ANNALS OF SCIENCE

A SILENT CHILDHOOD—I

SOMETIME in the late seventh century B.C., it occurred to Psamtik I, the first of the Saitic kings of Egypt, to wonder which might be the original language of the world. Psamtik was, by all accounts, a forward-looking ruler. He was the first to open his country to large-scale immigration, receiving thereby a substantial infusion of Hellenic culture, and also, not incidentally, the Hellenic mercenaries with which he secured his reign against the claims of eleven rivals and against the Scythian, Ethiopian, and Assyrian armies on his frontiers. Considering that he undertook his scholarship between perennial military campaigns, it is not surprising that his interest in the language question had territorial overtones: the country possessed of the lingua mundi would own an indisputable hegemonic legitimacy. Yet he pursued his question with an unbiased rigor and a devotion to the scientific method which could be seen as admirably unsentimental, if not downright brutal.

As recounted by Herodotus two hundred years later, Psamtik's experiment was a simple one: two infants were taken from their mothers at birth and placed in the isolation of a shepherd's hut. The shepherd was instructed not to speak to them. They were reared on a diet of goats' milk and silence until one day two years later when, the shepherd returning to his hut, the pair accosted him with their first utterance. The word they had developed was "bekos," which, after semantic inquiry on the part of the King, was determined to mean "bread" in the language of the Phrygians, an Indo-European people of Asia Minor. With the shepherd's account in front of him, Psamtik was objective enough to abandon his nationalistic hopes and stand by the results of his research. He announced that Phrygian was the protolanguage, and thus established himself as the protolinguist, the earliest practitioner of an enduring scientific pursuit.

Sadly—or perhaps fortunately, since except for the word bekos and a few texts and inscriptions little remains to us of the Phrygian language—Psaltik's research has not stood the test of time. He has been accused of a certain methodological informality. There was no way of ascertaining, for instance, whether or not the children had a natural grasp of many languages and were merely expressing an innate preference for Phrygian baked goods. Historians are satisfied that Phrygia was the birthplace of the flute and the Dionysian orgy but probably not of human speech, and Psamtik is remembered by science mainly for his errors.

Nevertheless, in nearly every college primer on linguistics and in innumerable late-night conversations among practicing linguists, he is remembered. One such text, Vivien Tarter's 1986 "Language Processes," has a two-sentence "Conclusion" that reads, "We still have a long way to go to understand language and its processing, and many exciting years of research ahead. But we have come a long way since Psammetichos!" The King's inclusion in the book, like his general durability, is evidence to the contrary. Psamtik is very much with us. While his experiment was flawed in fulfilling its declared intention, it was in other ways brilliant—an incisive bit of scientific prescience. It embodied both the theoretical questions and the practical quandaries that still bedevil the discipline. Beyond the arid statistics and the arcane analysis that characterize modern linguistics looms a philosophical question: What makes us special as a species? What part of our essential humanity is expressed in our ability to communicate with language? It is in that light that his scientific sin—his experimentation on children—takes on the import that continues to subtly trouble the science. For his sin was of the essence: in investigating one piece of the human charter, Psamtik, by his lack of compassion, did violence to another.

The science initiated by the Egyptian king has been revised and reinvented many times over the millennia, most recently in a Horn & Hardart on Woodland Avenue in Philadelphia, where Noam Chomsky began working out a set of ideas so revolutionary that their publication, in 1957, is known among linguists as the Event. To its credit as a human endeavor, the science of linguistics has maintained through its generations a certain wistful indecision about its ambitions. Only a stalwart linguist—or an especially myopic one—can avoid the temptation to look up from the voluminous tabulations of syntax and phonemics for an occasional glance into the heart of human nature, much the way astronomers look through the silica lens at the origins of time. Linguistics and astronomy constitute an unlikely sisterhood, for they are both constrained to be more observational than experimental—astronomy because its subjects are too distant to be experimented on, and linguistics because its subjects are too human. No longer are children impressed from the crib to serve as guinea pigs. But the revelations about how we acquire language still come from children: wild children, who have grown up with beasts as their only companions; abused or neglected children whose family histories replicate the isolation in the shepherd's hut, sometimes with far more attendant horror. The cases are exceedingly rare and mostly fleeting. They become the...
property of whichever researcher is fortunate enough to be present at whatever dark hour. In that regard, no subject has ever fallen into the lap of science out of a more incomprehensible world than the little girl who limped through the doors of a Los Angeles County welfare office in the fall of 1970, accompanied by her nearly blind and almost equally traumatized mother.

**TEMPLE CITY**, California, is in many ways a typical town of the San Gabriel Valley, and Golden West Avenue, which runs due north through it, is a typical Valley residential street. It is as straight as a surveyor’s rod, and you might suppose that its intended destination is the San Gabriel Mountains, whose shadowed canyons and snow-panelled peaks rise above the grid of suburban Valley streets like the promise of a wider world. But Golden West Avenue never reaches the San Gabriels, near as they are. It ends in the more prosperous reaches of Arcadia, and the San Gabriels remain a taunting vision, as distant in their way as the affluent hills of Hollywood, fifteen miles to the west.

Heading up Golden West Avenue from Las Tunas Drive, Temple City’s main drag, you pass the parklike acreage of the civic center and, a block farther on, the steepled Church of Christ. Then the public places are behind you, and you enter an orderly regime of small houses—bungalows, for the most part—which become more modest and insular block by block. Each house has a driveway and a yard, and a number of the yards are separated from one another by chain-link fences. Toward the Arcadia town line, five royal palms nearly a hundred feet high float above the avenue like an incongruous apparition. They are the neighborhood’s only aristocratic flourish. For here there are no rolling estates, no guarded gates, no Armed Response medallions such as dot the curbs of Bel Air and Mulholland Drive. The equation of prominence and privacy that prevails in the wealthy precincts of Los Angeles is here turned on its head: security lies in a respectful anonymity—an injunction, in a land of compact privacies, to mind one’s own business. People don’t come to Temple City to be discovered, they come to be left alone. Golden West Avenue is above all a quiet street of quiet families. Before the disruption of that quiet in November of 1970, the residents of one small house behind the row of palms were known to their neighbors as the quietest family of all.

The disruption was spectacular—enough so to earn a week’s worth of stories in the Los Angeles Times, sandwiched between accounts of the trial of Charles Manson, the policies of Governor Ronald Reagan, and the bombing of Hanoi. “GIRL, 13, PRISONER SINCE INFANCY, DEPUTIES CHARGE; PARENTS JAILED,” the headline on November 17th read. The following day, a story headed “MYSTERY SHROUDS HOME OF ALLEGED CHILD PRISONER” featured a photograph of two men standing in a driveway: the girl’s elderly, bespectacled father, clothed in rumpled khakis and a rumpled hat, one hand in his pocket and the other loosely holding a cigarette; and her brother, a tall teen-ager dressed in black, his arms folded and his face wadded in belligerent distress.

But it was another photograph that inflamed the public imagination and brought the curious cruising along Golden West Avenue in a slow, neck-craning procession that lasted the better part of a week. The photograph is of a girl’s face, smooth, olive-shaped, pretty. A strand of dark hair has escaped from behind her ear to hang loosely holding a cigarette; and her brother, a tall teen-ager dressed in black, his arms folded and his face wadded in belligerent distress.

Then the public places are behind you, and you enter an orderly regime of small houses—bungalows, for the most part—which become more modest and insular block by block. Each house has a driveway and a yard, and a number of the yards are separated from one another by chain-link fences. Toward the Arcadia town line, five royal palms nearly a hundred feet high float above the avenue like an incongruous apparition. They are the neighborhood’s only aristocratic flourish. For here there are no royal estates, no guarded gates, no Armed Response medallions such as dot the curbs of Bel Air and Mulholland Drive. The equation of prominence and privacy that prevails in the wealthy precincts of Los Angeles is here turned on its head: security lies in a respectful anonymity—an injunction, in a land of compact privacies, to mind one’s own business. People don’t come to Temple City to be discovered, they come to be left alone. Golden West Avenue is above all a quiet street of quiet families. Before the disruption of that quiet in November of 1970, the residents of one small house behind the row of palms were known to their neighbors as the quietest family of all.

The disruption was spectacular—enough so to earn a week’s worth of stories in the Los Angeles Times, sandwiched between accounts of the trial of Charles Manson, the policies of Governor Ronald Reagan, and the bombing of Hanoi. “GIRL, 13, PRISONER SINCE INFANCY, DEPUTIES CHARGE; PARENTS JAILED,” the headline on November 17th read. The following day, a story headed “MYSTERY SHROUDS HOME OF ALLEGED CHILD PRISONER” featured a photograph of two men standing in a driveway: the girl’s elderly, bespectacled father, clothed in rumpled khakis and a rumpled hat, one hand in his pocket and the other loosely holding a cigarette; and her brother, a tall teen-ager dressed in black, his arms folded and his face wadded in belligerent distress.

But it was another photograph that inflamed the public imagination and brought the curious cruising along Golden West Avenue in a slow, neck-craning procession that lasted the better part of a week. The photograph is of a girl’s face, smooth, olive-shaped, pretty. A strand of dark hair has escaped from behind her ear to hang loosely holding a cigarette; and her brother, a tall teen-ager dressed in black, his arms folded and his face wadded in belligerent distress.
the child's state was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually pieced together, thanks to the efforts of the Temple City police in the days following her discovery and to the persistent elaborations of scientists over the next several years. A doctoral dissertation on the child, written by Susan Curtiss, a graduate student at the University of California at Los Angeles and the linguist who first noticed the girl's predecessors, was eventually piec
ated Clark, and she was placed in the garage, where, at the age of two and a half months, she died. Irene later protested that the girl had been put there only to spare her the noise while the linoleum was being removed from the kitchen floor, and that once in the garage she had been struck with “quick pneumonia.” The likelihood is that behind the euphemism was a case of death by exposure. A subsequent infant was more literally a victim of the couple’s incompatibility: it died of Rh blood poisoning soon after birth. Irene’s third pregnancy produced a healthy son. He survived infancy, but his development was stifled by an approximation of the neglect that had killed his oldest sibling. He was slow to walk, and at three years of age was not yet toilet-trained, but he was saved by the intercession of his paternal grand- mother, who took him in and kept him for several months, long enough to get him back on track. In April of 1957, Clark and Irene had their fourth child, a girl. She, too, had Rh blood poisoning, but she was given a transfusion soon after birth. She went on to suffer the same developmental fate as her older brother, but this time there was no paternal grandmother to rescue her at the critical moment.

Clark had an extraordinary attachment to his mother, surprising in the light of his upbringing: he had spent most of his early years in orphanages and foster homes, and few with her. She was a flamboyant woman—at one time, she had managed a brothel—and was given to travelling armed. It is said that she thought her son intolerably straitlaced. But straitlaced or not, he was slavishly devoted to her, to the point where Irene never bothered to recognize its evil. These people never do.”

After one of the child’s rare early medical examinations, a pediatrician noted on her records that she was “slow,” and pronounced her a “retarded little girl with kernicterus”—a condition that sometimes results from a botched transfusion for Rh incompatibility. “Clark amplified that to delusional intensity—that this girl was profoundly retarded,” Shurley told me. “He was convinced that she would need his protection from the evil of the world, and that no one was better prepared than he to recognize its evil. He didn’t reckon, of course, on his own evil. These people never do.”

Clark’s idea of protective custody is described in Susan Curtiss’s doctoral dissertation, which was published as a book—“Genie: A Psycholinguistic Study of a Modern-Day ‘Wild Child’”—in 1977, by Academic Press. In both the dissertation and the book, the girl is referred to not by her real name but by her scientific alias, Genie—the name used in the symposium papers, the psychology magazines, and the textbooks, and in court order in order to protect the child’s identity. Curtiss’s account agrees with that of other investigators. She wrote:

In the house Genie was confined to a small bedroom, harnessed to an infan’ty’s pot. Genie’s father sewed the harness, himself; unclad except for the harness Genie was left to sit on that chair. Unable to move anything except her fingers and hands, feet and toes, Genie was left to sit, tied-up hour after hour, often into the night, day after day, month after month, year after year. At night, when Genie was not forgotten, she was removed from her harness only to be placed into another restraining garment—a sleeping bag which her father had fashioned to hold Genie’s arms stationary (allegedly to prevent her from taking it off). In effect, it was a straitjacket. Therein constrained, Genie was put into an infant’s crib with wire mesh sides and a wire mesh cover overhead. Caged by night, harnessed by day, Genie was left to somehow endure the hours and years of her life.

There was little for her to listen to or see. There was no TV or radio in the house. Genie’s bedroom was in the back of the house next to the master bedroom and a bathroom... The father had an intolerance for noise, so what little conversation there was between family members in the rest of the house was kept at a low volume. Except for moments of anger, when her father swore, Genie did not hear any language outside her door, and thus received practically no auditory stimulation of any kind, aside from bathroom noises. There were two windows in her room, and one of them was kept open several inches. She may, therefore, have occasionally heard an airplane overhead or some other traffic or environmental noises; but set in the back of the house, Genie would not have heard much noise from the street.

Hungry and forgotten, Genie would sometimes attempt to attract attention by making noise. Angered, her father would often beat her for doing so. In fact, there was a large piece of wood left in the corner of the room in which her father used solely to beat her whenever she made any sound. Genie learned to keep silent and to suppress all vocalization. ... Just as there was little to listen to, there was not much for Genie to touch or look at. The only pieces of furniture in her room were the crib and the potty seat. There was no carpet on the floor, no pictures on the walls. There were two windows, but they were covered up except for a few inches at the top out of which Genie could see the sky from one and the side of a neighboring house from the other. There was one dim, bare ceiling light bulb, a wall of closets, and another wall with the bedroom door. The room was a dirty salmon color. Occasionally, two plastic raincoats, one clear and one yellow, hung outside the closet in the room, and once in a while Genie was allowed to “play” with them. In addition, Genie was sometimes given “partly edited” copies of the TV log, with pictures that her father considered too suggestive removed (like women advertising swimming pools, etc.). She was also given an occasional empty cottage-cheese container, empty thread...
spools, and the like. These were Genie’s toys; and together with the floor, her harness, and her body, they were her primary sources of visual and tactile stimulation.

Genie’s diet was equally limited. She was given baby foods, cereals, an occasional soft-boiled egg. Under pressure from the father to keep contact with Genie to a minimum, she was fed hurriedly, usually by having food stuffed into her mouth. Should Genie choke and spit out some of her food, she would have her face rubbed in it.

Genie’s father was convinced that Genie would die. He was positive that she would not live past the age of twelve. He was so convinced of this that he promised his wife that if the child did live beyond twelve, the mother could seek help for Genie. But age twelve came and went; Genie survived, but the father reneged on his promise. The mother, too blind to even dial the phone and forbidden under threat of death to contact her own parents (who lived in the area), felt helpless to do anything.

Finally, when Genie was 13 1/2 years old, Genie’s mother, after a violent argument with her husband in which she threatened to leave unless he called her parents, succeeded in getting her husband to telephone her mother. Later that day Genie’s mother took Genie and left her home and her husband.

Curtiss went on to relate the girl’s discovery: how she was taken into custody by the police; how the parents were arrested and charged with child abuse; how the child was admitted to the hospital. The family history is wrapped up, like Little Dorrit’s, with a breath of exultation: “She had been discovered, at last.”

