



Emory Infant and Child  
Development Research Laboratory  
**Newsletter**  
Spring 2014

## Letter to Parents:

Article by: Philippe Rochat Ph.D.  
Head of the Emory Infant and Child Lab

It has been another productive year here at the Emory Infant and Child Lab. Thanks in part to the work of many individuals: the diligent and efficient work of Kelly Yates who coordinates recruitment for the Emory Child Study Center, the care and supervision of our Lab Coordinator Theresa Moehrle, and all the hard work of our graduate and undergraduate students. More importantly, thanks to the parents and children who came to visit the lab and participated in multiple studies over the past year. The goal of the Infant and Child Lab is to contribute to the scientific understanding of how the mind of children grows. We could not do it without you.

Let me mention a few cardinal moments from the past year at the lab. We had one student who finished and defend her Ph.D. (Bentley "Ginger" Gibson, now Wallace) and two who defended their Master's thesis (Katherine "Kit" Jayne and Shensheng Wang), all with flying colors! Congratulations.

Ginger defended her work on African American children's and adults' implicit racial attitudes. Kit defended her Master's research on the relative prediction of generosity in 3 to 7 year-old children. Shensheng defended his Master's research on the perception of "uncanny" (judged uncomfortable) faces by adults. He is currently extending his research with infants. All of these studies are being written up for publication and will be presented at the international conference in Berlin. A basic summary of the findings are included in this and last year's newsletter.

Last spring, I was on sabbatical, writing a book entitled "Origins of Possession" that will be published by Cambridge University Press with a release date scheduled for the fall of 2014. This book is the result of at least 5 years of research and reflection at the Lab. "Origins of Possession" is a book about trying to make sense of the psychology surrounding possession and the sense of ownership, but

also adults. What does it mean for a child to say "that's mine!" and how such sudden claims (starting as young as 21 months) might relate to the pervasive sense of possession one experiences as an adult?

Scott Danielson (pg. 4) started an interesting project on humor and theory of mind in 3-6 year-olds. Hazel Doctor (pg. 6) is finished her Honor's research on the sense of popularity in 3-7 year old children. These studies use new experimental paradigms and are bound to yield interesting and novel findings on these topics (i.e., humor and popularity).

Shensheng Wang started a few new projects with infants on face perception using our eye tracker (machine used to record with great precision a participant's visual exploration of images seen on a computer screen). We will have more to report on his findings next year, but preliminary data suggest that young infants tend to pay more attention to faces that adults consider as more comfortable. We thus seem to be tapping into a basic detection of facial attributes that we might be sensitive to from a very early age. The question is now what might be the nature of these "comfortable vs. uncomfortable" feelings about faces. We are working on it (pg. 5).

Last but not least, the Lab will be welcoming a new graduate student in the fall, Sara Valencia who is graduating from the University of Georgia in May. She is interested in children's emotional regulation. We are eager to have her joining the team. Finally, we will have European students and post-doctoral fellows planning to visit the Lab. We certainly have a lot of research action ahead of us!

To all the parents and children who came or are planning to come to the Lab: thank you for all your help. Do not hesitate to contact us for any further input or information. We hope you will enjoy the newsletter. Please circulate and spread the word of our activities at the lab.

## Meet the Lab:

### Philippe Rochat

Philippe Rochat was born and raised in Geneva, Switzerland. He was trained by Jean Piaget and his close collaborators, and received his Ph.D. from the University of Geneva, Switzerland in 1984. He then began a series of Post Doctoral internships at Brown University, the University of Pennsylvania, and Johns Hopkins. The main focus of his research is the early sense of self, emerging self-concept, the development of social cognition and relatedness, and the emergence of a moral sense during the preschool years in children from all over the world. His research emphasizes differences in populations growing up in highly contrasted cultural environments, as well as highly contrasted socio-economic circumstances.



