



UVA Child Development Labs 2023 Newsletter

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



What's in this issue:

- Letter from the Faculty
- CDL Updates
- What's Happening in the Early Development Lab?
- What's Happening in the BabyLab?
- What's Happening in the Early Social Development Lab?
- What's Happening in the Jaswal Lab?
- Popular Press and Publications

Letter from the Faculty

Dear Families,

We hope this newsletter finds you and your family doing well. We are happy to share with you the 2023 edition of the Child Development Labs at UVA's annual newsletter. We have now settled into a renovated Gilmer Hall, and we have enjoyed the opportunity to show off the beautiful space to many families who have visited for in-person studies. In addition, we continue to test in local schools, and to conduct many of our studies over zoom, which has allowed families from all over the country (and world!) to participate in our research.

On the following pages, we are excited to share with you some of the things we have been working on. 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.



As many of you know, the Child Development Labs (CDL) is an umbrella group that includes four separate labs: the Early Development Lab, the Babylab, the Early Social Development Lab, and the Jaswal Lab. You can keep up to date on all things related to the CDL by visiting our [website](#) or following our [Facebook page](#), where we will share news stories about our research and opportunities to participate in new studies. If you know of other families that might be interested in participating in our studies, please pass along our information to them. We're always looking for new families to join our efforts in helping us better understand child development!

Thank you again for your invaluable support of our research.



*Dr. Angeline
Lillard*

Early Development Lab



*Dr. Tobias
Grossmann*

Babylab



*Dr. Amrisha
Vaish*

Early Social
Development Lab



*Dr. Vikram
Jaswal*

Jaswal Lab

Click below to visit each lab's website to learn more about what we study!





CDL Updates



Out and About

Our team has had a blast attending community events, sharing our research, and meeting families in Charlottesville this year! You may have seen us handing out candy at Trick or Treat on the Lawn, doing arts and crafts at the City Market and Friday after Five, or spreading holiday cheer at the Grand Illumination. We love catching up with our families, so feel free to stop by and say hello any time you see our logo!



Living Lab Is Growing

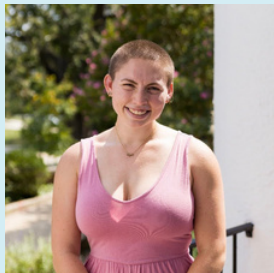
The Living Laboratory at UVA has had such a wonderful fall semester! Our three community partners included the Virginia Discovery Museum, the Gordon Avenue Library, and the Science Museum of Virginia in Richmond. We were able to run more than five different studies across the CDL labs, and we have plans to partner with researchers in the School of Education next semester. Special thanks to all of our volunteer graduate students, postdoctoral students, and research assistants!





New CDL Friends

This past year, we've welcomed three new graduate students and two post-doctoral researchers into the CDL family.



Emily is a first-year student in the Early Social Development Lab. She received her B.S in Psychology from the University of Maryland, College Park, and completed a minor in Human Development. She is interested in social development, specifically how peer interactions shape the way children think about those that have different thoughts and emotions from them (known as Theory of Mind), as well as make way for everyday interactions such as cooperation, fairness, and forgiveness. In her free time, she loves to hip hop dance, teach Zumba, lift weights, paint, and spend time with her dog Louie. Em will soon be starting a project which is an extension of Dr. Stefen Beeler-Duden's prior work. Her study will investigate how children understand prosocial intentions based on the perceived relationship between two people.

Emily Daggett is a first-year graduate student in the Early Development Lab. She earned her bachelor's degree in English from Occidental College, M.Ed from Loyola University Maryland, and Montessori certifications (0-12) from Association Montessori Internationale. Given her background as a Montessori child, teacher, and administrator, her research interest is Montessori education broadly. She plans to study the outcomes and implementation of Montessori, with the aim of helping teachers, caregivers, and school systems meet the developmental needs of children

