Gano Scurry Ehlers pioneered a new era of math tutoring, expanded the arts in the Dallas Independent School District and, now in her 60s, is writing her first novel. Nonetheless, she may be most proud of her first major accomplishment – taming her dyslexia. The feat led to a lifelong craving to achieve and a relentless need to challenge her brain.

“I didn’t get anywhere until I faced that I had dyslexia,” explains Gano. “You don’t solve things unless you face them. I was so angry that I couldn’t read.”

She first compensated for reading trouble by inventing her own form of hieroglyphics before she was finally diagnosed and enrolled in the Gillingham program as an 8th grader, enabling her a year later to be accepted to Hockaday, a private all-girls school in Dallas. There she earned honors in math. With her reading troubles behind her, she began tutoring geometry to her classmates.

After college she parlayed her gift for challenging her brain and overcoming perceived limitations into a career as a math tutor helping others do the same. Gano’s approach was unusual for the time; students came to her office instead of to her home – a common practice now, but unheard of then. She paired younger and older students together and started with the most difficult concepts, instead of the easiest. “I taught you the hardest and then everything else was just a special case. So in one lesson, I could cover three lessons.”

Gano’s career as a math tutor blossomed into a commitment to improving education. She consulted with private schools to innovate curriculum and developed programs that encourage girls in underserved schools to pursue science, technology, engineering and math careers. Gano also played a large role in infusing public schools with the arts. She was integral to the ideation of Young Audiences, a small arts organization that has metamorphosed into Big Thought, one of the largest arts partners for the Dallas Independent School District.

A few years ago, Gano decided to focus on the next phase of her life, leaping yet another cognitive hurdle. “I wanted something that I had the same enthusiasm as I did in my career. I had to look at what I wasn’t proud of – it was not being able to convey complex thoughts on the written page. So I asked myself, ‘Gano, what in the world are you going to do about it?’”

Gano went back to her roots at Hockaday, taking private writing lessons from a teacher and eventually meeting a new business partner who encouraged her to write fiction. “Taking writing classes has helped me be able to explain what’s inside of me,” she says. Versions of adventures with her husband of 38 years, Mel Ehlers, appear in the novel. “A writer needs to have experiences and this is what my husband has given me.” They have trekked through Nepal, befriended Eskimos in Alaska, and hiked with the Karen tribes in Thailand. She describes the book that is slated to be completed this year as being about mind control and having a To Kill a Mockingbird spirit. “It’s a sexy adventure, mystery, humorous love story,” she says.

During the encounter that began her now 15-year relationship with the Center for BrainHealth, she experienced an emotional discovery: our brains are shaped by how we use them, especially during adolescent years. Gano’s preteen brain conquered dyslexia and set her on a journey. Now she understands why. “Learning and challenging my brain has opened up so many avenues for me. When the mind is presented with a challenge, the mind will clear the path.”

The fourth generation Dallasite has recently made a major bequest to the Center for BrainHealth at The University of Texas at Dallas. As part of her plan to continue ratcheting up brainpower in the next generation, Gano has designated the significant gift for a distinguished chair position. In doing so she hopes to ensure that top-notch scientists will continue to be attracted to the university.
Tremendous efforts have been directed toward understanding and improving the human brain – but the best is yet to come. That was the message shared at the inaugural session of the Congressional Neuroscience Caucus for the 114th Congress.

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The brain: An Owner’s Guide Lecture Series Insights

TIP

Memory is important, but how you strategically manipulate the information is more vital than how much you remember.

Block out: Consciousy filtering extraneous information to focus on the task at hand has not only been shown to impact cognitive performance but also is a sign of higher intellectual function.

Dr. Sandra Bond Chapman, Center for BrainHealth Founder & Chief Director

Dr. Sandra Bond Chapman, UC Berkeley Professor Dr. Mark T. D’Esposito, and retired U.S. Navy SEALs Lt. Morgan Lustiwill, led Brain Health Breakthroughs: Good News for Service Members, Veterans and Seniors at the Congressional Neuroscience Caucus briefing co-chaired by Reps. Earl Blumenauer and Cathy McMorris Rodgers, on Thursday, March 19, 2015 in Washington D.C.

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The brain fixation on that and can’t focus on daily tasks, such as a phone conversation or completing a grocery list,” explained Dr. Rayma. “In a traditional laboratory setting, external cues that induce depressive thoughts and therefore interfere with cognitive performance, are eliminated. In our study, we found a way to incorporate memory deficits in individuals with depressed mood.

In the study, individuals with depressed mood showed as much as a 12% reduction in memory compared to individuals without depressed mood when depressive thoughts were present. The results suggest that individuals with and without depressed mood generally have a similar ability to actively remember information. However, when depressive thoughts are present, people with depressed mood are unable to remove their attention from this information, leading to deficits in their ability to recall and utilize it. The research team plans to use the new study paradigm to study individuals who meet the clinical diagnosis for depression. "In the past, imaging studies have shown brain differences between depressed and non-depressed individuals, but the cognitive tests did not match up,” said Dr. Rayma. “Now that we can reproduce the cognitive deficits in the laboratory, we can do imaging studies with more confidence.”

The findings appeared in the journal, Journal of Cognitive and Emotion. This work was supported by the National Institute of Mental Health (the Linda and Joel Somers Foundation and the Dianne Cash Fellowship award).
Friends of BrainHealth

“We feel that the greatest contribution we each can make to the world is to leverage innovative thinking,” wrote Friends of BrainHealth 2015 co-chairs Lucy and Lindsay Billingsley. The dynamic mother-in-law / daughter-in-law duo are engaged in and dedicated to bringing awareness to an impactful opportunity to be involved with the Center for BrainHealth.

