interacted with the bigger objects. For example, they might carefully position themselves above the miniature chair and actually sit on it! Parents who have seen their children make scale errors either at home or in the lab know how amusing they are! So far, it appears that the extra experience with chairs and sitting does not increase the chances that a scale error will occur.



In this study, we are especially interested to see whether some kids are more likely to do a scale error than others. Or is the likelihood of a scale error more tied to a particular age range than to individual children? To try to answer these questions, we are having all the children come back into the lab three months after their initial visit for a follow-up. We will then look for similarities and differences in what the children do in their two visits.

Stay tuned to see what happens!

## CSC this summer

### *Cynthia's Summer Job in the Big City*



This summer, graduate student Cynthia Chiong, interned at Children's Television Workshop (Sesame Street) and Scholastic and got to experience how research is done in the "real world." You probably have fond memories of Big Bird and Cookie Monster, and of Scholastic books and magazines. Both Sesame and Scholastic are continuously doing research and changing their products so they can more effectively help children learn.

At Sesame, the main focus this summer has been nutrition. They conducted a series of studies to see whether and how Sesame shows and products can influence children to eat healthier foods. So far, the results suggest that children's food choices can be influenced by Sesame characters.

At Scholastic, Cynthia worked in classroom magazine development. With changing curricula and budget cuts in schools, it is extremely important that classroom magazines are compatible with lesson plans, easy for teachers to use, and motivating for students. Surveys and focus groups with teachers, students, and parents, provided a better sense of what works and what does not work.

To learn more about Sesame Street or Scholastic, please visit:

[www.sesameworkshop.org](http://www.sesameworkshop.org) and  
[www.scholastic.com](http://www.scholastic.com)

### *Half way around the world: Kyoto*



This summer three graduate students from the lab—Megan Bloom, Cynthia Chiong, and Vanessa LoBue—attended the meeting of the International Society for the Study of Infancy. They all made presentations of the research they've done in the CSC lab – research that your children made possible. They learned a lot at the conference, and had a great time in Japan.

## Transitions

We've had several major transitions at the CSC this past summer:

This past July, CSC coordinator **Themba Carr** departed the lab to attend graduate school at the University of Michigan. She

will work towards her PhD in clinical psychology while conducting research at the UM Autism and Communication Disorders Center. She greatly enjoyed her time at the CSC and would like to thank each and every family not only for participating in our research, but for the opportunity to form a relationship with so many wonderful Charlottesville families! We miss her!

We're delighted to welcome **Kai Van Eron** as the new lab coordinator. She is a 2004 UVA alum who is taking time off before continuing with graduate school. Kai has research experience in Cognitive Science and loves being around children. Her smiling face is a delightful presence in the lab.

**Anne Raustol**, the first lab coordinator of Dr. DeLoache's lab at the University of Virginia, has moved from Charlottesville to Atlanta with her husband and two children. We're sure many of you fondly remember Anne and would join us in wishing her well.

**Patricia Ganea**, faculty researcher with the lab, has moved to Chicago, where she is affiliated with the Psychology Department at Northwestern University. Her husband is teaching at the University of Illinois at Chicago. Patricia's research at the Child Study Center will continue, and she will make return visits throughout the year.

## **Happy Birthday CDL!**

The Child Development Laboratories (CDL) is one year old! The joint efforts of the Child Study Center, the Child Language and Learning Lab, and the Early Development Lab continues to be a great success. Look for our logo at upcoming events, including Family Day at Foxfield's and the first Saturday of the Carter Mountain's Apple Festival.



## **Pass It On**

We continue to ask for your help in finding other children to participate in our research. Although we recruit many of our participants using the *Daily Progress* birth announcements, it is impossible to learn about kids who were born out of the area or were not listed in the paper. **By telling your friends about the Child Study Center and our sister labs, you help us greatly.** In the past, many of our parents have been very helpful by giving us names of friends who might be interested or simply by telling others about our research. We greatly appreciate this effort!

If you know of parents who have children birth to 10 years of age, please share this newsletter with them. Any interested parents should call **434-243-5234**, visit our website at **[www.faculty.virginia.edu/childstudycenter](http://www.faculty.virginia.edu/childstudycenter)**, or e-mail **[childstudycenter@virginia.edu](mailto:childstudycenter@virginia.edu)**. Again, thanks for your participation. We look forward to seeing you and your child again!

## **WHAT'S NORMAL?**

If you have any concerns about your child's development and he or she is under the age of 3, contact the Infant and Toddler Connection of Virginia: 1-800-234-1448.

If your child is 3 or older contact your local school system: *Albemarle*, Angie Amburn and Robin Aldridge, 973-2490; *Charlottesville*, Shawn Carey 245-2814; *Fluvanna*, Susan Daly, 589-4342; *Greene*, Kathryn Payne, 985-1307; *Louisa*, Meredith Wilkinson (540-967-1108), Shelia McCalla (540-967-0042), Kathy Wash (540-872-3931); *Nelson*, Joe Bolling, 263-7100.

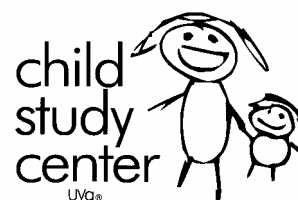
For concerns about a child's speech, hearing or language development, contact the UVA Speech and Hearing Center at 434-924-6354.

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## Child Development Laboratories at UVA



Child Language &  
Learning Laboratory

Early Development  
Lab



From all of us at the Child Study Center and the Child Development Laboratories at UVA, we thank you again for your interest and participation in our research!