“I’m a visual learner.” “He has a good ear for learning music.” “It’s like riding a bike—once you learn, you never forget.” Common statements like these show that most of us are aware that there are different ways to learn new things, and that people have different strategies for learning. In the field of cognitive science, learning and memory are particularly popular subjects of study.

Research has shown that different regions of the brain are involved in learning facts, like the names of historical figures, as compared to learning skills, like driving a car. Additionally, people can learn by explicitly trying to remember new information, like a student memorizing lists of French words. But people also have the capacity to learn simply through repeated exposure to something, and this implicit learning likely plays an important role in how young children learn language.

But how do people relearn skills after a stroke or brain injury? So far, few studies have examined how different learning processes are affected by damage to the brain, and which learning strategies are most effective for relearning language. In my dissertation research, I study language learning by asking adults with and without aphasia to listen to sentences in a simple made-up language and then try to judge whether other sentences belong to that same language.

Since there is no explicit instruction in the rules of the language, these studies evaluate the implicit type of learning that occurs through exposure to things in the environment. This research is a first step toward understanding how implicit learning of language is affected by stroke, which could help identify new approaches to treatment. As I continue this line of research, I hope to learn even more about learning in aphasia.
In The News:

Scientists are using psychopathy and autism as models to study how the brain makes moral judgments. (www.cnn.com/2014/03/26/health/brain-moral-judgments)

A drug used to treat Alzheimer’s disease is helping younger patients’ brains learn new skills and recover from disability. (qz.com/193436/theres-a-pill-to-bring-your-brain-back-to-its-childhood)

Why do we sleep? New research suggests that the purpose of sleep is to emotionally recalibrate the brain (guardianlv.com/2014/03/sleep-emotionally-recalibrates-the-brain)

A 6-year-old saved his mother’s life after she suffered a stroke: (kdvr.com/2014/03/30/6-year-old-saves-moms-life-after-she-suffers-stroke)

Sacramento councilwoman, Bonnie Pannell, will retire in June due to Primary Progressive Aphasia (www.fresnobee.com/2014/03/31/3853504/sacramento-councilwoman-bonnie.html)

The findings of a recent study out of Columbia University Medical Center suggests that the season you are born in may determine brain growth and development: (www.wired.com/2014/03/season-birth-etched-brain)

New research suggests that strokes may be linked to sudden temperature drops and high moisture levels (www.tennessean.com/story/news/health/2014/03/31/strokes-linked-plunging-temperatures/7100949)

Laughing during a short, humorous video was shown to improve short-term memory function and lower salivary cortisol levels (abcnews.go.com/Health/laughing-makes-brain-work-study-finds/story?id=23393053)

A recent study found that artists’ brains have increased levels of grey matter (www.huffingtonpost.com/2014/04/22/artist-brains_n_5187216.html)
Eddie Europa

Eddie Europa is a fourth-year PhD Student in the Aphasia Lab. He received his B.A. in Cognitive Science at the University of California, Berkeley, where he also studied abroad in Spain at the University of Córdoba. After Eddie graduated, he became a Research Assistant at the University of Pennsylvania and Moss Rehabilitation Research Institute in Philadelphia where he studied traumatic brain injury. Eddie became fascinated with how the brain can repair itself, and is now studying how the brain recovers in people with aphasia.

Outside of the lab, Eddie is very active in the community. He is a member of Northwestern’s Graduate Leadership Council, President of Northwestern’s LGBTQ graduate student organization, and Midwest Regional Chair of the National Association of Graduate-Professional Students. He is currently raising money and training for the Ride for AIDS Chicago, where he will be biking 200 miles in 2 days in July.

In his spare time, he likes to sing karaoke, run along the lakefront, sleep, eat, cook, eat, bake, eat, and sleep. He also likes to eat and sleep.

Christina Manouilidou

Christina is visiting the Aphasia and Neurolinguistics laboratory for the period April through May 2014 as a Fulbright Visiting Scholar. She is an Assistant Professor of Psycho/Neurolinguistics at the University of Patras, Greece. Her research interests focus on the cognitive and linguistic impairments in aging populations with chronic neurodegenerative diseases, especially Alzheimer’s disease, Semantic Dementia, Primary Progressive Aphasia and related dementias and also on lexical access and representation of derived words, compound words and pseudo-words in healthy populations. Christina likes traveling and she has lived in various countries—each of them shaping her personality in a distinct way. She spent 7 years in Canada where she obtained her PhD in Linguistics, worked as a post-doc, and also learned to appreciate winter and love ice-hockey (Go Sens Go!). She was in France for a year which has contributed to her love for good food and wine, England for another year, where she learned that also beer can be exciting and, finally, Slovenia where she learned to love the great outdoors. And now she’s happy to be in fascinating Chicago and in a fascinating research lab.
**Activities Corner**

Can you find the 10 differences between these pictures?

