

Picture 1



Picture 2



Picture 3

Investigating why children with autism often have language delays

Children diagnosed with autism spectrum disorder, or ASD, often have significant delays expanding their vocabularies and other language skills compared to typically developing children.

Researchers have proposed that prioritizing details over the bigger picture could explain why some individuals with ASD can excel at detail-oriented fields, such as mathematics, yet face challenges communicating with other people.

To test whether this “details vs. bigger picture” theory could explain why young children with ASD often have difficulties with language skills, Waisman researcher Susan Ellis Weismer and her colleagues recruited 30 typically-developing children and 30 children with ASD to participate in sets of ‘looking-while-listening’ tasks.

In these tasks, images are paired up – sometimes the two images are completely unrelated to each other, like a green fish and a red hat (Picture 1). Other times, the pairs might look similar (Picture 2) or belong to the same category (Picture 3).

“All the children have to do is watch short movies of paired images while they sit on their parents’ laps. A voice says, ‘Where’s the doggy?’ or ‘Where’s the banana?’ and we can track their eye movements and make inferences about what they are comprehending,” says Ellis Weismer.

Initially, the results of the experiment suggested that children with ASD recognized words less quickly and accurately than typically developing children did for all the three types of image pairs.

But when the researchers dug deeper, they found that the differences in how the two groups of children performed could be explained by differences in the size of their vocabularies.

“We think how quickly and accurately the children focused on the named objects was related more to their language abilities than their autism diagnosis,” says Ellis Weismer.

According to her, these findings have helped lay to rest the usefulness of the “details vs. bigger picture” theory with respect to characterizing language difficulties in young children with ASD.

“We have helped to show that while children with ASD may be delayed relative to typically developing toddlers, they do engage in some of the same kinds of language processing,” she says.

Other researchers involved in this project include Jenny Saffran and Courtney Venker at UW-Madison, Jan Edwards at the University of Maryland and Eileen Haebig at Purdue University.

To read the unabridged story, please visit waisman.wisc.edu/newsletter.htm

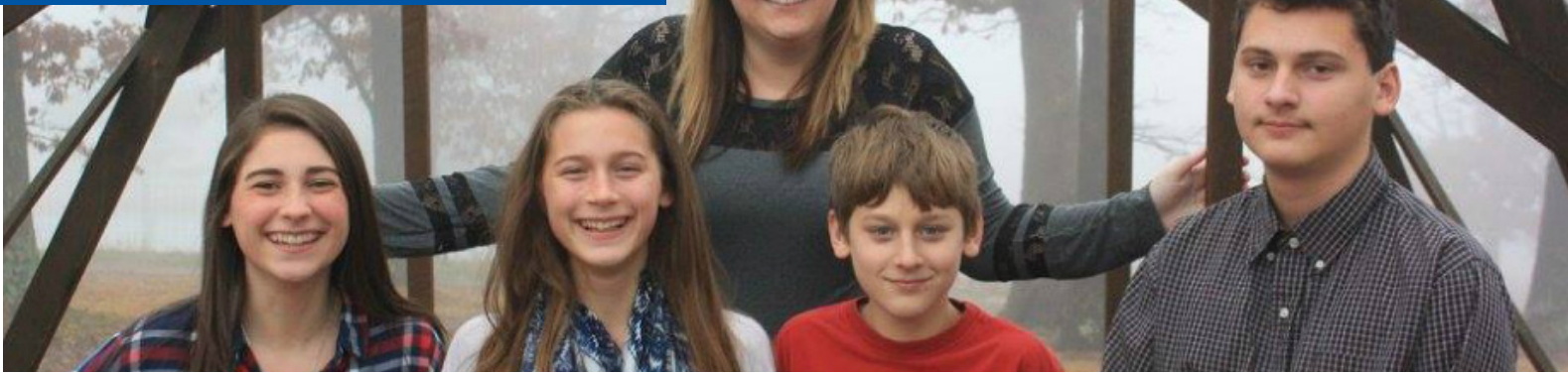
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Treating the trauma of brain injuries



Tristan Thurman (far right) with family members Kylie, Quinn, Garrett and Rhianna Thurman (Photo provided by Marisa Bartlett)

One Wednesday in September, 15-year-old Tristan Thurman went to soccer practice at his high school. This practice session was dedicated to heading drills and Tristan remembers feeling slightly dizzy after practice. By that Friday, he was throwing up, couldn't walk straight, and in a lot of pain.

Tristan was initially diagnosed with a mild concussion, which was changed to a severe concussion and, finally, mild traumatic brain injury (TBI).

