

Face to Face

Prosopagnosia Research & Community



Happy New Year and welcome to the fourth edition of *Face to Face*! We are elated that our newsletter is now in its second year, and hope that it continues to be a valuable resource for all. As always, we hope to hear any thoughts or feedback you have on material in this issue, ideas for future issues, and your own experiences!

-Prosopagnosia Research Center (faceblind@faceblind.org)

Prosopagnosia Symposium Held in London

On September 20th, Martin Eimer's research group at Birkbeck College in London held a daylong symposium on prosopagnosia. Its aim was to provide people with prosopagnosia in the London area with an opportunity to meet each other and to learn about recent research findings. The symposium was a success, and we hope it will be the first of many meetings bringing prosopagnosics and researchers together.

Sixty people attended the symposium. Most were developmental prosopagnosics from the London area, but one person with acquired prosopagnosia attended and several people came from further away. Steena Chamberlain came all the way from Nashville, Tennessee!

Martin Eimer led off with an introduction, followed by a few words from researcher Brad Duchaine who had just stumbled off a red-eye from Boston. Jo Livingston and Steena Chamberlain then gave talks on life as...

(continued on Pg. 4)



Postdoctoral researcher Angela Gosling addresses attendees.

A Personal Account of Acquiring Prosopagnosia

On a Friday night in October 2009, I set the alarm clock then drifted off to sleep thinking about my weekend plans. In the morning I would take a train into the city with friends to shop, have dinner and see a play on Broadway. I was excited knowing we would have a great day. It turned out that I had never been more mistaken in my life! I awoke early in the morning to a lot of noise, but it wasn't the alarm clock.

"You had a seizure," I heard my husband John say. "You'll be ok." He sounded out of breath. My eyes opened to bright lights, my family and an Emergency Room staff. I was regaining consciousness after a lengthy seizure that had shaken me out of bed. There was a taste of blood on my swollen tongue. I was dizzy and had a headache.

Diagnostic tests were ordered, including a CT scan of my brain. The results indicated a right temporal lobe calcified structure. The doctor was kind as he explained that I likely had a brain tumor. We decided that I would be transferred to a teaching hospital in Philadelphia. A MRI scan performed there confirmed that I had a sub cortical tumor. Surgery was scheduled for four days later. My days were filled with family and friends. I noticed that no one looked worried. Figuring they were trying to keep me positive, I didn't think too much about it.

The craniotomy was successful; the neurosurgeon was able to completely resect the tumor. John was by my side for the remaining week I was in the hospital. Every morning he told me who would be visiting that day. The visits were wonderful, but I would look at my friends and relatives and think that something just wasn't right. There was a feeling of disconnect that I couldn't explain. I knew something was different about everyone, including John and our children, but I couldn't identify what it was. At that point I still hadn't seen myself in a mirror.

It soon became apparent that I couldn't keep the nurses straight. I thought that a dozen different nurses were in my room...

(continued on Pg. 2)

A Personal Account..., continued from pg 1.

...throughout the day and night, but learned that wasn't the case. I started to remember the nurses by their rings and watches. I thought I was remembering the doctors, but I was really just reading their names embroidered on their white coats. The word "recognize" didn't enter my mind.

Realization hit me six days after surgery with an unexpected visit. A woman wearing a white coat entered my room. I looked at her, smiled, and then looked at John. Thinking she was a resident, I expected her to walk around to the right side of my bed to check on all the equipment and me. Instead, she walked to my left side. I waited to see what she was going to do. Then John stood up and said, "Hi Doreen!"

I thought, Doreen?? I looked at her with total confusion. She started to speak and I knew her voice. We've been friends since we were 14, yet I didn't recognize her. Doreen quickly came closer as I anxiously scanned her face. I recognized her long eyelashes and perfectly straight teeth, but couldn't discern her face as a whole. I thought that I was cognitively impaired and totally unraveled.

Residents and the neurosurgeon said my brain was swollen and it was too soon to know what to expect. A transfer to a rehabilitation hospital was already scheduled for the next day so I could receive physical and occupational therapy. With a new focus I analyzed everything I saw.