## Dr. Rochat and the Dali Lama

This past fall, Dr. Rochat sat on a panel with his Holiness the Dali Lama. The following was taken from The Emory Report article written by Kimber Williams and published here: [http://news.emory.edu/stories/2013/10/er\\_dalai\\_lama\\_talk\\_on\\_campus/campus.html](http://news.emory.edu/stories/2013/10/er_dalai_lama_talk_on_campus/campus.html)



*"Though a welcome opportunity, it was a bit intimidating: "I knew I was encountering someone who was larger than life," he said.*

*But the experience was full of pleasant surprises. When Rochat asked about the propensity for good and evil in human nature, the Dalai Lama asked a few questions of his own, paused and smiled graciously.*

*"... I don't know," he responded playfully, with a good-natured shrug.*

*It wasn't the end of the conversation by any means, and for Rochat, an admission that he didn't have all the answers was inspiring. "That was a powerful moment — he's an honest man," he said."*

*Photo credit: Emory University*

## Cognitively Based Compassion Training

Article by Anna Kohl

Recent studies have focused on improving pro-social behavior in children. Evidence shows that social and emotional intelligence are at least as important for adult success as other forms of cognitive capacity. In partnership with Professor Brendan Ozawa de Silva at Life University, we looked at cultivating pro-social behavior through Cognitively Based Compassion Training (CBCT). CBCT is a secular 10-week program using analytic meditation to explore the in-group and out-group cognitive social construct.



We implemented a ten-week intervention with students from ages 7-10 at the Paideia School, a private school with a progressive and liberal curriculum.

We compared the results of pro-sociality with a control group of students who went through a mindfulness intervention. The results of the study show that children with the CBCT intervention showed a more inclusive social network by increasing peer friendships. These children also showed a greater ability to use pro-social reasoning when solving social conflict by expressing more compassion and consideration for one another's beliefs and each other's desires.

In conclusion, the study at the Paideia School showed that CBCT is a more effective tool for enhancing pro-sociality in children compared to only mindfulness meditation. In the future, we will work on researching more about CBCT in promoting pro-sociality with the International Community School and with a group of at-risk youth with CobbWorks Youth Assets.

## Spotlight on the Students:

### Anna Kohl

Anna Kohl is currently a junior at Emory University majoring in Anthropology and Human Biology and minoring in Development studies.

She developed an interest in Cognitively Based Compassion Training (CBCT) research through attending the Tibetan Mind and Body Sciences Summer Program in Dharamsala, India.

She is currently working with Dr. Erin Robbins through Scholarly Inquiry and Research at Emory (SIRE) Research Partners Program.



# Multi-cultural comparison of land ownership in Children

Article by Erin Robbins

In everyday life children are constantly negotiating-- deciding how to share snacks or who should have the next turn playing with a toy. In order to engage in this kind of sharing, children need to understand who owns what. Research from our lab (Rochat et al., in review) has demonstrated that culture helps shape how children think about ownership. For example, children across industrial and traditional cultures tend to agree that someone who has created an object deserves to own it. However, these children are less certain who should have a toy if the choice is between giving it to a rich or a poor person.

Our research indicates that children growing up in cultures (like the US or China) that put a heavy emphasis on being fair and equitable are more inclined to give the toy to a poor individual. However, these kinds of studies only tell us about how children think about ownership of concrete objects.

In a new cross-cultural study we examined how children reason about more abstract kinds of ownership, such as who owns (or should own) public spaces like playgrounds or soccer fields. We tested 5-10 year old children growing up in four very different contexts. In a unique opportunity, we traveled to a coffee plantation (*finca*) in Chiapas, Mexico. Here we worked with two groups of children: migrant Guatemalan children whose parents come to the village seasonally to work the coffee harvest, and Mexican-born children from the village whose parents work on the processing and administration of the *finca*. In addition, we tested same-aged children from metro-Atlanta as well as a large city in South Korea. We presented children with a series of stories in which different groups wanted to



play on a small soccer field that could only fit one team. After learning about each team, children had to decide which one would get to play on the communal field.

