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, emotions, and their relationship to parents’ personalities. Please let us know what you would like to see in future newsletters. As a reminder, you can find all previous newsletters online at: www.sbutemperamentsudy.org.

**Progress Report & Future Plans**

With summer in full swing, we are pleased to share that we have over 550 families with preschool age children enrolled in the study! Of these families, 90% have completed the second lab visit, 91% have completed the phone interviews about themselves and their children, and 80% have completed the family questionnaires. An additional 462 families have participated in a sub-study examining the role of genes in the development of temperament and personality. We know that participation in the study takes a good deal of time and energy, and we appreciate your continued efforts!

We plan to reach our goal of 570 families by the end of June 2007 and to begin the Age 6/7 Assessment in September. The Age 6/7 Assessment will be critical to understanding the stability of temperament over time. Those families whose children are already 6 years old should expect to be contacted during the summer to plan for this second phase!

**A Reminder to Families: Questionnaires**

Please complete and return the parent questionnaire packets in the pre-paid envelope. If you have any questions, or need a new set of questionnaires, please call the Project Coordinator at 631-632-4115. Thank you!

**Starting School – Tips for Parents**

Starting school is often an exciting time for children. However, for some children this transition is accompanied with fear and anxiety. Below we have included some useful tips and suggestions for parents to help their children prepare and adjust to school.

What are some of the specific fears, anxieties, and behaviors expressed by children at each stage?

- **Preschool:** (First time in a formal school setting)
  - Children may not be able to articulate worries and concerns
  - It’s common for young children to express separation anxiety by acting distressed—crying, pleading for parent to stay
  - Children may also express concern about practical issues such as, “Where is the bathroom?” or “I don’t want to nap!”
  - Anxiety about starting school usually subsides within the first few days or weeks

- **Kindergarten:** (Start of a new and bigger school)
  - Children may express similar concerns and anxieties as preschoolers—separating from parent and leaving home
  - They may be anxious about new adjustments in kindergarten—new routines, new classmates, school day may be longer

- **First and Second Grade:** (Have some experience with school and its routines)
  - They may express initial separation problems—missing friends and old teacher from last year or worrying about something happening to parent
    - Children are able to anticipate events—may act distressed the night before school and report physical symptoms like stomach aches or headaches
Preparing Your Child for the First Day of School

- Talk to your child about school before classes actually start:
  - Read some books with your child over the summer to prepare
    - Recommended books include: *Berenstain Bears Go to School*, by Stan and Jan Berenstain; *Annabelle Swift, Kindergartener* by Amy Schwartz; *First Day Jitters* by Julie Danneberg; *I Am Absolutely Too Small for School* by Lauren Child; and *Get Ready for Second Grade, Amber Brown* by Paula Danzinger
  - Help your child establish a regular routine for school:
    - Giving your child power over what he or she can control may help to calm his or her nerves
    - Start having your child go to bed earlier—one-two weeks before school starts
    - Have your child go to bed 15 minutes early
  - Practice going to school with your child:
    - Familiarize your child with the route and routine
    - If possible show your child the classroom, playroom, lunchroom, and restrooms
  - Make arrangements for your child to meet and spend time with his or her teacher and future classmates outside of school:
    - This will allow your child to see some familiar faces when the first day of school arrives and can help reduce social anxiety
    - Learn about the drop-off policy:
      - Find out what the policy is for parents walking their children into the classroom and how long parents can stay
      - If you think your child will need extra time to adjust, talk to the teacher beforehand
  - Plan ahead how you will say goodbye:
    - Think about what your child will need as a goodbye—quick goodbye or 5 minute cuddle
  - Send a reminder from home:
    - If your child is especially anxious about starting school, consider sending a small reminder of home—parent’s picture, stuffed animal

The First Day of School

- Get up early:
  - Have a relaxed breakfast and some extra time to deal with any upsets
- Don’t talk to the child about how much you will miss him or her:
  - Your child has enough to worry about on the first day without soothing your own anxieties
- Focus on Fun:
  - Emphasize all of the fun things your child will get to do at school
- If child gets upset:
  - Acknowledge your child’s feelings and say something like “I know you’re upset. I bet other kids are too. Let’s think about what will help you feel better.” Suggest reading a book together or starting an activity
- Don’t be afraid to ask the teacher for help:
  - If your child won’t separate from you have the teacher assist you in reassuring your child that the teacher is there to help him

Try to make a swift exit:

- Take your cue from the teacher and from your child—quick exits are much more effective then long drawn-out goodbyes
Parents’ separation issues:
- It is essential to acknowledge your own separation anxiety and role in the separation process.
  - Your separation issues could be feeding your child’s—your child will easily sense your anxiety
  - You may worry if teachers will really know how to care for your child
  - You may feel a loss because this is the first time your child is away from home
  - You may feel guilty if you have to leave your crying child at school and go off to work