As I waited with the other patients for OT and PT, I discovered that it was very difficult to determine their ages or gender. I couldn't go by clothing since most patients wore sweatpants and sweatshirts. Many wore Phillies or Yankees hats, which hid their hairstyles. I looked at their skin. If I saw deep wrinkles and age spots I would assume they were older. Some people were easier than others to identify by age and gender, but all required thought. Oddly, no one looked either attractive or unattractive.

That week I also started to realize that I needed to pay special attention to voices, not only to identify everyone, but also to figure out their emotions. I struggled for insight of their thoughts because I couldn't read it on their faces. Recalling how I didn't see worry on the faces of my friends and family following the seizure, I tried to imagine what emotions look like. Not only did I seem to lack the capacity to recall an expression of emotion, the ability to form a mental image of anyone, myself included, was gone.

John googled my symptoms and "prosopagnosia" came up every time. A visit to a neuro-ophthalmologist confirmed that I had acquired prosopagnosia. I felt a sense of relief that what I was going through had a label. I was referred to a neurologist in Philadelphia who researched prosopagnosia. He assessed a variety of processing skills that provided a clear baseline of what I could and could not do. It slowly occurred to me that what was once effortless had become an incredible challenge.

I no longer look at a person's face and know who he or she is without thought, but like those with developmental prosopagnosia, I identify people by other features. Voices, laughter, gait and mannerisms are reliable methods of identification when people are talking, laughing, walking and moving. The challenge increases when I walk into a room and people are seated. I look at their skin color and hair, and hope to spot a salient feature that can help me quickly recognize who I see.

I still feel a small pit in my stomach walking into some social situations, but I accept it and move on. I can comfortably explain the disorder when people ask questions. I don't know that I'll ever get used to not instantly distinguishing my two daughters from each other, as well as from some of their friends. Thankfully my husband and son have very different hair so I have no problem distinguishing them apart. Not recognizing myself in the mirror or in some pictures is disconcerting, but not upsetting like it was initially.

I have accepted the new reality of my life with the help of Dr. Joe DeGutis and Sarah Cohan, researchers at Harvard, and Dr. Geoff Aguirre from The University of Pennsylvania. Because of their visions, I hold on to a thread of hope that in time I will process faces as I once did. I am grateful to them, as well as for the predominant gift of love and support of my family and friends. ▽

What's Going On...

Sherryse Corrow will be speaking at the Minnesota School Psychology Association Conference in Bloomington, MN on February 3, with the goal of providing general information about prosopagnosia in childhood. The conference is attended by School Psychologists in the state, and the association is publishing an article in their newsletter (written by Sherryse and fellow UMN researchers) briefly summarizing Developmental Prosopagnosia, and what to look for in the classroom.

We hope that the newsletter, distributed to school psychologists in the state of MN, will aid us in reaching and providing information to a lot of school psychologists – all at once!

If you are interested in promoting awareness of prosopagnosia amongst school psychologists, nurses, principals, teachers, and other school staff, here is a great article you can pass along to get them started: <http://www.faceblind.org/TheJournalOfSchoolNursing2008Diaz.pdf>

Here is some more information about the conference: <http://www.msponline.net/conference2012.htm>

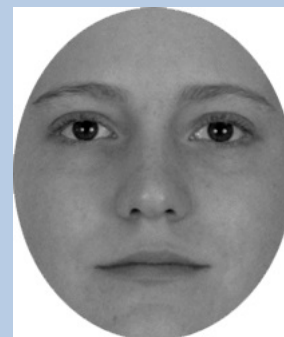
60 Minutes, the American television news magazine, will feature a report on prosopagnosia in the near future, presented by Lesley Stahl. It will include a panel discussion with four people with developmental prosopagnosia (DP), and interviews with a boy with DP, an acquired prosopagnosic, and several researchers including some from the Prosopagnosia Research Center.

