At the Center for Early Childhood Research at the University of Chicago we are interested in understanding how infants and young children make sense of the physical and social world, learn language, and begin to develop mathematical and spatial reasoning abilities. We seek to understand how new abilities emerge during early development, and how these early steps set the stage for thinking and learning in the complex academic and social environments that children will encounter later in childhood.

Amanda Woodward
William S. Gray Professor of Psychology

Katherine Kinzler
Neubauer Family Assistant Professor of Psychology

Susan Levine
Stella M. Rowley Professor of Psychology

Susan Goldin-Meadow
Beardsley Ruml Distinguished Service Professor
Have you Recently Moved?
Do you have a new Baby?
Is your toddler Unemployed?
Let us know so we can update our database!

We always welcome new participants!

Researchers will be conducting a study at the Museum of Science and Industry; Saturdays in May for Preschoolers between the ages of 3 and 5.

Your child will watch a short puppet show and answer questions about what they see.

Come visit our Research Page

We are always conducting new cutting edge research at the University of Chicago! To find more information about the current studies here and new publications released from The Center for Early Childhood Research please visit our website, and research page!

http://babylab.uchicago.edu
http://babylab.uchicago.edu/research.html

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We have a wide range of studies for infants and children between the ages of 5-months through 10-years-old
If you have friends and family who may be interested in participating in our studies, please pass on our contact information or pick up a brochure in one of our labs!
Infant Learning and Development Lab

Prof. Amanda Woodward

We investigate infants’ and young children’s understanding of intentions, perceptions, and emotions in the social world.

http://woodwardlab.uchicago.edu/

Children’s memory for other people’s actions

What makes an event really memorable? Past research with adults has shown that we are more likely to remember the details of events if they involve people and their actions than if they don’t. Lauren Howard is conducting a series of studies to find out whether young children also show heightened memory for events involving people. In her study, three-year-old children view pictures that demonstrate how pieces can be put together to make a finished product (a bunny, a tree or a bug). One group of children sees that a person (named Sally) is putting the pieces together. Another group sees the same pictures, but without Sally. After a short delay, children are given the pieces from the story and asked to recreate the object from memory. Children who see the “Sally” events remember them better than children who see the events without Sally. They are able to reconstruct the objects more completely. By monitoring children’s attention to the pictures using an eye-tracking computer, Lauren is investigating how the presence of a person influences children’s attention to the pictures. She finds that children in both groups attend to the pictures the same amount of time overall, but there may be important differences in how they allocate attention to the specific details of the pictures. In future studies, Lauren will investigate whether children’s attention to and memory for others’ actions influences their learning in other situations, for example in tasks that relevant for learning in school.

Come in for our new study with 5-month-old infants

We are interested in learning about infants’ understanding of animate and inanimate objects. In these studies, infants will see events involving people or similar events involving inanimate objects that act in ways that might look animate. We will assess infants’ attention to these two kinds of events to find out how and when babies map out the distinction between animate agents and inanimate objects.

You are what you eat

For people, eating is an inherently social activity. Different cultures are associated with distinctive cuisines, people eat with members of their family and other social groups, and shared food preferences can serve as an indicator of social group membership. Zoe Liberman is investigating whether infants understand the social significance of food preferences. In this study, 9-month-old infants view video movies in which two adults demonstrate that the either share food preferences (liking and disliking the same foods) or that they have opposing food preferences.

Then infants see movies in which the two adults engage in a positive interaction (smiling at and greeting one another) or a negative interaction (turning away from one another). Zoe is finding that infants look longer (indicating surprise) when adults who share preferences interact negatively and when adults who do not share preferences interact positively. That is, infants seem to use others’ food preferences to predict whether two people will be friends. Future studies will test whether these types of expectations are specific to food preferences (which may be particularly important to babies) or whether they can be seen for other types of shared preferences as well.
Are children discriminating social learners?