Through the Friends of BrainHealth, Lucy and Lindsay are raising money to support special projects being developed by emerging scientists. A donor circle committed to advancing brain research, Friends provides research grants to support the work of exceptional Center for BrainHealth researchers at pivotal stages in their careers. The group has raised more than $1.4 million over the last five years.

We caught up with Lucy and Lindsay and were grateful to get a piece of their minds.

Q & A

Q: Lucy, you are constantly reading books about the brain. What inspires you to continually learn more about the brain?

Lucy: Simply put, this is life. Let’s live it to the fullest and understand what we are experiencing as best we might.

Q: The two of you are taking a fresh approach to broadening Friends membership. Why is having a multigenerational approach important to improving brain health?

Lindsay: There is so much energy that comes with youthfulness, so I am thrilled to have my generation involved. Knowing that we can rewire our brains at any age and that being actively involved in BrainHealth changes your quality of life, makes me want to shout from the rooftops that sooner is better than later.

Q: When is your brain the happiest/most efficient? Conversely, what stifles your brain?

Lucy: I am happiest when I am living a life of integrity and when I am connecting with my “God given” talent or unique ability. I need projects that are exciting and challenging, yet achievable. My brain is stifled when I am doing mundane tasks that feel isolating (I am a level 10 extrovert) and lack purpose.

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Lucy: Happiest? Hiking, exploring solutions to issues at hand, celebrating the joy of our family members. Hmmm, is happiness in my brain or in my heart? Stifling? Cell phones, computers and iPads.

Q: What is your favorite/most helpful brain tip that you would like to share with others?

Lindsay: I love the phrase “When you are hunting for elephants, don’t get distracted chasing rabbits.” Keeping a prioritized task list that reflects my most salient goals and values keeps me focused. Modifying my list when I learn something new about myself keeps it alive.

Lucy: The answer to this question clearly reveals my weaknesses as those things that aid me the most hopefully counteract my deficiencies. Meditation and clarity of focus are the two aids that enhance my ability to achieve more than any others.

Q: What do you wish that more people your age realized about their brains/minds?

Lindsay: Prior to getting involved with the Center for BrainHealth, I didn’t understand how complex our brains are or how exceptional their capacity for memory is. The stories we tell ourselves about the past and our life journey shape the decisions we make for the future. Rather than letting past stress or trauma define our existence and compromise our momentum, we can work through and process those experiences to make our lives richer and more meaningful.

Lucy: We all ought to appreciate how thrilling is this odyssey of the mind and how lucky we are to be amongst the first to live the journey.
Research Advances Presented at Cognitive Neuroscience Society

March 27: The Center for BrainHealth, along with its partners at the Henry H. Wheeler Jr. Brain Imaging Center, and the Helen Wills Neuroscience Institute at UC Berkeley, presented the ninth annual Reprogramming the Brain to Health Research Symposium at UC Berkeley. The annual Symposium is a forum for sharing the latest brain research discoveries, bringing together cognitive scientists, neuroscientists, physicians, psychologists, rehabilitation specialists, researchers, educators and students from across the nation. This year’s Charles L. Branch BrainHealth Award for unparalleled breakthroughs in brain research went to Dr. Marcus E. Raichle, a neurologist at the Washington University School of Medicine in St. Louis, Missouri. Dr. Raichle and his team have made seminal contributions to the study of human brain function through the development and use of imaging techniques, analysis of chemical receptors in the brain, and the discovery of the default mode network – the brain network that is constantly working even when the brain is thought to be “at rest”. The Symposium will be held at the Center for BrainHealth in 2016.

March 28 – 31: Center for BrainHealth scientists descended upon the Cognitive Neuroscience Society annual meeting in San Francisco. As part of a mini-symposium within the conference, Dr. Dan Krawczyk, Debbie and Jim Francis Chair in BrainHealth and Associate Professor, spoke on the topic of reasoning in autism spectrum disorder and traumatic brain injury. Six other BrainHealth researchers (pictured below from left to right) presented posters on a variety of research topics, including Ryan Brigante, visual and auditory memory distortions; Sam DeWitt, brain differences in risk-taking teens; Julie Fratantoni, memory differences in retired athletes; Bruce Jones, reward preferences for government and business leaders; Demi Krieger, ADHD in adolescents; and Athula Pudhiyidath, long-term memory in mild cognitive impairment.

Collaborating with UC Berkeley

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March 19: Think Ahead Group (TAG), Center for BrainHealth’s young professionals group, gathered for Off to the Races at Blue Print Store. The annual event kicks off the Kentucky Derby Party held this year on May 2 at The Empire Room. Since TAG’s inception in 2009, the group has raised more than $360,000 in support of Center for BrainHealth research. 2015 Derby co-chairs are Jodi Sparrow and Gabi Sztamenits. The Derby Party is sponsored by Sewell Automotive Companies with media sponsorship from CultureMap Dallas.

Showcasing Virtual Reality at SXSW

March 13 - 17: BrainHealth and its Brain Performance Institute made a showing at South by Southwest (SXSW), hosting a booth and a presentation. Although most people know the two-week long Austin event for its music and film festivals, SXSW has grown to include emerging technologies through SXSW Interactive. With the presentation Virtual Reality: Building Healthier Social Brains, Center for BrainHealth Founder and Chief Director Dr. Sandra Chapman and Brain Performance Institute Creative Director Carl Lutz were among the list of SXSW Interactive presenters that included DARPA, Google, Oculus, IBM Watson, Dell, and Philips.

Dr. Lara Ashmore, Assistant Director of Technology, Innovation and Program Development for the Brain Performance Institute and its Executive Director Eric Bennett made the rounds, connecting with several innovators who specialize in everything from making affordable, wearable technology that monitors brain blood flow to creators of a neuroscience-based phone app approved by the Department of Defense that can help assess traumatic brain injury in the field.