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Just Another Face in the Crowd, Indistinguishable Even if It's Your Own

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Some people never forget a face. Heather Sellers never remembers one. She finds it almost impossible to recognize people simply by looking at them. She remembers the books she reads as well as anyone else, but movies and TV shows are impossible to follow because all of the actors' faces seem so similar. She can recall a name or a telephone number with ease, but she is unable to remember her own face well enough to pick it out in a group photograph.

Dr. Sellers, a professor of English at Hope College in Holland, Mich., has a disorder called prosopagnosia, or face blindness, and she has had it since birth. "I see faces that are human," she said, "but they all look more or less the same. It's like looking at a bunch of golden retrievers: some may seem a little older or smaller or bigger, but essentially they all look alike."

Face blindness can be a rare result of a stroke or a brain injury, but a study published in the July issue of *The American Journal of Medical Genetics* Part A is the first report of the prevalence of a congenital or developmental form of the disorder.

The researchers say the phenomenon is much more common than previously believed: they found that 2.47 percent of 689 randomly selected students in Münster, Germany, had the disorder.

Dr. Thomas Grüter, a co-author of the paper, said there were reasons to believe that the condition was equally common in other populations. "First," he said, "our population was not selected in terms of cognition deficits. And second, a study

done by [Harvard University](#) with a different diagnostic approach yielded very similar figures.”

Dr. Grüter is himself prosopagnosic. His wife and co-author, Dr. Martina Grüter of the Institute for Human Genetics at the University of Münster, did not realize he was face blind until she had known him more than 20 years. The reason, she says, is he was so good at compensating for his deficits.

“How do you recognize a face?” she asked. “For most people, this is a silly question. You just do. But people who have prosopagnosia can tell you exactly why they recognize a person. Thomas consciously looks for the details that others notice unconsciously.”

Dr. Thomas Grüter’s experience in this respect is typical of people with face blindness. They develop alternate strategies for identifying people — they remember their clothes, mannerisms, gait, hairstyle or voice, and by using such techniques, many can compensate quite well.

This may be one reason why cases of prosopagnosia have so rarely been reported — people simply do not know they have it. For face-blind people, adaptations like these are the only choice; there is no known cure.

“Until very recently, not remembering faces was not considered to be a medical condition,” Dr. Thomas Grüter said. “It was not even known to most physicians as such. The term ‘prosopagnosia’ was not taught to students of medicine or psychology.” Most people “would consider it a bad habit,” he said, “much like forgetting the names of people you are introduced to, or being unable to find your way around town.”

Dr. Martina Grüter said many considered her husband and his father, who is also face blind, to be simply “absent-minded professors” who occasionally may not recognize someone because they are preoccupied with higher thoughts.

People with face blindness can typically understand facially expressed emotions — they know whether a face is happy or sad, angry or puzzled. They can detect subtle facial cues, determine gender and even agree with everyone else about which faces are attractive and which are not. In other words, they see the face clearly, they just do not know whose face they are looking at, and cannot remember it once they stop looking.

Even familiar faces can be unrecognizable. Dr. Sellers, for example, said she could summon no picture in her mind of her own mother's face.

Dr. Sellers discovered her own problem only a year ago, at the age of 40. She was doing research for a novel involving a character with [schizophrenia](#). "I kept coming across the term 'face recognition,'" she said. "It kept ringing a bell, although the phenomenon is quite different for people with schizophrenia. But once I had the term, I searched for it on the Internet. The minute I knew the concept of face blindness existed, I knew I had it."

The phenomenon has been investigated with functional MRI brain scans, a form of imaging that shows in real time which parts of the brain are active, and it is known that a part of the brain called the fusiform gyrus responds much more strongly to faces than to other objects.

Researchers have detected differing responses in this part of the brain among people with face blindness compared with normal subjects.

"If you show a normal person two different faces in a row," said Bradley Duchaine, a lecturer in psychology at University College London, "their brain response is different with each one. With some prosopagnosics, you don't see this different response. It looks like something is not working in those areas of the brain involved with faces."

Dr. Duchaine and Ken Nakayama, a psychology professor at Harvard, published a review of developmental prosopagnosia in the April issue of *Current Opinion in Neurobiology*. They run a Web site devoted to the disorder (www.faceblind.org). Face blindness differs from pervasive cognitive disorders like [autism](#) because it usually involves only one specific symptom. Still, face blindness is sometimes accompanied by other problems, especially difficulty in finding one's way around or, for example, distinguishing one car or dog from another.

Although the specific gene for the disorder has not been found, evidence is mounting that the trait is inherited. "All pedigrees that we've been able to establish so far were compatible with autosomal dominant inheritance," Dr. Thomas Grüter said.

If this turns out to be true, it means that everyone with the disorder will have at least one affected parent, that men and women will be equally likely to inherit the trait, and that the risk for each child of an affected parent will be one in two. "But we haven't found the gene, yet," Dr. Grüter said, "so we can't be 100 percent sure."