Hello from the Stony Brook University Temperament Study! We hope this newsletter keeps you up to date on 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.sbutemperamentstudy.org.

Progress Report & Future Plans

We are pleased to announce that since the Age 6 Assessment began in September 2007, over 160 families have returned. Of those families, over 80% have completed the second laboratory visit and about 65% have returned the parent questionnaires and child saliva samples. We plan to continue following up with the remaining 400 families over the next two years.

Description of the Study

The Age 6 Assessment is very much like the Age 3 Assessment you already took part in, but requires less of parents’ time.

Visit #1: Child is videotaped playing with toys and games, and interacting with our research staff;
Parent completes an interview about child’s emotional, social and behavioral development.

Visit #2: Parent and child are videotaped working on activities together;
Child takes part in an assessment about brain activity (EEG).

Questionnaires: Parents complete questionnaires about child and about their own personalities.
Cortisol: Parent collects saliva samples from child at home for study of relationship between temperament and cortisol, a hormone that is part of the body’s stress response system. (see article on page 4)

If you have already begun the Age 6 Assessment:

Please complete and return the questionnaire packets and saliva samples as soon as possible in the self-addressed, stamped envelopes. During the summer months, we have staff members available to pick up saliva samples from your home! To arrange a time or to request additional materials, please call our Temperament Coordinator, Anna Miller at (631) 632-4121.

If you have not begun the Age 6 Assessment:

We will be contacting you again when your child is almost six years old.

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.

Moving? New Phone? Questions/Concerns?

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, psychtemp@notes.cc.sunysb.edu
Parenting Tips for Getting Your Child to Behave

All children misbehave and test boundaries every now and then. However, not all children respond to discipline in the same way. Some children respond well to discipline and alter their behaviors appropriately; while other children are more resistant, and may act out so frequently that their parents are surprised when they are actually being cooperative. Needless to say, getting a child to behave can be a taxing and stressful process for parents. Ultimately, however, it is every parent’s responsibility to try and help his or her child to learn how to behave appropriately. Included below are a few tips for parents on getting your child to behave:

• **Be consistent**: It can be difficult for parents to maintain consistency in the busy world that we live in today; however, consistent parenting helps children learn what to expect from their parents, develop a sense of responsibility, be less likely to push limits and boundaries, and feel a sense of security. The rules cannot be constantly changing if you expect cooperation from your child. It is best to establish a few ground rules and make it clear to your child what the consequences will be if they disobey the rules. For example, if your child gets sent to time out for hitting once, he should be sent to time out every time he hits. Otherwise, the child will not learn where the boundary exists, will continue to test the limits, and could potentially become more aggressive because he does not know when to stop or what the consequences will be. Inconsistent parenting has the potential to provoke anger, aggression, resentment, and confusion in your child.

• **Don’t ask, tell**: When giving your child a task to complete, clearly state your request rather than posing it in the form of a question. For example, you should not ask your child if they would like to clean up the toys, or if they would like to go to bed. Framing the instruction as a request opens the door for a discussion. It is best if you make clear directives, which specify exactly what you want your child to do (e.g. “I see that you left your crayons on the floor. I would like you to pick them up and put them in the crayon box.”)

• **Don’t overuse the word “no”**: Parents and children can easily become numb to the word “no.” Too often parents say the word before they even have an opportunity to understand what they are saying no to. Further, if children hear the word no too often, they become more likely to respond to their parents’ requests with no and to feel that their parents are not listening to what they have to say. Ideally, no should be used to convey the seriousness of a response and should always be followed by an explanation for its use. Saying no sends the message that there are no other existing options, when in many situations there actually are. Taking the time to listen to what your child has to say and then articulating to your child the reason why they cannot do something can help to limit your use of the word no and help to maintain the meaning and strength of the word. For example, if your child asks for dessert before dinner, instead of immediately saying no, try to come up with an alternative response such as, “I don’t think dessert before dinner is a good idea, but I’m happy to give you some special dessert after dinner”

• **Try to stay calm**: When a child is misbehaving or challenging your authority, try not to stoop to his or her level and begin arguing, yelling, or name calling. It is important for the parent to remain calm and convey to your child that you are in control of the situation.

• **Be a good example**: Setting a good example is an effective way to diminish inappropriate behavior in your child. Don’t say (e.g. curse, name calling) or do things (e.g. hit) in front of your child that you would not want them to do. Your behaviors serve as a model for your children and, consequently, have a significant influence on their repertoire of behaviors, both good and bad.

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• **Praise Good Behavior/Positive Reinforcement**: Research has shown that children will respond more quickly to positive consequences than to negative consequences. Positive reinforcement is an effective behavioral tool that should be utilized by parents. Throughout the day, parents should look for opportunities to praise their children. It is important to keep the praise immediate and to specify to your child the exact behavior that you are praising.

• **Time out**: The definition of time-out implies that the child is being taken away from positive reinforcement. Therefore, when you impose time out on your child, it is important to put them in a quiet place where he or she cannot play or enjoy themselves (e.g. a bare wall or corner). The child’s bedroom is not an appropriate place for time out. Most parenting experts recommend that children should be in time out for each year of their age (e.g. 6 minutes for a 6 year-old). Don’t leave your child in time out for too long because there is potential of over punishing your child. Most importantly, if you choose to discipline your child with a time out, make sure to provide your child with a clear explanation as to why he or she is being put into time out.

