September 2011

Dear Parents,

Thank you for your family’s participation in the research being conducted in the Child Development Labs at UVa. You made it possible for us to learn more about the fascinating process of development in early life.

One major change this year is the fact that Kai Sherman, the coordinator of the Child Study Center and the organizer of many of our joint lab events, has departed UVa. She and her husband, Gary Sherman, who just received his Ph.D. in social psychology, have relocated to Cambridge, M.A., where Gary has taken a postdoctoral position at Harvard. We will deeply miss Kai, but appreciate that this move will open up many new opportunities for her.

As usual, we report here on several of the studies conducted in the CDL during the previous year. We hope that you enjoy reading about this work, especially the studies to which you and your children contributed.

Our third annual Open House will be on September 10. We hope that your family can attend, and we encourage you to invite any of your friends with young children who might enjoy the chance to get together with other parents and children. This will be a good opportunity for you to learn more about the current projects at the CDL, as well as for your children to enjoy various fun activities!

Judy DeLoache
Child Study Center

Vikram Jaswal
Child Language and Learning Lab

Rachel Keen
Angeline Lillard
Early Childhood Lab Early Development Lab

Second Annual CDL Open House

Our second annual CDL Open House was a huge success! Thank you to all the friends and families (new and old!) who helped and attended. The Open House wouldn’t have been possible without you!

We had roughly 300 families visit the Millmont Cottage behind Barracks Road Shopping Center last September. Visitors enjoyed live music, dance performances, snacks from Sticks and Hot Cakes, finger-painting, face-painting, and giveaways. Families also had an opportunity to have their children fingerprinted by the Albemarle County Sheriff’s Office, learn CPR from the Charlottesville-Albemarle Rescue Squad, and get an insider’s view of the Child Development Labs here at UVa.

We will be hosting our third annual event this fall, on September 10th from 9-2! We are located at 1023 Millmont St. There will be games, new vendors, new safety information and instruction, exciting giveaways, and a lot more fun! We hope you will join us on September 10th! For additional information, please call (434) 982-5368.
About People

Graduate student Robyn Kondrad and undergraduate Claire Galdun were awarded a Double Hoo Grant to investigate children’s perceptions of peers who misbehave.

Graduate student Matthew Lerner won the Elizabeth Munsterberg Koppitz Child Psychology Graduate Fellowship from the American Psychological Foundation and the Graduate Student Achievement Award from the Society of Clinical Child and Adolescent Psychology.

Undergraduate student Jen Peterson’s distinguished major’s thesis on the effects of cartoons on children’s executive function was accepted to Pediatrics, the journal of the American Academy of Pediatricians.

Lab director Angeline Lillard received a grant from the National Science Foundation to study the effect of imagination and pretend play on children’s social behaviors and attitudes, and a grant from the Brady Education Foundation to study public Montessori preschool outcomes in a low-income community.

Recent articles and articles in press from our labs:

Please feel free to contact us if you would like a copy of any of these articles!

What’s going on at the Child Study Center

Attuned to animals

The human mind appears to be particularly attuned to other living things. This presumably helps us to quickly recognize other members of our species and to detect threats such as predatory animals. This preference may explain why so many young children are so excited to encounter animals when they’re out in the world and why so many children develop rich and lasting relationships with their pets. Some recent research, which your child may have participated in, show that this interest in animals appears early in life. Young infants prefer to look at films and photos of animals over those of vehicles, toys, and other objects.

In a new study, we are looking at whether children with autism spectrum disorders also prefer to look at animal videos compared to videos of mechanical objects. We’ve found that while many of the children with autism liked to look at the animals, some preferred, instead, to look at the mechanical
objects. Now, we are seeing if severity of autistic symptoms relates to children’s animal or object preferences.

Scale Errors

Previous studies in the lab have documented a fascinating phenomenon, which some parents may have noticed. Sometimes children will perform an action on an object that is too small to accommodate that action, e.g., trying to sit in a tiny chair from a dollhouse or trying to get into a toy car. We have named these puzzling behaviors “scale errors”. We have found that about 50% of children between 18-30 months will make a scale error when brought into a lab room filled with miniature toys and furniture. And some children who are 20-25 months of age will make as many as 4 or 5 scale errors during their short lab visit!

Children between 20-25 months of age come in for two visits to the lab, a week apart. Those who made several errors at their first visit also made several errors at their second visit. Those who did not make any errors at their first visit also did not many any at their second visit. We are now expanding the age range and looking at children who are just starting to make scale errors (around 18 months of age) and children who are starting to make very few or no scale errors (around 30 months of age). We are hoping to get a better understanding of why some children make scale errors and some don’t and also why children stop committing scale errors by around 3 years of age.

Restorative environments

Several studies have shown that adults who spend time looking at natural scenes were better able to focus their attention, solve problems, and exert self-control. We’re interested in young school-aged children’s responses to natural scenes. The children will play a computer game in which they identify shapes. Then they will see images of natural scenes or man-made scenes. This study has important implications for supporting children’s exposure to nature.

