of expressiveness was nowhere more dramatically demonstrated than in her tantrums, which she still conducted in a straitjacket of silent self-destruction. Marilyn Rigler painted Genie's fingernails, predicting, accurately, that vanity would discourage her from tearing at the walls and floor. Knowing how much Genie loved to be called pretty, she told her that she was *not* pretty when she scratched herself or ripped at her face. Marilyn found herself in the strange position, for a parent figure, of teaching a child how to have a good king-hell-buster of a fit—how to slam doors and stamp her feet. She dragged Genie out of the kitchen so that she could do her stamping outdoors.

Here, too, gesture gave way to word. In Genie's iconography, a shaking hand indicated frustration, while a single shaking finger signaled the imminence of a full-blown tantrum. Seeing these storm warnings, Marilyn would say to her, "You are upset, you are having a rough time." Soon she had only to say "You are upset" for Genie to assent, "rough time." Eventually, "rough time" became a verbal shaking finger, a spontaneous phrase by which Genie could broadcast distress. Curtiss witnessed a further breakthrough in emotional expression one morning when she arrived to find Genie crying. She had had a cough and a cold and had complained that her ear was aching, and she had just learned from Marilyn the scary news that she would have to go see a doctor. "I noticed the striking change in this girl who such a short time previously did not sob or shed tears," Curtiss wrote in her dissertation.

In mid-June 1972, Curtiss recorded an event that approximately marked the first anniversary of her acquaintance with Genie. As with other accounts in Curtiss's dissertation, it is hard to tell who, subject or scientist, was being more changed

by the experiment. "Today I took Genie into the city," Curtiss wrote. "We browsed through shops for about an hour. We sang and marched and carried on in our own nutty, special way as we walked. Genie seemed elated and delighted by everything I did. She commented, 'Genie happy.' So was I. Our relationship had developed into something special."

21

Another anniversary came a couple of months later—that of Genie's arrival in her foster home. It was celebrated in a much more public way. The eightieth annual convention of the American Psychological Association (APA) was being held in Honolulu, and several of Genie's watchers flew there to attend a symposium chaired by David Rigler. In the Mynah Room of the Hilton Hawaiian Village, Howard Hansen delivered a paper about Genie's early life in Temple City, James Kent spoke of the eight months she had spent in the hospital, and Marilyn Rigler recounted the trials of the year just past, in an address she titled "Adventure: At Home with Genie." Then Victoria Fromkin related what she and Curtiss and Stephen Krashen, another of Fromkin's graduate students, had observed of Genie's language.

"By November of 1971, a year after she was admitted to the hospital, Genie's grammar resembled, in many respects, that of a normal eighteen- to twenty-month-old child," Fromkin said, and she delineated some ways in which that situation had changed. In the weeks before the convention, Genie had

finally shown that she knew the difference between singular and plural nouns; when Curtiss said "balloons" to her, or "turtles" or "tails," Genie now responded to the final "s" and pointed to a picture of two balloons or turtles instead of a picture of one. Similarly, she knew the difference between positive and negative sentences. She understood the meaning of some prepositions, so that when Marilyn asked her where elephants are found she replied, "In zoo." She understood yes-or-no questions, and she used possessives of a sort; she could say "Curtiss chin" or "Marilyn bike." (Only after another half year did she figure out how to insert a verb and say, "Miss Fromkin have blue car.") Her comprehension and production had progressed from one-word- to two-word sentences, with an occasional three-worder thrown in. "Now, two-word utterances are very complex, when you think of what this entails," Fromkin told her Honolulu audience. "She wasn't just stringing together any two words randomly; the two words which she put together in her sentences were very strictly controlled and rule-governed. They were not random strings."

"Rule-governed" was code, a hint to the hip that Genie was in the process of pulling off a coup that would rock the linguistic world. The rough draft of Fromkin's speech betrays her expectations. "It is clear that Genie is acquiring the rules of English grammar," she wrote, and then amended that to read "some of the rules." On a later page, "Genie is acquiring syntactic rules" was penciled over to read, more firmly, "has acquired." And on another page came the declaration "Genie at this stage has a grammar." All three references were deleted by the time Fromkin reached Hawaii.

The possible significance of Genie's achievement was made

clear in another section deleted from the final speech: "This summary of Genie's syntactic and phonological development indicates that language acquisition can occur after the age of five and even after the onset of puberty. Genie's linguistic development thus seems to contradict the conclusions of some that language acquisition occurs during the period when cerebral dominance, or lateralization, is developing." Fromkin went on to mention the "some" by name. Genie was going to debunk Eric Lenneberg: she was going to learn syntax, even if the prevailing theory of the time said that she could not.