• **Consult a professional**: Sometimes there are situations when a child’s behavior can become too much for parents to handle, and the disciplinary measures that parents have been using at home are not enough. If you feel your child’s behavior is out of control and may require further intervention, then you should consider contacting a psychologist or physician.

• **Other helpful resources**:
  - *The Good Child Guide* by Noel Swanson, M.D.
  - Behavior Problems: [http://www.med.umich.edu/1libr/yourchild/behave.htm](http://www.med.umich.edu/1libr/yourchild/behave.htm)

**Neurobiology of Stress and Development**

_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. Some parents have expressed an interest in the purpose of our cortisol (saliva) collection; here is some background information._

Humans (and animals) have always had to face challenges to survival, hence we have developed mechanisms for responding to stress in ways that maximize adaptation. One of the major neurobiological stress response systems is the hypothalamic-pituitary-adrenocortical (HPA) system.

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The HPA system includes three major organs: the hypothalamus, pituitary gland, and the adrenal glands. The hypothalamus secretes corticotrophin-releasing hormone (CRH) and vasopressin, which stimulate the pituitary to produce adrenocorticotropic hormone (ACTH), which in turn stimulates the adrenal glands to secrete glucocorticoids (primarily cortisol) into the blood. The HPA system is controlled by negative feedback – for example, high levels of cortisol signal the hypothalamus and pituitary to reduce production of CRH and ACTH.

Cortisol has widespread effects that help the body respond to stress, including increasing blood pressure and blood sugar and reducing inflammation. It also enhances the memory of cues associated with stressors, presumably to help avoid them in the future. However, if high levels of cortisol are sustained over long periods of time, for example because of severe chronic stress, it can lead to a number of significant health problems. Cortisol has a distinctive daily rhythm. We generally secrete a large quantity of cortisol in the early morning hours, around the time of waking. Cortisol production gradually drops throughout the day, and remains low throughout the evening and night.

It used to be necessary to obtain blood samples to measure cortisol. However, there are now reliable methods for measuring cortisol in saliva, which has made it much easier to study how cortisol levels change with age and how they are related to individual differences in temperament, health, and emotional adjustment.

Developmental psychologists and neurobiologists have recently begun to study how the HPA axis changes with development. Morning cortisol levels increase as children grow older, with the most marked growth occurring around the time of puberty. In contrast, evening cortisol levels show little change with age. Researchers are also interested in understanding how cortisol responses to stress change with development. This is generally studied by having participants engage in mildly stressful tasks, such as making a speech before an audience of strangers or being asked to solve difficult arithmetic problems in a short amount of time. The change in cortisol levels from before to after the task provides a measure of HPA system stress reactivity.

Interestingly, young children often show little cortisol reactivity to such tasks – perhaps because they do not view them as being as stressful as adolescents and adults. However, cortisol reactivity to laboratory stressors increases significantly by adolescence. There is currently a great deal of research being conducted on whether the marked increase in morning cortisol and cortisol stress reactivity at puberty may help to explain why adolescence is associated with a heightened risk for a variety of emotional and behavioral problems, such as depression, substance abuse, and schizophrenia.

Neurobiological reactivity to stress appears to be influenced by genetic and environmental factors. Moreover, there is fascinating evidence from animal studies that severe stress during the prenatal period and in early childhood can produce long-term changes in stress reactivity that persist into adulthood. For example, infant monkeys who experience lengthy separations from their mothers continue to exhibit heightened cortisol responses to stress long after they are fully grown.

There are significant individual differences between people in how much cortisol is produced throughout the day and in response to stress. These differences appear to be associated with a variety of factors, including temperament and the environmental context. For example, some studies have found that very inhibited,
shy children have higher levels of morning cortisol than extroverted children. Inhibited children also exhibit
greater cortisol reactivity to laboratory stress than extroverted children, but this appears to be limited to
situations where the child does not feel that a trusted adult who can provide support or help is available.

Abnormalities in cortisol production are also common in some emotional and behavioral disorders. For
example, people suffering from severe depressive episodes tend to secrete high levels of cortisol, which, unlike
non-depressed persons, continue to remain high throughout the day. In contrast, individuals with antisocial
personality disorder, which is characterized by violent and criminal behavior, tend to exhibit unusually low
levels of cortisol. Interestingly, this may help to explain why some individuals with antisocial personality do
not appear to learn from experience (that is, punishments such as going to prison do not lead to a change in
behavior).

The neurobiology of stress provides a fascinating lens for understanding the links between neurobiology and the
environment. It is also providing important insights into the development of both normal-range individual
differences and severe emotional and behavioral disorders. We anticipate that significant progress will be made
in this area in the years ahead.

**Staff Notes**

We are pleased to announce that Becca Laptook has successfully defended her dissertation and has begun her
clinical internship at Columbia University Medical Center. We wish her the best of luck!

**For More Information**

Our website [www.sbutemperamentstudy.org](http://www.sbutemperamentstudy.org) has answers to many frequently asked questions, more details
about the Age 6 Assessment, and staff biographies. Take a look and let us know if there is any additional
information you would like to see online.

**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:

- “Incredible Years: A Troubleshooting Guide for Parents of Children Aged 3 to 8” by Carolyn Stratton.
- “Touchpoints: Your Child’s Emotional and Behavioral Development” by T. Berry Brazelton.
- “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.
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 hope you have a wonderful and safe summer! Thanks again!

~ The Stony Brook Temperament Study