

WTP Goes Green



"We Conserve" is a new program at the University of Wisconsin that aims to increase the energy efficiency of the campus facilities, strengthen its environmental stewardship and promote education and motivation to the community on the serious matter of responsible energy use .

The Wisconsin Twin Project is proud to be a part of this program. Our research requires traveling thousands of miles per year to visit twin families in Wisconsin and surrounding states. As part of the "We Conserve" program we no longer travel in minivans. The UW Car Fleet now includes gas/electric hybrid models of the Honda Civic and Ford Fusion. By driving these cars that average 40 mpg we will cut fuel use by 50% and CO₂ emissions by 60%.

For more information on the We Conserve program check out <http://www.conserve.wisc.edu>



Thank you



Thank you for participating in home visits, telephone interviews, and questionnaires! Your perspective is invaluable to our research. We enjoy meeting so many wonderful families. Your participation contributes to advances in child development research and improves our understanding of individual differences and the complexities of personality and behavior.

© Enjoy your twins!

Moving? Want to get involved? Contact us now!

☎ (866) 230-2560 (toll free)
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Feature Articles:

Childhood Anxiety and Depression:
Nature and Nurture Interact
by Matt Vendlinski
Presented at the annual meeting for
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Waisman
Center



"Twice as much to love,
two blessings from above."
~Author Unknown

Research Update

Nicole Schmidt, Project Manager

Wisconsin Twin Research has a lot to celebrate! Our new collaboration with Dr. Davidson is in full motion and several families have visited our laboratory on the UW campus. Many twin families have participated in our studies since the twins were toddlers and now many of them are entering college. We are forever grateful for the enthusiasm and commitment to research from families throughout the state! Our research studies are uniquely positioned to answer research questions that very few scientists in the world are equipped to do. Being able to follow a child throughout important developmental years with a rich set of assessments, multiple perspectives, and incorporating in-person and biological data allows us to learn about individual differences and emotional development in a very specialized way. Families participating in our current adolescent studies are adding exponential value to our work. For instance, we can consider a variety of influences that contribute to why some shy first-graders later become anxious, or, what influences may protect a shy first-grader from experiencing social anxiety in adolescence. We are also beginning to incorporate results from our genotyping work to examine how a concert of genes and experience influence behavior. The possibilities are extraordinary and we are bringing together experts to help the story unfold. We promise to make these results available to you as soon as they are accepted for publication. One of the great gifts of science is the critical review process, which ensures that the most rigorous statisti-

cal tests are employed before a result is available for the world. We look forward to talking with you soon! Have a wonderful spring and Happy Graduation to the Class of 2010 ☺
With gratitude,

Mimi



A view of the main entrance of the Waisman Center from the north side of the complex.

Exploring Culture in Our Studies

Our twin studies present a unique opportunity to learn how culture and family background influence child behavior and emotion. **We are committed to upholding a national standard of culturally sensitive research, so we need your help!** We want to enroll more families of ethnic-minority descent, including African American, American Indian, Asian, Hispanic and other families of twins with diverse backgrounds in our adolescent studies. Families are paid for participation. If you or a family you know may be interested in learning more about this research opportunity, please call us toll-free at (866) 230-2560 or email Patrick at phneath@wisc.edu



Featured Results

Childhood Anxiety and Depression: Nature and Nurture Interact

Matt Vendlinski, graduate student



Researchers have long used the nature vs. nurture debate to guide studies into the causes of mental health problems. Proponents of the nature argument have suggested that our genes determine whether we struggle with mental health issues. Supporters of the nurture argument have proposed that the stress in our environment pushes us to develop psychiatric symptoms. Although nature and nurture have traditionally been pitted against each other as opposing explanations, support has been mounting for the notion that both nature and nurture matter, and that nature and nurture interact to increase risk for psychiatric problems. One can safely say in fact, that this is now the dominant view among psychological researchers. That said, most studies examining whether nature interacts with nurture to raise risk for mental health problems have been conducted with adults. Few studies have examined this phenomenon in children. This study set out to test for an interaction between nature and nurture in the development of childhood anxiety and depression.

Measurement: This study used information collected during the age 7 phase of the Wisconsin Twin Project. Behavioral symptoms (especially symptoms of anxiety and depression) are difficult to accurately measure during childhood. The level of agreement between a parent and child as to whether the child is anxious or depressed is typically low. Because of this, researchers sometimes average reports from parents and children to more accurately measure child symptoms. This study went a step further and averaged reports from mothers, fathers, the children themselves, and global ratings from child examiners to estimate symptoms of child anxiety and depression in participating children. Further, because symptoms of anxiety and depression often occur together, we combined measures of both types of symptoms into a single score. We used levels of anxiety and depression among the biological relatives of a child as a rough estimate of risk for mental health problems in the domain of "nature". We used a broad index of environmental stress in each child's life to estimate risk for anxiety and depression in the domain of "nurture."

Results: We found that our variables representing nature and nurture did in fact, interact to increase risk for childhood anxiety and depression. That is, some of the risk associated with "nature" only came to fruition if that risk occurred within a stressful environment (i.e. "nurture"). This study contributes to a growing body of research demonstrating that nature and nurture interact with each other to elevate risk for the development of anxiety and depression in childhood.

This study has been accepted for publication in Behavior Genetics.

Twins and Research on Autism

We estimate that there are as many as 200 pairs of twins in Wisconsin under the age of 18 in which one or both twins has autism or some other form of pervasive developmental disorder (PDD-NOS or Asperger Syndrome). We have great personal and scientific interest in these disorders. In the first phase of our current work, parents are interviewed via telephone about their children's developmental and medical history. The interview generally takes 45-60 minutes and can be scheduled whenever is convenient to the family. Families are paid \$25 for participating in this interview. In the next phase, we re-contact some families and ask them to participate in a follow up interview, which is also compensated.

In order to accurately assess the prevalence of autism in twin pairs, we would like to know if your family or someone you know has a family where one or both twins have some form of autism, even if they choose not to participate. Thus far, we have located about 160 twin pairs in which one or both has autism or a related challenge. We would appreciate a phone call or email from parents of twins with autism living in Wisconsin. It is not important if the twins are identical or fraternal, boys or girls, or even if the co-twin has any behavioral issues or not; we are interested in all aspects of the autism spectrum.



Please contact Bret Vlach for more information:

- ☎ (866) 230-2560 (toll-free)
- ☎ (608) 262-5574 (local)
- ✉ Email: tap@waisman.wisc.edu

Fun Facts

16.5% of twins in our studies share the same first letter of their first name as their cotwins (3,065/18,591). Alliteration of J is most common ☺

Average gestational age of all participating twins: 35.6 weeks (3% born before 28 weeks, 1% born at 40 weeks)

Mothers of fraternal twins are 3 to 4 times more likely to have another twin pregnancy.

Identical twins share the same DNA, but have unique fingerprints!