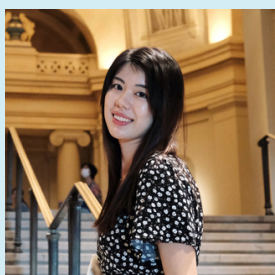


M. Nia Seale is an AMI Primary Trainer. She received her AMI Primary diploma in 1998 and holds a B.S. in Education Studies. Nia has worked in private and public Montessori schools in the U.S. and has conducted workshops for parents, classroom assistants and Montessori guides. Nia is a National Examiner for AMI and has offered Primary Assistant Certificate courses in Nigeria and The Gambia. Nia was most recently appointed to the AMI Scientific Pedagogy Group. She was the Director of Training for the first AMI Primary Diploma course in Lagos, Nigeria and was the Co-Director of Training for the first AMI Primary Diploma course in Capetown, South Africa. Nia is currently the Director of Training for the Primary Diploma course in The Gambia. Nia is currently pursuing a PhD in developmental Psychology at The University of Virginia in Charlottesville, VA focusing on research related to Montessori education.





New CDL Friends



Mary is a postdoctoral research associate affiliated with the Early Social Development Lab at the University of Virginia. Her research centers on the social, cognitive, and emotional development of young children. She is particularly intrigued by a fundamental question: In a world teeming with unfamiliar people and new information, how do young children navigate the intricacies to identify trustworthy informants for learning and reliable partners for cooperation? When Mary isn't delving into the mysteries of child development, you can find her cuddling with her furry companion or indulging in adorable pet videos.

Qiao is a post-doctoral researcher at the Early Social Development Lab. He earned his Ph.D. in Psychology from Zhejiang University and completed a research master's program in Behavioral Science at Radboud University. His primary research interests lie in children's moral development, with a particular focus on children's developing prosociality. He explores the role of social learning in shaping children's prosocial behavior and investigates the underlying mechanisms at play. He is also interested in understanding how children's ability to predict and evaluate the prosocial behavior of others evolves with age and identifying the factors that influence this developmental process. During his leisure time, he enjoys reading and listening to hip-hop music.



What's Happening in the Early Development Lab?



Angeline Lillard

In the Early Development laboratory this semester, we have been studying how children's working memory changes from ages 4 to 7, and how that relates to aspects of their environment, including television and computer engagements as well as how their preschool is structured (Montessori versus conventional schools). This is a 4-VA collaborative study with Sabine Doebel at George Mason University.



We are also working on the first national study of public Montessori preschool with our collaborators at the American Institutes of Research. Several hundred children who got into one of 23 public Montessori schools across the country by random lottery, or were waitlisted for that school and went elsewhere, were tested at baseline, the end of their PK3 year, and the end of their PK4 year (this spring). The initial data collection was funded by the Institute for Education Sciences and we recently received funding to continue to collect data next spring when the children are finishing the kindergarten year. Lee LeBoeuf is studying teacher-student relationships in this sample for her dissertation. Sam Diener, an undergraduate, is helping us to rate Montessori fidelity. We submitted a paper on how the CLASS observational instrument works in Montessori environments. This study promises to tell us a lot about Montessori implementation and its outcomes.

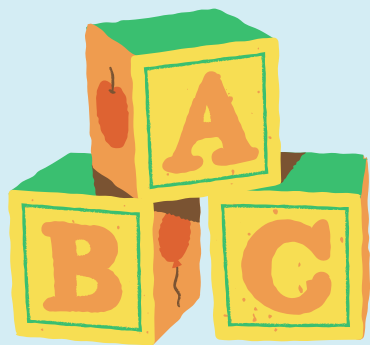


Two new graduate students, Nia Seale and Emily Daggett, both experienced Montessori practitioners, are planning their first research studies. Lab manager and Education MA student Abigail Krissinger is working with other research assistants in the lab to study how children's motivation to learn in school changes as they get older. Finally, several students are continuing Christina Carroll, PhD's, studies of teacher vs child-centered beliefs and how they develop across teacher training and practice.