But the real epitaph to the era was written by Clark himself. On the morning of November 20, 1970—the morning that he and his wife were to appear in court on charges of willful abuse or injury to the person or health of a minor—he spread out a blanket and a sheet of cellophane on the living-room floor and shot himself through the right temple with a .38-calibre revolver. He was seventy years old. He left two notes, scrawled with a ballpoint pen. One was for the police and read, in part, “My son...is out in front with friends. He hasn’t the slightest idea of what is going to happen.” The second was to his son, and included these instructions:

Don’t take that shirt back. It’s for my funeral. You know where my blue shirt is. Underwear in hall closet. I love you. Goodbye and be good.

—Dad

Clark did not leave a note for his wife or his daughter, but he did include in his farewells a sentence that seemed addressed to the public at large: to the press that had exposed his family’s disarray; to the people in the automobiles, whose finger-pointing parade had distressed him tremendously; to the scientists and doctors who had taken his daughter and renamed her. He wrote, “The world will never understand.”

Already in court that morning, Irene had heard her counsel enter a plea of not guilty, on the ground that she had been forced into her role by an abusive husband. Then the judge received a message and summoned the lawyers into chambers. Irene’s counsel returned to tell her that her husband was dead. She was visibly shaken, the lawyer later recalled, but did not break down. “She just sat there, silent,” he said. Her plea was accepted.

The suicide—reported, like the parents’ arrest, on network news—did nothing to lessen interest in the case. The press had set up camp on the lawn of Childrens Hospital, where Genie was now residing. Childrens was, and is, one of the most prominent, expensive, and up-to-date pediatric facilities on the West Coast, and one accustomed to security concerns, since among its clientele are a number of the children of Hollywood celebrities. Freed from her little room and placed in the most competent of professional hands, Genie was, in the view of the doctors and psychologists and others who were now becoming involved with her progress, liberated. If such a thing was possible, she was to be given a chance at a new life, with new surroundings, a new future—even a new mission—to go along with her new name.

By the summer of 1988, when Susan Curtiss and I first met, Curtiss had become an associate professor of linguistics at U.C.L.A. She was sharing a small office in Campbell Hall with two of her graduate students. Her desk was crammed into a far corner of the room, and over it were several pictures, tacked to an orange room divider. There were photographs of her two daughters, aged five and one, and there was a drawing of Curtiss herself, done by Genie almost fifteen years earlier. The drawing was a stick figure, made with a series of quick
crayon strokes. It wasn’t easy to decide whether the rendering was immature for an artist in her middle teens or, in a primitivist way, accomplished, for its portrayal of its subject was accurate: Curtiss is painfully thin, and as nervous as summer lightning. She is also extraordinarily focussed, in the ironclad manner of one who has long done battle with the hectoring distractions of the academic world.

In 1971, when Genie entered her life, Curtiss was twenty-two years old and a first-year graduate student in the Linguistics Department. “I was one of the few linguists on campus studying language acquisition in children,” she told me. “It seemed to me that once we came to understand language acquisition, we would have answers to most of the central questions of linguistics. Besides, I love children. It seemed as if it would be fun to have them be my source of data.”

Her interests had put her in the right place at the right time. She remembers the spring afternoon when she was summoned into the office of her faculty adviser, Victoria Fromkin. Fromkin, who is now a professor emeritus, began discussing developments in a case of an abused and linguistically deprived child. Curtiss had already heard of the case, but now she was being invited in on the ground floor. “As a new student, I found myself presented with an opportunity that changed my life in every way,” she told me. “Personally as well as academically. Because the case is an important one, it shaped my future career and education, right down to today. I was impressed historical testimony in favor of including language in this new, naturalist science. In the third century B.C., Epicurus, the first Greek philosopher to address the origins of language, felt that it was the creation of God or of man’s intellect but of a far less interested party: nature. Language, he said, was a biological function, like vision or digestion. But his view was anathema to the tenor of later times, when language was considered an integral part—perhaps the keystone—of man’s soul, or (less likely) man’s reason. Or both: in the late seventeenth century, Leibniz proclaimed language ability to be a gift of God, with its form of expression determined by natural instinct—except for Chinese, which, he suggested, was the invention of a wise man. Thus linguistics was left standing with one foot on the theological dock and the other in the naturalist boat.

The discomfort was relieved somewhat by the rise of the social sciences, at the end of the eighteenth century. If language was somewhere between theology and biology, then perchance it could be considered a problem for anthropologists, with linguists playing a backup role. The voyages of exploration and colonization had shaped the public imagination the way the Crusades had in earlier times, but with a more utilitarian goal. Comparative linguists quit worrying about the questions of the Vulgate text and got busy cataloguing new languages. But by the
late nineteenth century the bulk of the questions concerning the relationship of language and man had disappeared into psychology—a discipline that the questions helped create. And that's where they stayed until the Event—the publication of Noam Chomsky's "Syntactic Structures," in 1957, the year of Genie's birth.

The galvanic effect of Chomsky's innovation was described to me by Catherine Snow, a professor of human development and psychology at Harvard University. "There was a barrenness in the study of language acquisition through the nineteen-forties and most of the fifties," she said. "Until 1957, linguists believed that all there was to think about was vocabulary. Then Chomsky made syntax central, and for the first time the questions became compelling, interesting. It was like driving across a prairie and all of a sudden seeing the Rocky Mountains jump out at you."

Chomsky and his adherents found that the complex variety of syntactic structures within a language could be distilled into a small set of core principles. Though the grammars of different languages differ widely, the principles applied equally to all. This suggested an astounding unity according to Chomsky, sentences of diverse languages—of Japanese, with its inverted phrases; of Finnish, which expresses cases the way Latin does; of Lithuanian, among modern languages the one closest to Sanskrit; of Spanish, in which the subject of a sentence is commonly omitted—are not fundamentally different from English sentences. Some linguists have speculated, basing their hypothesis chiefly on similarities of vocabulary and pronunciation, that all languages derived from a common ancestor. Chomsky doesn't think so. On the syntactical level that Chomsky is concerned with, languages don't just have similarities—they are identical. The source of such uniformity, Chomsky argues, must be sought closer to home than an ancient protolanguage. It must be contained within us—within the species. The rules of language are either the product of an unparalleled achievement of human cognition or ingrained on a level more basic than thought. The question is no longer "How is language designed?" but "How does language reflect the way we are designed?"

The pervasiveness of Chomsky's
influence on modern linguistics has brought him detractors as well as disciples. Every working linguist carries, involuntarily and sometimes unfairly, a vest-pocket vita summarizing his life’s work as “pro-Chomskian” or “anti-Chomskian.” There are those who object to Chomsky because of his prominence in the field, and those who object to his prominence out of it, in endeavors such as politics and philosophy. But most of the contention centers on theory. The school of linguistics associated with his ideas—a school described, variously, as “nativist,” “generative,” “innatist,” and “rationalist”—quickly met with heated opposition from the school of “environmentalists” or “empiricists,” who hold that a child learns language from its interaction with the world and from the speech of its parents. Both schools have since fragmented, and their ideas and observations have mingled over the years, and these days the contest looks decidedly esoteric from the outside. “I love the pro- and anti-Chomsky debate,” the filmmaker Gene Searchinger told me not long ago. “It reminds me of the joke where the guy says, ‘I don’t like So-and-So. He’s a Communist.’ And the other guy says, ‘He’s not a Communist, he’s an anti-Communist.’” And the first guy says, ‘I don’t care what kind of a Communist he is, I still don’t like him.’ Truth is, most of these people are operating on Chomskian precepts, even when they disagree with him on the details.” Searchinger has spent the last five or six years making a series of films about linguistics—a project so extensive that it seems a project so extensive that it seems to some people as though the language question were now being taken over by filmmakers.

Since the mid-nineteen-fifties, Chomsky has taught at the Massachusetts Institute of Technology. I caught up with him there one day, in a steeply pitched lecture hall—a kind of theater, whose orchestra pit was lined with movable blackboards. He was sitting in the front row, speaking into one of Gene Searchinger’s movie cameras. “Recently, this rather common auditorium was filled with many young linguists debating the central issues of the science,” he said. “Thirty years ago, the number of people who could even have conceived of these questions was virtually nil.” Searchinger yelled “Cut!” and the camera went dead. Chomsky, a shy matchstick of a man, crumpled back into his chair and began chatting with Searchinger while the crew adjusted the lights. Searchinger had the appearance of a stockbroker on two telephones. Grip (to Searchinger, yelling): “Is that good?”

Searchinger: “Yes. No. Move it up.”

Chomsky (to Searchinger): “What’s more sacrilegious than religion?” (Grip raises lights.)

Cameraman (to Searchinger): “The chair back is lit. Is that what you want?”

Searchinger: “That’s O.K.”

Chomsky (to Searchinger): “...but perfection! There’s no such thing, unless you’re religious.”

Cameraman (to Searchinger): “He’s got a halo. Is that O.K.?”

Searchinger: “That’s O.K., too.”

Finally, Searchinger said “Sticks,” a slate marked “Take 5” was held in front of Chomsky’s face and snapped shut, and Chomsky returned to the subject of his life’s work and Searchinger’s film.

“Language is a tool,” he said. “The tool has no limits—in the sense that we commonly create and understand sentences that we have never heard before. How do we do it? Language is like a hammer: it can be used in many ways, and what it does depends on the person using it. Nevertheless, it is a system with a structure. Anything with structure has to have limits. It must; otherwise, it wouldn’t work. If a hammer were an amorphous blob, it would not be useful.

“The problem arises when you look carefully at that structure—when you start to take language seriously. If you have succeeded in finding some structure, you’ve just begun. You’re ready to ask new questions of the world. There was a basic assumption of the study of language and human behavior in the nineteen-fifties—that we should concentrate on what people do and produce. There is a major new perspective: a shift in focus to the inner mechanisms of mind that account for behaviors. What are the inner mechanisms?

“Now, I’m enough of a materialist to think that language is in the brain. If you cut off someone’s foot, he can still speak. In fact, it is useful to think of language as an organ of the mind.
The brain is like every other system in the biological world: it has specialized structures with specialized functions, and language is one of these. But did we invent language because we were sentient? No more than we invented our circulatory system. What seems to be true about language is that its basic design is in the genes. The genes determine the structure and design of language. As far as we know, it is plausible to say that there is no variation in the computational system—in the principles that determine the organization of the series of noises that makes sense to us. All this happens in a very rigid manner, as rigid as the computation in your personal computer.

"No, no," Searchinger objected. "Would you start that again? It sounds too wordy."


"Well, take, for example, the facility of walking," Chomsky went on.

"If a child is raised by a bird, does he end up flying? No. Or if a dog is raised by a person, does it end up walking on its hind legs? No. That we are designed to walk is uncontroversial. That we are taught to walk is highly implausible."

Listening to the explanation unfold, I was reminded of why different disciplines have wished so fervently to keep hold of the language question: it is a hard one to divide up and share. Chomsky started out talking about language, and pretty soon he was talking about the nature of man. He had already gored a sacred precept: motherhood. According to Chomsky's inнатists, children weren't learning language from their mothers, or from anyone else in their environment. They were bringing language with them.

The contention affronted common sense, and though it is now widely accepted it still draws fire. "The inнатists think that language is acquired very fast, very easily, and that it's very much the child's responsibility," Catherine Snow, who considers herself a non-Chomskian, explained to me. "They also see language as one large problem. We on the other side think that learning language is a long slog, which requires from the child a lot of work. And the child is working as hard as he can, fifteen, sixteen hours a day. We think it requires a relationship with an adult, and a whole set of cognitive abilities. We also think that the child is refining one little bit of the language system at a time. People who are inclined to fall back on inнатist explanations are falling back on a metaphor. It's an exciting metaphor. The image that transfixed them was that of the child as linguist: in his every utterance, he is the perfect speaker of an exotic, weird language. But even the most rabid inнатist cannot point to a gene or a cell for language. And even the most rabid environmentalist must concede that language doesn't get learned by every species, and that if too much of the brain is missing you won't learn language. The solution lies somewhere in the middle. The problem is taking it out of the realm of mystery. The Princeton psycholinguist George Miller said, 'The trouble with language acquisition is that the nativists have proved that it's a mystery and the environmentalists have proved that it's impossible.'"

In the M.I.T. lecture hall, Noam Chomsky and Gene Searchinger were finding it impossible to proceed with the filming: a scheduled class was arriving, and a professor had come in and nodded timidly in Chomsky's direction before turning and writing "Developing Amphibian Oocytes" on the blackboard.

"Suppose that a child hears no language at all," Chomsky was saying. "There are two possibilities: he can have no language, or he can invent a new one. If you were to put prelinguistic children on an island, the chances are good that their language facility would soon produce a language. Maybe not in the first generation. And that when they did so, it would resemble the languages we know. You can't do the experiment, because you can't subject a child to that experience."

The lights flashed off, and the film crew began hurriedly packing up cables and microphones. "Of course," Chomsky commented to Searchinger as the two pushed against an incoming tide of undergraduates and headed for the M.I.T. quad, "there are natural experiments."

THE luck that befell Susan Curtiss when she was invited into the Genie case by Victoria Fromkin was greater than she at first knew, for the competition for access to Genie was fierce. Even by early May of 1971, six months after the girl's discovery, there was no assurance that any linguists would be included among her scientific observers. And the scientists weren't the only ones trying to gain entry. "Immediately, there was such interest in Genie, such publicity," Howard Hansen, who was then the head of the Psychiatry Division of Children's Hospital, told me. "We had calls from all over the world—press, doctors, do-gooders, kooks. We tried for anonymity. But we had to keep her in the hospital. She was a ward of the court at that point. If we had discharged her, she would have gone to Juvenile Hall, and that would have been right. So David got active on a research design, and we put together a little money."

"David" was David Rigler, a professor of pediatrics and psychology at the University of Southern California and the chief psychologist in the hospital's Psychiatry Division. He had been with Children's a year, having worked previously as an evaluator of grant applications for the National Institute of Mental Health, in Bethesda, Maryland. His experience proved useful in helping the hospital secure initial funding for research on Genie from two foundations and, in February of 1971, a contract with the N.I.M.H. itself for twenty-one thousand five hundred dollars. The N.I.M.H. contract would run until the following September, during which time a number of consultants were to be invited in for preliminary research and a conference was to be mounted to debate long-range plans. Hansen and Rigler acted as gatekeepers for the process, with help from another hospital psychologist, James Kent. Kent's presence, especially, seemed to bode well for Genie. He was an authority on child abuse—a phenomenon all too familiar now but not often acknowledged twenty years ago—and in 1972 he would be appointed to a White House commission studying the problem.

Kent was the doctor originally in charge of following Genie's case. "I was supposed to give Genie therapy," he recalls. "But mostly that entailed watching her improvement, documenting her progress. I became more her
THE SKELETON OF A TROUT IN SHALLOW WATER

wedges between two stones near the bank of a rushing stream startled the old man with the shock of white hair who uncovered it while stooping to pick watercress. For a long time he examined the skeleton—skull, ribs, and spine polished clean—before dislodging it with his cane and watching it spin away into the fast current and disappear through the shadows of the overhanging trees. Then, with the sun beating down on his head and bleeding the fields that stretched away to the mountains, he released the dripping clump of watercress he had been clutching all that time and watched it float away, too, dark and tangled in the clear water.

