CHILD DEVELOPMENT LABS NEWSLETTER

Your guide to everything that’s been happening in our labs!

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DEAR PARENTS

We couldn’t do this without you! Thank you for all your support.

As we begin a new academic year, we’d like to take this opportunity to share with you some of the things we have been working on at the UVA Child Development Labs. Your child may have participated in one or more of the studies highlighted in this newsletter and for that we are grateful, thank you for your time and continued support.

On the following pages, you can read about a few of this year’s projects — from parent-child interactions during pretend and real activities to how children view fairness and whether parental touch via hand holding reduces threat bias in children. Some of our research this year has been featured in the popular press, including The New York Times, US News, and the Daily Progress.
As many of you know, the Child Development Labs is an umbrella group that includes four separate labs: the Early Development Lab, the Early Social Development Lab, the Babylab, and the Jaswal Lab. Each lab is supervised by a different faculty member, but we regularly collaborate with each other. If your family has come to Gilmer Hall this year, you may have participated in multiple studies being conducted by different labs during your visit.

You can keep up to date on all things CDL-related by visiting our website at www.childdevelopmentlabs.org or by following our Facebook page. If you know of other families that might be interested in participating in our studies, please pass along our information to them! We currently have studies for children between 0 to 10 years of age, and we are always looking for new families to join our efforts in helping us better understand child development!

Finally, The Institutes for Education Sciences has awarded a $5.3 million, 5-year grant to Dr. Angeline Lillard and the American Institutes for Research to conduct a longitudinal efficacy study of the Montessori preschool model on children’s academic, social and emotional outcomes. Dr. Tobias Grossmann & Dr. Amrisha Vaish were both selected as Fellows of the Association for Psychological Science, and Dr. Vaish also received the Janet Taylor Spence Award for Transformative Early Career Contributions from the Association for Psychological Science.

Visit Us at the Museum!

The Child Development Labs partner with the Virginia Discovery Museum in Charlottesville and the Science Museum of Virginia in Richmond to share child development research with the public. Together, we have made exciting discoveries. We are grateful to these museums for their continued support!

About our People

The Child Development Labs welcomes new graduate students Abha Basargekar, Andrew Lampi and Johanna Chajes. Abha’s main research interests lie in children’s learning through self-initiated actions and motivation to learn, especially in Montessori schools. Andrew wants to investigate the development of social relationships in autistic children and the compounding impacts these relationships can have on their well-being. Johanna’s interested in studying the development of prosocial or altruistic behaviors in young children by making connections between their observable behaviors and their underlying brain activity. Graduate student Marissa Drell from the Jaswal Lab recently defended her dissertation. She is doing great things and will be missed!
Popular Press

- "Why Are Children Such Snitches? Little Tattletales". Fatherly, April 14th, 2018.
- "When Guilt Is Good". The Atlantic, April 2018 Issue.
- "Autistic People Do Want To Socialize, They May Just Show It Differently". UVA Today, June 27th, 2018.

Recent Publications

- Early Development Lab Publications:

- Early Social Development Lab Publications:

Babylab Publications:

Jaswal Lab Publications:

IN PRESS:
Kelsey, C., Dreisbach, C., Alhusen, J., &

Visit the Child Development Laboratories' website to download our publications, see or listen to news coverage of our research, and view previous newsletters
www.childdevelopmentlabs.org

Are Characters with conflicted thoughts less good?

By Daniel Yonas

Previous research has shown that children prefer characters for whom the right choice and the easy choice are one and the same, and they believe that these characters are more likely to continue to make moral choices in the future. Distinguished Major Daniel Yonas and graduate student Jess Taggart explored whether children continue to prefer unconflicted characters when those characters have to choose between a personal good (i.e., keeping their own snack) and an altruistic good (i.e., giving away their own snack to a hungry classmate).

They found that children preferred the unconflicted character—the one who readily gave away his/her snack at a personal cost. However, unlike in previous studies, children did not believe that these unconflicted characters were any more likely to make the ‘good’ choice in other situations. This suggests that children’s moral evaluations of some positive behavior (such as telling the truth and keeping promises—the topics of study in previous research) differ from their evaluations of altruistic acts (such as costly sharing) with regard to future behavior.
Parent – child interactions during pretend and real activities.

By Meghan Ellwood

Young children enjoy both pretend and real activities, and they often share in these experiences with their parents. Although similar, pretend and real experiences differ in many ways, including the objects and skills required for each. How do parent–child interactions change when pretending and really engaging in everyday activities? And how do parents’ roles change, if at all, when pretending and really doing activities with their child?