Montessori and Working Memory

Maksud Juraev

The Early Development Lab is collaborating with George Mason University on a study evaluating how conventional and Montessori educational systems impact the development of children's working memory. More specifically, the study involves children from 4-7 years of age who reside both in the Northern Virginia and Charlottesville area. The study aims to observe how various aspects of children's working memory, such as the phonological loop and visuospatial sketchpad, develop under the Montessori and conventional curriculum. The tasks of the study consist of short games in which children are instructed to recite a list of words, letters, numbers, and point to a series of blocks in backwards order. Gathering data on children's performance will provide us with insight into how certain activities nurture children's natural predisposition to learning and memory development. Since childhood is such a crucial stage of development, we believe it is important to better understand how we can provide support and create environments that are optimal for children's psychological and physical growth. We hope that this study will shed light on how the Montessori curriculum compares to conventional schooling strategies.





What's Happening in the BabyLab

Understanding How Babies Evaluate Others

Olivia Allison

Have you ever wondered if, when, or how babies evaluate others? Evaluating others' actions as good or bad is a fundamental aspect of human nature. Where does this sense of right and wrong come from? How and when does it develop? A study published by Hamlin, Wynn, & Bloom in 2007 suggested that babies evaluate others' social behaviors, such as helping and hindering, within the first year of life. Graduate student Olivia collaborated with the Many Babies 4 team along with 38 labs around the world to investigate whether and when 5.5- 10.5 month-old babies can evaluate helping and hindering behaviors. Infants and their caregivers came to the BabyLab to view videos



of characters helping or hindering one another from reaching the top of a hill. Infants were given a choice between the helper and hinderer. Olivia and her team in the BabyLab are taking this project two steps further by first identifying brain areas involved in social evaluation using functional Near-Infrared Spectroscopy (fNIRS), a non-invasive neuroimaging technique that is widely used in medical settings to identify areas of that brain that are active when we interact with the world. Second, the team hopes to identify environmental factors (parenting, personality traits, etc.) that influence social evaluation to understand how it develops differently in infants and children.

Emotion & Cognition Development Among Preschoolers

Kenn Dela Cruz

How do emotion and cognition development unfold in early childhood? How do these emotional and cognitive processes relate to academic and well-being outcomes among preschool-age children? These are the broad research questions that I am proposing to explore for my dissertation. Specifically, I am interested in children's emotion regulation, which is their ability to manage and respond to an emotional experience, and how that relates to their executive function, which is their cognitive ability to direct their attention, inhibit their behavior, and retain information in memory. I will be using neural, physiological, and behavioral measures to explore the relation between these emotional and cognitive processes. In addition, I am using existing data from the Preschool 2 Kindergarten (P2K) study collected by the UVA Center for Advanced Study of Teaching and Learning to understand how these processes develop from preschool into kindergarten. These projects are still in the early stages, so you and your preschool-age child can anticipate future opportunities to participate in the proposed study in the new year!





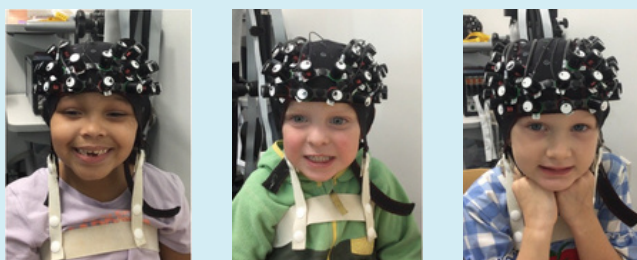
The Brain Behavior Connection Study is Wrapping Up Data Collection

Johanna Chajes

As children grow, they are constantly learning new skills and developing new ways of interacting with the world around them. But have you ever wondered what is going on inside your child's brain that could be causing these changes in behavior as they develop? The Brain-Behavior Connection Study hopes to address this question by asking how children's brain activity is related to differences in their behavior during early childhood. Our goal is to see if certain patterns of brain activity are linked to different kinds of behaviors, such as sharing your snack with someone who doesn't have one or waiting before opening a super special gift. Ultimately, we hope that this information will bring us closer to understanding the complex relationship between what happens inside our brains and how we choose to behave in our daily lives.



