



Children's Hospital Boston

***Children's Hospital Boston
Laboratories of Cognitive Neuroscience***

Winter 2009 Newsletter



Hello from Dr. Nelson

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

Hello and Happy New Year from the Labs of Cognitive Neuroscience! I hope you're all staying warm in this very snowy Boston winter. 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. Your support of our work and participation in our studies is invaluable to us in answering many important questions related to infant and child cognitive development.

As you'll see in this current newsletter, the LCN is busy as always with many ongoing studies and community events. Please feel free to explore our website or contact our research team directly to learn more about our studies and how you and your child might participate. Thank you again for your interest in the Labs of Cognitive Neuroscience. I look forward to meeting you at a study session in the near future!

Warm wishes,

A handwritten signature in cursive script that reads "Charles A. Nelson".

Charles A. Nelson, Ph.D.

Inside the Lab:

New Studies Getting Underway

We will be starting several new studies in the coming months, including an adult face-processing study, a study on how infants develop an understanding of numbers, and more! Keep your eye on the [Ongoing Research](#) section of our website, where new studies will be posted soon!

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 that might be of interest to someone you know, feel free to forward this newsletter or tell them about our [participant database](#)!

Featured Study:

The Effect of the Experience of Stress on Brain Function in Children

The ability to remember things and reason through everyday problems is critical to living successfully as an adult. Research suggests that these abilities have a long developmental trajectory over the course of childhood and into adolescence. This long trajectory of development is different than other abilities which are solidified when children are relatively young, such as vision. Because of this long trajectory we believe that these abilities might be much more impacted by the experiences a child has and by his/her reactions to these experiences. What parts of a child's experiences or reactions might result in differences in their ability to plan, organize, and remember things? Could their reaction to mildly stressful experiences be part of what affects their brain development?

In this study for 8 to 12-year-olds, we will be using a variety of tasks--including some planning and memory games--to learn more about the effects of stress on the development of planning and memory abilities in children and the associated brain areas. The way in which children perform these tasks is of particular interest to researchers, because children's brains are still in the process of developing and changing. Using these tasks we can tell if a child's sensitivity to stress is related to their brain function when they are doing memory and planning games. A child's performance on these games predicts success in school and may be related to health in adulthood. By learning how stress sensitivity is related to these brain functions we can find ways to insure that all children have the kind of environment in which they can flourish.

If you are interested in participating with your child, please e-mail [Margaret Sheridan](#) or call the lab at 617-355-0400.

In the News:

"Finding Families for Romania's Orphans," from the *Newton Tab*.

Dr. Nelson's work on the Bucharest Early Intervention Project is featured in this January 14th article from the *Newton Tab*. To read the full article, [click here](#).

"Study Suggests Babies Get the Beat at Birth," from *USA Today*

Dr. Nadine Gaab, an LCN faculty member, weighs in on the nature vs. nurture debate surrounding babies' sense of rhythm and musical timing. To read the full article, [click here](#).

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

In the Community:

"Facial Recognition: The Creation of Expertise" Sunday, February 8, 1:00 pm

Benjamin Balas, a post-doctoral research fellow here at the LCN, will share his research on how humans develop an expertise in processing faces of different racial groups, ages, genders, and species in this talk at the Museum of Science. The talk is free with a regular admission ticket for the day. For more information, visit the MoS [website](#).

"From the Terrific Twos to Talkative Teens: How Children's Changing Brains Add Up to Changes in Behavior" Thursday, February 12, 6:30 pm.

As part of the Kingsley Montessori Parent Speaker Series, Dr. Nelson will present this wide-ranging talk that traces cognitive, language, and social/emotional development from toddlerhood to the teen years. The talk is open to the public, and everyone is welcome. For more information and to RSVP for the talk, visit the Kingsley Montessori [website](#).

"Your Baby's Brain: How Infants Learn, See, and Think" Saturday, February 21st, 4:30-6:00.

Dr. Nelson will present this talk at ISIS Maternity's new Boston location in the Prudential 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.

"Visions of Community: A Conference for Families of Children with Special Needs and the Professionals Who Serve Them" Saturday, March 14th, 8:00-5:00.

The LCN will have a table at this conference, which gathers together families and professionals to discuss a wide array of issues, including everything from special education law to financial planning. For more information on the conference schedule and topics, please visit the [FCSN website](#).

**The LCN at the "Living Laboratory" at the Museum of Science!
(The Human Body Connection Exhibit, Wednesdays from 2:00-5:00 and Fridays from 10:00-1:00)**

We are continuing with our studies at the Museum of Science, as part of the museum's effort to make the science of cognitive development more accessible to parents and kids. Our researchers are there each week to give children the opportunity to participate in a study, as well as to help parents understand how their child learns about the world. Our current research includes some face-perception studies and two language studies where you can rearrange comic strips or listen to different songs. Please keep your eye out for us when you're there-- stop by, say hello, and give our studies a try!

For more information on the "Living Laboratory," [click here](#).

To remove your information from our participant database, please e-mail brainworks@childrens.harvard.edu or call (857) 218-3011.

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