—NICHOLAS CHRISTOPHER

* * *

omplicated, Kent noted, was a "sombre detachment." If not deliberately engaged, she drifted around in her environment, seeking any anomaly in her surroundings. When she was very angry, she would fling objects with her fingers, or scratch objects with her fingernails. Kent would go out of his way to expose her to pleasant sounds, moving about the room to determine the source of each. This, he noted, was a "sombre detachment." If not deliberately engaged, she drifted around in her environment, seeking any anomaly in her surroundings. When she was very angry, she would fling objects with her fingers, or scratch objects with her fingernails. Kent would go out of his way to expose her to pleasant sounds, moving about the room to determine the source of each.
The largest underwater cave system in the world — over five miles long, in the Bahamas' Lucayan National Park — is under the protection of the Bahamas National Trust. In the Cayman Islands, the endangered iguana is as important to the Cayman National Trust as its splendid reefs and abundant marine life. The only tropical rain forest in the United States, El Yunque in Puerto Rico, is being vigorously preserved by the National Park Service. There is a new realization that the flamingos of Bonaire, the frigate birds of St. Lucia, the archeological sites of Anguilla's Fountain National Park and Aruba's Arikok National Park, the Animal Flower Cave of Barbados, the ancient relics beneath Saba's waters, the landhuisen Dutch plantation houses of Curacao, and the Indian ceremonial parks of Jamaica are as important for tourism as the pink and white sands of Antigua and St. Thomas, the elegant hotels of Jamaica and St. Bart's, the dive resorts of the Cayman Islands, and the splendid yachts, sailboats, and cruise ships that ply the waters around and between them.

Yachtsmen who charter boats in St. Vincent and the Grenadines, Antigua, and the British Virgin Islands know the beautiful anchorages and fine shore facilities of these islands as well as they know the wind, weather, and sea. Lately, in established as well as remote and rarely visited yacht havens, they're encountering anti-pollution measures and a host of other regulations governing mooring and dumping.

Fishing enthusiasts who've seen unchecked development erode promising areas in other parts of the hemisphere are cheerfully accepting limits on where, how, and when some fish may be boated. Cooperating with international conventions on drift netting and endangered species protection, the island nations of the Caribbean are ensuring the future of this precious sea and of the teeming schools of tropical beauties that delight snorkelers, divers, and underwater photographers.
Vacation on an island the travel writers haven’t discovered yet.

If you’re looking for a private vacation island, come to Bonaire in the Dutch Caribbean. Here you’ll discover Harbour Village, an intimate, luxury resort where the guest rooms are magnificent. Also, gourmet dining under the stars, a palm-studded beach, charter fishing and sailing boats, wonderful diving and the friendliest staff in the islands. See your travel agent or call toll-free (800) 424-0004.

The Ecotropics beckon the most active travellers with wide-ranging options in outdoor pleasures. Climbers can find a mountain to match the level of their skills: Pico Duarte in the Dominican Republic, Jamaica’s Blue Mountain Peak, Dominica’s Morne Diablotin, Puerto Rico’s Cerro de Punta, or Saba’s Mount Scenery. Hikers and trekkers find equally varied trails, requiring differing levels of skill and endurance, throughout the region. Jamaica’s Blue Mountains and Hellshire Hills, Dominica’s Middleham Trails, Trafalgar Falls, and Bolling Lake, St. Eustatius’s Quill, St. Croix’s Rain Forest Park, the Cordillera Central of the Dominican Republic, and the Soufrière Hills of Montserrat are among the most popular. And there’s a real welcome being extended to campers in the Virgin Islands, Jamaica, Dominica, Trinidad, and Martinique. On many islands local hiking, climbing, and camping groups offer assistance in finding guides, supplies, and even companions.

For those who want less arduous but equally rewarding outdoor pleasures, there’s plenty to do besides lounge on the beach. Day hikers can climb the 1,064 handhewn steps from Windwardside to Mount Scenery on Saba or picnic by Grenada’s Grand Etang. Cyclists can bike the Parc Naturel route in Guadeloupe or participate in the Round the Island Tour on St. Martin. Surfers head for the steep Atlantic rollers off Antigua’s Half Moon Bay or Trinidad’s Salibia Bay. Spelunkers explore the caves of Puerto Rico, Anguilla, Barbados, Aruba, Jamaica, and Trinidad and Tobago. Equestrian enthusiasts come to Aruba to ride horses descended from those imported decades ago from South America, to St. Kitts for miles of trails and excellent riding facilities, and to Jamaica for horseback treks through working sugar and banana plantations.

Scuba divers from all over the world have always known about the Cayman Islands, Bonaire, and the British Virgin Islands, with their coral-encrusted reefs, rich and varied marine life, and crystalline waters. But other islands less well known for the excellence of underwater sites, the variety of wrecks, and the limitless visibility of local waters have begun establishing
The New Yorker, Apr 13, 1992

Yoon

The most popular resorts in paradise, Bolongo Beach Resorts, proudly introduce Elysian, the most elegant of all Caribbean vacation experiences. Our heavenly new resort presides over one of the most magnificent sites in the USVI, and offers selective vacationers luxurious rooms & suites with commanding views. Our extraordinary resort features: the most innovative restaurant in paradise — grill and gelateria — luxurious health spa — complimentary water sports — beachside pool — unlimited tennis — complimentary breakfast — shuttle to other Bolongo Beach Resorts with access to 3 beaches, 4 swimming pools, 6 restaurants, & all amenities. It's pure splendor in paradise! Ask about our beautiful new executive conference center overlooking the Caribbean.

FOR RESERVATIONS CALL 1-800-524-7476 or see your travel agent.
Ralph Locke Islands, Inc. 108 Nationwide & Canada
Brochure: 800/223-1108 Nationwide & Canada or call your Travel Agent

For those who don't dive but do swim, the clear waters of the Caribbean offer an introduction that's safe, easy, and can be enjoyed by people of all ages. Snorkeling in beautiful lagoons in Antigua, Martinique, Virgin Gorda, and the U.S. Virgin Islands of St. Croix and St. John provides a close-up look at the varied marine life and lush coral gardens of the region; many snorkelers savor for an even closer look discover how easy it is to learn to scuba everywhere in the islands. Die-hard beachcombers find treasures tossed up by the waves on the Atlantic side of many islands.

Even dedicated trekkers, climbers, and hikers think of the beach first when they think of the Ecotropics, and there are so many spectacular stretches of pink, white, golden, even black volcanic sand that it's hard to pinpoint the best in class. But surely the thirty-two miles of Anguilla's coastline would be among them, as would be the shores of Antigua and Barbuda, the idyllic powdery edges of Tobago, Puerto Rico's secluded Culebra Island, and Magen's Bay in St. Thomas.

For the less active but still environment-conscious traveller, the Ecotropics is home to thousands of rare and beautiful creatures, plants, and flowers. Many can be seen and enjoyed in nature preserves, bird sanctuaries, and splendid public and private gardens. There's whale watching during the annual spring and fall migrations off Anguilla, St. Bart's, and the Dominican Republic; flamingo reserves in Bonaire and the Bahamas; frigate bird colonies in St. Lucia, Barbuda, and the British Virgin Islands...
under cultivation. But everywhere in the Ecotropics there are the fragrant blooms of hibiscus, orchids growing from tree trunks, and the divi-divi tree, whose characteristic leaves are shaped like elephant ears and whose dramatic contours are sculpted into otherworldly shapes by the omnipresent trade winds.

Those in search of the past will find it in Arawak, Carib, and Amerindian archeological sites. There are petroglyphs throughout the islands, and tools, pottery shards, and artifacts preserved in local museums and historical societies. Throughout the area there are reminders of the rich ethnic heritage of the Caribbean, in the Creole culture that exists everywhere and also in curious little villages that reflect the background of Europeans who settled them. There are shamrocks and blarney stones and even soda bread in some restaurants in Montserrat. On St. Barthélemy, women still wear the stiff, starched bonnets and long dresses of Normandy. Deep in the Jamaican interior, Maroons drum ancient rhythms. Papiamento, a local dialect of Aruba, Bonaire, and Curaçao, owes as much to its Dutch antecedents as it does to the influence of the Spanish. In the French West Indies, you can dine on cuisine that Parisians would be proud of, or celebrate Bastille Day with a Gallic flavor. The Spanish colonial heritage of Puerto Rico is strong in historic San Juan and colonial Santo Domingo.

Finally, and eternally, there are those travellers whose idea of environmental vacationing is bargain hunting for local crafts, and carting them home along with memories and photographs. There are the famous Laraña straw hats of St. Bart’s, new issues of stamps from Nevis, the colorful Newcastle pottery of St. Kitts, the Arawak and African designs on the ceramics of Barbados, and one’s duty-free allowance of island-produced comestibles, from Jamaica’s Blue Mountain coffee to the liqueurs of Curaçao — not to mention a bottle or two of the ubiquitous rum punch.

Jane Adams writes often about Caribbean travel. She is currently working on her book, I’m Still Your Mother, which will be published next year by Delacorte.
vivid hallucinatory state of the disembodied mind. Some of these dream states reminded him of reports he had heard in the military—the accounts of test pilots who flew the new reconnaissance jets so high that they could see neither clouds nor horizon and so fast that they escaped the sound of their own engines. The Air Force denied that its pilots were hallucinating in flight, but the pilots themselves had a name for the point at which they seemed to depart from reality and enter the dream state—"the breakoff." Similar dislocations were reported by soldiers stationed at lonely DEW-line outposts, and by released American P.O.W.s returning from North Korea, where they had been kept in solitary confinement. Shurley realized that what he was experiencing in the tanks was really a combination of two phenomena, which he wished to tease apart. "You cannot achieve sensory isolation without social isolation," he explained. "For an intact, developed human being, the richest source of sensory contact is input from a fellow human being."

To study the effects of social isolation independent of the sensory, Shurley went to places where there were few human beings. He studied seamen on small ships, and in the sixties spent three summers in Antarctica, recording the metabolism, sleep patterns, and psychosocial behavior of scientists and work crews sent there for thirteen-month stints by the National Science Foundation. He became such a fixture on that continent that the National Geodetic Survey named a mountain in the Pensacola Range Shurley Ridge. Students at the University of Oklahoma named his graduate course the Twenty-Foot Stare in the Ten-Foot Room. The equipment he hooked up to Genie was stickered with bills of lading from the South Pole.

Of his first visit with the child, Shurley remembers that she treated everything, including people, as objects. "If you gave her a toy, she would reach out and touch it, hold it, caress it with her fingertips, as though she didn't trust her eyes," he told me. "She would rub it against her cheek. Her clinical experience provided a context for this odd behavior. "She was exactly like a blind child," he said. "She didn't integrate tactile and visual information. Even the bunny walk—hands in front. It's what we call a blindism. It's what people do when they do not entirely believe their eyes."

Shurley arrived on the scene in time to note some of Genie's initial progress. "When I saw her first, there was a contest about who was the most spontaneous and sustained" he said. "Children's Hospital was an extraordinary location for pursuing a process that should be quiet and calm. It's supported by the celebrity community. There was a glitz factor. Anything that happened there was tainted by who was going to get the publicity, who was going to benefit—more than in any other pediatrics hospital I know of. And so, very soon, that engendered this breakdown—this conflict between doctor and hospital, between teacher, school, psychiatry, psychology. I became almost an armed camp, very quickly."

Genie, for one, seemed oblivious of the battles behind the scenes. For the first time in her life she was being treated relatively the same as other children, and was, relatively, thriving. Her mental and physical development had begun almost immediately on her admission to the hospital. By her third day, she was helping to dress herself and was voluntarily using the toilet, though her incontinence problems were to persist. After two weeks, she seemed ready for another expansion of her world, and was released into the hospital's Rehabilitation Center, a single-story building with a yard and a play school, set apart from the hospital proper. There she was free to wander or watch, or to join in playing games and using arts-and-crafts materials alongside much younger patients. While they learned creative discipline, she learned freedom. She discovered that when she dropped things, even things that broke, she was not admonished, and might, in fact, be encouraged to repeat the action. Her response to this license was what James Kent called "the most spontaneous and sustained" of her affective reactions. "She entered quickly into a ritual play," he reported in his 1972 symposium paper, "during which she would eventually destroy the object. The nervous, tense laughter first associated with these episodes gradually changed to a relaxed and infectious laugh that
would sometimes double her up and bring tears to her eyes. She would often accompany her own actions with cries of “Stop it”—burst out laughing and repeat the action.” Despite the disapproval of some on the staff, who feared that Genie would go too far in this atmosphere of permissiveness (as she indeed seemed to do one day when she gleefully jumped all over her new eyeglasses and threw them onto the roof), Kent condoned her small orgies of destruction, seeing them as “attempts at active mastery of formerly traumatic situations.”

Actions that would have earned a normal child a spanking seemed in Genie to be healthy signs of emergence. One day in early spring, she made hitting gestures at a new girl in the Rehabilitation Center, much to the surprise and pleasure of her observers. Previously, her rage had been directed inward. Susan Curtiss wrote in her dissertation, “Genie would erupt and have a raging tantrum, flailing about, scratching, spitting, blowing her nose, and frantically rubbing her face and hair with her own mucus, all the time trying to gouge or otherwise inflict pain on herself—all in silence. Unable to vocalize, Genie would use objects and parts of her body to make noise and help express her frenzy: a chair scratching against the floor, her fingers scratching against a balloon, furniture falling, objects thrown or slammed against other objects, her feet shuffling. These were Genie’s noises during her sobless, silent tantrum. At long last, physically exhausted, her rage would subside, and Genie would silently return to her undemonstrative self.”

Now, finally, Genie had turned some anger outward, aiming it at a source of frustration. She was upset with the new girl because she was wearing a dress from the hospital laundry which Genie had formerly worn; the episode was the first indication that Genie was developing a sense of self.

She already had a sense of possession; she hoarded found objects—books, paper cups, and anything made of plastic. Gradually, she showed signs of extending that possessiveness to people. From the start, her routine had included daily walks around the grounds with James Kent, and, on most days, a drive with him to a local store or park. As was her habit, she seemed curious about him and glad to see him...
When he arrived but did not show in any way that she distinguished him from anyone else or mourned his absences. A month passed before a fleeting facial expression indicated that she registered his departures; finally, after another month, she reached over one day and took his hand to detain him. From then on, she would pull him back down to sit beside her when it was time for him to go. She cared not at all for other children; her attachments were to adults—especially to men who, like Kent and Shurley but unlike her father, wore beards.

She made friends with women as well—particularly with a woman named Jean Butler ("Miss Butler" to the children, a title Genie abbreviated to "Mibbi"), who administered the special-education program at the Rehabilitation Center, under the aegis of the Los Angeles Public School District. Genie also befriended the center’s handyman and a couple of the cooks, and it was to the latter that she turned early one morning when an earthquake hit Los Angeles. Running into the kitchen, she began verbalizing so profusely that one of the cooks commented later that if there had been one more tremor Genie would have achieved normal speech on the spot. And she was achieving speech, if not quite on the spot. Her curiosity about her new surroundings sent her on a constant quest for the names of things. She would lead one or another of her caretakers around, using their fingers to touch or point to objects, while they said the corresponding words. "Hungry to learn the words for all the new items filling her senses," Susan Curtiss wrote, "she would at times point to the whole out- doors and become frustrated and angry when someone failed to immediately identify the particular object she was focused on."

Yet, although Genie’s vocabulary increased, her speech stayed limited to a few short utterances; it soon became clear that she was understanding more than she could produce. During a class at the Rehabilitation Center one day in May, Jean Butler asked a boy who was holding a couple of balloons how many balloons he had. "Three," the child said, and Genie, looking startled, handed him the extra balloon he needed to make his answer correct. Intelligence tests were now being administered to her, and she was showing remarkable progress, gaining in some areas a year in development every few months. She showed what experts in child development refer to as scatter: on some skills—in the performance of such routine tasks as bathing herself, for instance—she scored the same as an average nine-year-old; on others, such as her almost complete inability to chew food, she scored as a toddler. Within the scatter, language remained near the bottom.

