Hello from the Stony Brook University Temperament Study! We hope this newsletter keeps you up-to-date on the progress of our study of children’s temperament and development. Please let us know what you would like to see in future newsletters. As a reminder, you can find all previous newsletters online at: http://www.psychology.sunysb.edu/sbutmntstudy/

Progress Report

As always, we would like to thank you all so much for your continued participation in the study. We are almost finished with age 9 phase of the study, and are delighted that 80% of the families who enrolled in the study six years ago are still actively participating.

We have had difficulty reaching some families. If we haven’t contacted you and your child is still 9 or 10 years old, we would love to hear from you. Please contact our Project Coordinator, Laura Klein, at 631-632-4115 or email her at temperament.study@stonybrook.edu. Your support is essential.

As many of you know, we were fortunate to be funded by the National Institutes of Health to examine the effects of Hurricane Sandy on children and families. We surveyed all the families whose children completed their age 9 follow-up before the super storm. Many thanks to all mothers and children for filling out the surveys in a timely fashion. Some of our preliminary results are summarized in this issue of the newsletter. We will send you a follow-up questionnaire shortly to see how you’ve fared since the super storm. We will also invite a subset of families to come back for a visit during the summer to examine the effects of the storm in greater depth.

In addition to the Hurricane Sandy project, we also received supplemental funding from the National Institutes of Health to conduct a neuroimaging study examining the relationship between early temperament and patterns of brain activity in middle-late childhood. As neuroimaging is extremely expensive, we can only afford to do the study with a small subset of the children in the Stony Brook Temperament Study.

Currently we are waiting to hear from the National Institutes of Health regarding funding to continue the study as the children begin to go through adolescence, at ages 12 and 15. This is a critical period of development, and we hope to examine how children deal with the new challenges that emerge at this time.

We are very grateful for all your assistance over the past 10 years in helping us understand children’s development and the factors that promote and interfere with successful adaptation and adjustment. We hope that you will stay with the project and that we will be able to follow your children as they grow into young adults.
Hurricane Sandy Study

On October 29, 2012, Hurricane Sandy struck Long Island and surrounding coastlines as a Category 1 storm system. This storm left significant damage in its wake and forced evacuation in many areas, with approximately 10,000 Long Island homes flooded. Additionally, many more homes sustained severe damage due to fallen trees, downed power lines left extensive electrical outages for several weeks following the storm, and severe gas shortages led to mandated gas rationing. With an estimated $50 billion in damages, Hurricane Sandy is the second costliest hurricane to have affected the United States, only behind Hurricane Katrina.

Following Hurricane Sandy, the staff of the Stony Brook Temperament Study (SBTS) realized that we had a unique opportunity to understand the impact of natural disasters on children’s psychological health. Previous studies have demonstrated that some children who encounter hurricanes, severe flooding, and earthquakes can experience symptoms of Post-Traumatic Stress Disorder (PTSD) as well as increased symptoms of depression and anxiety, in the aftermath of the disaster. However, the majority of children do not have such reactions. We want to try to understand why children’s responses to major stressors, such as Hurricane Sandy, differ.

At the beginning of December 2012, we sent a survey about experiences during Hurricane Sandy to all families who had completed the age 9 assessment prior to the storm. We also asked both mothers and children to report on the child’s psychological functioning following the storm. Almost 450 families completed the online survey.

Although the impact of Hurricane Sandy varied widely across Long Island, over 96% of the families in the Temperament Study live in FEMA-declared disaster areas, meaning that families in these areas were eligible to apply for FEMA assistance. Approximately 55% of SBTS families experienced at least one significant stressor following the hurricane. “My family’s life was seriously disrupted” was the most frequent stressor reported (23.7% of families). Other frequent stressors reported by the families included “My children feared for their safety or our family’s safety” (22.8%), “My home was damaged and/or my family has experienced serious financial stress” (19.4%), “My family had extremely serious difficulty finding gasoline” (16.5%), “My children complained more than usual” (15.6%), and “My family’s safety was threatened” (12.7%). Finally, 4.6% of our families reported having to evacuate their homes following Hurricane Sandy.

Next, we examined how exposure to Sandy-related stressors might be related to post-Sandy symptoms of anxiety or depression in children. The correlations between mothers’ and children’s reports of children’s post-Sandy symptoms were moderately strong, meaning that mothers and their children observed similar kinds of symptoms in the children post-Sandy. We also detected a number of correlations between Sandy-related stressors and children’s symptoms. However, the magnitude of these associations was fairly small, indicating that children often responded differently to the same stressors.

When their family’s safety was threatened, children’s reports of their depression symptoms and parents’ reports of children’s anxiety symptoms tended to be higher. Additionally, when children were fearful about their family’s safety, and when families had great difficulty finding gas, both parents and children reported that children experienced more symptoms of depression and
anxiety. Finally, when families had to evacuate their homes, both parents and children reported that children were likely to demonstrate higher levels of anxiety symptoms. We are currently conducting further analyses exploring the factors that influence children’s responses to these stressors.

This summer, we will again ask families to complete an online survey about their experiences following Hurricane Sandy, and will also be asking about 100 families to come into the lab to complete additional EEG and saliva assessments. This will allow us to examine whether children are still experiencing any persisting effects from the super-storm. As always, your family’s participation in the Stony Brook Temperament Study is crucial in helping us understand the factors that influence children’s development and psychological functioning.

From the Principal Investigator:

Below are abstracts of some preliminary findings of the Stony Brook Temperament Study that have been published in professional journals.