For the past few months, our team has been hard at work collecting data for this project. We'd like to give a shout-out and a huge THANK YOU to the many families who have already participated in this study since this work would not be possible without your generosity and support! We'll continue to collect new data for this study until January 31st, 2024, and while we've already collected more than half of our final sample, we are still looking for new families to sign up to participate. If you have a child between the ages of 4-6 years who has not already participated in this project, we'd love to have you take part in this fun, paid in-person study! You can learn more about this study or schedule a time to participate by visiting <https://calendly.com/uvababylab/bbc> or by emailing our study team at uvababylab@gmail.com. We can't wait to share our findings with you in next year's newsletter!



What's Happening in the Early Social Development Lab?

The Development of Gratitude Across Cultures

Dr. Amrisha Vaish and Dr. Qiao Chai



The Early Social Development Lab is conducting a cross-cultural study to examine the socialization and development of gratitude in children in the US and in India. We are excited to begin inviting children ages 4-10 years old and their parents to be a part of this study in January 2024! Children participating in this study will listen to a few stories related to gratitude and answer some questions about what they think. Meanwhile, parents who participate will complete surveys related to gratitude and child development. Visit the Early Social Development Lab website for more information and to sign up!

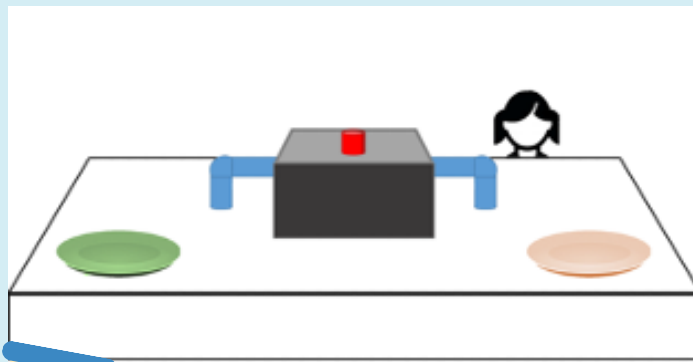


How Do Children Respond to Inequality?

Yuhang Shu

Inequality in wealth has been increasing globally for many years. Experiencing inequality would make adults less likely to be nice to others. We want to know if kids, aged 4 to 9, understand and are affected by inequality. Graduate student Yuhang Shu is interested in exploring these questions through several online studies with 4- to 9-year-old children. In one game, kids get virtual resources, and sometimes they get more or less than a peer. Afterward, they get stickers and decide whether to share with another child. In the first study, older kids were more generous, but experiencing inequality didn't change their sharing. In the second study, we looked at when inequality feels justified or unjustified to kids and how it affects their sharing. We found children

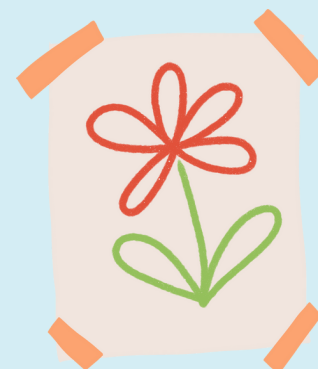
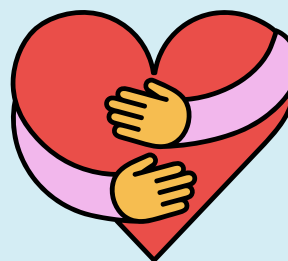
view inequality as fair if the process is justified. However, even if kids get fewer resources and feel upset, it doesn't stop them from sharing. We're continuing to explore how inequality influences kids' trust and other behaviors, especially in 5- to 9-year-olds. If you are curious about how your child reacts to inequality, you can sign up for the following studies over Zoom through this [link](#). You can also keep an eye out for an email from early.social.development.lab@gmail.com or the updates on our Facebook!



How do Children Think About Apologies?

Sophie Clayton

The general purpose of this research is to better understand the role of forgiveness and when it emerges in early childhood. We invite children from ages 4-8 years to participate in this study where they will watch two short videos showing two adults engaging in a task. An adult experimenter then asks the child a few questions about the videos, and then they complete a brief distribution task. We encourage any families with children aged 5-6 to reach out if you are interested!





What's Happening in the Jaswal Lab?

