Presented by the Lab for the Developing Mind and the Temperament Lab at WSU

BABIES, BRAINS, AND GROWING MINDS

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Have you ever noticed even babies seem to have different personalities and you can just tell some will grow into young children smiling, laughing, and running with other children on the playground and some will grow into children who are bit quieter and more reserved?

Our research is working to unravel these mysteries of human development in the WSU Temperament Lab, led by Dr. Maria Gartstein, and Lab for the Developing Mind, led by Dr. Sammy Perone. The goal of our research is to promote health and well-being for children and their families.

We are grateful for all the families in our community who participate in our studies. This newsletter highlights our latest findings, community resources, and what to look forward to.

HELP US DISCOVER HOW CHILDREN DEVELOP!

Parents are asked to complete surveys and participate in a short lab visit wherein the baby or child takes part in various activities, including playing with their parent and wearing small "swimmer-like" cap that picks up brain waves. Families are compensated for their participation. Sessions will be scheduled during a convenient time for your family.

If you have a baby under 1 year of age scan the QR code below to send an email indicating you are interested in participating.

WSU Temperament Lab

If you have a child between 3 and 6 years of age scan the QR code below to send an email indicating you are interested in participating.

Lab for the Developing Mind @ WASHINGTON STATE UNIVERSITY

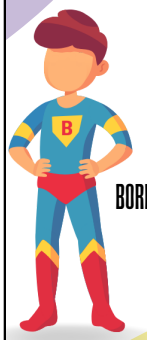
WSU LAB FOR THE DEVELOPING MIND

Those Dreaded Words. 'Mom, I'm bored!'

The lab is excited to announce graduate student, Alana Anderson, completed her Ph.D. this year!

As part of earning her degree, Alana conducted the very first study on boredom with children. Boredom is an unpleasant emotion associated with feelings of agitation and stress, and adults who experience it too much are more likely to experience mental health problems. The goal of Alana's research is to help children learn to identify feelings of boredom and to choose to engage in an activity they love or spur creativity. Alana found children experience boredom just like adults – some children experience boredom more often than others. In a brief interview, Alana asked parents of 4- to 6-year-old children to describe what their children do to reduce boredom. Most children relieve boredom by using social strategies, such as playing with a sibling, or change their behavior, such as playing with toys. Children who struggle the most with boredom seem to rely on others, such as parents, to help guide them to a new activity when feeling bored.

Alana recently spoke with Dr. Universe about why time flies when having fun! Click here to learn more.



BOREDOM BUSTER!

Personalities & Emotion Regulation: How Are They Connected?

The Lab for the Developing Mind welcomed a new graduate student, Aryn Vaughan, to the lab this past year! Aryn is interested in how individual differences in temperament influence how children interact with others. When encountering new people, some children are quite outgoing, and some are shy. Aryn is studying how these individual differences influence how children process emotional information. In a self-control task, she asks children to say "happy" when they see a sad face and "sad" when they see a happy face. Aryn is finding 4- to 5-year-old children who are shyer in their daily life are more likely to slow down and ensure their responses are accurate. Aryn recently presented her work at the meeting for the Cognitive Development Society in Madison, WI. The eventual goal of this research is to nurture healthy emotional intelligence skills.

Putting Research into Action

An important part of the work we do in the Temperament and Developing Mind labs is put the science of child development into the hands of our community through our teaching and research. We create science-based games, social media posts, and pamphlets to share with the community, all of which are available on the Lab for the Developing Mind website.

This past year a group of graduate students completing a child development course created a game called Emotion Motions, a dice game for caregivers and children that exercises emotion recognition and uses movement to express the emotion, such as dancing when feeling happy. The students already shared 200 physical copies of the game in the community!

WSU TEMPERAMENT LAB

The WSU Temperament Lab investigates how babies' emerging personalities are related to their brain activity. We use EEG to measure brain waves, which tell us about how babies think and feel. This work was recently funded by the National Science Foundation (NSF). We are studying how decision making in young children relates to how those children self-regulated as infants, together with Dr. Sammy Perone. We are also working to discern how infants' self-regulation abilities contribute to how they self-regulate during toddlerhood, with a collaborator at Virginia Tech, Dr. Martha Ann Bell. In addition, we are now beginning a study funded by a multi-year grant from the National Institutes of Health (NIH) which will help us discover how emotions and the brain develop in tandem, starting early in infancy. With this work, we will be able to inform parents about strategies they can use to strengthen regulatory abilities related to academic achievement as well as physical and mental health across the lifespan. Our work has already shown that parenting plays different roles in shaping brain activity depending on the child's temperament.