The months following the diagnosis were excruciating for Tristan. "I had severe headaches," he says. "The first couple of days after the concussion, I slept for 16 hours straight, but after that I would get maybe a couple of hours of sleep a night because I just couldn't sleep through the pain."

He also started to have trouble with his short-term memory, and struggled with having to miss school and not being able to spend time with his friends. "We actually got a husky puppy just to keep me company--I would sit on the couch or the bed, and she would sit on my lap, and if I fell asleep, she would sleep by me," says Tristan.

Months of different treatment regimens brought only sporadic relief for Tristan, says his mother, Marisa Bartlett. "It wasn't that the doctors weren't trying – they did what their protocols told them to do, but nothing was working," she says.

The following January Tristan had his first appointment at the Pediatric Brain Care Clinic at the Waisman Center.

This clinic is a partnership between the Waisman Center, UW Health and the American Family Children's Hospital (AFCH). It is an interdisciplinary clinic for infants, children, and adolescents with, or at risk for, developmental and/or behavioral disabilities associated with an acquired brain injury.

"Traumatic brain injuries can cause a wide range of symptoms, including headaches, difficulty sleeping or feeling sleepy during the day, and significant mood changes," says Peter Ferrazzano, a critical care pediatrician, who is the director of the Pediatric Brain Care Clinic and a Waisman Center researcher.

To effectively treat the physical and psychological symptoms of traumatic brain injuries, each patient at the clinic is seen by a multidisciplinary team, says Lynne Sears, the clinic coordinator.

Marisa remembers her and Tristan's first visit to the clinic: "We were there for over four hours and we saw several members of the clinic team, including pediatric neurologist David Hsu and pediatric neuropsychologist Alanna Kessler-Jones."

"Within two weeks of the visit, Tristan had at least a 50% improvement of his symptoms," says Marisa.

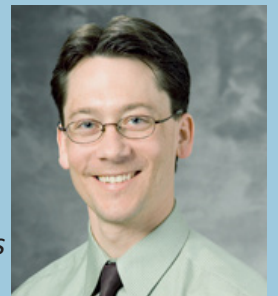
Tristan and Marisa visited the Brain Care Clinic three times, and within a few weeks, "I could see Tristan's cognition and memory coming back," says Marisa. "One day he walked into the kitchen and said, 'Mom, I am a lot better!' That was a day filled with tears of joy and relief."

Clinic coordinator Sears also worked with Tristan's school to make sure his transition back to school went smoothly. "I think the school was happy to be able to speak to Lynne [Sears] and get information about the specific accommodations that Tristan needed," says Marisa.

Helping children and their families return to their lives is exactly why the clinic is here, says Ferrazzano. "Our motivation is seeing children get back to their normal lives, and we aim to provide not only symptom relief but also the emotional, psychological and systemic support they need to get there."

For the unabridged story, please visit waisman.wisc.edu/newsletter.htm

In addition to his work with the Brain Care Clinic, Ferrazzano also conducts research on pediatric brain injury. He leads UW-Madison's participation in the ADAPT study, a multi-institution initiative that explores how different interventions influence outcomes for children with severe TBI. Ferrazzano, and fellow Waisman researcher Andrew Alexander, are also performing a multi-site study using advanced neuroimaging techniques to better understand specific repercussions of TBI on the developing brain. Their goal is to identify new ways to diagnose and monitor TBI-induced cognitive dysfunction.



Badger Football + Waisman Center = Great Things!



The Waisman Center

is proud to partner with the University of Wisconsin-Madison Athletic Department for the 2017 UW-Madison Football team's annual Spring Game.

The Spring Game will be held on Friday, April 21 at 6:30 p.m. at Camp Randall Stadium. The game will also be televised live by BTN.

Preceding the Spring Game, be sure to check out the Badger Sports Kids Fair. Fans young and old will enjoy interactive games and activities, the chance to meet Badger student-athletes and much more. The Badger Sports Kids Fair will be held in the McClain Center from 5-6:30 p.m. Admission to the Kids Fair is free.

Tickets for the Spring Game are \$5 and are on sale now. The proceeds from the game will go toward a

scholarship fund for children in the Waisman Early Childhood Program (WECP), an inclusive preschool program with a developmentally diverse enrollment. One third of the children in this program have special health care needs.

The WECP focuses on optimizing each child's unique abilities. The scholarship fund provides vital tuition assistance to families with children enrolled in the program.

"We are very grateful and excited to partner with the Athletic Department on the spring football game" said Albee Messing, VMD, PhD, Director of the Waisman Center. "The proceeds from the game will have a direct and immediate impact on children in our preschool program, many of whom have disabilities. The scholarship fund will give more families access to assistance for

tuition and therapy, urgent needs many currently cannot afford."