Experiences of Regulation and Social Support

Kayden Stockwell

Autistic individuals often face challenges in regulating their behavioral, emotional, and physiological responses to different situations. Some nonspeaking autistic people have identified the importance of having a trusted person present to support their ability to stay regulated. This aligns with neural and physiological research with non-autistic people, indicating the importance of social support of emotional and physiological regulation. In this project, we are specifically focusing on nonspeaking autistic individuals who use augmentative and alternative communication methods to express themselves. By conducting interviews with these individuals, our aim is to document and gain a deeper understanding of their phenomenological experiences of regulation and how the presence of trusted others in their lives may influence these experiences. We are wrapping up data collection this month and are excited to dig into the results!

Can Language Shape What We Think About Other People?

Zoë Sargent Robertson

Does language affect what we think about other people – including whether we think of them as human? Sometimes children say that other people (for example, kids who belong to a different racial or gender category than themselves) are less than fully human, but we don't fully understand why. Last year, we conducted two studies to learn how language can change whether 8- to 10-year-old children think of their autistic peers as human. In these first two studies, children rated autistic story characters as more human when they were described with positive, strengths-based language than when they were described with negative language that emphasized their weaknesses or described them as “missing something in their brains.” We also found that negative language (vs. positive language) led kids to think that the autistic characters should spend less time in mainstream classrooms with their peers. This year, we conducted a third study to see if language also affects whether children view autistic peers as nice and smart, and whether those attitudes are related to children's beliefs about how human autistic peers are and how they should be treated. We are almost done collecting data for this final study and look forward to sharing the results soon!





Want to read more about what CDL has been up to? Check out the popular press and scientific publications from our labs below!

Popular Press

- “Montessori: The world's most influential school?” BBC, [February 1, 2023](#).
- “Study: Children as Young as 5 are Quite Discerning When it Comes to Cheaters.” UVA Today, [June 15, 2023](#).
- “How to Encourage Sharing.” *Parenting Translator*, [October 25, 2023](#). (contributions from Johanna Chajes)
- “Giving thanks isn’t just a holiday tradition. It’s part of how humans evolved.” *AP News*, [November 21, 2023](#).

Scientific Publications

Babylab:

- Dela Cruz, K. L., Kelsey, C. M., Tong, X., & Grossmann, T. (2023). Infant and maternal responses to emotional facial expressions: A longitudinal study. *Infant Behavior and Development*, 71. Scopus. <https://doi.org/10.1016/j.infbeh.2023.101818>
- Grossmann, T. (2023a). Extending and refining the fearful ape hypothesis. *Behavioral and Brain Sciences*, 46, e81. <https://doi.org/10.1017/S0140525X22002837>
- Grossmann, T. (2023b). The human fear paradox: Affective origins of cooperative care. *Behavioral and Brain Sciences*, 46, e52. <https://doi.org/10.1017/S0140525X2200067X>
- Grossmann, T., & Fairhurst, M. (2024). Genetic variability in the oxytocin system is linked to individual differences in cuddliness among human infants. *Psychoneuroendocrinology*, 159, 106419. <https://doi.org/10.1016/j.psyneuen.2023.106419>
- Grossmann, T., & Wood, A. (2023). Variability in the expression and perception of positive affect in human infancy. *Social Cognitive and Affective Neuroscience*, 18(1), nsado49. <https://doi.org/10.1093/scan/nsado49>

- Partee, A. & Dela Cruz, K. L. & UVA CASTL (2023) Early Childhood Mental Health Consultation (ECMHC) Executive Summary. University of Virginia Center for Advanced Study of Teaching and Learning, Virginia Department of Education
- Taggart, J., Wheeler, L. B. & Dela Cruz, K. L. (2023) Supporting Faculty with SoTL through an Intensive SoTL Scholars Program. *New Directions for Teaching and Learning*.