She was, at any rate, exceeding expectations, and in May her progress suddenly accelerated. Her vocabulary quest became more assertive, and her spontaneous (if largely incoherent) verbalizing more frequent. She gained confidence in her movements, and began actively engaging in horseplay. She wanted to be carried piggyback, or to be swung around in the air like a whirligig. She was thrilled when someone holding her pretended to let her drop. "A great change from the child we saw at admission who shrank from most physical contact," Kent noted in his symposium paper.

May of 1971 was also decision time, when, under the terms of the N.I.M.H. contract, the consultants who had been observing Genie were scheduled to convene to consider her future. Several less formal meetings had been held, but this was the official one, on which the decisions about therapy and research and the application for a long-term grant would be based. David Rigler and Howard Hans sen sent out the invitations; participants were booked into the Hollywood Plaza Hotel, on Vine Street. The first evening—Sunday, May 2nd—they were invited to Hansen’s house “for drinks and chatter.” The next morning, the chatter over, the discussion began in earnest, in the boardroom of Childrens Hospital.

The stakes were clearly high. From time to time, closet children (as imprisonment cases like Genie’s have been called) and wild children (children abandoned as infants in the wilderness) have surfaced, and they have traditionally given rise to very visible science. Visible, difficult, and usually, in the long run, dubious.

The first feral child to come to the attention of what might be called modern science was Victor, the Wild Boy of Aveyron, a pitiable creature discovered in January of 1800 lurking naked in front of a tanner’s cottage in
the Languedoc region of southern France. He was almost completely wild, having reached an age of approximately twelve in a state of independent savagery, living in the woods and eating acorns and pilfered potatoes. He had no language; his last human contact seemed to have been with whoever had cut his throat and left him to die when he was little more than a toddler. “Rescued,” he was brought to Paris, to the Institut National des Sourds-Muets, there to be observed, taught, tormented, and loved by a young physician named Jean-Marc-Gaspard Itard. So varied and fruitful was Itard’s career that it gives an impression of professional profli-gacy; he has been called the father of child psychology and the father of the study of ear, nose, and throat disorders. Victor was his most celebrated and most frustrating subject.

The emotional connection between the ambitious teacher and his strange student is apparent from Itard’s notes. Itard tells of the remorse he felt when his pressuring induced quiet tears or sobbing tantrums, of how he would sit immobile for minutes while Victor sat before him fondly caressing and kissing the teacher’s knees. Even so, Itard could not refrain from using the boy’s affection as a tool—challenging his trust by terrorizing him with a Leyden jar (a sort of battery that can deliver a shock), and unfairly punishing him over his lessons to test his sense of justice. Victor knew enough about justice to be outraged, and Itard found the outrage edifying. Under Itard’s aggressive instruction (he once dangling the boy from a fifth-story window to frighten him out of his recalcitrance), Victor made some hard-won headway. He learned to spell the French word for milk, and on visits to a neighbor’s home would take along the appropriate letters from the institute’s metal teaching alphabet so that he could spell out “LAIT” while downing a glass of it. But he never learned to talk.

He was nonetheless influential. In 1912, the Italian educator Maria Montessori called Itard’s work “practically the first attempts at experimental psychology,” and she based some of her innovations on his experience with Victor. The metal cutouts of letters and shapes still common in Montessori classrooms are descendants of the ones that Victor used. In other ways, too,
the world is different for Victor's having come under scientific scrutiny by men who understood methodology and the merits of objective observation. Even so—as Thierry Gineite, the reigning expert on the Wild Boy, contends in his book "Victor de L'Aveyron: Dernier Enfant Sauvage, Premier Enfant Fou"—the useful knowledge arising from the case was limited by how little was learned about the boy's past and about his potential. He remained, finally, an enigma.

Among the wild children discovered over the last seven centuries, more than fifty have been documented. The list includes the Hesse wolf-child; the Irish sheep-child; Kaspar Hauser; the first Lithuanian bear-child; Peter of Hanover; the second Lithuanian bear-child; the third; the Karpfen bear-girl; Tomko of Zips; the Salzburg sow-girl; Clemens, the Overdyke pig-child; Dina Sanichar of Sekandra; the Indian panther-child; the Justedal snow-hen; the Mauretanian gazelle-child; the Teheran ape-child; Lucas, the South African baboon-child; and Edith of Ohio. Investigations of these cases were generally marred by an excess of enthusiasm and a lack of methodology on the part of those who could have turned the children's misfortunes into revelation; by Genie's advent, a sorry pattern of missed opportunities had been established. "When an experiment like this comes along, there is intense excitement, and intense pressure," Jay Shurley remarked to me. "People tend to operate in excess of enthusiasm and a lack of methodology on the part of those who understood methodology and neurologists from all over the country. When they convened, their discussion was shaped as much by an event of the evening before as by the first day's testimony.

It is one of the resonant curiosities of Genie's story that her discovery coincided with the Los Angeles premiere of François Truffaut's "The Wild Child," a movie that tells the story of Itard and Victor, l'Enfant sauvage de L'Aveyron. Between the newspaper accounts of Genie's rescue on page 1 and the cinema ads in the entertainment section, art and life seemed to be doing a do-si-do. At four-thirty Monday afternoon, the day's testimony flowed through dinner and into the next morning's session, but anyone who may have hoped that the film would promote accord among the attendees was quickly disabused.
than before, moral concerns seemed to
and what, in the course of that reveal-
what Genie could best reveal to science
prepared to see to confirm our own
"There were so many things com-
moral." After the movie, even more
constraints on research, legal and
tence "Rigler talked on second day on
the Tuesday meeting include the sen-
ing, science could ethically ask of
be on everyone’s mind.
learn from her should be a secondary
uppermost, and that anything we might
in terms of therapy, would have to be
uppermost, and that anything we might
learn from her should be a secondary
consideration, and should be done
within the context of her therapy.”
Shurley told me. “Others said that this
was too great a scientific opportunity—
that research had to be primary.”
Three months after the conference,
Rigler elegantly expressed the interde-
pendence of the two themes in a letter
to Jean Butler. “Justification for these
[N.I.M.H.] funds was the scientific
importance associated with the study of
this child, study that was based essen-
tially upon successful rehabilitation,”
he wrote. “Theories of child develop-
ment hold that there are essential ex-
periences for achievement of normal
psychological and physical growth. If
this child can be assisted to develop
in cognitive, linguistic and social, and
other areas, this provides useful infor-
mation regarding the critical role of
early experience which is of potential
benefit to other deprived children. The
research interest inherently rests upon
successful achievement of rehabilita-
tive efforts. The research goals thus
coincide with [Genie’s] own welfare
and happiness. Conversely, if our re-
search methods were to interfere with
[her] development, they would defeat
the very purpose of the research.”
In Shurley’s recollection of the
conference, science was already inter-
ferring. “Dr. Rigler and others argued
for the primacy of research—couched,
of course, in ethically sensitive terms,”
his told me. The meeting ended in
what one conferee called “some con-
siderable confusion.” Rigler was left
with the chore of digesting all the
debate and deciding the nature of the
final N.I.M.H.–grant proposal—what
kind of work the grant should fund
and who should do it. The advice he
had received was, perhaps, more than
he had bargained for. “He looked like
a man who’s thirsty for a sip of water
and is handed a fire hose,” Shurley
recalled. In a post-conference letter,
Rigler and Hansen thanked the con-
feres for an “enriching exchange,”
and solicited their reactions to the
proceedings.
Those reactions soon rolled in, and
some had a warning tone. David Elkind,
a professor of psychology at the Uni-
versity of Rochester, wrote, “Although
language is not my area, I would like
to reinforce the words of caution I
expressed at the meeting. Too much
emphasis on language could be detri-
mental if the child came to feel that
love, attention, and acceptance were
primarily dependent upon her speech.”
David A. Freedman, a professor of
psychiatry at Baylor College of Medi-
cine, in Houston, argued that the ac-
quision of speech might be dependent
on what he, like Elkind and the cook,
called love. He rejoiced in the evidence
of Genie’s progress which was pre-
sented in the videotapes, noting the
“very dramatic . . . change in her ap-
pearance from apathy, to a wan and
pitiable appearance, to an at times
animated and involved little girl, which
seemed to correlate with the passage of
time.” But his clinical experience with
other unfortunate children had taught
him to be cautious of the varnish that
videotape and optimism can apply to
such cases. He was unconvinced by
surfaces. He was looking for a thaw
at the center, and a visit he had had
with Genie had disquieted him:

When I arrived she was having her break-
fast. Although she sat at the table with two
other children who were engaged in fairly
typical childish conversation and play, she
had nothing to do with them. It is difficult to
put into words the feeling I had about what
she did. I don’t think it would be accurate to
say she actively ignored or rejected them.
Rather it seemed to me that it was as though
for her they were no different from the walls
and furniture in the room . . . The question
becomes how to go about inducing in this
child the ability to be aware of both herself
and others and feel an interest in and need
for others. My prejudices say that if this goal
can be achieved she stands a chance of lead-
ing a relatively normal life; if [it] can’t, she
will remain an automaton. My prejudices
also say that to achieve this goal it will be
necessary for Genie to establish a particularly
close relationship with some one person whose
care for her will include the provision of a
good deal of body pleasure. I’m referring to
something analogous to what any good mother
automatically and unconsciously provides her
infant as she bathes, feeds, and diapers it.
Obviously this won’t be easy to do for a fourteen-
year-old. Yet, I believe a necessary precursor
to any effective educative process would be
her development of an intense, dependent
attachment to some one person whom she
would be interested both in identifying her-
sel with and pleasing . . .

Without the creation of such an attach-
ment, and all it implies with regard to Genie’s
need to attempt to maintain it, I doubt whether
she will have the equipment to integrate what-
ever skills she develops. I believe something
along this line was implicit in the sense of the
group when we were all in accord that it
would not be indicated to attempt to train
Genie in talking. . . . She should be, in my view, bathed, clothed, and taught. . . . He pulled potatoes out of the fire with his bare hands, and he cavorted naked in the snow. Like Genie, he seemed not to make distinctions between what could best be perceived by feel and what by sight, suffering from what one attending scientist termed "a dissonance of vision and touch."

Like Genie, he was substantially oblivious of the existence of anything but himself. ("I am dismayed to see the natural man so egotistical," reported J.-J. Virey, one of Victor's first observers.) As would be the case more than a century and a half later, the egotism seemed, at least on the surface, gradually to melt. Like Genie in the Rehabilitation Center, Victor adopted as a favorite activity the setting of the table. One day, he set a place for the just deceased husband of his loving caretaker, Mme. Guérin, and her tears astonished him; it was his first encounter with human grief. He put the place setting in the cupboard and never brought it out again.

As with Genie, Victor's discovery occasioned a sideshow, though on something of a grander scale. His arrival in Paris from the departmental capital of Rodez—the trip, by coach, had taken a week, during which the boy was kept sequestered Victor from the more inquiring attentions; later, however, the foundling's parents and was said to have fled into the forest; however, the foundling's parents and was said to have fled into the forest. Like Genie, he was substantially oblivious of the existence of anyone but himself. ("I am dismayed to see the natural man so egotistical," reported J.-J. Virey, one of Victor's first observers.) As would be the case more than a century and a half later, the egotism seemed, at least on the surface, gradually to melt. Like Genie in the Rehabilitation Center, Victor adopted as a favorite activity the setting of the table. One day, he set a place for the just deceased husband of his loving caretaker, Mme. Guérin, and her tears astonished him; it was his first encounter with human grief. He put the place setting in the cupboard and never brought it out again.

As with Genie, Victor's discovery occasioned a sideshow, though on something of a grander scale. His arrival in Paris from the departmental capital of Rodez—the trip, by coach, had taken a week, during which the boy was kept sequestered Victor from the more inquiring attentions; later, however, the foundling's parents and was said to have fled into the forest; however, the foundling's parents and was said to have fled into the forest. Like Genie, he was substantially oblivious of the existence of anyone but himself. ("I am dismayed to see the natural man so egotistical," reported J.-J. Virey, one of Victor's first observers.) As would be the case more than a century and a half later, the egotism seemed, at least on the surface, gradually to melt. Like Genie in the Rehabilitation Center, Victor adopted as a favorite activity the setting of the table. One day, he set a place for the just deceased husband of his loving caretaker, Mme. Guérin, and her tears astonished him; it was his first encounter with human grief. He put the place setting in the cupboard and never brought it out again.

As with Genie, Victor's discovery occasioned a sideshow, though on something of a grander scale. His arrival in Paris from the departmental capital of Rodez—the trip, by coach, had taken a week, during which the boy was kept sequestered Victor from the more inquiring attentions; later, however, the foundling's parents and was said to have fled into the forest; however, the foundling's parents and was said to have fled into the forest. Like Genie, he was substantially oblivious of the existence of anyone but himself. ("I am dismayed to see the natural man so egotistical," reported J.-J. Virey, one of Victor's first observers.) As would be the case more than a century and a half later, the egotism seemed, at least on the surface, gradually to melt. Like Genie in the Rehabilitation Center, Victor adopted as a favorite activity the setting of the table. One day, he set a place for the just deceased husband of his loving caretaker, Mme. Guérin, and her tears astonished him; it was his first encounter with human grief. He put the place setting in the cupboard and never brought it out again.
The public's interest in Victor was not just morbid. Modern children who are abused or neglected draw our attention because we see them, usually, as disturbing exceptions, albeit symptomatic ones, to society's prevailing order. In France in 1800, order was not presumed; the Committee of Public Safety and the Reign of Terror had taken care of that. Even in the prevailing order of earlier, calmer eras, children did not enjoy their current cosseted status. The Enlightenment's emphasis on the worth of the individual had been extended to individual children, but in a grudging sort of way, and the expedience of leaving them—at least, the unwanted ones—to die in the woods was not unheard of and not altogether shocking. The boy found naked in the tanner's doorway was interesting to his country's citizens not because his brutal history astonished them but because the Enlightenment and the Terror had honed an appreciation of certain questions that the boy might be able to address—questions about the nature of man. Strange as it seems in an age in which philosophy is a thing apart from pop culture, the betting sheets in the journaux of Paris were a street referendum on the ideas of Montaigne, Rousseau, Descartes, Comdillac, and Locke.

Whatever its more general effects, the Revolution seemed to have worked to Victor's advantage. Foremost among its courtesies was its timely end, which permitted a renewal of interest in things scientific. During the preceding decade, Paris had not been a happy place for scientists, among others. Intellectual independence had been considered almost as subversive as priestly piety. The Society of Observers of Man, the anthropological organization that initiated the research on Victor, was only a month old when he was discovered. Ten years earlier, the Revolutionary government had sanctioned the institute where he was to live, adding "National" to its name and supporting it from state coffers. The deaf had been considered subhuman, before the school's successful efforts to teach them sign language, and had been locked away in the purgatory of the Bicêtre asylum, with criminals, epileptics, and the insane. For the government, the new ability of deaf people to communicate was a symbolic resurrection, a metaphorical promise to the voiceless of all kinds. The government had also
appointed a doctor, Philippe Pinel, to run Bicêtre, instead of the usual poli- 

tician. Pinel would become known as the father of psychiatry. Like Abbé Sicard, the director of the Institut National, he played a role in Victor’s education: the two proclaimed him unsalvageable, and the basis for a new species, Homo fenna. 

Vicor, even before he reached Paris, was debunking some of the prominent theories. To the dismay of the upright-

Vicor looked at his papers, he was seen, dur-

Vicor’s theories, he would see, that man brings nothing with him, that he is only a man. 