An air date has not been set, but the producers thought that it will likely air February. If you miss it live, it will be available on the 60 Minutes website.

There are many cues that help with **recognizing gender from faces**. For example, female faces are typically fairer and there is more contrast between the lips/eyes regions and the surrounding skin (see <http://www.scientificamerican.com/slideshow.cfm?id=illusions-whats-in-a-face>).

These characteristics can be accentuated by makeup. Cues such as head shape and the shape of the eyebrows are also very useful to recognize gender from faces. Recent research from our lab shows that many prosopagnosics (though not all) can successfully recognize gender from faces and that they may rely on similar cues as people without prosopagnosia (Chatterjee, 2012, submitted; DeGutis et al., 2012, submitted).

Test yourself on the faces below. Answers are at the bottom of page 4.



Prosopagnosia Symposium, continued from pg. 1

...prosopagnosics, and Monica Zenonos discussed the prosopagnosia support meeting that she has organized in London. Three talks from face processing researchers followed – Ashok Jansari from the University of East London spoke about rehabilitative training approaches, Sarah Bate from Bournemouth University reported on her studies investigating behavioral interventions in developmental prosopagnosia, and Tim Valentine from Goldsmiths College discussed eyewitness testimony.

After an extended tea break provided time for people to get to know each other, Brad Duchaine gave an overview of developmental prosopagnosia. Afterward, Martin Eimer discussed recent findings from his lab measuring event-related potentials (ERP) to faces in people with developmental prosopagnosia. In one fascinating study, his team found that half of the participants tested showed covert recognition of famous faces in their ERP response. In other words, their ERP response distinguished between famous and non-famous faces even though they were not consciously aware of the difference (this paper will be published in the journal *Brain* very soon). The day finished with another presentation by Jo Livingston.

The Birkbeck lab has since received a lot of positive feedback from attendees. They hope to hold other London events, and the Boston group is considering something similar. If you are interested in these events or have ideas for presentations, please email Brad Duchaine at bradley.c.duchaine@dartmouth.edu. ▽



Symposium speakers from left to right: Jo Livingston, Brad Duchaine, Sarah Bate, Martin Eimer, and Monica Zenonos.

For video footage from the symposium, visit <http://www.youtube.com/user/AngieDPInfo1>. Special thanks to Angie Gosling and Joanna Parketny for organizing everything.

Laura Germiné



Laura received her B.A. from the University of California, Berkeley and is currently working on her Ph.D. in Experimental Psychopathology at Harvard University. Laura studies individual differences in face processing in collaboration with Ken Nakayama and other members of the Vision Lab. In 2007, Laura and Ken founded TestMyBrain.org, a website dedicated to advancing our understanding of the brain using web-based testing. At TestMyBrain.org, people can learn more about themselves (like, how good they are at face recognition!) while also contributing to brain research. Laura and her husband had their first child in July of this year, so Laura currently spends most of her free time catching up on sleep.

Sam is a Ph.D. student working with Ken Nakayama on ways to use computational models of face perception to understand face perception in the brain. Before beginning his Ph.D. program Sam was the lead programmer for TestMyBrain.org, and before that he spent many years working as a professional programmer in Silicon Valley startups before deciding that science was more interesting. Sam is fascinated by the ways that evolution and computer engineers have solved similar problems in perception. Sam likes to spend his free time bicycling, spending even more time on the computer, and hanging out with his wife at home.

Sam Anthony



Sarah Cohan



Sarah received her B.A. from the University of Vermont, and has since held an array of positions including nanny, production manager (theatre), and communications manager and director of operations (collegiate social media network). In 2009 she took the position as Lab Manager and Research Assistant with Ken Nakayama, and has since been focused on lab administration, and many different types of prosopagnosia and face processing studies (training, families, processing patterns, etc.) She lives in Jamaica Plain, MA with her boyfriend, and in her free time loves spending time with family, baking, playing with babies, and singing with the Tanglewood Festival Chorus of the Boston Symphony. Most importantly, she loves putting together the Face to Face newsletter twice a year!