

“Do I Know You?” Loss of Face

One in Fifty Americans Suffer From an Uncanny Inability to Recognize Faces

Have you ever searched for a familiar face in a crowd? There's that ephemeral wave of gratification at the moment you lock in on a face that you recognize. We take it for granted that when we meet someone familiar our subconscious will automatically identify him by his features.

But suppose for a minute that you had lost that intuition that allows you to recognize a relative's face. You would feel like a stranger in your own home. You would even be guilty—albeit unwittingly—of hurting your friends' feelings through your failure to respond appropriately to them.

Learn about people who are stricken with a disorder known as prosopagnosia, a bizarre condition that prevents people from being able to recognize even their own parents or children.

Imagine returning home after a long day at work or in school. You knock on the door, eagerly awaiting the familiar warmth of your home, your parents, your spouse and children. You open the door, but you find that you don't recognize the people who greet you. Children come running up to you with broad smiles plastered on their faces, jumping for joy to see you, but they might as well be strangers. You can't recall ever seeing such faces before.

You sit down at your table, but don't recognize the person who is serving you a steaming dinner. You respond to the questions about how your day went, assuming that this is your family sitting with you, but you have no proof to confirm that this is the case. You know this is your home, but none of the faces you see strike you as familiar.

Fortunately, most of us have never undergone such an unsettling experience. For tens of thousands—perhaps millions—of people around the world, however, this is a daily occurrence. These people suffer from a rare condition known as prosopagnosia—a combination of the Greek words *proson* for face, and *agnosia* for loss of recognition. This describes the problem these people suffer: they cannot recognize faces. They are “face blind.”

People who suffer from prosopagnosia live through the scene described above every single day. They cannot even recognize the people closest to them. Wherever they go, every minute of the day, they must rely on clues other than faces to identify the people they deal with all the time: their parents, spouses, children, friends, landlords, employees, neighbors—everybody. Such people cannot even recognize themselves when they look into a mirror! To them, every person is a blur until some identifying feature puts them into place.

If you've never before heard of this strange disorder, don't worry; you're not the only one. The odds are good that your doctor has never heard of it either. Until fairly recently the condition was not described in science, and even then doctors believed it to be extremely rare. Perhaps several hundred people around

the world suffered from the problem. Today scientists recognize that as many as one in fifty people suffer from this disorder to some extent. And that's in America alone.

Consider for a moment the complexity of the brain-work involved in facial recognition. There are approximately seven billion people in this world. Each shares the same basic features: eyes, ears, nose and mouth. On a superficial level, all faces are nearly identical. The difference between one face and the next is so slight as to be nearly insignificant. This one's eyes are set a bit closer; that one's nose is a bit shorter. Nevertheless, we can recall a familiar face instantly, without even having to consider whether it is the same one we saw before. The ability to identify a person by their facial features is an incredible gift from *Hashem*.

To this day scientists cannot explain the exact brain processes that allow us to identify people by their faces. They can identify, however, the area of the brain that is used to achieve identification. One of the causes of prosopagnosia is physical trauma to the brain. From the location where the injury occurred, doctors have been able to deduce where facial recognition is processed.

Prosopagnosia was first identified during World War II. Many German soldiers were hospitalized after receiving severe injuries in battle. In several cases, these soldiers were dismayed to find that they could not recognize their family members visiting as they recuperated in the hospital. They could not tell their anxious parents apart from the doctors and nurses who circulated among the rooms. A German psychologist then coined the term prosopagnosia for this condition.

Aside from injury, prosopagnosia has also been discovered as a congenital disorder. Some people who have never suffered brain trauma are simply born missing the ability to identify faces. Scientists have no explanation for why some people are born without this ability while others have no such deficiency.

People who suffer with the condition from birth generally do not become aware of their handicap in childhood. They assume that everyone around them has the same trouble

with recognition as they do. Only later, when they are older, do they begin to realize that they are having a much harder time than other people. If they take the time and effort to find out more about their condition, they may learn that it has been described scientifically, that it comes with a Greek name and that others suffer from it as well. Of course, all of that only helps them feel better; there is no treatment to cure the problem.

One woman who suffers from prosopagnosia said that she always felt foolish as a child. She was the only person she knew who could not learn to identify people by their faces. Factually, this problem is completely unrelated to intelligence. There are people who are “face blind” despite being highly educated.

Meet Some Prosopagnosics

Let's meet some people who suffer from prosopagnosia (prosopagnosics). You will see that numbered among them are some extremely intelligent and talented people. This includes several who are recognized as specialists in their fields.

Jacob Hodes is a 31-year-old man who is successful in all areas of his life. He is a college graduate who holds a respectable job. He is clever and charismatic—until you ask him to identify you by your face. He can see you clearly, and he can describe your features in detail as you talk to him. But if you pass him on the street a few minutes later, he will have no idea that you are the same person he just conversed with. Everyone with roughly similar features, such as the same hair and skin color, are to him one and the same.

It is hard for us to imagine what it is like for a fellow such as Hodes to make it through a regular day. Here is a small test that might give you a partial feel for his situation: ask someone to show you a picture of someone you know well, without telling you who it is. Have them cover the hair and present the picture upside-down. Chances are you won't be able to identify the face without straining yourself, even if it is your own parent or child!

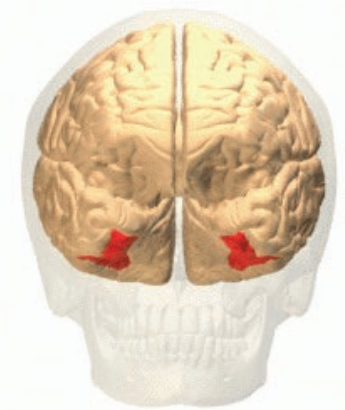
Because the face is upside-down and the



Hundreds of thousands of people are believed to suffer from prosopagnosia, where all faces appear more or less alike.



An illusion: Is this face looking at you or to the left?



Scientists have identified the section of the brain used to recognize a face (bottom, in red).

hair is covered, your brain's “program” for detecting faces is completely stymied. This test has been clearly demonstrated in scientific studies. The brain can detect familiar features instantly, but only when they are presented in the manner in which the brain is used to seeing them.