Montaigne said, in an essay of 1580, "I believe that a child brought up in complete solitude, far from all inter-

confusion collapsed. Articulation of vocal sounds was another promising criterion, except that magpies could also do it pretty well, and New World parrots marvellously. And the ability to express emotions was the property of any pet. So hotly contested was the border between man and animals that the Indians discovered in the West by Columbus were not accepted as human until they were conclusively decreed to be so by a papal bull, in 1537. In Condillac’s time, the orangutan’s possible humanity was so seriously con-

Clearly, some defining event was needed. The scientists of the age, like physical anthropologists of a later day, 

sought a missing link—in this case, a living one, someone or something perched squarely on the species’ fron-

ter. By their orthodoxy, that would have to be either a talking ape or a human being reared without human contact, like an animal in the wild. 

For Vicor, all this distilled into a make-or-break equation: no matter whether he crawled or crept, if he could talk he would be judged human. The equation was different, but hardly less compelling, for Jean-Marie Itard. If he could resurrect the boy from savagery, he would pro-

duce what he termed “concrete proof” of Condillac’s theories. He would demon-

strate that man brings nothing with him, that education is all. 

However, for the young teacher and his young charge the beginnings of language were difficult to locate. In the 

drafty apartments of the Institut National, the two suffered together through one or another draconian teaching scheme for two years before Itard finally developed a system that showed some promise. He trained the boy to recognize certain written words and to connect those words with individual objects—the word chaussures, for in-

stance, with a particular shoe. This accomplishment led to a game—a combination of flash cards and hide-and-seek, in which Itard wrote a word and Vicor ran around their chambers seeking its correlate. Then Itard took the game a step further, depriving Vicor of the specific shoe and making him seek others, thus forcing him to form a generalized notion of the word’s meaning. For a while, the boy was off on a rocket ride of comprehension. He learned not only to find an object if he was presented with its written name but also to write the name when he was shown the object. And not just objects: he learned adjectives and verbs as well, with which he could both comprehend and concoct written sen-

tences. Interestingly, even a little bit of language seemed to open up new ways of thinking for him. The boy
Build Muscle, Lose Fat!

Only NordicRow TBX burns calories two ways instead of just one. First, its aerobic exercise burns calories and builds endurance. Then, its resistance exercise builds the muscles you need to increase your metabolism and burn fat at a faster rate. Studies show exercise burns calories and builds endurance.

HILISBORO, NM
We grind our own flours daily
1-800-24-BREAD $39.95
Stingstuning

FREE VIDEO AND BROCHURE, CALL 1-800-468-4491
Or Write NordicTrack Dept. 110038 Jonathan St. 
Cincinnati, OH 45213

Build Muscle, Lose Fat!

FREE Catalog
Teak and Mahogany Outdoor Furniture
Precision-cut Kits or Fully Assembled
All-weather furniture of enduring beauty and character. Crafted to last a lifetime. Classic garden benches, porch swings, chairs, tables, rockers and lounges. Available fully assembled or as precision cut kits that are easy and fun to put together. Call or write for FREE COLOR CATALOG.

WOOD CLASSICS
Box 2715, Gardiner, NY 12525
(914) 255-7871

give Bless your Heart
Bread Bouquet
with Raisin Date Medallions and Zante Currant & Oat Pecan Bread

when Noam Chomsky professes the innate nature of language, citing the inadequacy of the input the child receives from its encompassing world, and when Catherine Snow responds that she is sure the child must glean most of its language from its surroundings, they are doing Cartesian and Lockean roles. Genie intruded into that argument, and fell into a wonderland of ancient rivalries. Her Hansens and Kents were children of Pinel, her Jean Butlers were the questions of the Enlightenment went underground, they didn't go far. Just when we think we have moved on to more modern perils in the Age of Decconstruction, they recur.

When Noam Chomsky professes the innate nature of language, citing the inadequacy of the input the child receives from its encompassing world, and when Catherine Snow responds that she is sure the child must glean most of its language from its surroundings, they are doing Cartesian and Lockean roles. Genie intruded into that argument, and fell into a wonderland of ancient rivalries. Her Hansens and Kents were children of Pinel, her Jean Butlers were the questions of the Enlightenment went underground, they didn't go far. Just when we think we have moved on to more modern perils in the Age of Decconstruction, they recur.
The audience laughed. The speaker finished arranging her papers and looked up. “As by now you probably know, I’m Lila Gleitman,” she said. “And basically what I want to talk about is this.” She walked over and hit the screen a sharp one with a pointer. “What took three days?”

What Took Three Days has been Gleitman’s obsession for the last several decades, during which she has become, rather despite herself, an ardent Chomskian. “People say, ‘That Lila, she’s just this crazy rationalist,’” Gleitman told me over lunch the day after her speech. “She thinks everything’s innate.” But I started out as a hard-core empiricist, honest! I designed my studies to prove the empiricist position, and I couldn’t ignore it when they showed me to be wrong.”

One of the experiments she designed was directly inspired by empiricism’s patron saint. “Locke said, ‘Look at blind people—there should be some things they can’t learn,’” she told me. “So we did the experiment. We thought, We’ll see how experience guides language learning. But what happened was that the blind children learned things they shouldn’t have been able to. They knew the answers to things beyond their ability to experience. That was very upsetting. Well, we were happy at this victory of the human spirit but unhappy at having wasted our time with blind children. I figured the experiment had failed—simple as that! I went to my husband, Henry”—Henry Gleitman was then the chairman of Penn’s Psychology Department—“and he said, ‘So how did the kid learn the answer?’ I said, ‘Oh, that’s not important,’ and I went to Cambridge to talk with Chomsky. He was very interested. He said, ‘So how did the kid learn the answer?’ This was a little epiphany to me. I said, ‘Oh, boy, I’m in trouble. Chomsky the mad rationalist and Henry Gleitman the mad empiricist agree on this.’ So we went back, and the only explanation we could find was that the child was being guided by syntactic rules within the question—rules he already understood. The syntax tells the answer.”

To the linguists assembled in the Stanford auditorium Gleitman had said, “I’ve done everything I could think of to kids to show that they were responding to the world, and not to...
some inner quality. We started... testing the effects of good and bad mothers, but they didn't have any effect. So we ripped the ears off of kids—we tested deaf kids. Then we tore their eyes out. Still, you know what? The tested deaf kids. Then we tore their ears off of kids—we mothers, but they didn't have any effect. So we ripped the ears off of kids—we mothers, but they didn't have any effect.

The human child has a massive resistance to conditions, because he is going to learn language no matter what. You take away language, he invents one. We even did a nice study of preemies. They have the same experience in the world as full-term children do, but they’re at a different physiological stage. It turns out that the age since conception is better as an indicator of language performance than the age since birth. Now, surely, observation of the world is one source of evidence. You can’t take all forms of perception away from children. If you did, they would be falling off ledges and mistaking tigers for kitty cats, and pretty soon there wouldn’t be any more children. But children aren’t learning language from experience. They learn words from experience. They bring the sentences with them."

In the innatism to which Gleitman was a convert, the Three Days question was not “How do children learn language?” but “How does language flower out of the child?” What happens in the mind to permit that burgeoning comprehension? Gleitman had already found a piece of the puzzle: she showed that the Three Days clock is set at conception. But when does the clock run down? Is there a set deadline to language learning? This was the question to which Genie’s arrival was so explicitly timed. It burst into prominence in 1967, three years before her discovery, with the publication of a book by the Harvard neuropsychologist Eric Lenneberg called “Biological Foundations of Language.” The book was in some ways more revolutionary than Chomsky’s of a decade earlier—more revolutionary for being more concrete. Lenneberg played Lenin to Chomsky’s Marx, itard to Chomsky’s Condillac. As Catherine Snow puts it, “Chomsky’s brain, the linguist’s brain, has no nerves in it; Lenneberg gave it a biologist’s brain, with a cortex and lobes and axons and dendrites.”

Chapter 4 of “Biological Foundations of Language” presented what has since been called the critical-period hypothesis. It suggested that the brain is able to learn a primary language during a certain early period, and not later on, and it proposed physiological explanations of why this might be so. Lenneberg’s innovation lay in those explanations; the idea itself had been around for a while. The Swiss psychologist Jean Piaget had spent his life observing and investigating the stages at which children develop certain capacities. According to Lenneberg, the child’s ability to learn its mother tongue effectively ends at the onset of sexuality. If Chapter 4 were to be borne out, it would have the effect of vindicating Chomsky, for how could language be tied to our biological clock if it weren’t tied to our biology?

His concreteness notwithstanding, Lenneberg was, like Chomsky, a theoretician. What was needed was a clinician’s validation, but the clinician would need something to work with: a child who had exceeded Lenneberg’s deadline—who had passed twelve and hit puberty—but was still embarking on learning language for the first time. After 1967, there was a yearning in the linguistic field for a proper young arbiter—someone who could do for Lenneberg and Chomsky what Victor of Aveyron had been meant to do for Condillac.

The accounts in Susan Curtiss’s dissertation of Genie’s progress in the hospital during the spring of 1971 are all secondhand, gleaned from videotapes and interviews. Until after the consultants’ conference, in May, the U.C.L.A. graduate student and the subject who would shape her career had not even met. On June 4th, that situation changed: Curtiss accompanied Victoria Fromkin on a visit to the hospital.

She found the setting itself daunting. “I was never a person who thought of being a nurse or doctor,” she told me. “I’ve never been comfortable in the children’s ward of a hospital. I’m not good in hospitals. It’s not my strong suit. I was also scared—or, at any rate, nervous.” And with reason. To an unacclimated sensibility, Genie was a true grotesque. She was barefoot on the morning Curtiss met her, her tininess exaggerated by a dress that was too long, her movements jerky, her teeth jagged and discolored, her hair thin. Curtiss describes her as “pitiful and strange,” and something else: pretty. The scientist was enthralled by the softness of the child’s manner, her beautiful skin, the blush in her cheeks, “almost as if an artist had painted each one of them carefully and delicately,” and her upturned nose, “finely drawn like that of a china doll.” She soon learned that Genie’s indiscriminate spitting, scratching, nose-blowing, food-flicking behavior could be somewhat less appealing. “It was hard,” Curtiss said of the early contacts. “She was
very—Shewas—hmm—challenging.”

The timing of Curtiss’s arrival made her mission doubly difficult. Genie had not yet been trained into social acceptability, but in other ways she had progressed unfortunately far from her innocence of the autumn before. “In terms of watching Genie learn language,” Curtiss said, “I felt I was arriving a little late.”

Her tardiness was relative. If Curtiss had been at the hospital’s admissions desk on the day Genie arrived, she would have encountered a language person, in the sense that all children have some degree of language before they begin making use of it. Genie could not have acquired her meagre store of words if she had not previously mastered one of the most profound early tasks of any language learner: she had learned to separate meaningful sounds from the general cacophony surrounding her. In the words of Lila Gleitman in her address to the Stanford conference, Genie had “bootstrapped.”

“What Gleitman calls bootstrapping is called other things by other linguists, depending on their academic orientation. But the mystery is the same: How does the child divide a stream of sound into syllables and sentences that he can begin to make sense of? It is easy to understand the child’s bafflement. One has only to listen to an animated conversation in an unfamiliar language: our own language is built of discrete blocks, everyone else’s of quicksilver. It seems as hard to grab a word out of a foreign tongue as to clutch a fistful of water from a pond. Yet the child, for whom all tongues are foreign, does just that.

Scientists are not yet sure whether the young listener first grabs phonemes—that is, individual speech sounds—or syllables, which can be made up of one or more phonemes. In normal conversation, nine hundred phonemes race by each minute, and there is attached to most of them no meaning to indicate their significance. Words have meaning, but their variations in length and form are countless, their boundaries indistinct. In normal speech, we break words up and slur adjacent words together; sometimes we pause within words. And if words are devious, sentences are even more so.

Here, as elsewhere, babies seem to know more than linguists can explain. Babies are born with some feeling for or understanding of language on both the phoneme and the sentence level. Among the hundreds of phonemes used in the world’s known languages, only forty are found in English. Newborns in English-speaking families display a preference for those forty, possibly from having heard them in the womb. They respond to their mother’s native tongue. As the child ages, that discrimination becomes more pronounced.

ANOTHER GLORIOUS TRADITION CAME ASHORE ON KIAWAH ISLAND LAST YEAR.

From the Ryder Cup Matches played along The Ocean Course and the pageantry and excitement of our reclaiming the Cup. To much cherished memories shared by father and son. From families and good friends enjoying the charms of living near Charleston on an incredibly beautiful sea island. To the exhilarating, confounding game of golf along four of America’s highly acclaimed courses, Kiawah is the ideal setting to bring ashore traditions of your own.

NAME
ADDRESS

Golf by Nicklaus, Player, Fazio and Dye • Ten Miles of Sun-Splashed Beach • For Real Estate Information on Homes and Homesteads at Kiawah Island, Write PO, Box 12001 • Charleston, SC 29422 • Or Call (803) 768-3400 • 800-277-7008

The Beach Is Only The Beginning
the child becomes more and more of a specialist. An adult speaker of English cannot accurately hear the phonemes peculiar to Chinese or French, much less replicate them in speech, without intensive training. Interestingly, it appears that the newborn doesn’t so much develop his predilection for his mother tongue as let his perception of “foreign” phonemes atrophy. A Chinese baby is born with a developing bent for his native “r”-less language, but he can hear and pronounce “r”’s. An American baby can do the same for all the French vowel sounds.

An equally astonishing ability applies to sentences. In the mid-nineteen-eighties, Kathy Hirsh-Pasek, who studied at the knee of Lila Gleitman and now teaches at Temple University, was frustrated by one of the standard constraints of linguistics research: most testing is done verbally, and therefore only children who already have language are tested. What, she asked, did the prelinguistic child know? She and two colleagues devised methods to measure the responses of very young subjects. They played tape recordings of sentences to nine-month-olds and observed eye movements for telltale indications of recognition. When the sentence ended at the proper place, the child acknowledged it. When the sentence ended improperly, the child did not recognize it as language. The incorrect sentence was received in the same way as arbitrary noise. Hirsh-Pasek has applied this method to younger and younger children. She professes surprise at the further results. Infants of four and a half months can tell correct from incorrect sentences, and what’s more, they can do so for sentences both in Polish and English. The tests suggest that the ability that younger and younger children. She had cerebral palsy, but though she had cerebral palsy, but she hadn’t acquired enough to speak she was very tense, very breathy and soft. She couldn’t be understood. There was a lot of sound distortion, as though she had cerebral palsy, but there was no evidence of muscle or nerve damage. Also, she had a high pitched—high monotone. No pitch variation whatsoever.

Realizing how fruitless any attempt at formal research would be for the moment, Curtiss settled in for a summer of watching — getting to know the child, and trying to gain her confidence. She sat with the patients in the Rehabilitation Center and, usually accompanied by Rigler or James Kent, took Genie on excursions. “I would go by and take Genie for walks, or take her out to fast-food restaurants,” Kent recalled. “At first, a nurse would go along with us. The nurse and I were supposed to be like surrogate parents, giving Genie the feeling of a family structure. We would hear some language from her on these trips, so Susan Curtiss started coming along to hear what Genie said. Genie was soon attached to Susie more than to the nurse who was supposed to be her surrogate mom.”