The Parent-Teacher Partnership:
- A positive parent-teacher relationship contributes to your child’s school success:
  - **Approach the relationship with respect**
    - Create a problem-solving relationship rather than confronting the teacher with questions about what is wrong
  - **Let your child develop his own relationship with the teacher**
    - Try to take a back seat and let the relationship develop with little interference

**EEG and Temperament**

*As part of an installment series, we plan to address issues regarding child development and temperament in each newsletter. Please contact us if you are interested in learning more about a particular topic.*

Kids. They may say the darndest things, but they behave in surprising ways as well. Studying temperament is one way in which researchers attempt to better understand children. Child temperament, often thought to be the foundation of adult personality, refers to early-emerging emotional and behavioral styles. Intuitively, parental style and personality, in addition to social and environmental variables, come to mind when speculating about possible influences on child temperament. However, could there also be a relationship between temperament and brain electrical activity, as measured by EEG? It may sound a bit far-fetched. Yet, brain cells do communicate through tiny electrical impulses, and the brain certainly plays a role in behavior. So, yes, the eyes might be from grandma, and the clumsiness from dad, but the shyness might just be from frontal EEG asymmetry!

What is EEG?

Electroencephalography, or EEG, is a method used to non-invasively observe human brain activity. It detects and records brain waves, patterns of electrical activity naturally produced by the brain. Some EEGs require placement of sensors directly on the scalp. In our study, however, a cap is fitted over the child’s head, and then the sensors snap easily into openings in the cap. The openings are placed to fall above specific areas of the brain, allowing for quick and simple placement of the sensors. The sensors are a receiving mechanism only; nothing is being sent into or passed through the scalp.
What is frontal EEG asymmetry?

The brain is comprised of regions called lobes, and much like organs in our body, each lobe performs a different function. The brain is also divided into two hemispheres and, though there are exceptions, the lobes generally have equal representation in each hemisphere. Both sides usually work in tandem, but there are conditions that engage one side more than the other depending on the type of task. Simply put, frontal EEG asymmetry reflects more activity in one side of the frontal lobe, which is the area near the forehead, than the other side.

How is frontal EEG asymmetry measured?

Brain waves are measured in hertz (Hz), a common measuring unit for cyclical waveforms. Audio waves, infra-red light, and even computer processing speed are measured in hertz. A hertz is one cycle per second, so the greater the hertz, the more frequent the cycles occur per second. Activity within the 8–13 Hz range is called alpha, and studies suggest that a decrease in alpha occurs when the brain is engaged in active processing. Ironically, more alpha generally indicates less activity. Monitoring the levels of alpha in specific regions and hemispheres allow us to view which areas display more or less activity than other areas.

How is frontal EEG asymmetry related to temperament?

EEG records brain activity, and the brain affects behavior, so a connection between the two seems reasonable. In fact, studies suggest that disproportionate amounts of activity in certain areas of the brain may indicate different types of emotions. Greater right frontal activity is associated with avoidance and fear, and with a brain-behavior system called the behavioral inhibition system, or BIS. The BIS increases arousal and attention when something unfamiliar or undesirable is encountered, and it guides behavior toward removing or avoiding the undesirable stimuli. In contrast, greater left frontal activity is associated with approach and initiative, and with a brain-behavior system known as the behavior activation system, or BAS. The BAS responds to incentives and guides behavior toward getting desirable, rewarding stimuli.

Why study frontal EEG asymmetry?

Gaining a deeper understanding of emotional tendencies and patterns of behavior may provide insight on methods to better regulate emotions and cope in challenging circumstances. For example, certain coping strategies for sadness and grief may be more effective than others, depending on the type of temperament. The best technique to teach and discipline children may vary with temperament as well. Understanding as many possible influences on emotion and behavior as we can, including the biological and neurological, may help us find methods that maximally work with existing underlying physiological systems to provide added benefits such as increased productivity, less stress, better choices, and greater satisfaction in our lives and the lives of our children.
**Moving? New Phone? Questions/Concerns?**

We will begin contacting families for the Age 6/7 assessment in August 2007. We are very excited to see you and your children again! There is lots of fun in the works, including more games with the staff and a parent, and an exciting visit to our new Pirate EEG laboratory!

We hope to keep all families a part of the Stony Brook Temperament Study. If you move or change 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, psychtemp@notes.cc.sunysb.edu.

**Resources for Parents**

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

- SUNY Stony Brook, Department of Psychiatry               632-8850
- SUNY Stony Brook Psychological Center               632-7830
- Point of Woods Clinic, SUNY Stony Brook               634-7874
- Child & Family Psychological Services, Commack               543-0290
- Brookhaven Youth Bureau, Medford               451-8011
- Pederson Krag MHC, Smithtown               265-3311
- Family and Child Guidance, Deer Park               242-1366
- Family Service League, Huntington               427-3700

**We wish you a wonderful and safe summer! Thanks again!**

The Stony Brook Temperament Study