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**Summer Scramble**

**Instructions:**
Put your puzzle solving skills to the test with our summer word scramble. Look carefully at the jumbled words and try unscrambling as many of the anagrams as you can into real words related to the summer season.

**Questions:**

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**Answers:**

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**Summer Mad Lib**

I _________ (emotion verb) summer! While the _________ (adjective) temperatures and sunshine make me _________ (adjective), it’s the ___________ (noun/plural noun) that I really enjoy! Plus, there’s all the ___________ (adjective) food. My favorite is ___________ (noun) with _________ (noun) on the side. It’s delicious! On _________ (adjective) days, I like to cool off with ___________ (noun). This summer, I get to _________ (verb) to ___________ (location) and see _________ (noun). I can’t wait! It’s going to be so much _________ (noun)!
My name is Kristen Carlstedt. I am a Physical Therapist, a certified Pilates Yoga instructor, and a water therapist. It has been the joy of my life to motivate others to reach their potential with the rehabilitation of their bodies.

In 2008, at the age of 30, I had a left carotid dissection that resulted in a stroke. I was at work at a private clinic in Michigan doing paperwork on a computer in a small office by myself. I was suffering from a tremendous headache when I suddenly became paralyzed and fell to the floor. I could not speak, but I was able to crawl to the doorway and get help from a co-worker.

I ended up in the Intensive Care Unit for 13 days. My right side was paralyzed and I could not speak. Eventually, I was moved to the Neuro Wing and regained much of the movement on my right side; but I still could only vocalize sounds. I still have spasticity in my right foot and hand that affects my gait and use of my right hand. I have regained some of my speech, but I have Expressive Aphasia.

After my initial hospitalization in Michigan, I returned to the Chicago area for my in-patient and out-patient rehabilitation at the Rehabilitation Institute of Chicago. I had worked at RIC prior to moving to Michigan and I also needed to move back in with my parents who lived in the area. I can’t thank my physicians and therapists at RIC enough for all their help and care during my initial rehabilitation. Many of them were my friends and co-workers.

The past six years have been a long journey. My first word was “guacamole”, a favorite food. I sang “Take Me Out To The Ballgame” in the hospital after a nurse and friend told me he had been to a Sox Game. I have been in many Aphasia groups and studies at RIC and Northwestern, as well as foot and hand studies. I participated in the first Intense Aphasia Therapy at RIC as well as a later RIC Intense Aphasia Therapy. I participated in the first Intense Aphasia Therapy in the Northwestern Speech Language and Learning Clinic and I am signed up for another this summer. Please help me raise money for this therapy with a donation: https://www.giveforward.com/fundraiser/t8k4/kristen-carlstedt-intense-aphasia-program. I’ve also participated in a treatment study in the Aphasia and Neurolinguistics Research Lab, which improved my sentence production and comprehension.

I have been unable to return to work because of my Aphasia and other physical limitations. However, I started a small non-profit business with my father called Aphasia Speaks. I have told my story and tried to promote awareness of Aphasia in many groups. I have spoken to U.I.C. and Northwestern Physical Therapy and Speech Therapy classes, Interns at Northwestern Hospital, local stroke survivor groups, and others. I read my story and continue to get better at answering follow-up questions. I have made a short film on YouTube called “Aphasia Speaks” about Aphasia (www.youtube.com/watch?v=qmKf7efdxG8) and appeared on an episode of the PBS Nova ScienceNOW series about language and the brain (www.pbs.org/wgbh/nova/evolution/what-makes-us-human-pro.html), featuring Dr. Thompson’s research in the NU Aphasia Lab.

During a presentation to a local Mental Health Board, I met a fellow stroke survivor who was attending as part of his Registered Nursing training. He is now my fiancé, and we enjoy many social activities like biking and 3-5K walk-runs together. I also find Tai Chi, therapeutic horseback riding, and swimming to be physically and mentally rewarding.

There is one area in which we need help, besides just the general promotion of Aphasia Awareness. As one of the many individuals with limited incomes and limited insurance benefits, I have found the current insurance coverage and practices to be inadequate and extremely limiting. If you are at what the insurance companies determine to be a “Maintenance Level”, you lose access to most Speech Therapies. The Intense Speech Therapies that I participated in were not even considered for coverage by my insurance companies. These were unfortunately extremely expensive, but were the most valuable and effective therapies that I have had. As Dr. Cynthia Thompson of the Northwestern Aphasia Research Laboratory said in a recent Chicago Tribune article, “….the insurance has not caught up with therapy.”

I ask for your help with this important medical issue, so that those of us with Aphasia can reach our true potential and lead meaningful lives. “Aphasia is a loss of words, not intelligence!” For those of you reading this with Aphasia, “Stay Strong!”