The itineraries gradually expanded:

they went to the zoo; they went for walks in Griffith Park. Especially, they went shopping — an activity Genie liked so much that on the way to the shopping center she would point to every passing building and repeat one of her new words, “Store?” The local Safeway and a Woolworth’s were Genie’s emporiums of choice, and there she displayed to Curtiss her discovering brilliance at both offensive and charming behavior. She would attach herself to strangers whom she found interesting, grabbing their arms, putting her face directly in front of theirs and staring into their eyes. Or she would attach herself with equal fervor to their possessions, from which Curtiss would have to pry her loose.

One piece of merchandise she found irresistible was beach pails. On an outing in mid-June, Kent used Genie’s fascination with them to demonstrate a linguistic curiosity to Curtiss — a problem of definitions. He pointed to one plastic pail and asked Genie what it was. “Pail,” she said. He pointed to another, and she said “Bucket.” There was no discernible difference between the two, but Genie was resolute in her distinction. The pails were located in a section of Woolworth’s that Genie found especially enticing — an aisle of bright-colored plastic containers. Along with pails and buckets she coveted plastic necklaces, plastic purses, plastic trash cans — anything made of plastic.

When I asked David Rigler about the preference, the explanation upset him. “I think it was because of the bright colors and the texture,” he said. “We learned that during her isolation Genie had had some small plastic toys. She had had a plastic raincoat hanging on the wall across from her petty seat.” He paused, and then rushed on. “You visualize this house, and you picture this kid seated in this room, day after day, with very limited stimulation. She’s grasping for some kind of stimulation, and the things she can see play a very large role. There’s a plastic raincoat on the opposite wall.” Rigler bowed his head suddenly, as though dismissing something unbearable. “She liked plastic,” he concluded.

For Genie, the excursions were visits to a magic kingdom. Her innocent questing elicited extraordinary responses. A butcher at the Safeway saw how fascinated she was by the shrink-wrapped meat packages. He opened the service window and held out to her...
an unwrapped cut of steak, and she fondled, smelled, and studied it. In
like fashion, over the months, he offered for her inspection bones, chickens,
fish, and turkeys, all wordlessly, as though he and she shared a tacit un-
derstanding. Occasionally, when Curtiss reached the checkout counter the
cashier would produce a toy or a trin-
ket, with the explanation that "the
man ahead of you sensed she wanted
this and bought it for her." The gifts
were chosen with such uncanny accu-
racy and were tendered in such silence that Curtiss became
convinced that she was witnessing a pre-
natural communication—an explicit, unvoiced under-
standing—that her careful notebook analysis was un-
equipped to explain.

"Genie was the most
powerful nonverbal communicator I've
ever come across," Curtiss told me.
"The most extreme example of this
that comes to mind: Because of her
obsession, she would notice and covet
anything plastic that anyone had. One
day, we were walking—I think we
were in Hollywood. I would act like
an idiot, sing operatically, to get her to
release some of that tension she always
had. We reached the corner of this
very busy intersection, and the light
turned red, and we stopped. Suddenly,
I heard the sound—it's a sound you
can't mistake—of a purse being spilled.
A woman in a car that had stopped at
the intersection was emptying her purse,
and she got out of the car and ran over
gave it to Genie and then ran back to
the car. A plastic purse. Genie
didn't say a word."

Genie's more conventional com-
munication was improving. She still spoke
in one-word snippets, but with an
enhanced vocabulary. She was catching
on to the give-and-take of conver-
sation. She seemed, in fact, to have
gained roughly the level that Victor
had achieved at the Institut National
de Sourde-Muets: she was forming
social attachments and had picked up
enough crude language (though hers
was spoken, while Victor's was writ-
ten) to express her needs. Great
attention had been paid all along, of
course, to even the smallest signs of
Genie's psychological state. When
David Elkind met her, he noticed that
she retrieved an item from her dresser
drawer. "She had the idea of object
permanence," he told me. "That's a
major cognitive step for a child. Does
something exist when it is not present
to our senses? Children don't get that
until after their first year." He also
witnessed her attempts to bark like a
dog she had heard earlier in the day.
"That's a deferred imitation, and the
delay is mediated by mental imagery,"
Elkind said. "So she was into her
preoperational period."

"Preoperational period" is the termi-
ology of Piaget, the Swiss psy-
chologist who believed that
children have critical peri-
ods not just in language acqui-
bition but in general mental development. The
mind doesn't expand only
by learning, he said. It un-
follows naturally from within,
going through predictable
stages as the child matures.

Preoperational thought is the second of
those stages. Piaget saw the growth of
language as tied to the growth of
thought, as though it were a branch on
the cognitive plant. Chomsky is in-
clined to see language learning and
cognitive development as independent
plants in a common garden. It was
another dispute that Genie might shed
light on eventually, but in the mean-
time Curtiss's evaluation of Genie's mental level concurred with the Piaget
scale. The fervent search for names of
things placed her at the beginning of
preoperational thinking.

By all measurements, then, Genie
was equipping herself to break out of
her emotional isolation, her egocen-
trism. There might well be an inter-
mediate step. According to L. S. Vygo-
sky, a contemporary of Piaget's who
applied the Master's theories to lan-
guage, the name-learning stage is fol-
lowed by a period in which the child
uses its new vocabulary to speak to
itself, to encode its inner ideas. Vy-
gotsky's theory embellished Hey-
mann Steinthal's old formulation:
perhaps, behind her inscrutability,
Genie was building self-awareness—
understanding herself as she was un-
derstood by others, for "that is the be-

ing of language." "Through the sum-
mer and on into the fall, Susan Curtiss
jotted down Genie's every utterance,
all her sporadic, inchoate talk, and
waited for the day when she might be-
gin to reveal herself.—Russ Rymer

(This is the first part of a
two-part article.)

THE NEWYORKER

THERECHANCESTRETREAT

tryadinereointapproach
toweightloss

Begin losing weight and learn how
to change your lifestyle to
improve health and remain trim
for the rest of your life. While you're
 pampered by The Omni Hotel at
Charleston Place, in the heart of
historic Charleston, S.C.

May 3 - 17, 1992

For more information on this
or following retreats, call or write:
Medical University of South Carolina
Weight Management Center
171 Ashley Avenue
Charleston, SC 29425
1-800-553-7489, 1-803-792-2273

ARDenGOYLES

Protect your garden from gremlins
with this delightful alternative to a
scarecrow. Our hand-cast replicas of Medieval
originals make a truly
unique accent anywhere
about your grounds. Use indoors,
too.

FREE BROCHURE.

Outdoor Scarecrows
(iron, greystone, antiquestone)
12°-568 ($12.50 shpg)
18"-$108 ($28.50 shpg)

1-800-525-0733, ext. 177
design TOSCANO
71 Campbell St, Dept. 177
Southbridge Hgts, IL 60005

Silver Broccoli Pin

Neopost Smithsonian James Breakell
cooks up a deliciously detailed stalk
to pin on lapel or apron. Hand
cast in sterling $35 or 18k gold $376.
Add $25.00 shipping.
VISA,MC,AMEX 1-800-767-6411

12°-568 ($12.50 shpg)
18"-$108 ($28.50 shpg)

Send $2 for color catalog.

J.H. Breakell & Co.
29 Mill Street, Dept. NYBR5
Newport, R.I. 02840
In November of 1970, a thirteen-year-old girl came to live at Children's Hospital of Los Angeles. Since the age of two, Genie (her scientific pseudonym) had been kept under restraints in a bedroom of a modest house in the Los Angeles suburb of Temple City. Her jailers were her parents, called here by their first names, Clark and Irene. Clark committed suicide soon after Genie's discovery; Irene, who was nearly blind and had engineered her daughter's escape, was absolved in court of responsibility for the girl's imprisonment.

Having lived for eleven of her thirteen years in virtual solitary confinement, Genie was unable to talk when she arrived at the hospital. She quickly became an object of intense interest to a host of doctors and scientists, among them Howard Hansen, the head of the hospital's Psychiatry Division; the division's chief psychologist, David Rigler, who proposed to direct a multifaceted study of Genie, to be funded by the National Institute of Mental Health; James Kent, the doctor in charge of her case; Jay Shurley, a psychiatrist at the University of Oklahoma who specialized in cases of extreme isolation; and Susan Curtiss, a graduate student at the University of California at Los Angeles, whose field was language acquisition in children, and whose doctoral dissertation on Genie became the child's definitive scientific biography.

Curtiss's dissertation makes no mention of the most significant event of Genie's first summer of freedom. But it was documented by Jean Butler, Genie's teacher at Children's Hospital's Rehabilitation Center, with whom Genie had developed a strong rapport. Butler's account was written in the form of a diary:

June 23, 1971—I signed the necessary papers at the Hospital in order to be a volunteer and take Genie on field trips and to my home.

"Home" was a two-story house a block from the Wilshire Country Club, on Cahuenga Boulevard—a house that seemed somewhat beyond the means of a schoolteacher with an income of thirteen thousand dollars a year. But Jean Butler was doing all right. She had recently turned down an offer amounting to almost a quarter of a million dollars for twenty-five acres she owned near the Leisure World retirement village in Orange County. She came from a wealthy Midwestern family; she was unmarried, and she supplemented her income occasionally by writing children's books. Her house had a guest bedroom downstairs, where Genie could sleep.

Not long after she had signed the papers, Butler called the hospital with dire news: she was ill, and her illness had been diagnosed as rubella. Genie had been exposed, and though she never came down with the disease she was at that point presumed to be contagious. Rubella is a havoc wrecker in schools, but in the light of Genie's past there was no humane way to isolate her. The obvious solution was to quarantine her with her teacher, and on July 7th she moved in.

"It was apparent that Genie was happy to be in my home," Butler wrote in her journal. But Butler herself was less than happy to entertain house calls from various members of what she termed the Genie Team. Butler's disparagement of Genie's other caretakers had been evident ever since the May conference at the hospital, where scientists from around the country had gathered to debate Genie's future. She found Susan Curtiss inept, David Rigler self-important, James Kent overpermissive, and all of them ambitious and insensitive.

July 8—Student Susan Curtiss was in my home recording speech and attempting to amuse Genie. However, she followed the child and hovered over her most of the day. She had a notebook handy and discussed Genie's speech and lack of it and her eating habits in a critical manner in front of her... That
evening, Dr. Rigler phoned and I told him that the "help" he was giving me in the house was not helping me.

James Kent may have annoyed Butler the most. Among Genie's abiding enthusiasms was a fondness for masturbation. She was uninhibited by any concept of modesty, and was frequently an embarrassment in public. Butler believed that Kent, unwilling to constrain a child whose life had been disfigured by constraint, encouraged her in her habit—an allegation that Kent has denied.

The care and feeding that Genie received in the hospital had spurred her development, and not just in behavior. Among other physical transformations, she began developing breasts. Signs of her sexual maturity were splendid news to Curtiss and her faculty adviser, Victoria Fromkin. To properly test the critical-period hypothesis—the theory of the neuropsychologist Eric Lenneberg that a first language can be learned only during childhood—they needed to observe the language-learning attempts of someone past puberty. It was a heartrending serendipity. David Rigler once showed me calendars he had made to follow Genie's progress in conquering her bed-wetting. They illustrated eloquently the child's awful dilemma. There amid the dry days and the wet days were marked the days she had her menses. She was getting her period and being toilet-trained, all at the same time.

"I expressed my fear to Dr. Kent that Genie was being experimented with too much and not being allowed to relax," Butler recounted in her journal. "He said this was necessary." Butler did not feel that she was alone in her concerns.

July 13—Sue Omansky of the Department of Public Social Services visited my home. . . . [She] was extremely critical of putting this child on display as a guinea pig and objected to the U.C.L.A. student hovering and jotting down everything said by the child. Miss Omansky expressed her belief that these men were using Genie to gain fame.

As the summer progressed, the tensions between Butler and the scientists sometimes erupted into full-volume arguments. Her house became the field for a jurisdictional battle of Titans. Sue Omansky, in her position with the D.P.S.S., was Genie's de-facto guardian. Her department had little interest in making Genie accessible to researchers from Children's Hospital; still, the two institutions were bound together in Genie's name. They had been conferring for months about how to get the child out of the Rehabilitation Center and into a private home. Now the rubella had forced the issue. Butler applied to the D.P.S.S. to become Genie's foster parent, and Omansky felt that the teacher's home was suitable for a permanent placement. But her D.P.S.S. supervisors, after their discussions with Children's Hospital, had reservations. For one thing, it was against hospital policy to place patients in the homes of people who worked at the hospital. For another, it was felt that Genie would be better off in a home with a foster father as well as a foster mother.

Butler had a handy solution to that problem: she decided to ask her lover to move in. He was Floyd Ruch, a psychologist who had taught for thirty years at the University of Southern California and had written a seminal textbook, "Psychology and Life." He was well-to-do and well thought of, but he was not unencumbered. Ruch was separated from his wife and was living alone, two blocks from Butler's house. In effect, though, he was already on the scene—enough so to be drawn into some of the quarrelling between Butler and the Genie Team. Butler's journal recounts a disagreement between her and David Rigler that turned into a midnight shouting match on the front walk, with Ruch rising to break it up. (Rigler doesn't recall the incident. "Oh, something like that might have happened," he told me. "We did argue about administrative stuff. But not shouting. And not at midnight.")

July 14—I asked Dr. Kent to have Miss Curtiss removed from my home, as she was no help but completely untrained and inexperienced with children and had no awareness of safety factors. Dr. Kent said it was necessary to have her here and the need for phonetic recording of speech attempts was more important than her lack of ability in helping with Genie. I pointed out that Genie did not talk around Miss Curtiss.

A few days after that entry, at the height of the conflict, came the episode

**PROSPECT PARK, HOLY WEEK**

The mean swan has returned to the pond; the white ducks are back; the wild ducks are out in the grass, bobbing between dark tufts of ramp; the drake's green head gleams like the jewel from a cocktail ring. A pale jet stream streaks the sky, a stretch mark on a mother's belly, and the late-afternoon sun is a bronze fruit that glazes the pond with its bronze juice. The black boys on mountain bikes, who pedal fast as they can down the hill, have drunk that juice, and the flushed white men who jog in their college shirts have drunk that juice, and the cyclist with dreadlocks and shiny black tights pedals his silent racing bike like that juice was sweet. And you can smell sweat in your hair and wet earth on the wind that stirs dried oak leaves and the sheer chartreuse of the willow. Through the bare trees, the old Quaker tombstones flash in the sun like a mound of polished fingernails.

The squirrels sit up on their haunches, and the magnolia's black branches shock the air with their waxy, white blooms. The meadow has blossomed into all the colors of sweatshirts, and the football is back, soaring high above all of us, the pit of that fruit.

—**JULIA KARDORF**

* * *

PROSPECT PARK, HOLY WEEK

The mean swan has returned to the pond; the white ducks are back; the wild ducks are out in the grass, bobbing between dark tufts of ramp; the drake's green head gleams like the jewel from a cocktail ring. A pale jet stream streaks the sky, a stretch mark on a mother's belly, and the late-afternoon sun is a bronze fruit that glazes the pond with its bronze juice. The black boys on mountain bikes, who pedal fast as they can down the hill, have drunk that juice, and the flushed white men who jog in their college shirts have drunk that juice, and the cyclist with dreadlocks and shiny black tights pedals his silent racing bike like that juice was sweet. And you can smell sweat in your hair and wet earth on the wind that stirs dried oak leaves and the sheer chartreuse of the willow. Through the bare trees, the old Quaker tombstones flash in the sun like a mound of polished fingernails.

The squirrels sit up on their haunches, and the magnolia's black branches shock the air with their waxy, white blooms. The meadow has blossomed into all the colors of sweatshirts, and the football is back, soaring high above all of us, the pit of that fruit.

