



Am I Nothing but What I Remember?

If you've ever wondered what it's like to rebuild your life from scratch, ask Denise Reagor, who suffered an extreme case of amnesia at 21.

BY ANDREA COOPER

Denise Reagor stared in the mirror at an image she barely recognized. Her brown hair shot away from her scalp in spikes, and her brown shirt and pants hung off her body. She must have liked this shapeless silhouette once, because her weight hadn't changed and everything in her closet fit the same way.

The image didn't resemble the easy-going college student Reagor knew herself to be. "What is this?" she thought, peering a bit angrily at the mirror.

Then she remembered October, and the accident.

She had been a senior at Texas Woman's University, a top student studying for a B.S. in social work. She and some friends decided to enjoy the late afternoon sunshine by tossing around a football.

"I don't remember it, but I heard one of my friends threw the ball to me too hard," Reagor says. When it struck the side of her head, she collapsed. Her friends hurried to help.

Dazed but still conscious, she assured them she was fine and spent the rest of the game on the sidelines. She felt drowsy, but that was all. There was no signal indicating the blow was about to change her life.

Reagor slept at her friends' apartment that night so they could keep an eye on her. "In the morning, the whole right side of my face was swollen. When I woke up, I couldn't remember who or where I was. I pulled a card from my pocket that had my real first name, 'Shamekqwa' on it, but I couldn't pronounce it. My friend Shea said, 'Oh no, this is not good.'"

The group scoured Reagor's cell phone for relatives' numbers and rushed her to the hospital. "I heard my mom was coming," Reagor recalls. "I had to ask, 'Ya'll know what she looks like? Because I don't.' My head hurt really bad and my eyes were on fire." She didn't remember her mother, grandmother, aunt, or nephew.

"She was just like a child," says her mother, Lashawn McKinney. "She asked, 'Who are you?' and I said, 'It's me. I'm your mother!'"

All Reagor knew were the stunned faces around her, the question after question about what she remembered, the medical equipment that kept prying and jabbing. She cried out in terror and confusion. After a CT scan, doctors concluded Reagor had suffered a concussion and amnesia (see "What Is Amnesia?" on page 27), expecting her to be back to normal in about two weeks.

THE REALITY OF AMNESIA

A convenient plot device in the movies, amnesia unfolds differently in real life. Until the accident, Reagor, now 22, had assumed that she knew who she was. Sure, there were discoveries to be made and talents to refine, but Reagor figured her basic personality was pretty much formed. Most of us make the same assumption, and most of us are wrong. The errant football had accidentally and substantially transformed Reagor into a new person.

Self-help and pop psychology books often advocate living in the present moment, but it can have its drawbacks if you have no alternative. In fact, it can be terrifying. After she was discharged from the hospital, Reagor was too frightened at first to get in the car with her mother, whom she still didn't recognize. "Shea said, 'It's okay. You can trust her. She's your mom.'"

Nothing registered when they arrived at her aunt and uncle's spacious two-story house, where Reagor used to stay on the weekends. "I saw something moving in the hallway and didn't recognize what it might be. I said 'excuse me' as I walked by. It was the cat."

Friends and family showed her photos and old videotapes of Thanksgiving and Christmas celebrations, but there was no order to the stories, just little explosions of the past she couldn't arrange into a self. They said she was close to her grandmother. She liked to listen to R&B, old groups like the Temptations. Her favorite food was baked chicken. But it sounded like someone else's life, and, she says, "It was making me crazy."

Her loved ones' unhappy reactions made her feel panicky and desperate. Reagor saw an airline commercial (after learning that much of what happens on TV isn't real) and decided, "I wanted to get on a plane.

I figured wherever I went, I wouldn't know anybody, but they wouldn't have to feel sad that I didn't know them. I started crying and putting clothes in a bag. My aunt had to drive me around town and talk to me to calm me down."

Everyone told Reagor she had been "responsible." She looked up the word in the dictionary; it sounded like something she wanted to be. She remembered one of the doctors saying it would take two weeks to recover. After learning what a week meant, she estimated that it wasn't too far off and decided to return to school just a few days after the accident. She didn't want to be behind in her classes when her memory came back. Some of Reagor's teachers were skeptical—she didn't remember much of what she had learned in the previous three years—but they decided to let her continue because she had been such a strong student.