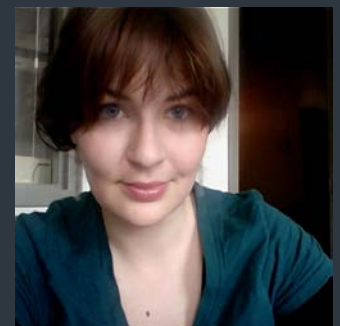
In one story, the choice was between a team that regularly cleaned the field, another team that arrived at the field first, and another team that regularly played on the field. Across the four cultures, children tended to favor the team that cleaned the field, suggesting that children see labor as a good reason to own a public space. In another story, this favorite team that cleaned the field was pitted against a team of players who were described as being from the neighborhood and had played on the field every day growing up. We were interested to see if being described as residents (e.g., being from a place) would cause children to favor this new team over the previous (but non-resident) team. Analysis so far suggests that across cultures, children still prefer their favorite (non-resident) team. Analysis is on-going, but we find these results to be intriguing and exciting.



## Meet the Lab: Erin Robbins

A former graduate student of the lab, Erin Robbins earned her Ph.D. in 2013 and is presently a Lecture Professor in the Department of Psychology at Spelman College. Erin continues her collaborations with colleagues and students at Emory, serving as research mentor for the SIRE program. She has been a fellow of the National Science Foundation Graduate Teaching GK-12 initiative and was awarded the Howard Hughes Medical Institute Teaching Award.

Erin's primary research interest centers on the emergence of social cognition in infants and children, with a specific interest in the role that culture plays in shaping development. Recent work with the Emory-Tibet Partnership, the Religion and Public Health Collaborative, and the Mind and Life Institute also focuses on the roll that cognitively-based compassion training may play in children and adult's social and physical well-being.



# Development of Humor in Children

Article by Scott Danielson:

I am interested in understanding how children's sense of humor develops. In particular this research asks whether there is a link between humor and social understanding throughout development. We are testing children three to six years of age. We tell them several stories and let them choose among different outcomes. We ask them to pick the one they find funniest. One of the choices available allow the child to play a joke on the story's protagonist and vary in how harmful the joke is to him.

When someone sees someone else get hurt often he or she sympathizes with the person, but on some occasions they may laugh at their misfortune. Much of humor is based upon the pains of others: slapstick, pranks, and ridicule all have a clear victim. What is it about humor that can transform things like pain and embarrassment into something laughable?

This project is trying to answer the question of how empathy and comedy are related. The early 20th century philosopher Henri Bergson characterized laughter as an enemy to compassion, saying "laughter has no greater foe than emotion... the comic demands something like a momentary anesthesia of the heart" (Bergson, 1900/2008). If Bergson is right, comedy could be akin to immorality, humor accompanying the withdrawal of compassion and sympathy silencing laughter.



I seek to test whether comedy and empathy are at odds by measuring humor in a population for which empathy has not fully developed: children without theory of mind. Our experiment measures young children on their ability to take the perspectives of others, an ability which develops between ages 3 and 5, by using a five point theory of mind scale (Wellman & Liu, 2004; Wellman et al., 2001). Theory of mind is the ability to take another's perspective in situations where another person may not know something that you know or may be lying about.

We then test the degree to which the children find the misfortunes of others funny by having them rate the funniness of short vignettes. We hypothesize that when human beings develop theory of mind they enhance their ability to empathize, and with more empathy they cease to find certain painful situations funny. When children have a better understanding of the feelings of others they will think twice before laughing at their misfortunes.





## Spotlight on the Students:

### Scott Danielson

Scott Danielson is a Post Baccalaureate Research Assistant at the Emory Infant and Child Lab. As an undergraduate at Emory he double majored in philosophy and neuroscience and behavioral biology (NBB) and graduated in 2013. He now works in the lab in preparation for going to graduate school in social psychology

Currently Scott is working on his own research project at the lab involving the relationship between humor and empathy in developing children. The project is ongoing and there are plans to test children cross culturally in the South Pacific.