—**JULIA KARDORF**

* * *

PROSPECT PARK, HOLY WEEK

The mean swan has returned to the pond; the white ducks are back; the wild ducks are out in the grass, bobbing between dark tufts of ramp; the drake's green head gleams like the jewel from a cocktail ring. A pale jet stream streaks the sky, a stretch mark on a mother's belly, and the late-afternoon sun is a bronze fruit that glazes the pond with its bronze juice. The black boys on mountain bikes, who pedal fast as they can down the hill, have drunk that juice, and the flushed white men who jog in their college shirts have drunk that juice, and the cyclist with dreadlocks and shiny black tights pedals his silent racing bike like that juice was sweet. And you can smell sweat in your hair and wet earth on the wind that stirs dried oak leaves and the sheer chartreuse of the willow. Through the bare trees, the old Quaker tombstones flash in the sun like a mound of polished fingernails.

The squirrels sit up on their haunches, and the magnolia's black branches shock the air with their waxy, white blooms. The meadow has blossomed into all the colors of sweatshirts, and the football is back, soaring high above all of us, the pit of that fruit.

—**JULIA KARDORF**

* * *
of the puppy. Rigler relates it this way: "At one point, I visited Jean Butler's home and had a golden-retriever puppy with me, and Genie must have seen the puppy through the window, because according to Butler she got very upset. Now, this puppy was only ten or twelve weeks old. It was just a fur ball, and it wasn't up against the window, it was still in the yard, but Genie must have been scared of it."

Butler's version is more vivid:

July 20—Dr. Rigler phoned and said his wife had picked up a puppy and he would like to bring it over to show Genie. I asked him to wait a few days. He said he was anxious. I then said to please keep the dog in his car and let Genie peer through the window. . . .

At about 8:00 p.m., Genie and I were folding sheets and the task was giving her great satisfaction. . . . Just then Dr. Rigler came. . . . He took her hand and led her to the front door, opened it, saying, "Come with me, Genie, I have something to show you." By this time Mrs. Rigler had taken the dog out of the car and placed it on the lawn. From the porch Genie saw the dog and ran back in the house, slamming the door violently. She got in my bed. . . . For a while she watched the dog through the front window.

The Riglers left and Genie stayed in my bed for two hours, frequently getting up to go to the bathroom. She said, "No dog," and "Scared." She slept less than two hours that night. At 2:30 she came in to me and took my hand and led me to her bed. I sat by her for two hours while she repeated "Scared."

Genie's aversion to dogs was famous even before the incident with Rigler's puppy; Rigler himself had witnessed it during his earliest walks around town with Genie. After one canine confrontation, Rigler had commented to Butler that he had never seen such fear in any child. "The thing Genie would do when she saw a cat or dog, she would climb you like a pole," he told me. "Or she would desert you altogether. You'd look around and she'd be heading for the white line in the center of the road, because it was equidistant from the yards on both sides. And she was bright enough to know that a dog behind a fence was behind a fence, but a cat behind a fence was not behind a fence at all." Floyd Ruch, in particular, spent some time trying to get Genie over her alarm. He watched episodes of "Lassie" with her, and bought her a battery-operated toy dog that barked and wagged its tail. Only years later did he and Butler and the Riglers learn just how deep Genie's fear ran, and why.

Through July and into August, the haggling continued. Butler struggled to control the intrusions of scientists into her home and, at the same time, struggled to be number officially among them. She requested a thirty-eight-per-cent raise in pay, and she also asked to be acknowledged alongside the researchers in their scientific
"Shane, come back!"

papers. Genie seemed to be the only one growing more relaxed. Photographs of her taken at Butler’s house show her animated, cheerful, composed, content. She sits on a hassock with one tanned, hospital-braceleted wrist cradled in her other hand, and looks up with such confidence, so completely self-aware, that it is hard to believe she is not a normal child. In a picture taken on the back porch, her ponytails have gone sodden from playing under the hose, and she tosses toward the camera a grin of unbridled delight. She also went to the beach, where she learned to sample, at least to ankle depth, the terrifying enticements of the Pacific Ocean.

Butler reviewed Genie’s progress that summer in her diary: she claimed that Genie was wetting the bed less often, with thirty dry nights out of thirty-seven, and that her masturbation had declined as she gained interest in other activities. Along with everything else, Butler wrote, Genie was talking: “The quality of her speech improved and the quantity increased at least tenfold.... I was able to get Genie to say ‘Yes’ appropriately. This she had never done before. Also, I was able to get Genie to verbalize when she was angry, by saying the word ‘angry’ and making a hitting motion in the air or hitting certain inanimate objects (such as a large plastic inflatable clown). This was her first verbalization of her hostilities and anger.” In a letter to Jay Shurley, who had studied Genie when she was first rescued and was now back at the University of Oklahoma wondering about the summer’s events, Butler wrote:

You asked me about Genie’s speech here. The last two weeks Floyd called her “My little yakker.” He often said, “You’re going to grow up and be a yakker like Jeanie.” She talked one evening for 45 minutes after a trip to the pet shop to get four fish. During the day we talked and even argued about ¾ of the time. She was using two- and three-word sentences. She used the negative appropriately, and when I told her that she would have to come inside if she did not stop putting water on the service porch she said “No come in.” She often described an object with two adjectives... “one black kitty”... “four orange fish”... “bad orange fish—no eat—bad fish,” the longest expressed thought. I’ll tell you the saga of the fish and their demise when you are here.

Butler’s self-congratulatory assessment of Genie’s mental state was borne out by an evaluating committee from the N.I.M.H. The committee noted a “striking improvement” in Genie since her transfer to Butler’s home. “Rather dramatic behavioral changes have ensued,” its evaluation stated. “A visit to the home by two site visitors substantially confirmed the positive behavioral patterns and adjustment within that setting.” The visitors reported back to Bethesda that Butler’s home “would be an excellent placement” for Genie. In the contentious milieu of Los Angeles, however, the verdict was less sure.

August 6—Dr. Rigler insisted on driving me home [from a meeting], which he did. On the way home, he said that I was not cooperating as a “trainee” and that he had never had difficulty with students before. I got very angry and told him that I certainly objected to being treated like a student, a trainee, and an idiot. I told him that it was not necessary to tell me why I was using certain methods of discipline with Genie. I explained that he had had the last eight months to handle her and had done a very poor job. I explained that the problems she presented were the product of his department and I think I could at least be respected as an experienced person.

August 9—Before the regular mail delivery I found in my mailbox a metered but unpostmarked envelope containing a ten-page letter from Dr. Rigler.

The letter, copies of which had been sent to Kent, Hansen, and Omansky, was a pained recapitulation of recent history—an effort to set straight what had been scrambled in all the acrimony. “Dear Jean, I am writing to express my concerns about the current
sance. Her first move was to complain to the D.P.S.S. about the apparent reversal of its position, claiming that the caseworkers had forsaken their better judgment and capitulated to pressure from the scientists to place the girl in an environment less hostile to research. The charge had no effect on Genie’s placement, and David Rigler dismisses it as vitriol.

Not surprisingly, there is little coinci
dence between Butler’s version of the
summer’s events and Rigler’s. “She was angry at being turned down,” he told me one afternoon, as he and Marilyn Rigler and I sat in his kitchen.

“She began accusing us of bizarre
behavior, but we found her behavior bizarre. She was as destructive as she knew how. She became the Wicked
Witch of the West from then on, as
far as we were concerned.”

When I asked him about Genie’s
new placement, he said, “We never had any intention or plan to be Genie’s foster parents. Howard Hansen had discussed the idea with me. My wife and I consulted our respective navels, and each other’s navels, and retired to our individual corners to think this out. And we decided to take Genie if no one else could. We told the Social Services Department that if they absolutely couldn’t get anyone, we would take her in for a limited period of time, that being—oh, how long, Marilyn?”

He turned to his wife.

“Oh, a year.”

“No, no. It was much shorter. I think it was three months. And then Genie arrived. I remember the date—it was Friday, August 13th. And she stayed with us for four years.”

In Horatio Algeresque fashion, Genie
now arrived at the grandest of her new accommodations. David and Marilyn Rigler lived in Laughlin Park, an exclusive enclave in the Los Feliz district of Los Angeles. The neighborhood is a self-conscious exception to its surroundings—self-conscious enough so that a gate has been erected at each of its entrances. Within, the streets are bushed, their manorial houses hidden behind massive boxwood hedges and stuccoed walls. The Riglers’ house, at least until Genie arrived, was an orderly sort of place. David and Marilyn had three adolescent children, a cat, and Tori, the golden-retriever puppy, whom Genie had already met. Genie was given a downstairs bedroom and a bathroom of her own. There was a large back yard where she could play, and even some neighbors she could visit the Hansens also lived in Laughlin Park, several blocks away.

The presence of a new family member occasioned immediate adjustment. “For one thing,” she wrote in her journal, “Genie’s room was a room in our house that had been a sort of library. Two walls were filled with books and magazines. Genie was fascinated by them, especially the National Geographics, and she had her favorite issues. She could also be destructive. I can’t bring myself to mark passages in books. But if she liked a page she might just tear it out.”

And she might just do other things as well. On her arrival at the house, Genie ran her fingers nervously around the perimeter of each room, then defecated in Rigler’s daughter’s wastebasket. She urinated every ten minutes, wherever she happened to be. That habit eased almost immediately, but others didn’t. She hid feces in her room (she had also done this at the hospital once, to Rigler’s great amusement, spraying them with deodorant to mask the smell), appropriated possessions of the family’s other children, sat at the table with her cheeks bulging, waiting for her saliva to break down the food that she had still not learned to chew. That worked passably well with the cereal and apple sauce she was accustomed to eating, but as Marilyn Rigler added tougher foods to her diet the method entailed copious spitting.

The Riglers spent the first several days trying to get Genie to accept her old nemesis, Tori. “We found that Genie and the puppy couldn’t be in the house at the same time,” David Rigler told me. “So we instituted a program where they could get to know each other. We had them on opposite sides of the sliding glass porch door. Then when Genie had got used to that, we opened the glass and left the screen closed, and then we opened the screen.
She eventually reached out when the dog was turned the other way, and touched its tail, and from that time on she was fine."

The success of fur-ball therapy reinforced a general optimism. Genie was at last settled in a home; she was at last free of vituperative bureaucratic wrangling. The grant from the N.I.M.H. had come through. Over the next two years, it was to provide a hundred thousand dollars through Children's Hospital for a wide range of research efforts, including the language studies of Susan Curtiss and Victoria Fromkin. David Rigler, as the principal investigator, was released from his duties at Children's Hospital for almost half his time, with no reduction in pay, to attend to his work with Genie. Under the grant's terms, his wife—who, advantageously, was working toward her graduate degree in human development—would be paid from five hundred to a thousand dollars a month for her ministrations. Los Angeles County would also furnish the Riglers with foster-home support, amounting to two hundred and thirty dollars a month. (Eventually, it would rise to five hundred and fifty-two dollars a month.) From now on, the research could proceed unimpeded, the only constraint on its pace provided by Genie herself.

Susan Curtiss kept up at the Riglers' her almost daily visits, recording in her notebooks as much of Genie's speech as she could catch. When, at the beginning of September, she began administering the first of a series of linguistic tests that she and Fromkin had devised, she found out quickly how exhaustingly stubborn and restless Genie could be. Even on the child's cooperative days, when she obeyed orders and participated in activities, she never initiated anything, and her participation was minimal. She was, Curtiss decided, lazy. How was one to know whether such a child was really still at the one- and two-word sentence level or was just disinclined to use sentences of greater complexity? Much later, when Genie began using sentences of several words, she would compress them into one or two syllables, so that "Monday Curtiss come" would end up sounding something like "Munkuh." This behavior earned her the nickname, among the linguists, of the Great Abbreviator. She would pronounce the uncondensed...
The Greenbrier.
White Sulphur
Springs, WV 24986. A CSX Resort.
shouldn't have any reservations about making one. Call (800) 624-6070 or (304) 536-1110 or see your travel agent. Fly American Airlines exclusive use of our guests, Unlimited storage of your clubs, When you add space, we have the perfect game plans. Package. And or Deluxe Weekend Package. 18-bole championship courses for the use of the practice range. Preferred breakfast and a nice-cooked dinner. Golf Package. Both include the three
DELUXE WEEKEND
MID-WEEK GOLF
PACKAGES $237
PACKAGES $210
This Space Reserved for Your Next Golf Outing

If you love golf but hate to compete for space, we have the perfect game plans for you. Our Mid-Week Golf Packages. And our Deluxe Weekend Golf Packages. Both include three 18-hole championship courses for the exclusive use of our guests. Unlimited use of the practice range. Preferred starting times. A professional golf clinic. Even daily cleaning and storage of your clubs. When you add spacious accommodations, plus breakfast and a six-course dinner daily, one thing is certain: you shouldn't have any reservations about making one. Call (800) 624-6070 or (304) 536-1110 or see your travel agent. Fly American Airlines 727 jets, American Eagle or regular United Express. Rates are daily per person, double occupancy.

MID-WEEK GOLF PACKAGES $210
DELUXE WEEKEND PACKAGES $237

The Greenbrier is "Ladies and Gentlemen serving Ladies and Gentlemen". version only on firm request. Genie's capabilities, Curtiss decided, were "masked by her behavior."

Another masking behavior was so ingrained as to be metabolic. Genie was slow. Unless confronted with a dog or some other alarming apparition, she moved as though walking through water. This behavior had been observable from the beginning—ever since she shuffled into the Social Services office on the day of her discovery—but it became more evident as her comprehension of verbal commands increased. When she was asked to do something, she would often not move at all until many minutes had passed, and then would suddenly obey, as though the request had just registered. She had the same "latency of response" with language tasks. There was no sure way to know whether the child could not answer a question or had simply not answered it yet.

Curtiss had taken to reading stories to Genie, of which Genie remained politely oblivious. Then, on October 13th, the oblivion broke. Curtiss saw the girl's facial expressions reflecting the content of the tales. Genie had always heard; now she was listening. She was listening in general—tuning in to talk not aimed at her. In a word, she was learning to eavesdrop. As Curtiss and the Riglers became friends, Genie often seemed to be doing the observing while the scientists did the talking. Sometimes she would try to obstruct the conversations between the adults, but at other times she listened in and occasionally even interrupted with apropos comments.

Her new home was a fertile environment for such progress. In their parlor the Riglers had a Steinway concert grand. It was not often played by members of the household, but Curtiss, usually just before dinner time, would give recitals for her audience of one. If Genie merely tolerated being read to, she was a rapt concertgoer. "Music sent her into a reverie," Curtiss told me. "She would be compelled to stand there, and may even have hallucinated. I don't know where she went. She may have been musing on the past." But Genie was transfixed only if the music was classical, and only if it was performed live. Rigler's explanation for this goes back to the fact that Genie was learning to eavesdrop. As Curtiss and the Riglers became friends, Genie often seemed to be doing the observing while the scientists did the talking. Sometimes she would try to obstruct the conversations between the adults, but at other times she listened in and occasionally even interrupted with apropos comments.

Her new home was a fertile environment for such progress. In their parlor the Riglers had a Steinway concert grand. It was not often played by members of the household, but Curtiss, usually just before dinner time, would give recitals for her audience of one. If Genie merely tolerated being read to, she was a rapt concertgoer. "Music sent her into a reverie," Curtiss told me. "She would be compelled to stand there, and may even have hallucinated. I don't know where she went. She may have been musing on the past." But Genie was transfixed only if the music was classical, and only if it was performed live. Rigler's explanation for this goes back to the fact that Genie was learning to eavesdrop. As Curtiss and the Riglers became friends, Genie often seemed to be doing the observing while the scientists did the talking. Sometimes she would try to obstruct the conversations between the adults, but at other times she listened in and occasionally even interrupted with apropos comments.