There was a certain personal justice in that. Lenneberg knew of Genie and professed no interest in studying her. He commented to colleagues that he felt the case was too muddy for good science, complicated by the emotional trauma of Genie's incarceration. Fromkin and Curtiss would have strongly disagreed with his argument. "At first, Genie's natural state was nontalking, and that state might have been a reflection of her emotional state," Curtiss told me, getting (as she tends to do on the subject) a bit emotional herself. "But as she grew socially, and acquired the ability to be happy and live life, it became clear that her problems with language were not related to any distress or emotion. I don't see how an emotional profile could allow some aspects of language to grow but not others. There are a variety of views of language acquisition. The one I can best tell you about is my own, though my view is shared by most generative linguists. That view is that emotion has little to do with it. Certainly Genie was an emotionally disturbed child, but that wasn't relevant to my concerns."

At best, Genie could have provided a flawed endorsement of Lenneberg's theory. But she was capable of a ringing refuta-

tion. If Genie could not learn language, her failure would be attributed ambiguously—either to the truth of the critical-period hypothesis or to her emotional problems. If Genie did learn language in spite of all that had happened to her, how much stronger the rebuttal!

And, for that brief time, learning language was what she appeared to be doing. In retrospect, the September 1972, conference in Hawaii seems the point at which the tide of optimism was taken at the flood. If François Truffaut had made *The Wild Child* about Genie instead of about Victor of Aveyron, this is where the story would have stopped and the credits begun to roll.

22

It can be said, in looking back, that the prospects for Genie's eventual triumph were already beclouded that summer of 1972. One portion of the orthodoxy of language acquisition is the notion that, no matter how slow or how fast children learn language, they all go through the same stages, in the same order. After children get two-word phrases, they are poised for an explosion. It is as though they had been pushing a sled up a hill, and all of a sudden they are over the edge and racing down the slope; their skills accelerate as abruptly as that. Genie had been using two-word strings even before her stay at Jean Butler's, but month after month passed and the explosion never came. She continued to plod along at a slow, sled-pushing pace.

I once asked Susan Curtiss how she felt as it dawned on her that Genie's language was not going to explode. "It didn't dismay me, because I had the expectation that Genie, because she was older, would be dealing with a different set of rules," Curtiss said. "It was not at all clear to me yet that she would be so limited."

One thing that normal children learn quickly is how to form a negative sentence. They begin by saying "No have toy," and proceed directly to the next stage, where they bury the negation within the sentence: "I not have toy." Then they figure out how to use a supporting verb and say, "I do not have a toy," and the prodigies contract the verb to "don't." Genie stayed stuck at the "No have toy" stage for almost three years, and four years after she was talking in strings she was still speaking in the abbreviated nongrammar of a telegram.

Nor could she ask a real question. Normal children are sometimes thought by their parents to be much too adept at what linguists call the WH interrogatives. But any child who says "Why?" at every turn is doing what Genie could not. Since February 1972, she had been able to understand all questions involving "where," "when," "who," "how," "why," or "what." But when she was pushed to produce such a question herself, she mouthed monsters: "Where is may I have a penny?" or "I where is graham cracker on top shelf?"

One of the obstacles to forming true questions lay close to the core of Chomskian theory. To make a WH question, one must engage in "movement"—that is, deriving the word order of the surface sentence ("When is the train coming?") from the word order of the declarative sentence underneath ("The train is coming [soon]."). Movement was a facility that Genie did not have.

She also had a problem with pronouns. Most were missing from her lexicon entirely. "I" was her favorite, and "you" and "me" were interchangeable. Here the grammar reflected Genie's egocentrism—the lack of a border between her person and her world. She never figured out who she was and who was somebody else. "Mama love you," Genie would say, pointing to herself.

"Genie was highly motivated to interact socially and to use language in that interaction," Curtiss told me. "She could be almost frantic about it. She would stare at people's mouths as they talked. She was very inventive, very sensitive to whether she was communicating or not. For instance, she would often try to describe what she had done in phys-ed class at school. It's hard to do. It's an area where tense markers are needed, and where you have to indicate who's doing what to whom. And an area where she couldn't make herself understood. She would draw pictures, mime, use homonyms—try anything to get you to understand. If you thought you did but it wasn't what she had in mind, she would try again. She was very intense about this."