"The Waisman Center does tremendous work and helps a large number of families," UW Director of Athletics Barry Alvarez said. "We are extremely proud to partner with them on this year's Spring Game and excited to help specifically with their Early Childhood Program that positively affects so many kids."

The Badgers, who are ranked No. 12 in ESPN.com's "Way-Too-Early 2017 Top 25," return 15 starters from last year's team that went 11-3 and won the Cotton Bowl. UW finished the season ranked ninth in the country in polls after beating four teams ranked among the top 12 during the season.

For more information and to buy tickets, please visit:

waisman.wisc.edu/football.htm



UPCOMING EVENTS

Waisman Center Day with the Experts

Cochlear Implants

SATURDAY, June 3, 2017 at 9 a.m.



waisman.wisc.edu/events-day-with-the-experts.htm

Waisman Center Children's Theatre

Playtime Productions - WWW.OZ

SUNDAY, April 9, 2017 at 1 & 3 p.m.



waisman.wisc.edu/events-ct.htm

Sensory-friendly performance at 3 p.m. in partnership with
Autism Society of South Central Wisconsin

SAVE THE DATE!

The Friends of the Waisman Center

**3rd Annual Waisman Whirl
Run, Walk & Roll for ALL Abilities**

Sunday, October 15, 2017

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FRIENDS OF THE WAISMAN CENTER
22ND ANNUAL SPRING BENEFIT CONCERT



SUNDAY, MAY 21, 2017

Join us for an evening of lively music, delectable food and wine in support of the Waisman Center, University of Wisconsin-Madison. This year we feature Caravan Gypsy Swing—the acclaimed acoustic instrumental jazz group. The ensemble pulls influences from American swing, Latin, Parisian waltz, European folk and other vintage jazz sources.

5:30 p.m. Light refreshments
6:00 p.m. Concert
7:15 p.m. Reception catered by Chez Vous

For more information visit:

waisman.wisc.edu/events-concert17.htm

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Help pave the way for discovery and hope!



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waisman.wisc.edu/giving.htm

Legacy gift to support brain injury research



A new legacy gift will help researchers and clinicians at the Waisman Center continue to search for ways to benefit individuals and families whose lives have been impacted by brain injuries and developmental disabilities.

This significant gift comes from Richard and Johanna Stocker, who recently made the decision to include the Waisman Center in their trust for an estimated \$1.25 million.

“We are truly honored by Richard and Johanna’s generosity and foresight. Their estate gift will enhance and expand our ability to continue vital research and help those affected by brain injuries,” says Albee Messing, VMD, PhD, a professor of neuropathology and the director of the Waisman Center.

Richard and Johanna’s gift was motivated in part by their son Jimmy’s lifelong stay in the Southern Wisconsin Center in Union Grove, WI. “When Jimmy was born he was diagnosed with pre- and post-

birth brain injuries,” says Richard. Eventually it became impossible to care for and manage Jimmy at home, and at age seven he was admitted to the Southern Wisconsin Center. “Through these years, he has been taken very good care of and we wanted to pay back Wisconsin.”

“We hope it will make a difference to individuals and families in the future”

- Johanna Stocker

Both Richard and Johanna wanted their gift to support research into the causes and potential treatments for brain injuries. “We thought there wasn’t enough support for long term research endeavors and when we started looking at research institutions, we found that the Waisman Center was right there at the top,” says Richard.

About six years ago, the Stockers established a fund to support stem cell research at UW-Madison. “We realized that wasn’t broad enough

and wanted to support a wider breadth of research,” says Richard. This legacy gift will help several investigators at the Waisman Center continue to pursue their research, which is exactly what Richard and Johanna want. “The way anybody solves problems is that you take a big one and you break it down into smaller ones and you start pursuing them,” says Richard, “and we hope our gift facilitates just that.”

Research and translating findings into treatments or therapies can be a long, painstaking process, and the Stockers are aware of that. “I always figured you could overcome anything if you took enough time,” says Richard. “What I didn’t realize was quite how much time some things take and how fast life goes by.”

“We know research findings made possible by our gift probably won’t help our family, but we hope it will make a difference to individuals and families in the future,” says Johanna.

For the unabridged story, please visit waisman.wisc.edu/newsletter.htm



Art for All

Encompassing a breadth of subject matter and artistic media, the **Harvey A. Stevens International Collection of Art by People with Developmental Disabilities** showcases unique and visually powerful pieces that encourage people of all abilities to express themselves and expand their world through art.

Our recent Call for Art garnered a tremendous response, with more than 75 beautiful submissions from across the US and the world!

Pictured here:
Apples by Guy Conners, one of the new submissions. Conners is an artist at The Arts of Life studio in Chicago.