Early Development Lab:

- Eisen, S., Taggart, J., & Lillard, A. S. (2023). Children Prefer Familiar Fantasy, but not Anthropomorphism, in Their Storybooks. *Journal of Cognition and Development*, 24(1), 129–141. <https://doi.org/10.1080/15248372.2022.2144317>
- A. S. & Taggart, J.* (in press). The JeffMonte Method: Using Specifications Grading in a Large Lecture Inspired by Thomas Jefferson and Maria Montessori. In K. Skogsberg, D. Buffalari, & E. Carpenter (Eds.), *Alternative Grading*. Society for Teaching Psychology.
- Lillard, A. S. (2023). Why the time is right for an education revolution. *Frontiers in Developmental Psychology*. <https://doi.org/10.3389/fdpys.2023.1177576>



- Lillard, A. S., Taggart, J.*, Yonas, D*., & Seale, M. N. (in press). An alternative to “no excuses”: Considering Lillard Montessori as culturally responsive pedagogy. *Journal of Negro Education*.
- Lillard, A. S., Tong, X., & Bray, P. M. (2023). Seeking Racial and Ethnic Parity in Preschool Outcomes: An Exploratory Study of Public Montessori Schools vs. Business-as-Usual Schools. *Journal of Montessori Research*, 9(1), Article 1. <https://doi.org/10.17161/jomr.v9i1.19540>
- Randolph, R. J. et al. (2023). Montessori education’s impact on academic and nonacademic outcomes: A systematic review. *Campbell Systematic Reviews*, Vol. 19 Issue e1130, 1-82 DOI: <https://doi.org/10.1002/cl2.1330>
- Snyder, A., LeBoeuf, L., & Lillard, A. S. (2023). “My Name Is Sally Brown, and I Hate School!”: A retrospective study of school liking among conventional and Montessori school alumni. *Psychology in the Schools*, 60(3), 541-565. <https://doi.org/10.1002/pits.22777>.

Early Social Development Lab:

- McElroy, C. E., Kelsey, C. M., Oostenbroek, J., & Vaish, A. (2023). Beyond accidents: Young children’s forgiveness of third-party intentional transgressors. *Journal of Experimental Child Psychology*, 228, 105607. <https://doi.org/10.1016/j.jecp.2022.105607>
- Vaish, A. (2023). Working toward a Psychological Definition of Morality. *Psychological Inquiry*, 34(2), 114-118. <https://doi.org/10.1080/1047840X.2023.2248861>
- Don’t Neglect the Middle Ground, Inspector Gadget! There Is Ample Space Between Big Special and Small Ordinary Norm Psychology—Marco F. H. Schmidt, Amrisha Vaish, Hannes Rakoczy, 2023. (n.d.). Retrieved November 14, 2023, from <https://journals.sagepub.com/doi/10.1177/17456916231187408>

- Marlow, C., Kelsey, C., & Vaish, A. (2023). Cheat to win: Children’s judgements of advantageous vs. disadvantageous rule breaking. *Cognitive Development*, 66, 101328. <https://doi.org/10.1016/j.cogdev.2023.101328>

Jaswal Lab:

- Can Cross-Reality Help Nonspeaking Autistic People Transition to AR Typing? | Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems. (n.d.). Retrieved November 14, 2023, from <https://dl.acm.org/doi/10.1145/3544549.3585859>.
- Lampi, A. J., Brewer, R., Bird, G., & Jaswal, V. K. (2023). Non-autistic adults can recognize posed autistic facial expressions: Implications for internal representations of emotion. *Autism Research*, 16(7), 1321-1334. <https://doi.org/10.1002/aur.2938>
- Nazari, A., Shahidi, A., Kaufman, K. M., Bondi, J. E., Alabood, L., Jaswal, V. K., Krishnamurthy, D., & Wang, M. (2023). Interactive AR Applications for Nonspeaking Autistic People? - A Usability Study. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, 1-15. <https://doi.org/10.1145/3544548.3580721>
- Waisman, T., Williams, Z. J., Cage, E., Santhanam, S. P., Magiati, I., Dwyer, P., Stockwell, K. M., Kofner, B., Brown, H., Davidson, D., Herrell, J., Shore, S. M., Caudel, D., Gurbuz, E. & Gillespie-Lynch, K. (2023). Learning from the experts: Evaluating a participatory autism and universal design training for university educators. *Autism*, 27(2), 356-370.