 <p>A.</p>	 <p>B.</p>	<p><b>Uncanny Quiz:</b> Can you tell which faces are real people?</p> <p>See page 5 for answers and more information</p>	 <p>C.</p>	 <p>D.</p>
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# Uncanny Valley

Article by: ShenSheng Wang

My current research concentrates on a phenomenon known as the “Uncanny Valley”, which is often interpreted as a mix of fear, disgust, strangeness and other negative emotional responses that we have when approached by a human replica that increasingly resembles a real person. Although the uncanny valley phenomenon is not restricted to face perception, it is especially interesting to investigate how certain facial features; the eyes for instance, shape our perception of people. This in turn influences the ways in which we relate to each another, because facial expressions play a crucial role in social interaction. We are also interested in the mechanism by which the uncanny feeling in face perception occurs.

To address the latter question, in my Master’s thesis, I tested the uncertainty hypothesis proposed by Ernst Jentsch (1906), explaining the uncanny feeling using a reaction time-based sorting task. In the sorting task, 36 adult participants were asked to sort faces as either “real” or “unreal” as quickly as possible, recording their responses and reaction time. A binomial test was applied to the participants’ sorting responses, resulting in three face categories: faces that were significantly (highly agreed by most of the participants) real, significantly unreal and those in between. Subsequently, a comparison across the three categories of faces revealed that the in-between faces elicited the longest reaction time, as well as the strongest negative emotional responses. The longer reaction times suggest that uncanny feeling about the humanlike faces is specifically linked to a sense of uncertainty.

In conjunction with the adult project, an eye-tracking study named “*Uncanny*” *face discrimination in infancy* is being conducted to explore the face perception of uncanniness from a developmental perspective. Several empirical and theoretical questions are raised such as: “Do people discriminate, in their looking behavior, a likable face from an uncanny face that resembles each other?” If they do, when does this discrimination capacity emerge in human development? For example, do infants differentiate likable and uncanny faces equally well as adults do? Furthermore, what is the mechanism underlying this face discrimination skill? With the eye-tracker, I intend to address these questions by investigating the eye movement data of infant and adult participants as they view 4 likable and 4 uncanny faces placed on a visual wheel display. I found that both infants and adults exhibit preferential looking toward the likable faces.

Another realm of research I am planning to work on is the development of a moral emotion called Schadenfreude, which is the pleasure derived from the misfortune of others. Schadenfreude is a word borrowed from German, literally translated to “Harm-Joy”. Specifically, I am interested in the origins of Schadenfreude, the conditions under which this emotion emerges in human development. In addition, to what extent is this moral emotion innate or shaped by culture, and if Schadenfreude emerges early in life, what it may imply about human nature: Are humans born “evil”? From a cross-cultural perspective, I am interested in the impact of social norms on the emergence, suppression and manifestation of Schadenfreude in children.

## Meet the Lab:

### ShenSheng Wang

Shensheng Wang was born and raised in Tianjin, China. He came to Emory with a Bachelor of Science degree in Psychology from Nankai University (Tianjin) in fall 2012. Since then, he has been studying face perception in infants as well as adults under the supervision of Dr. Philippe Rochat.

In his spare time, he enjoys music and sports. In college, he was a member of the Student Choir and participated in numerous choir competitions and performances world wide. At Emory, he joined the GSPN and serves as the coordinator of “Thinking Thursday” an event for promoting intellectual conversation in the psychology community.



# Popularity in Children

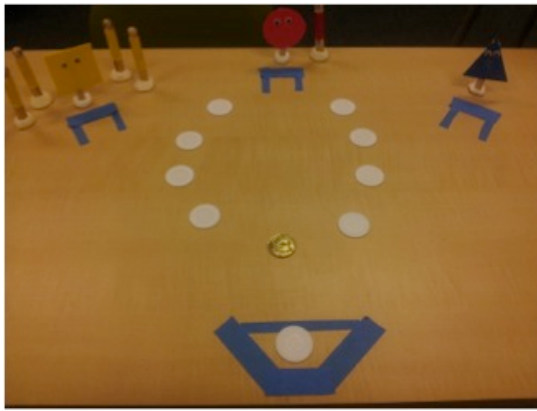
Article by: Hazel Doctor

Popularity. What comes to mind when you first hear this word? “Being famous”, “having tons of friends”, these are only some of the many responses from teenagers and adults. When children are asked the same question, you would be surprised to hear what they say.