Hot off the Presses! A Cross-Cultural Study on TV Exposure

The WSU Temperament Lab has reported several recent findings, including a cross-cultural investigation of TV exposure and toddler emotional regulation. Although watching more TV was related to greater dysregulation, this relationship was not uniform across the 14 countries we studied. Rather, it was stronger for children in the Netherlands and weaker for those growing up in Spain. Although a conclusive explanation for these differences cannot be offered at this time, it is likely that the family context of watching TV makes a difference. That is, if there is more familial interaction for Spanish toddlers around their TV watching, this could potentially prevent negative impacts on emotional regulation. More exciting findings to come soon!

STAY IN THE LOOP! FOLLOW US ON SOCIAL MEDIA!

IN SPRING, 2023, OUR LABS WILL HOST A COMMUNITY FORUM THAT BRINGS PARENTS, CHILDCARE PROVIDERS, EDUCATORS, AND STUDENTS TOGETHER AROUND THE SCIENCE OF CHILD DEVELOPMENT. STAY TUNED FOR MORE INFORMATION - CLICK HERE TO FIND US ONLINE.

EVERYDAY MOMENTS

Ordinary **everyday moments** are powerful. They are the building blocks of child development.

Incorporate these **NINE** easy science-inspired ideas into everyday life with children.

1. When talking to your baby, exaggerate your pitch, tone, and stretch your vowels to engage your baby and help them learn words.

2. Give your infant a chance to explore objects often to help them learn about textures, shapes, sizes, and sounds toys make.

3. When you give your child soft foods, let them get messy to help learn words for non-solids, such as apple sauce.

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flip for more

4 Ask your child "How are you feeling?" rather than labeling the emotion to help them become more in tune with their emotions.

5 When interacting with your child, try asking questions that start with who, what, where, why and how to help your child learn more about the activity.

6 When you read a story to your child, ask your child *WHY* the characters might be feeling the way they do to help them learn about empathy.

7 When speaking with a child, emphasize how things work. For example, you might talk about why cars move fast or how electricity works.

8 When your child needs to persist through a task, encourage them to imagine they are a favorite character, even dressing them up may help!

9 Help your child learn more about emotions by brainstorming the ways they or others may appear when experiencing an emotion (e.g., "When I'm feeling happy, I may smile, laugh, or even cry.")

LAB FOR THE DEVELOPING MIND

DO YOU HAVE A CHILD AGE 4 OR 5?

Dr. Perone's **Lab for the Developing Mind** is conducting a study on how children develop over time. We are looking for families with 4- and 5-year old children!

Our Goal:

Understand how children **manage their emotions**, what their **personalities** are like, and how their **brains develop**!

WHAT'S INVOLVED IN THIS STUDY?

PARENTS COMPLETE ONLINE QUESTIONNAIRES

CHILDREN PLAY GAMES OVER ZOOM WITH A TEAM MEMBER

AT A LATER DATE, VISIT OUR LAB ON THE WSU PULLMAN CAMPUS

RECEIVE AN AMAZON GIFT CARD

SCAN THE QR CODE OR EMAIL DEVELOPING.MIND@WSU.EDU TO GET STARTED!

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WSU INFANT TEMPERAMENT LAB

Brain Activity & Temperament in Babies

About The Lab

Our research focuses on temperament development in early childhood in order to better understand social-emotional development more broadly.

Social-emotional development unfolds rapidly in infancy. For example, the social smile appears after 2 months of age, encouraging caregivers' efforts, and inviting interaction. Around the same time, the infant begins to express different negative emotions, fear and anger, not just fussiness. The infants' ability to pay attention also develops rapidly during the first year of life.

These changes in temperament were linked to brain wave activity: continuous small electrical signals that brain cells use to communicate with each other. Electroencephalography (EEG) is a safe and reliable instrument for assessing infant brain wave activity, and we expect it will lead to important answers about temperament development. Also, parents involved in this research often tell us that they are better observers of their infants after answeringtemperament related questions asked in surveys.

Current Studies

WE ARE CURRENTLY RECRUITING BABIES FROM BIRTH TO 12 MONTHS OF AGE

WHAT PARTICIPATION WOULD LOOK LIKE

Participants are asked to complete surveys about their child's temperament and experiences of being a parent. We will observe your child in a number of activities designed to evaluate temperament, and play interactions with you, as they develop. Not only do parents and children enjoy playing a number of these games, they also contribute to our knowledge of child development! Your child will also wear a small "swimmer-like" cap that is harmless and helps us collect brain wave activity.

COMPENSATION

You will receive between $15 and $450 in gift cards for participation depending on how many visits you and your baby attend.

Get Involved!

If you are interested in participating or know of any friends or famly with babies who might be, scan the QR code above to complete our quick interest form! Feel free to contact us with any questions!

find Us On!

NIH National Institute of Mental Health

NSF

Contact Us

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"This study has been approved by the Washington Stae University Institutional Review Board", IRB #13370