Adults and children often prefer to attend to and interact with people within their own social group. Recent findings from Katie Kinzler’s laboratory have shown that the language a person speaks is a strong marker of social group membership from early in development. Infants and young children prefer to look at and interact with people who speak their own language as compared to those who speak an unfamiliar language. In a recent series of studies, Lauren Howard asked whether these early preferences affect children’s willingness to learn from an adult.

In her first studies, she tested whether 19-month-olds would be more likely to imitate the actions of someone who spoke their own language versus a language with which they were not familiar. Children who only heard English at home were introduced to two experimenters. One spoke English and the other spoke Spanish. Each experimenter demonstrated a different way to make a novel toy work. For example, the English-speaking experimenter would turn on a light with her head, while the Spanish-speaking experimenter would turn on the same light with her elbow. Children were then given the toy to act on themselves, and we looked to see which presenter they preferred to imitate. We were surprised to discover that 19-month-olds were equally likely to imitate the Spanish- and English-speakers. Even though infants and young children show preferences for same-language speakers in many situations, they seem equally able to learn from others regardless of the language they speak. However, when Lauren tested older children, 3-year-olds, in the same situation, she found that they selectively imitated the English-speaker. Thus, children’s social preferences seem to influence their learning more strongly as they get older. Future studies will explore how interactions with a person who speaks an unfamiliar language may affect children’s propensity to learn from him or her.

Show me how to make it work! Learning from Gestures and Actions.

If someone asked you how to open a water bottle, you might say, “twist the top”. But you might also use your hands, and gesture what that twisting action looks like. Gesturing is very useful for conveying spatial information, because it is visual, three dimensional, and doesn’t have to conform to rules such as grammar. Adults use gesture frequently, so what about children? When are children first able to understand information in a gesture demonstration to learn about a brand new object? Miriam Novack is working on a study where a demonstrator showed two- and three-year-olds how to play with brand new toys either by acting on the toy directly, and trying (but failing) to show them the toy’s function, or by gesturing the action near the object. Both two- and three-year-olds were able to learn from both gestures and action demonstrations, but two-year-olds on average struggled interpreting the gestures, as compared to the three-year-olds. It seems that by three, children are able to learn from gesture, but that ability is slightly less robust before age three. Our next step is to investigate what else is developing between ages two and three to help explain this development in gesture understanding. Be on the lookout for the next version of this study!

Come visit the Infant Learning and Development Lab Facebook Page!

http://www.facebook.com/ChicagoInfantLab
Development of Social Cognition Lab

Our lab studies the development of social cognition, or children's thinking about other people and their social group membership. Many of our studies investigate children's thinking about language and accent as social markers.

Prof. Katherine Kinzler

http://dsclab.uchicago.edu/

Fairness Study

What is a fair way to divide resources across groups? Is it okay to put your own group first, or should you give equal amounts to everyone? These are the questions that Jasmine DeJesus asked in a study looking at kids’ beliefs about fairness. In this study, kids learned about two groups of children at a school (the Orange group and the Green group). Those children could give out cookies to members of their own group, members of the other group, or equally across both groups. Kids were then asked to compare these different choices. They reported that it was nicer to share cookies with everyone (and not just your own group members), but they expected that people would share with members of their own group. A wide age range of children participated in the study (4- to 10-year-olds), and children’s evaluations and expectations diverged somewhat with age. Jasmine and her collaborators are currently designing new methods to test younger children’s judgments about resource distribution.

Bilingual Creativity

A project that Samantha Fan is working on now examines monolingual and bilingual children’s creative thinking. Four to 10-year-old children participate in a handful of verbal and non-verbal tasks to measure different aspects of thinking and creativity. Specifically, the project tests whether or not exposure to diverse linguistic experiences early on can shape children’s ability to think “outside the box”. By exploring the potential relationship between language proficiency and creativity, this study aims to provide insight into the relationship between language and thought early in development.