That Genie's language seemed motivated by her social strivings contained a pathetic irony, because she was especially incompetent at the array of interactions known as automatic speech—the interactions essential to social discourse. She could not learn to say "Hello" in response to "Hello," could not grasp the meaning of "Thank you." She would come when she was called but, with rare exceptions, could not summon anyone herself. She complained of a boy who was pestering her in school, but no one was ever able to teach her how to ask him to cut it out. Apparently, the words she brought

with her from her imprisonment in the little room, Stopit and Nomore, were words she could imagine being aimed only at herself and her actions, not words she could use to defend herself. In all, Genie inhabited a prison not unlike a stroke victim's, with more to say than she was able to say, and aware of her inability.

Nonverbally, however, she had no such handicap. "Without a word," Curtiss wrote, "she can make her desires, needs, or feelings known, even to strangers." Rigler witnessed replays of the benevolent stranger syndrome. A woman in an idling convertible handed Genie her faux pearl necklace. A father and son walked by them carrying a toy fire engine, and suddenly the boy was back again, his fire engine offered in outstretched hands. Rigler's eyes tear when he talks about it.

Over the course of the three years following the convention in Hawaii, Genie's hoped-for linguistic ascent never materialized. When I asked Curtiss at what point Genie leveled out, she said, "Almost immediately. But it took us several years to realize that."

Faced with Genie's failure, many scientists have fallen back on the explanation—put forward by her father—that she was retarded. Curtiss disagrees. She noted to me that on some of the tests she and Fromkin administered Genie scored higher than anyone had ever scored. "On spatial tests, Genie achieved a perfect adult score," she said. "She could imagine a figure with pieces missing, and she could look at something from one perspective and know how it would look from a different perspective. She could draw silhouettes. She could categorize. Some people have said that categorizing is the key to learning language—that grammar is just organizing things into smaller

and smaller categories. Genie could organize, but she couldn't learn grammar. Whatever she brought to bear on categorizing wasn't what she had to bring to bear on grammar. I would give her complex hierarchical models to copy, and she could do it effortlessly and flawlessly. Genie could apprehend the most complex structure.

"One time, we asked her to copy a structure made of a set of sticks. The sticks were different colors, but we didn't think about that—we were interested in the structure's shape. When Genie re-created the structure from memory, she got not only the shape but all the colors correct—every last stick—even though that was not part of the task. She could do all these things that are supposed to be related to grammatical structures, but she couldn't get grammar."

Genie's specialty—her ability with the spatial and the concrete—was reflected in her talk. Most children concentrate their conversation on activities and relationships: what happened when, what So-and-So did to So-and-So. Genie concentrated instead on objects, meticulously describing and defining them by color and shape, number and size. A normal child would rarely utter among its early several-word phrases the ones that dominated Genie's speech: "big, rectangular pillow," "very, very, very dark-green box," "tooth hard," "big, huge fish in the ocean."

In the late 1970s, as Curtiss finished her dissertation, she subjected Genie to a broad range of psychological tests that measured cognitive skills other than language, and she compared the results with those from tests administered to Genie by other scientists from the beginning. "I found some interesting things," Curtiss recalled. "I found that for every year that

Genie had been out of isolation she had advanced a year in mental age. Given a chance to interact with her environment, she was growing. This is the strongest evidence that she was not mentally retarded. You never see a case of a mentally retarded child in which the mental age increases a year with every year. Also, with retarded kids the lexicon is very impoverished. I have worked with one group of retarded kids who get a case correct but the semantics wrong. They're not sure of gender or number. Genie was always correct on cognitive matters. She knew how many and of what kind.

"Besides," Curtiss said, "being with Genie wasn't like being with a retarded person. It was like being with a disturbed person. She was the most disturbed person I'd ever met. But the lights were on. There was somebody home."

23

At home with Genie in Laughlin Park, the Riglers, too, felt that they were dealing with an intelligence. "This was not a dumb kid—no way," David Rigler told me. "She had energy and personality and incredible curiosity. She most emphatically responded to approval and was dismayed by reprimand. She craved affection and she gave it. She had a wonderful sense of humor."

Around the house, Genie handled complex tasks: she ironed, and she sewed both by hand and with a sewing machine. And she drew. Her drawings seemed actually to be part of her lexicon—a compensatory, self-taught speech.

When Genie was failing to transmit some idea, she would grab pencil and paper and sketch what she could not describe. She sketched more than objects: she could depict her thoughts and desires. Curtiss remarked on her ability to convey with a few deft strokes on paper the gestalt of a situation—the juxtaposition of people or things central to one of her tales. Her perception of gestalts was uncanny. Her mind had no trouble seeing the organization behind a chaotic scene or perceiving a whole from scattered parts. It was on the gestalt tests that Genie scored higher than anyone in the literature. But her portrayal of her complex comprehension was better achieved through visual than verbal means.