Reagor saw a second doctor that week, and an MRI

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revealed swelling on one side of the brain. Her diagnosis was changed to bruising and bleeding in the brain, and all bets were off as to when her memories would return. The brain is a tricky thing, Reagor's second doctor told her; you can't ever really tell what it's going to do.

Making a memory involves storing information in the brain as a specific pattern of electrical activity. When we recall a memory, we recreate the pattern of electrical activity that formed it in the first place. The information is distributed across different brain regions, explains Daniel Kaufer, M.D., a memory expert at the University of North Carolina at Chapel Hill, which means that injury in any part of the circuit can disrupt memory function. So it's not that Reagor was hit in an especially bad place; it's that she was hit at all.

There is no established cure for amnesia-related memory loss, no drug or deep-brain stimulation that jolts memories back into the mind. Although there are ways to encourage healing (see "Treating Amnesia," page 37), recovery occurs largely on its own. If you're lucky, new pathways form among the remaining brain cells, or other parts of the brain take over from the damaged areas.

Reagor spent hours slowly reading textbooks and listening to lectures. At least with post-accident information and experiences, her memory functioned somewhat normally. But even simple assignments can stretch for hours when you have to use the dictionary as if you're a beginner in your own language.

Socially, it was another matter. "I couldn't understand why some people were getting so *personal*," she says. She resorted to asking her closest friends for a list of everyone she had known. Then she called each person to talk. She was excited and curious to hear about her old self and these relationships, but unsettled, too.

"It was hard at first for some people to accept me where I was and not ask me to be whoever they thought I was supposed to be. I heard that I used to have a cynical attitude, that I didn't smile a lot or let people get close to me." But the new Reagor laughed more. "My friends were like, 'Man, we could always count on you to tell us how things could be bad. But now you're saying things could be good!'"

A few friends couldn't adjust; those friendships dissolved, casualties of the accident. "They never gave it a chance to know my new personality," Reagor says, not truly remembering them but feeling sad anyway. Sometimes, though, those losses were easier to bear than dealing with the people who stuck around but kept telling her what to think and feel, she says.

Many moments of her life remained like underdeveloped photos, the images ghostly and beyond her grasp. Her head still hurt and she often had trouble sleeping. "Sometimes I'd

be up around the clock. If I did fall asleep, people would be there but I wasn't awake. I thought I could see and hear them, which was really scary. Once I was looking through a fence and got shot in the face with a BB gun. I told my aunt and she said, 'That really happened. You were 10 or 11. But what you saw is called a dream. It sounds like your memories are coming to you in the form of dreams.'" It's possible that memories are consolidated and placed in long-term storage during sleep. Reagor's lack of recognition of dreams, however, is unusual, even for an amnesia patient.

BUILDING A NEW LIFE

College graduation—typically the end of one life and the beginning of another—was a strange day. "I felt kind of uneasy going up to get my degree," Reagor says. "Everyone was saying, 'You earned it. You just don't remember.' But I felt like a different person had earned it. I was ready for the day to be over so I could process everything."

Afterward, she decided to work part-time at a pharmacy and study for her social work licensing exam. Once, she heard, she had longed to become an attorney and represent juveniles in court. Now, she believed attorneys were confrontational and had to lie to do their job. She felt that as a social worker she could advocate for people before they became part of the court system.

Today, Reagor has an apartment, a license to practice social work, and a job doing quality assurance for a foster-care agency. She has skills she can't remember acquiring. "One of my friends was telling me about a problem with her car, and I asked, 'When was the last time you put in anti-freeze?' I checked it and it was kind of low. I have no idea how I knew to do that." Amnesia patients sometimes retain skills they have always had—what is known as procedural memory—even as they lose their own autobiographies.

She still has a quirky, child-like view of many things adults take for granted, like kissing. "I thought kissing was weird. But my family would give me hugs every time I saw them, even though I didn't know them. They warmed me up to being affectionate." She learned emotional behaviors over time, like how to get angry, by watching and mimicking her friends.

Other glimmers of Reagor's old self surface sometimes. "Part of the person I used to be, I still feel her emotions," she says. "It will come out of nowhere, just walking down the street." Her experience is probably due to the fact that memories—especially powerful ones—are made up of emotional, sensory, and cognitive components, some of which may be more or less affected by injury.

Still, Reagor's new self seems fixed, as much as a self can be. She isn't even sure she wants to recapture all of her memories. "A part of me wants to put the pieces together," she says, "but I'm kind of scared, because if I get my memories back, am I going to like the choices I've made?" She was told that as a pre-teen she ran away from home. Perhaps knowing too much about her past "could open up some wounds I'm not mentally prepared to deal with," she says.