Detecting Emotion

Nicole Baltazar, who recently defended her dissertation, has spent the past 4 years in the Kinzler lab looking at children’s ability to perceive emotional expressions in faces. Previous work has established that children pay close attention to and remember “mean” versus “nice” individuals. Building on this, Nicole found that 4-11 year-old children paid closer attention to angry versus happy faces and were better at identifying anger compared to happiness in a face. Young children may use their ability to quickly and accurately detect anger in faces as a way to predict people’s future behavior and to avoid threat.
Spatial Intelligence
Learning Center
Levine Lab  Prof. Susan Levine
http://www.spatiallearning.org/

We investigate how variations in home and school input affect the cognitive development of children, including language, spatial and mathematical skills.

Infants’ Quantitative Sensitivity:

Number, Continuous Extent, or Both?

In the past 20 years, research has suggested that infants know a lot about number, but it is not clear whether it is really number or things such as shape or length that infants are sensitive to. Meekyoung Kwon examined what infants know and understand about number. She showed infants sets of two or three shapes repeatedly, and then changed the number and the size of the shapes. She found that 5-month-olds were not sensitive to differences in the number of objects in a set or the area they occupy. Starting at 8-months of age, however, infants looked longer at sets that changed in number and area. The results were consistent regardless of the sets containing the same objects or different objects. The sensitivity to number and other spatial qualities are important developments in the first year of life, and may pave the way to learning number concepts in the preschool years. Dominic Gibson, a graduate student in the Department, is continuing to study the development of early mathematical skills.

Spatial Assessments

Compared to what we know about children’s early verbal and number skills, knowledge about early spatial skills is lacking. Since spatial skills are important in math and science reasoning in childhood—and into adulthood—it is important to help children to establish a strong foundation in spatial reasoning in early childhood. At the Spatial Intelligence and Learning Center, we have been working to create tasks that will provide us with more insight on how spatial abilities develop and how adults can best scaffold children’s spatial learning. Our studies inform other researchers, parents, curriculum writers, and educators—your child’s participation in this research has a real impact! To your 3- to 9 year-old child, it is half an hour of fun spatial games; to us, it is groundbreaking spatial research.
Wish me success, but in the right way:
The impact of success expectations varies by type and target

The feedback children receive after experiencing failure affects future performance. Annie Park wants to learn how the impact of this feedback might vary as function of what is communicated to a child who is performing a task. Her current study aims to investigate whether different types of success expectations, influence children’s performance. Specifically, she is looking at a child’s ability vs. effort, and whether these expectations vary depending on the target of the expectation (such as an individual or social group). Our data suggest that when expectations targeted individuals, children who received effort-based feedback (“I think you can try harder at this game”) performed better than those who received trait-based feedback (“I think you are good at this game”). However, this trend was reversed when the feedback targeted the child’s social group’s effort or trait (“I think girls can try harder/are good at this game”).

Puzzle Study

Claire Bradley is starting a new study. She’s inviting parents to get in on the fun! Each parent and child who participates will be asked to come to the lab for two 1-hour sessions. During these sessions, you will be asked to complete several tasks separately, one-on-one with experimenters. You will also be given fun activities to do with your child, including doing puzzles together and reading books together. This study will not only give parents and children an opportunity to have fun together, but will allow us to explore how they interact while engaging in different types of activities. Please contact us if you’re interested in participating!

WHERE ARE THEY NOW?

Liz Gunderson, who earned her Ph.D. at the University of Chicago and is currently a post doctoral fellow in the Spatial Intelligence Learning Center, has been offered an Assistant Professor position at Temple University.

Meekyoung Kwon recently completed her Ph.D. at the University of Chicago and has begun a Post Doctoral Fellowship at the University of California at Davis.

Perla Gamez, who completed her Ph.D. working with Susan Levine, has been a Post Doctoral Fellow at Harvard’s School of Education. She will return to Chicago this Fall to take a position as Assistant Professor of Psychology at Loyola University.

Nicole Baltazar completed her Ph.D. in March and is now working as a freelance researcher examining audience participation.
Thank you for your participation!

You and your child’s contribution to our work is vital, and we appreciate every time you visit the lab. Thank you for your support of our research!

Questions?
Please contact us or check out our website at:

http://babylab.uchicago.edu/

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