What’s going on at the Early Childhood Lab

Understanding gravity

During the early toddler years, children have a “gravity bias” about where objects will fall, assuming all objects fall straight down. Some time between the second and fourth year of life, experience helps a toddler lose the gravity bias and make better predictions based on environmental cues (e.g., understanding that a ball may no longer fall straight down if it is displaced by a tube). Of particular interest is how children begin to use environmental cues to make decisions about the impact of gravity on objects. One way that we attempt to answer this question is by having children make predictions about where objects will land while we use a small camera to track their eye movements. We hope to use this eye-tracking data to better understand how children’s looking patterns may be associated with correct predictions about where a falling object will land.
**What’s going on at the Early Development Lab**

**Collaborative play and perspective-taking**

Child development researchers and professionals often assert the benefits of different kinds of play in promoting social and cognitive skills. Graduate student **Matthew Lerner** is examining whether brief episodes of social play with undergraduate research assistants may produce immediate effects on children’s ability to understand others’ perspectives. We have found that there may indeed be a benefit to social play, but only to specific groups of kids. Among 3- to 5-year-old children, those with better language abilities improved in their ability to understand what others think, while girls (compared to boys) improved in their ability to understand what others feel. This study is now being run with slightly older children with autism spectrum disorders to determine whether the same effects emerge and to help shape the content of treatments designed to improve these abilities.

**Learning from pretend play**

Graduate students **Emily Hopkins** and **Rebecca Dore** are investigating whether pretend play is beneficial to learning new information. Conventional wisdom says that making something into a game will help children to learn, but so far there is little scientific evidence to support this. We brought children into the lab and told them a new label and function for a familiar object (screwdrivers are “sprocks” that are used to push balls out of tubes). We either taught them that screwdrivers are really sprocks or we pretended that a screwdriver was a sprock. We then asked children to choose the real sprock from a set of objects. Not surprisingly, children who were taught that screwdrivers are really sprocks tended to choose another sprock as the real sprock. Interestingly, children who pretended that screwdrivers were sprocks tended to choose any of several objects that were similar in appearance to a screwdriver and could perform the function of a sprock—pushing a ball out of a tube. Thus, it seems that children are learning something when new information is presented during play—in this case, that sprocks sort of look like screwdrivers—but it is different from what they learn in a realistic context. Pretend play and games may be a good way to teach children, but care should be taken in how the information is presented. We plan to continue exploring this question with different types of information and more realistic play settings to better understand the role of play in learning.

**TV and executive function**

Graduate student **Rekesha Greenwood** is currently studying how different types of cartoon shows impact children’s executive function. Executive function is a term that includes many cognitive and social skills that children use every day, such as working memory, task shifting, and critical thinking. These skills are important for activities such as problem solving, keeping rules in mind when playing games, or just being able to sit patiently and wait for rewards. Results show that immediately after viewing fast-paced cartoons that are high in fantasy content, children’s performance on tasks measuring executive functioning skills decreases compared to children who watch more slow-paced, realistic shows or engaged in free play. Rekesha is also studying how participating in different activities after viewing cartoons (such as physical activity or resting) may influence performance on tasks measuring executive function skills.
What’s going on at the Child Language and Learning Lab

Sticks and stones can break our bones: Is it true what they say about words?

Graduate student Robyn Kondrad and undergraduate student Claire Galdun wondered how 5- to 7-year-olds made judgments about the seriousness of offenses they likely witness in school: hitting or teasing someone, for example. Children in this study heard a series of stories about children who were misbehaving. Some characters caused physical harm to others (e.g., they hit another child) and others caused psychological harm (e.g., calling another child a scaredy-cat). Children thought causing physical harm was much worse than causing psychological harm. They almost always said the physically harmful character was the meanest and was least likely to help a child on a different occasion.

In a follow-up study we asked children to indicate how much time-out children would assign based on their parents’ answers. Our next step is to explore whether children’s negative evaluations of peers who misbehave is stable over time, and whether those judgments are less harsh if they witness the transgressor being disciplined.

Are pointers always knowledgeable?

Previous work in the CLLL has shown that children have difficulty ignoring pointing that is not helpful. With this study, graduate student Carrie Palmquist asked whether children have this difficulty because they cannot help but look where people point or because they truly believe that when someone points, they have knowledge about an event. In the current study, children saw two informants either point or grasp to indicate an object’s hiding location. When asked which informant new where the object was, children who saw both informants point were as likely to attribute knowledge to an ignorant informant as they were to a knowledgeable one. However, children who saw both informants grasp could successfully identify the knowledge informant. Therefore, despite a person’s actual knowledge state, it seems that children view all pointers as having knowledge to share. Current work is addressing whether children have similar expectations about verbal statements or other kinds of gestures.
From all of us at the Child Development Laboratories at UVa, we thank you again for your interest and participation in our research!