Throughout her emergence, Genie grasped her everyday experiences by relating them to images in magazines and books. When fear of the Riglers' pets was her greatest concern, she clipped photographs of similar cats and dogs and collected them, as though they had the magical protective qualities of voodoo dolls. When she saw a helmeted diver at Sea World, she did not calm down until she had got Curtiss back to the house and shown her a picture of the selfsame monster in *National Geographic*. Curtiss's early conjecture was that Genie had been programmed by a childhood that was almost devoid of event or society and was dominated instead by visual experience—an experience as static as a postcard. For her, the vision frozen in *National Geographic* may have been fully as alive as the one that moved at Sea World. Later, when investigations of Genie's brain unveiled the utter dominance of her "spatial" right hemisphere over her "linguistic" left, a more mechanical cause suggested itself.

Genie's progress was withal too slow to really be called

steady, but progress she made, through some idiosyncratic landmarks. She learned to fantasize verbally and to manipulate, and in March 1974 she combined the two skills and learned to tell an outright lie. She came home from school one day with a story about how her teacher's demands had made her cry. It was a fictional event, calculated to gain sympathy from Marilyn. A year later, when Curtiss caught Genie with a pocketful of stones (the which she was forbidden to carry), Genie said her pockets were full of "material." It was not quite a whopper, not by modern political standards, but a good solid start nonetheless.

Near Christmas 1971, Genie and Curtiss were walking down a hospital hallway when a small boy came up and began shooting at them with a toy pistol. It scared Genie, and when she and Curtiss had escaped out of range, she repeated a condensation of Curtiss's mollifying phrases, "Little bad boy," and, "Bad gun." On an evening at the Rigler home two weeks later, Curtiss was playing the piano and heard Genie mumbling and asked her what she'd said. "Little bad boy," Genie repeated. "Bad gun." Curtiss was pleased; for the first time, Genie was using language to relate a past event.

The question posed itself immediately whether Genie would be able to put into words events that had happened before words were part of her world. Would she have any memories from that time? And how would they be encoded? The answer—part of it—came all too horribly. "Father hit big stick. Father is angry," Genie said one day. And on other occasions, "Father hit Genie big stick" and "Father take piece wood hit. Cry." The scientists were learning about that part of the child's life they had not known, and learning it, moreover,

from the child. "We worked with her fear of her father," Rigler told me. "We kept assuring Genie that her father was dead and was not going to appear and punish her. We had a problem communicating to her the concept of death. She was always afraid that he would return. As she learned to talk more, a stock phrase became 'Father hit.' Hundreds of times. Thousands of times."

Typically, one of her worst revelations was wordless. One day she would not come when she was called, and Rigler found her in her room sitting before a magazine, paralyzed with fright. The magazine was open to a photograph of a wolf. Genie was too terrified to explain her weird behavior, so when the Riglers had the opportunity they questioned her mother. They recall Irene's explanation—that on the rare occasions when Clark had interacted with his daughter he had imitated a dog, barking and growling at her. Sometimes, Irene said, he would stand in the hallway outside her closed bedroom door and bark.

The psychologists and psychiatrists familiar with Genie's case remain haunted by this image, and I have asked several of them, "Why a dog?" The nearest thing to an explanation was offered by Jay Shurley, and the explanation he gave me began, "I don't know."

"All I can think is that it had to do with Clark's appointing himself his daughter's guardian," he said. "Remember, he was going to protect Genie from the world, and at the same time he was punishing her with his protection. And people are often guarded by their dogs." He shrugged. "So he became a dog."

24

Since the November day in 1970 when Genie and her mother walked into the Los Angeles County welfare office, Irene had been a ghost in her daughter's life. She had never, perhaps, been much more—a blind, sad, momentary presence from the world beyond the door. Surely Genie could have understood little of her mother's own whispered existence. After the two escaped from their home, things had become better, and worse. It was not by any means merely an escape for Irene. If that had been all she was after, she could have escaped alone. But she confronted her husband and abducted her hostage daughter. If she had not had her daughter to take—had not had the obligation of setting right that blight on her life worse even than the injustice of her own mistreatment—who knows, Irene might just have stayed home.

Irene's belated heroism paid harsh dividends in the short term. "Heck, the first rattle out of the box there were headlines in the L.A. papers, and she was yanked into court," Jay Shurley said. "Her husband committed suicide. That was the first week. And then she lost control of the child."

Dismissed by the court, Irene returned to the house on Golden West Avenue. She spent the next five years traveling