As early as age three, children seem to show preferences for some kids over others. During playtime, we often see them gathering with the same group of friends to play together. Previous research based on teachers’ interviews and student ratings show that excellence, wealth, power and temperament are the top important factors of popularity.

While the amount of research on popularity is vast, most only focus on children from ages 9 and up. It is important to study the perspectives of children under age 9, because then we can get a sense of when, how and why friend circle interactions begin. Our study aimed to determine whether children’s view of popularity changes throughout stages in development and when these specific ideas of popularity become apparent.

In this study children participated in a series of fun games with puppets. In one game, they were asked to guess which puppet matched positive, negative or neutral characteristics. Participants were asked to slide a coin as quickly as possible across a table to the corresponding puppet. This measured how fast children associate certain characteristics to types of puppets. The puppets varied in shape, color and number of friends they had in their circle. We predicted that children, especially from ages 5 and above, would associate positive characteristics with the popular figure.



Participants were then told a story about puppet friends playing with a ball; participants were asked who should get the ball. The next story was about breaking rules. Participants were asked to guess who broke the rule. We predicted that children will give the ball to the popular puppet, while blaming the unpopular puppet for breaking the rules.

In the final task, participants were asked to share coins including a special gold coin between the popular and unpopular puppets. We predicted that children would give the gold coin to the popular puppet.

The results of this study found that younger children (ages 3-4) have mixed views on what makes someone popular, while older children (ages 5-7) have more specified ideas and suggest that positive qualities such as “being nice”, “being able to share,” and “being friendly” are highly important. Moreover, a majority of older children also displayed empathy when they decided to give the “unpopular” puppet the ball or the coin. However, they still blamed the “unpopular” one for ruining the picture in one of the tasks.

Currently, the data shows that by age 5, children begin to have more specific ideas about qualities they prefer in friendships. The older they are, the more these ideas become specific and concrete. This is important because we now have a better idea on the dynamics of friendships and we might help at better identifying problematic peer relations early on.

## Spotlight on the Students:

### Hazel Doctor

Hazel Marie Doctor is currently a senior with a major in Psychology and a minor in German Studies.

Her interests in psychology vary from morality to precursors of abnormal behavior, and she has always enjoyed working on studies with kids.

She has worked for the Emory Infant and Child Lab since August 2013 and studied children's perceptions of popularity, prestige and favoritism.

On the side, she works as a research assistant for the Emory Mental Health and Development Program, which focuses on psychosis in youths and adults. She is hoping to become a clinical psychologist in the near future.



# Ahoy! There be Pirates!

Article by: Theresa Moehrle

One of the things that we were interested in this year was how sharing and rule following correlated. We hypothesized that those children who were more likely to break a rule in private would compensate and be more equitable in sharing. In this experiment we ran children who were 4, 6, and 8 years of age.

We asked children to come to the lab to play a few games. There were four games altogether and children were presented the games in different orders depending on their random assignment. The games included two sharing games, a dart game, and the blanket game.

The sharing game was a modified version of the classic dictator game. In the dictator game, the child is given full control of sharing a number of coins. However, in our game we used a bucket of beads. The beads were representative of treasure (this is why we call it the Pirate Game). The treasure was found by our two pirate ducks. The child was asked to split the treasure between the ducks. In the second round there was a special gold coin. In this scenario the child had to choose one or the other to give the special treasure to. In the second part of the game, the child was given treasure to split between themselves and the experimenter. Included in the treasure was the special gold coin. Did the child share equitably? Who did the child give the special coin to?

The dart game was one of our rule following games. In this game the child was given 10 Velcro covered balls to throw at a dart board. There was a twist; there were rules that the child had to follow in order to get any points for playing the game. The first rule

was that the child had to sit in a chair that faced away from the board. The second rule was that the child had to get at least 3 of the balls on the board in order to get any of the points. The final rule was that the child could not look. The experimenter then left the room. That gave the child the opportunity to break the rules in this very hard game without anyone knowing. Did the child break any of the rules?