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Distinguished Major Meghan Ellwood, post-doctoral fellow Dermina Vasc, and graduate student Jess Taggart compared parents’ question-asking and roles when pretending and really having a snack and cleaning with their 4-year-olds. They found that parents primarily act as partners in fun and ask more clarifying and thought-provoking questions during pretend, and they act as teachers and monitors and ask fewer questions during real activities.

Sleeping Beauty.

By Sierra Eisen

Over their evolutionary history, how have humans learned which plants are dangerous and which are safe to eat? To try them all is risky, so instead we rely on social information provided by experienced others. Even infants pay attention to information given about the edibility of plants. Graduate student Sierra Eisen traveled to Berlin, Germany to conduct research on infants’ responses to social information about dangerous (thorny) plants.

She presented 15- and 16-month-olds with negative social information (“Owl!”) while touching thorny plants and other pointy-shaped objects. She is interested in whether infants respond differently to plants compared to other objects. She is also examining whether infants react differently when presented with real objects versus 2D object images on a touchscreen tablet. We look forward to sharing the results soon!

Montessori Lessons.

By Dermina Vasc

In Montessori classrooms, preschool children learn practical skills or even abstract concepts by working with concrete materials. Children are guided on how to work with these materials by their teachers, who give precise,
hands-on lessons on how each material should be used. During these lessons, teachers use minimal speech and instead emphasize the actions that must be performed with the material, by performing them slowly and purposely. In an ongoing study in our lab, postdoctoral researcher Dermina Vase is investigating how the precision and simplicity of the Montessori lessons might impact children’s learning.

3-year-olds children are first shown how to wash a table using specific tools, in a specific order sequence. Half of the children receive a Montessori lesson, while the other half receive a business usual, conventional lesson. Children are then invited to wash the table themselves. We want to see if there are differences in how long children spend washing the table, how many of the tools and how precisely they use them, and how concentrated they are while engaged in this activity.

How long do Montessori students stay engaged in schoolwork?

By Ian Becker

Montessori education is a form of alternative education developed by physician and educator Maria Montessori in the early 20th century. Montessori classrooms are known for having extended periods of work time where children are left free to independently choose what classwork to work on. In her observations of children doing independent work, Montessori found that children concentrated the hardest when given two to three hour periods of time to work. Consequently, Montessori classrooms are traditionally organized around two to three hour work periods. Graduate student Ian Becker is observing local Montessori classrooms to replicate Montessori’s observations.
What's Happening at the Babylab

What do my eyes say?

By Caroline Kelsey

Graduate student Caroline Kelsey and undergraduate DMP student Kate Haynes have continued to explore how infants understand social information conveyed by the eyes. Their previous work used functional Near Infrared Spectroscopy (fNIRS), an infant-friendly neuro-imaging technique. This study found that by 9 months of age, infants’ responses to eye based social cues may differ based on familiarity with the individual. The infants were then invited back to the lab around 14 months. For the second part of the study, they used eye-tracking, a technique that tracks which objects infants are attending to and measures infant’s pupil size. Specifically, infants sat on their parents’ lap and watched a series of eyes that were either dilating or constricting.

Data collection is currently ongoing but ultimately they are interested to see if infants prefer to attend to either dilated or constricted eyes. Moreover, they are interested to see if infants mimic these eye cues (e.g., infants’ eyes dilate in response to viewing other eyes dilate).

Parental touch via hand holding reduces threat bias in children

By Cat Thrasher

In Cat Thrasher’s touch screen study, 4 and 5-year-old children were asked to detect threatening (angry) and non-threatening (happy) facial expressions on a touch-screen computer while sitting next to a parent. Overall, children found the angry faces more quickly than the happy faces, consistent with the idea that human attentional systems are biased to detect threat, and replicating previous work. However, this “threat bias” was reduced by half when children were holding their parent’s hand during the task. A follow-up study showed that mere parental presence was not enough to lower threat bias: handholding was crucial to elicit social regulation of emotion between children and caregivers. This study helps shed light on how parents and children can emotionally regulate each other on a moment-to-moment basis via touch.
Will parental touch reduce threat bias in infants?

By Cat Thrasher

Cat Thrasher is currently looking for 11 and 12-month-old infants and their parents to participate in a study looking at whether parental touch changes attention to emotional facial expressions very early in development. At this age, infants are already beginning to dedicate greater attentional resources to threatening facial expressions such as angry faces in the visual cortex of the brain as measured via electroencephalography (EEG), a cap that measures electrical signals emanating from the scalp.

In this study, we will measure EEG while infants are presented with happy and angry facial expressions on a computer screen. While infants watch the presentation, parents will be asked to either hold their child on their lap or merely next to their child and not touch them. If touch reduces threat bias in infants at this very early age, this would help us further understand how the social regulation of emotion occurs between infants and their caregivers.

