



Children's Hospital Boston

*Children's Hospital Boston
Laboratories of Cognitive Neuroscience*

Spring 2008 Newsletter



Hello from Dr. Nelson

*Director of Research, Division of Developmental Medicine, Children's Hospital Boston
Professor of Pediatrics, Harvard Medical School*

Happy Spring from the Laboratories of Cognitive Neuroscience! Whether you have already taken part in our studies or have recently joined our growing participant database, I greatly appreciate your interest in our research at Children's Hospital Boston. Your support of and participation in our studies is invaluable to us in answering many important questions related to infant and child cognitive development.

This spring we are busier than ever with new studies and areas of interest. In addition to our work with infants and toddlers, we have many new participation opportunities for elementary and middle school-aged children. Some of the issues that we are looking at in this age range include autism spectrum disorders, the effects of stress on cognitive development, and the impact of musical training on reading development in both typical readers and children with developmental dyslexia.

Please feel free to explore our website or contact our research team directly to learn more about the nature of our studies and how you and your child might participate. Thank you again for your interest in the Laboratories of Cognitive Neuroscience. I look forward to meeting you at a study session in the near future!

Warm wishes,

Charles A. Nelson, Ph.D.



Inside the Lab:

Current Opportunities for Study Participation

As a registered member of our participant database, you are eligible to receive notifications by mail or e-mail when opportunities for research participation are available that fit your or your child's age range. Wondering what study opportunities might be available to you, your family members, or your friends in the near future? Browse the [Ongoing Research](#) section of our website, and take a look at the research studies in our laboratories enrolling infants, children, and adults for participation. And if you spot a study opportunity which might be of interest to someone you know, feel free to forward this newsletter or tell them about our [participant database](#)!

Featured Study: The Development of Social Category Perception

The ability to process and remember faces is critical to social interactions. Research with adults suggests, however, that not all faces are created equal in perception and memory. For example, adults are better at processing same-race, same-gender, and same-age faces than they are at processing other-race, other-gender, and other-age faces. This effect is known as "own-group bias." One of our current studies asks the question, when do children begin to show own-group biases, and what is the role of experience in their development?

In this study, we are interested in whether and how infants categorize faces according to visual information about race and ethnicity, as well as what role experience and environment might play in the development of such social category perception. In the study, five-month-old infants see pictures of White and African-American faces, and we measure their brain activity while they watch these pictures.

The way in which infants respond to these faces is of particular interest to us, as babies have yet to experience the many social influences that affect the race-based perceptions and biases of children and adults. By determining whether and how infants begin to categorize faces according to race and ethnicity, we also aim to learn whether varying degrees of experience with faces of different races may impact this ability during infancy and childhood. Ultimately, we hope to better understand the more complex nature of racial prejudice as seen in adults, and perhaps take steps toward learning how to remediate, or even prevent, the formation of such biases in the first place.

Interested in participating with your 5-month-old? Know someone who might be? Please e-mail Kristin Shutts (shutts@fas.harvard.edu) or call the main lab number at 617-355-0400.

In the News:

"Sounding Out Reading" in [Scientific American Mind](#)

A recent study by LCN faculty member Dr. Nadine Gaab is featured in the April/May issue of [Scientific American Mind](#). The study showed that sound processing training (done in the form of a fun video game), resulted in strong improvements in the literary skills of a group of dyslexic children. After just two months of training, the dyslexic children were on par with typical readers in the areas of listening comprehension and word recognition, a significant result. For more information on some of Dr. Gaab's current studies, please visit her website at <http://www.childrenshospital.org/research/gaablab>

Please visit the ["In the News"](#) section of our website for more press coverage about the laboratories' research!

In the Community:

"The Childhood Roots of Adult Disease: Exploring the Biology and Psychology of Early Life Stress" Tuesday, April 15th, 4:00-6:00 pm

As part of the colloquium series sponsored by Harvard's Center on the Developing Child, Dr. Nelson will be speaking at this talk, along with a panel of professors from the Harvard School of Public Health and the Faculty of Arts and Sciences. The talk is free and open to the public, and a wonderful opportunity to find out more about how the Center on the Developing Child is working to bridge the gap between research-based knowledge and public policy. The talk will take place at Children's Hospital Boston's Enders Auditorium, located at 300 Longwood Ave. For more information on the Center and the series, you can visit their website at www.developingchild.harvard.edu.

"The Reading Brain" Sunday, April 27th, 1:00-4:00 pm

Does learning to read change the brain? Is the brain of a struggling reader different from that of a skilled reader? Are music, language, and reading skills linked neurologically? As part of the Museum of Science's exciting new lecture series about "The Science of Kids," Dr. Gaab will speak about how brain researchers are currently exploring these questions, as well as the possible link between musical training, language, and reading development. For more information on the series and how to register for Dr. Gaab's workshop, visit the [Museum of Science website](#).

March of Dimes, March for Babies, Sunday, April 27th, 11:30 am

This year the LCN will have a table at the March of Dimes March for Babies event. We are very excited to collaborate with an organization that is doing so much important work for children and their families! Our table will be located in the Family Tent, along with a number of other organizations and some fun arts and crafts activities. If you're there, please stop by and say hello! If you're interested in donating or forming a team for the walk, you can visit the [March of Dimes website](#) for more information on how to get involved!

"Your Baby's Brain" Sunday, May 31st, 3:00-4:30 pm

In May, Dr. Nelson will present a talk entitled "Your Baby's Brain: How Infants Learn, See, and Think" at ISIS Maternity's Needham center. The talk, part of ISIS Maternity's expert speakers series, will be followed by a question and answer session with Dr. Nelson. Registration is required for the event, which is free for ISIS Maternity members. For more information or to register, please visit their website at www.isismaternity.com.