In the blanket game, the experimenter pulled out a surprise for the child for coming to participate. However, the child could not see the prize because it was covered in a blanket. The experimenter then suddenly remembered they had to do something, placed the prize on the table with the blanket covering it, and left the room. Before leaving however, the experimenter told the child "Don't look, I will be right back" Did the child look?

We are still in the process of examining the findings. We know that those children 4 years of age were more likely to break minor rules (such as peeking between throws) and the child usually gave themselves more than the experimenter. The 6 year olds were more likely to break several of the rules (especially looking at the board while throwing) but sharing was more equitable than 4 year olds. Finally, 8 year olds often did not break the rules and sharing was very equitable.

We have questioned that maybe the game might have been easier for the 8 year olds and that is why we see less rule breaking but we have not confirmed this hypothesis. We may not have found what we were looking for, but the information we gained gave us some insight into how children think about rules and sharing.

## Meet the Lab:

### Theresa Moehrle

Theresa Moehrle is the Lab Coordinator at the Infant and Child Lab. She received her Master's In Experimental Psychology from the University of Texas at Arlington in 2009 and joined the lab shortly after.

Theresa is mainly involved in overseeing the administrative duties of the lab. She is also in charge of making sure all studies meet the requirements of Emory's IRB. She coordinates Student Researchers and oversees many of the projects in the lab.

She currently teaches Intro to Psychology, Abnormal Psychology, and Human Development at Georgia Highlands. She also works with adults and youth at the Cobb Literacy Council helping them obtain their GED.



## Student Research Assistants

### Top Row-

Alexa Myers (From: New York) is a research assistant from Emory.  
Interesting Fact: She spent last spring in Rome studying Psychology and Art.

Emma Burgin (From: Cincinnati, Ohio) is a research assistant from Emory.  
Interesting Fact: She has been to all 50 states.

Hazel Doctor (From: Saipan, CNMI) is an Honor's Thesis student and SIRE Grant recipient at Emory University. For more information about Hazel, see student spotlight on pg. 6.

Ana Koh (From: Decatur, Georgia) is a research assistant from Emory. For more information about Ana, see student spotlight on pg. 2

Eun Jie Lee (From: Seoul, Korea) is a research assistant from Emory.  
Interesting Fact: She lived in Honduras for 12 years.

### Top Row Continued:

ShenSheng Wang (From: China) is a Graduate Student from Emory. For more information about ShenSheng, see meet the lab on pg. 5.

### Bottom Row:

Chloe Burrell (From: Beaumont, Texas) is a research assistant from Emory. Interesting Fact: She likes hot chocolate; but not chocolate.

Albert Yoo (From: Atlanta, Georgia) is a research assistant from Emory. Interesting Fact: All the animals he has ever owned are reptiles.

Scott Danielson (From Columbia, South Carolina) is a recent graduate from Emory. Interesting Fact: He has a black belt in Karate. For more information about Scott, see student spotlight on pg. 4

Sonali Poudel (From: Kathmandu, Nepal) is a research intern from Wesleyan College-Interesting Fact: She is very good at memorizing phone numbers.



We couldn't do this without you:

You are receiving this newsletter because you and your child have participated in one of our studies or have expressed interest in taking part in one. We invite you to involve yourself in our current studies. If your child is under the age of 10, and you would like to be contacted about our studies, please call or email us at:

(404) 727-6199 or [tmoeuhl@emory.edu](mailto:tmoeuhl@emory.edu)

Your visit will take less than half an hour, and your child will be given a small token of appreciation at the end. Thank you again; we cannot do it without you!

We are located on the Emory Campus, near Druid Hills, Decatur, Candler Park and other nearby Atlanta Neighborhoods.

36 Eagle Row,  
Atlanta, GA 30322

Free Parking is available. Check our website for directions:

[www.psychology.emory.edu/cognition/rochat/lab](http://www.psychology.emory.edu/cognition/rochat/lab)