There may be some superficial appeal in a quick dose of amnesia as the antidote for painful memories. But Reagor is impatient when friends joke about the benefits. "Imagine looking in the mirror and not knowing who you are," she says. We thrive on having a sense of self and story, a rich, teeming core you assume will never disappear. But it could vanish in an instant. "The life I had," she says, "is gone."

Reagor's current relationship with her mom, Lashawn McKinney, is good. Sometimes, though, McKinney pushes her daughter to remember the past, hoping to regain the closeness of a family that spent so many years together. Reagor doesn't feel the depth of those ties; for her, the bonds of love will have to be forged by moving forward in time, not backwards.

THE MEMORY THAT IS NOT ONE

Since her accident, Reagor has been hesitant to plan ahead. Maybe she could sense trouble to come: as this story was being completed, Reagor had a relapse at work. "She told me she had a headache," says her boss, clinical psychologist Michele Gorman, Ph.D. "Fifteen minutes later, she asked me, 'Who are you?' She didn't remember where she was. When I tried to explain, she didn't even understand my words."

Dr. Gorman and staff sped Reagor to the hospital. In an eerie repetition of her experience two years prior, Reagor failed to recognize her mother in the emergency room. But this time a battery of tests came back normal. There were no new physical changes in Reagor's brain.

One of her doctors speculated that Reagor might be suppressing or fighting memories that are trying to return. Dr. Gorman wonders whether the problem is psychological at this point as well. "Maybe she decided she didn't want to have these memories anymore. I don't think we'll ever know."

Is there a chance for Reagor to regain or create the life she wants? With work, there's no question that she can. "It's remarkable how she has been able to retrain herself," Dr. Gorman says. "She reads, and it's like she memorizes every word. I sometimes wonder if she has a photographic memory." It is a capability not often associated with people who have amnesia; and yet, with the multiple forms of human memory—emo-

What is Amnesia?

It's believed that short-term memory engages a part of the brain called the dorsal lateral prefrontal cortex. You use it if someone tells you a phone number and you repeat it to yourself to remember. If you're successful, the number might be shifted into long-term memory, where the hippocampus helps in "stamping" the memory in the cerebral cortex. That's the wide-ranging, outer area of the brain.

In **anterograde amnesia**, new memories are not formed. Patients have trouble learning new things or remembering what they planned to do. Anterograde amnesia is one of the earliest symptoms of Alzheimer's disease or dementia. It's not the same as busy people who forget items on their to-do list, says neurologist John Hart, M.D., a professor and memory researcher at the University of Texas in Dallas.

Psychogenic or dissociative amnesia, in which patients don't remember who they are, usually happens after a stressful situation, such as a major fight with a loved one. These patients are open to suggestions for healing, finds Russell Packard, M.D., a neurologist in Palestine, TX, who specializes in headaches and head injuries. "We might tell them they'll be back to normal in a day," Dr. Packard says. That suggestion alone can help memories return. Psychogenic amnesia typically doesn't last long.

Denise Reagor has **retrograde amnesia**, which means the person has difficulty recalling events that occurred before the brain injury. "In many cases, the memories are still there and it's the retrieval process that's not working," says Dr. Hart.

Transient global amnesia is more likely to happen in elderly people. "They suddenly can't remember anything—where they are, where they've been, where they live," says Dr. Packard. This amnesia usually clears up in a day or two. While the cause is unclear, it's believed to be related to blood flow.

tional, cognitive, short-term, long-term, procedural, autobiographical—it is not impossible.

Reagor's personal life, however, may require more time. "As she got emotions back after the accident, she was more caring, and that was a great feeling for me," McKinney says. Following her relapse, Reagor has become less emotional, and McKinney feels she and her daughter are starting over again.

Reagor continues to experience moments of disorientation: once, she found herself driving in the nearby town where she grew up, with no recollection of how she got there. Still, she is working to anchor herself in her life again. Friends who stuck by her before are there for her now, and Reagor remembered a little more about them than she did after her first bout of amnesia.

Both mother and daughter are hopeful. "There's a way back," McKinney says. It may be up to Denise Reagor to choose it. **NN**

Andrea Cooper has written for many major magazines and media outlets, including Time, National Geographic News, Reader's Digest, Redbook, and NPR's All Things Considered.



For more information on amnesia see **RESOURCE CENTRAL** on page 37.