Abstracts


This study investigated gender differences in temperament traits in a sample of 865 3-5 year old children. Unlike previous studies that rely on only a parent report for data, a combination of reports from mothers and fathers, as well as a laboratory visit to observe behavior, were used to assess divergences between boys and girls in a sample of 865 children. Girls displayed a higher level of positive emotion, more fear, and lower level of activity in comparison to the boys. Girls were also more social and demonstrated lower levels of negative emotions, such as sadness, anger and impulsivity, than boys based only on the laboratory visit. However, based on maternal and paternal reports alone, girls displayed more negative emotions, especially sadness, and lower sociability than boys.


Effortful control is the ability to regulate one’s own responses in accordance with situations, such as suppressing anger at a social event. This study examined the relationship between parenting and genetic factors in influencing effortful control in 383 3-year-olds. The children and primary caregivers completed various behavioral assessments to determine children’s self-regulation and
parents’ parenting behavior. Children with a specific variant of a dopamine receptor gene (DRD4) displayed lower effortful control when their parents engaged in more negative parenting behavior compared to children with other variants of this gene. These findings indicate that children with particular genotypes may be prone to more difficulties with effortful control in some environmental contexts, suggesting possible avenues for early education and intervention.


This study used laboratory observations on 550 three-year old children to explore the structure of early child temperament. Using sophisticated statistical procedures such as confirmatory factor analysis, the best fitting model suggested that there are five major dimensions of temperament in young children: Sociability, Positive Affect/Interest, Dysphoria, Fear/Inhibition and Constraint versus Impulsivity. These dimensions are similar, but not identical, to the structure of temperament and personality in older youth and adults.


This study examined the early development of response monitoring in 328 5-7 year-olds. Response monitoring involves the ability to detect errors and adjust behavior accordingly. The processing of correct and error responses can be studied using event-related brain potentials (ERPs), which measure electrical activity in response to particular stimuli. The error-related negativity (ERN) is a pattern of brain electrical activity that appears after making an error on a simple task. It is strongest over the posterior regions of the brain. In this sample, 5-7 year olds exhibited a robust ERN, showing that the response monitoring system is active in early childhood. Older children had stronger ERNs, suggesting that response monitoring systems become more efficient as children enter middle childhood. Finally, girls were slower and more accurate in their responses than boys, although their ERPs were similar.
Moving? New Phone? Questions/Concerns?

We are looking forward to seeing you and your children again for the Age 12 Assessment!

If you have moved or changed your phone number, or have a question for our researchers, please call us at (631) 632-4115. You can also contact us via our email address, temperament.study@stonybrook.edu. Even if you have moved out of the New York area, we would still like to have you and your child participate in this phase of the study! Please contact us as soon as possible so we can determine how best to have you take part.

Resources for Parents and Children:

Several parents have expressed interest in reading materials and other resources for parents. We would like to recommend some books that address common problems parents and children may encounter. These books are available through Amazon and most major booksellers:

- *Good Friends Are Hard to Find: Help Your Child Find, Make, and Keep Friends* by Fred Frankel
- *How to Behave So Your Children Will, Too!* by Sal Severe
- *The Emotional Problems of Normal Children* by Stanley Tureki
- *Every Parent: A Positive Approach to Children’s Behavior* by Matthew R. Sanders
- *The Bully, the Bullied, and the Bystander: From Preschool to High School – How Parents and Teachers can Help Break the Cycle of Violence* by Barbara Coloroso

For problems that may require professional attention, please contact your pediatrician or consider the following resources:

- SUNY Stony Brook, Department of Psychiatry 632-8850
- Krasner Psychological Center 632-7830
- Child & Family Psychological Services 265-9850
- Brookhaven Youth Bureau, Medford 451-8011
- Pederson Krag MHC, Smithtown 920-8300
- Family Service League, Huntington 427-3700

Transitions:

Ellen Kessel, B.A., has joined our group as a graduate student in Psychology at Stony Brook University. She graduated from Columbia University in 2009.

Brandon Goldstein, B.S., has joined our group as a graduate student in Psychology at Stony Brook University. He graduated from the University of Maryland at College Park in 2011.

Margaret Dyson, M.A., is on a pre-doctoral internship in clinical psychology at the University of San Diego Medical Center. She has been involved in the study since it first started in 2004.
Looking for Older Adults for a Research Study on Stress & Genes

Eligibility criteria are:
- You must be 55 years of age or older.
- You must be a non-smoker.
- You must be healthy and have no current psychiatric diagnosis or substance abuse problems.
- You have no diagnosis of diabetes and receive no treatment with corticosteroids.

Study takes about 4 hours and includes blood draws, saliva sampling, questionnaires, and a mildly stressful public speaking task. Total payment is $100, plus cost of public transport.

For more details about this study, contact us. Senior Stress & Genes Study, email: canlilab2@gmail.com Phone: 631-632-4209

Looking for adults 55+ to participate in an MRI Study on social & emotional

- You must be 55 or older.
- You must be right handed.
- You must have no current psychiatric or neurological diagnoses.
- You must have no metal or medical devices in your body.
- Please call for other eligibility criteria.

Study includes questionnaires and social or emotional tasks in the MRI scanner. Study may include saliva sample and/or blood draw. Total payment is $20/hour (study takes 2-3 hours) plus any public transport costs.

Contact us to learn more about the Social and Emotional Study! Phone: 631-632-4209 Email: canlilab2@gmail.com