Social Brain Development!

By Meghan Puglia

A new study in the Babylab is looking at how brain activity and gene expression are related to social development and behavior over the first year of a child’s life. Graduate Student Meghan Puglia has found that individual differences in the oxytocin system are associated with differences in brain function in healthy adults during the perception of social emotions. This current study aims to determine how these characteristics affect the development of social behavior in infants. The study incorporates the use of saliva samples for DNA analysis, a free play period between mom and baby, eye-tracking, and electroencephalography (EEG) to determine how differences in gene expression and neural activity shape social characteristics of 4-, 8-, and 12-month-old infants. This study is ongoing, so stay tuned to hear more about how it turns out!
Do children “pay it forward”?

By Stefen Beeler

“Paying it forward” has been the recent focus of many news stories, but little is known about this behavior in children. Graduate student Stefen Beeler is interested in at what age children engage in this phenomenon. Three- and 4-year-old children played a seemingly difficult game to find a key that unlocks a box full of stickers. Some children had received a note from the previous player about where the key may be hidden. After unlocking the box, children were given the opportunity to share their stickers. We found that 4-year-olds who received help not only share more often, but also share more than those who did not receive help. As early as 4, children may pay forward kindness as a form of gratitude for the help previously received. Although gratitude is a complex emotion, this study opens the door for us to investigate how young children may begin to experience and express gratitude. Data collection with 3-year-olds is in progress. Stay tuned!

Do children forgive all people equally?

By Dr. Janine Oostenbroek

Imagine you’re driving your car, and someone accidentally crashes into you. You’re probably more likely to forgive this person if it was your partner or a close friend than a stranger. That’s because forgiveness is thought to be more prevalent in close cooperative relationships than non-cooperative relationships. While we know that young children are capable of forgiving remorseful transgressors, we don’t know if children are more forgiving of transgressors with whom they have a cooperative rather than a non-cooperative relationship. Postdoctoral Research Associate Dr. Janine Oostenbroek recently tested this with 4- and 5-year-olds. Children were assigned to a color group and then were introduced to two adults – one who was in the same color group as the child (an in-group member) and one who was in a different color group to the child (an out-group member). Children and the adults then drew a picture. While admiring the child’s picture, both adults accidentally tore it and both then showed remorse. 5-year-olds were more forgiving of the in-group than the out-group member, by rating them more positively and sharing more flowers with her. 4-year-olds did not show this preference.
We then asked whether 5-year-olds are always more forgiving of in-group transgressors, even when they are unremorseful. We found that when in-group members were unremorseful, but out-group members were remorseful, 5-year-olds were now more forgiving of the out-group member than the in-group member. So, children will forgive in-group members more willingly, but children do not blindly forgive them – only when in-group members show remorse.

Graduate student N. Meltem Yucel and recent graduate Dr. Marissa Drell are looking to answer these questions by conducting a study with 3 year old and 6 year old children. In this study, the children are presented with a short story that includes a fairness violation (e.g. one child receiving more chalk than others) or another type of rule violation in order to compare their reactions. Data are still being collected for this study.

How do Children View Fairness?

By N. Meltem Yucel & Dr. Marissa Drell

It is easy to see how breaking a social rule such as eating spaghetti with one’s hands is not as bad as breaking a moral rule such as hitting someone else. Children as young as 3 years of age have been shown to make this distinction as well, but how do they understand issues of fairness? Do they view fairness differently over time?
What's Happening at the Jaswal Lab

The Jaswal Lab is continuing its transition from a focus on typical social and cognitive development to a focus on questions about autism and communication, with a specific focus on the roughly 50 percent of autistic children and adults who do not use spoken language reliably. We are interested in, among other things, the unconventional ways communication can take place and social interest can be expressed among those who—because of their unique neurology—may not be able to do so in the conventional ways. To learn more, visit the lab’s website here [www.jaswallab.org] or see a NYTimes op-ed [link to https://www.nytimes.com/2018/07/13/opinion/autism-social-life-new-research.html] published this summer on some of these themes.

THE AUTISM & COMMUNICATION PROJECT

Jaswal Lab

The Autism & Communication Project is driven by two specific aims: 1) To discover the social and cognitive processes underlying alternative forms of communication that some non-speaking individuals and their families have developed; and 2) To characterize the range of behavior that some parents of nonspeaking autistic children interpret as communicative and to understand the effect that this has on their relationship with their child. We use a range of methodologies, including behavioral tasks, eye-tracking, in-depth interviews, and focus groups. The questions we ask, the approach we take, and the interpretations offered are inspired and informed by the people whose lives are most affected by the research.

You can learn about some of these folks by visiting the UVa-Tribe Partnership page.