

The Story of Genie

On November 4, 1970 a girl was discovered. She had been locked in a room alone for over ten years. She was tied to a potty chair and left to sit alone day after day. At night, she was tied into a sleeping bag which restrained her arms. She was put into an over-sized crib with a cover made of metal screening. Often she was forgotten. On those nights she slept tied to the potty chair.

At first, people could hardly believe that Genie was thirteen years old. While she seemed to understand a few words, the only words she could say were, "stopit" and "nomore." She had a strange bunny-like walk— she held her hands up in front of her like paws and moved in a halting way. She could not chew solid food and could hardly swallow. She spat constantly. She sniffed. She was not toilet-trained and could not focus her eyes beyond 12 feet. She weighed 59 pounds and was 54 inches tall.

Genie was rescued and put in Children's Hospital in Los Angeles, California. Genie's mental and physical development began almost immediately. By the third day in the hospital, Genie began helping dress herself and using the toilet voluntarily. She began moving more smoothly. She was hungry to learn words, pointing at things until people would give her a word for them.

Scientists wondered, "Did Genie have a normal learning capacity? Could a nurturing, enriched environment make up for Genie's horrible past? Would it be possible for Genie to recover completely?" This is how the "experiment" began.

A team of scientists (referred to as the Genie Team) began working with Genie. They wanted to find out what they could about how humans learn. Over 200 years ago, scientists had studied another "wild child" in France named Victor.

They called that case "The Forbidden Experiment." Genie's case was similar because it would be unthinkable to lock up or put a child in such severe isolation on purpose.

But having discovered a child who had been isolated, scientists wanted to learn from that experience. Was that wrong?

As with Victor, people wondered if scientists should be studying Genie. Could she be both studied and taken care of well? Or should the Genie research be forbidden?

Within several months Genie had a vocabulary of over one hundred words that she understood, though she was still very silent. Her talking was limited to short high-pitched squeaks that were hard to understand. The team of scientists discovered that Genie had been beaten for making noise. It was hard to know if her inability to talk was a result of living so long without interacting with other humans, being in an impoverished environment with little sensory stimulation, or because she had been abused.

Genie began to become emotionally attached to some of the scientists who spent time with her. One scientist made sure that he was there every morning when Genie woke up, for important events during the day, and to put her to bed each night, in order to build a sense of family. Some people thought that it was necessary to feel connected to other humans before one could learn to speak. After about six months, Genie lived in a foster home. The father of the family she lived with was the

head of the Genie Team.

Genie continued to recover and develop. She ran, giggled, and smiled. People commented that in some ways she seemed like a normal 18-20-month-old child. If you were to give her a toy, she would feel it gently first with her fingertips. Then she would rub it against her mouth and face, using her lips to feel the object. Genie did not seem to know when to use her eyes and when to use her sense of touch.

Genie's scientist "friends" took her on daily outings—walks through the neighborhood, visits to stores. Genie was so curious and hungry for experiences. She would demand to know the names for all the things in stores, almost faster than she could be told. She would pick up items and intently explore them. Even strangers felt compelled to help her learn about the world. A butcher, who knew nothing about Genie, used to hand her an unwrapped bone, piece of meat or fish each time she passed by his shop. She would explore it by rubbing it on her lips and face. Other strangers would go out of their way to give Genie things. Somehow her thirst for learning about her world showed.

Many scientists came from all over to meet and observe Genie. They argued and debated about what research to do, as did the Genie Team itself. What could Genie best help scientists discover about learning? Could they conduct their research without interfering with her well-being?

Genie's vocabulary grew by leaps and bounds, but she was still not able to string words together into meaningful sentences. Normal children begin by learning to say simple sentences, like "No have toy." Soon they are able to say "I not have toy." Eventually they will learn to say, "I do not have the toy." Later they will refine the sentence to say, "I don't have the toy." Genie seemed to be stuck at the first stage. We do learn many words from experience, from seeing, hearing, reading, and asking. But some scientists think that learning how to speak in sentences and sensing how words get put together in logical order also depends on something that is built into our brains from birth. Was Genie's brain missing something which was necessary for learning language?

Scientists began to wonder if Genie was mentally retarded. If she was, had she been mentally retarded from birth? Had she been injured? Or was the retardation a result of her brain being deprived of good nutrition and/or stimulation? How had her poor diet and isolated upbringing affected her growing brain? Over the next couple of years, some scientists concluded that Genie was not mentally retarded, even though she was still unable to master language. She was brilliant at nonverbal communication. Sometimes she would be so frustrated at not being able to say what she wanted that she would grab a pencil and paper and in a few strokes, illustrate fairly complex ideas and even feelings. She scored the highest recorded score ever on tests that measure a person's ability to make sense out of chaos and to see patterns. Her abilities to understand and to think logically were also strong. She had a perfect score on an adult-level test that measured spatial abilities. One test required that she use a set of colored sticks to recreate a complicated structure from memory. She was not only able to build the structure perfectly, she built it with sticks of the exact same color as the first structure! Despite all this, Genie remained unable to master the basics of language.

Scientists wondered—could she ever be taught to speak? If so, how would her brain have to grow and adapt to do so?

Could a teenager still learn to talk or is the structure of language something that must be learned in the early years of life when the brain is growing and changing so much?

In most humans, both sides of the brain are involved in every task, but some tasks result in more electrical activity on the right side of the brain and some in more activity on the left side of the brain. Scientists noticed that Genie was particularly good, quick, and confident at those tasks that involved more of the right brain. She was hesitant at tasks that require equal coordination between the two sides of the brain. She failed at tasks that involved more of the left brain, such as language.

One of the last tests that was done on Genie measured what parts of her brain were active as she conducted different kinds of tasks. Scientists were shocked at how unbalanced the activity in her brain was. There was almost no left brain activity. Her tests looked similar to tests of children who had to have their left brains removed.

Some scientists thought this explained her inability to learn language. Whether this was correct or not, it raised the question: Why was her brain activity so lopsided? Does the left brain develop in those critical early years of life when Genie was so isolated? Does the left brain need to receive stimulation and hear language to develop?

After about five years of researching Genie's progress, the Genie Team lost their funding from the government agency that had awarded the research grant. The scientists at this agency felt that the Genie Team was not doing good scientific research because the tests Genie was being given were not producing enough new information. At the same time that these people felt that Genie wasn't being tested enough, others felt that Genie was being over- tested.

Genie's mother, encouraged by one of Genie's old teachers, tried to sue the Genie Team for "cruel" treatment of Genie.

Their lawsuit claimed that Genie was exhausted by the testing and that the interests of science were being viewed as more important than Genie's personal development.

In the late 1970s Genie's mother forbid the Genie Team from having contact with Genie. Even though she at first lived again with her mother, her mother was unable to care for Genie herself, and Genie had to be sent to a series of foster homes.

In one of these homes she was again abused—this time punished for vomiting. Genie responded by not opening her mouth for several months. Genie began to deteriorate both physically and mentally. Genie's mother moved and placed Genie in a home for retarded adults. Genie is said to still live in a home for retarded adults. "Genie" is not her real name. It was first given to her by the scientists in an effort to protect her privacy. Now her privacy is guarded by her mother. She has no contact with any of the scientist who worked with her and come to love her. Several books have been written about her, and a television documentary program was also made about the story of Genie.

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