Her new home was a fertile environment for such progress. In their parlor the Riglers had a Steinway concert grand. It was not often played by members of the household, but Curtiss, usually just before dinner time, would give recitals for her audience of one. If Genie merely tolerated being read to, she was a rapt concertgoer. "Music sent her into a reverie," Curtiss told me. "She would be compelled to stand there, and may even have hallucinated. I don't know where she went. She may have been musing on the past." But Genie was transfixed only if the music was classical, and only if it was performed live. Rigler's explanation for this goes back to the fact that Genie was learning to eavesdrop. As Curtiss and the Riglers became friends, Genie often seemed to be doing the observing while the scientists did the talking. Sometimes she would try to obstruct the conversations between the adults, but at other times she listened in and occasionally even interrupted with apropos comments.

Her new home was a fertile environment for such progress. In their parlor the Riglers had a Steinway concert grand. It was not often played by members of the household, but Curtiss, usually just before dinner time, would give recitals for her audience of one. If Genie merely tolerated being read to, she was a rapt concertgoer. "Music sent her into a reverie," Curtiss told me. "She would be compelled to stand there, and may even have hallucinated. I don't know where she went. She may have been musing on the past." But Genie was transfixed only if the music was classical, and only if it was performed live. Rigler's explanation for this goes back to the fact that Genie was learning to eavesdrop. As Curtiss and the Riglers became friends, Genie often seemed to be doing the observing while the scientists did the talking. Sometimes she would try to obstruct the conversations between the adults, but at other times she listened in and occasionally even interrupted with apropos comments.
After Genie had had a while to adjust to life at the Riglers', she was enrolled in a nursery school, and, later, in a public school for the mentally retarded. At home, she was given speech therapy and taught some sign language—in part because it seemed to suit her predilection for manual expression. In general, though, she remained extremely taciturn. Curtiss and the Riglers saw no evidence of the chattiness or the long-string sentences that Butler had reported. Her lack 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 stampher feet. She would drag 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 shaking finger signalled 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.

In September, the eightieth annual convention of the American Psychological Association was held in Honolulu, and several of Genie’s watchers flew there to participate in 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 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 com-
prehension 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. Fromkin had a hard time taming down her excitement at the prospect. The rough draft of her 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 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 be doing. In retrospect, the Septem-
ber, 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.

It must be said, in looking back, that the prospects for Genie's eventual triumph were already clouded that summer. One piece 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 were 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.

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 non-grammar 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 of 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 what linguists refer to as "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 commun-

icking 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. She inhabited a prison not unlike a stroke victim's, with more to say than she was able to say, and aware of her inability. Non-verbally, however, she had no such handicap. "Without a word," Curtiss wrote in her dissertation, "she can make her desires, needs, or feelings known, even to strangers."

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—even 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 nineteen-seventies, after 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. They’ll 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, 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.”

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 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 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 gestals 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 Rigler's 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 she learned to manipulate, and in March of 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. Her use of language to relate past events posed the question of whether she 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, who began by admitting his bafflement. "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."

**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. 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 at 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, travelling around greater Los Angeles, haunting the fringes of her daughter's celebrity. She visited Genie's various new homes and was introduced to her new extended family. Among the first people she met was James Kent, when she interrupted his initial session with Genie at Children's Hospital. He described their introduction in his speech at the Hawaii A.P.A. symposium. "In the course of [Genie's play with a puppet], her mother and brother entered the room. She ignored her brother's greeting, moved quickly to her mother, and, pushing her face within a few inches of her mother's, peered at her without expression for a moment, then returned to the puppet play. . . . As we first observed it, Genie seemed less interested in her mother than in many of the other hospital staff. She would comply with her mother's requests to sit on her lap, but she remained stiff and aloof, and was noted at least once to have an angry outburst of scratching and spitting as soon as she could escape. Genie's mother seemed not to be aware of this notable lack of warmth; on the contrary, she remarked once after such an episode that Genie seemed to 'like me today.'"

Irene took to visiting the hospital twice a week, and as the visits went on they improved. "Genie's mother became more spontaneous and appropriate with Genie," Kent reported, "and Genie, as her relationship deepened with others, became more responsive and relaxed with her mother. Indeed, she began to look forward to the mother's visits with obvious delight."

The change was no accident. Kent credits the efforts of Vrinda Knapp, the hospital's chief psychiatric social worker, who began visiting Irene at home. Knapp's counselling of Irene was part of an attempt by the scientists to keep mother and child together. "We considered it important for Genie to have regular and frequent contact with her mother," Kent told me. "This was her only real link to her past, and we felt that it should be maintained."

The first battle the scientists had had to fight in that regard was keeping Irene out of jail. When she and Clark were indicted on child-abuse charges, Howard Hansen prevailed on a friend of his, a lawyer named John Miner, to attend the preliminary hearing on behalf of Children's Hospital and argue in defense of Irene. Miner had recently retired as the head of the division of the Los Angeles District Attorney's office which handles child-abuse cases. Since 1964, he had also headed a Los Angeles County committee on the battered-child syndrome, which drafted the legislation that made child abuse a felony in California. Miner's involvement with Genie persisted after the disposition of Irene's case, and in April of 1972 he filed an application with the Juvenile Court to become Genie's legal guardian. An internal memo in the D.P.S.S. noted his concern. "His interest is motivated by his desire to safeguard [Genie's] part of her father's estate," it said. Miner explained to the regional D.P.S.S. bureau director that it would not be customary to become the guardian of a child's estate without also
becoming the guardian of the child.

The estate left by Clark was hardly sizable. In addition to the house on Golden West Avenue, it included about twenty thousand dollars, of which a third went to Irene and a third to each of his children. The court considered two affidavits: one from Irene consenting to the guardianship and one from Genie’s “attending physician,” Howard Hansen. “In said doctor’s opinion,” another Social Services memo said, “John Miner . . . would be a suitable guardian of [Genie’s] estate and person.” On May 18th, the guardianship was assigned, and Miner became the person legally charged with protecting Genie’s interests—insuring, for example, that she was not exploited by the researchers at Childrens Hospital.

The convenience of it all did not at first seem dangerous. Letting a patient live with a doctor, a subject with a scientist, was, of course, somewhat unorthodox, but Genie’s case was an unusual one. True, the men in control of Genie all knew each other, but at least they all knew each other to be reasonable and honorable men. And, best of all, the goals of research and therapy were seemingly in concert; why, then, should the boundary between them be sharply defined?

The first blurring of that boundary may have occurred with John Miner’s presence at Irene’s hearing; the hospital was, in effect, participating in a criminal case involving the family of one of its patients. By the time the Genie Team made the decision to rehabilitate Irene, the line was hardly discernible. Vrinda Knapp was instructed to glean from her counselling sessions with Irene a history of the family, and to relay that information to the scientists for their use. Many of the details in Hansen’s paper at the A.P.A. convention, and much of what later appeared in Curtiss’s dissertation, had been revealed by Irene to her therapist.

David and Marilyn Rigler sometimes drove Genie to Temple City on weekends, and those trips, too, were opportunities for observation. The Riglers frequently filmed Genie in their own home, eating, talking, playing; they also took a camera along to Golden West Avenue and filmed her with her mother.

David Rigler once showed me some of that film. Genie is at the kitchen
sick, beside her mother, Irene is working at the sink, her hair perm'd, her face a plain face, worn less with age than with worry. Genie flutters about her with a limby coquettishness, checking the counters and the refrigerator, occasionally coming to rest, like a butterfly alighting precariously, at her mother's side. In a fluty, urging voice she asks for cereal, but her mother says no, cereal isn't for lunch—they have chicken for lunch. As the camera follows, she leads Genie to the stove and lifts the lid on a large pot, so that Genie can see the chicken, and for a moment they are caught with their faces too close to the camera, frozen in grainy black and white. They are smiling. The mother's smile seems a little tight, but the child's is cheerful. When Genie walks off to a corner of the kitchen, the camera pans after her, and you can see her awkward hobble. She asks for orange juice, and for cereal again, and her high voice is all but lost in the roar through the kitchen window of the traffic on Golden West Avenue.

Irene's house had been rearranged and redecorated since the days of Genie's incarceration. "It looked very nice," Rigler told me, but other visitors found it depressing. The potchy chair, at least, had been taken out back and burned. Although Irene had lived there for more than a decade before her escape, her new view of her own home was the first she had ever really had. In the summer of 1971, she had undergone an operation to remove her cataracts, and her failed eyesight was largely restored. Hansen and Knapp had arranged for her surgery; like her psychotherapy, it was provided free of charge. But anyone who expected gratitude was in for a disappointment. "Jim Kent, in particular, went to bat for doing things for Irene," Shurley said. "I suppose Dr. Hansen did as well. Both were interested in converting her into a friend, but they didn't succeed."

It would have been a friendship across a great gap, as difficult to bridge as the chasm between Temple City and Laughlin Park. "Irene was quite looked down on, as the upper class can do toward the lower class," Shurley said. "It was a whole day's journey on public transportation for Irene to get back and forth from Childrens Hospital. She felt bad that she didn't have the right clothing—didn't have a dress to visit her daughter in the hospital. Irene commented to me about this fancy hospital that her daughter was in—how she could not have afforded it if she had had to foot the bill. Neither side had an appreciation of what life was like for the other. Irene was suspicious of the Riglers' intellectualism. And I never felt that Rigler, for his part, saw Irene as human, saw Clark as human. Rigler, Hansen, Kent—they came from environments where they had always lived well. For them, Irene was like something the cat dragged in, and that was a problem for them."

In the unacknowledged class war, the person with diplomatic immunity was Jean Butler Ruch. She and Floyd Ruch had married, and the couple had several homes and a yacht. "Nevertheless, I think Jean was more sensitive to that socio-economic stuff than Rigler was," Shurley said. "She knew how to keep her distance, respectfully, and she didn't use her wealth and position to dominate the situation. She gave Irene advice, didn't usurp, didn't invade."

As Irene's health improved and she became accustomed to her life as a widow, her affection for Jean Ruch grew, and so, apparently, did her dis-taste for the scientists who were study-ing her daughter. One day, after her eye operation, she was leaving the Rehabilitation Center with Genie and David Rigler. They were walking slowly, to accommodate Genie's characteristic shuffle, and, as Rigler recalls, "We got outside, and Irene looked at her daughter and looked at me and asked me, 'What have you done to her that she walks this way?" Rigler was taken aback. "I don't think Genie's mother ever understood what her role in Genie's condition was," he told me, and he noted that this denial may have been a testament to the success of Irene's therapy. "I think the mother, after her counselling and rehabilitation, had a task of her own—to resolve this in her mind in a way that would allow her to live with it," he said. "Irene saw our presence as a repri-mand, an indictment—as a reminder. And we were too busy congratulating ourselves on our benevolence to notice how much we were antagonizing her."

As 1972 became 1973, and 1973 turned into 1974, David Rigler must have been well pleased with Susan Curtiss's progress toward her doctorate. Except for the linguistic work pursued by her and Victoria Fromkin, precious little was coming out of the ambitious experiment of which he was the principal investigator. During her years as a resident in the Riglers' house, Genie had gone from being "the most promising case study of the twentieth century" to being, in Rigler's words, "perhaps one of the most tested children in history." She had not, however, turned into much of an oracle. "At one point," Rigler told me, "I did a diagram of all the people from around the nation who were involved with researching and helping Genie, and it was a huge circle," and he spread his arms as wide as they would go. The researchers had produced reams of data. But the data piled up uncataloged and unprocessed, the sheer volume an impediment to the drawing of any significant conclusions. A handful of papers had ensued, most of them recaptillations of Genie's horrific childhood, and none of them of much more abiding import than the paper David and Marilyn Rigler submitted to the Twentieth International Congress of Psychology, in Tokyo, in August of 1972. The paper was titled "Attenuation of Severe Phonohoria in a Historic Case of Extreme Psychosocial Depri-vation." It detailed how, by the use of such devices as a sliding glass door, Genie had been introduced to Tori.

The N.I.M.H. found the lack of progress troubling. In a series of site visits, its grant overseers expressed their concerns to Rigler. Worried that the data being collected in haphazard fashion, they suggested new tests to fill in gaps, and asked that others be readministered. In the fall of 1973, Rigler was given an extension and additional money for "developing an adequate research plan" and analyzing the research he had already done. A year later, with the extension running out, the N.I.M.H. deliberated on his application for a further two hundred and twenty-six thousand dollars to support the research for three more years.
THE NEW YORKER

Genie’s progress was also being watched, from a greater remove and with a much more jaundiced eye, by Jean Butler Ruch, who gleaned reports of Genie’s health and behavior from any available source. Convinced that Genie was not doing as well as advertised, she lobbied aggressively against Rigler, Hansen, and Curtiss with anyone in the scientific community who would listen.

Why did Rigler contend that Genie was acting appropriately in social situations, when she clearly was not, Ruch asked in her letter campaign? Why was Marilyn claiming credit for training Genie to set the table (by rewarding her with ten pennies each time), when Genie had already been a zealous table setter during her summer with Ruch, and before? Why, Ruch asked, did the Riglers say that Genie had arrived at their house unable to dress or clean herself, when the nurses had trained her to do all of that at the Rehabilitation Center? Why were Rigler and Curtiss crowing that Genie was making three-word utterances by the end of her third year in Laughlin Park, when in the summer of 1971 she had been able to say “Foy big black car go ride” when she wanted Floyd Ruch to take her out to, for instance, the pet store, and “Bad orange fish—no eat—bad fish” in explaining why she had tossed her new pet goldfish out into the yard? Jean Ruch insisted that the Riglers had reset the chronology of Genie’s progress to conceal the fact that Genie had declined in their care. “This sounds terribly self-serving,” she wrote to one scientist, “but no one who saw her after her stay with us reports her ever as vibrant and active or acting and looking so ‘near normal’ as she was in our home.”

Ruch charged that Rigler had inflated his original grant application with “imaginary consultants” — listing as collaborators eminent scientists who had done little more than poke their heads in while passing through. When I spoke to Rigler about this particular charge, he frankly admitted that he could not recall meeting one of the psychologists he had listed in the grant application as having spent two days with Genie; however, the listing of all these consultants could just as easily be ascribed to optimistic self-deception as to fraud. Ruch also accused Rigler of callous behavior toward Irene; he had, she said, insisted that Irene visit her daughter in fast-food restaurants and other such places rather than at the Rigler home, and he had refused to abet those meetings with any financial assistance, even though Irene was running through her inheritance and was sewing and selling dolls to make ends meet. “Considering that Rigler et al. went all over the USA, Hawaii, and Japan on Genie Funds, to not give a portion of their State foster-care food allotment to the mother was [viewed as] unforgivable by all who knew her financial problems,” Ruch wrote. In her files she catalogued this particular item under the heading “Mother’s Need vs. Rigler’s Greed.” The files were voluminous, running, by Ruch’s count, to six thousand document pages. “She used the Freedom of Information Act to go to N.I.M.H. and get all the records of my research,” Rigler told me. “And then she got furious when they notified me that she had been given the documents.”

Through the error of an inexperienced clerk, Ruch was sent a seven-page paper that should not have been released to her—the grants committee’s appraisal of Rigler’s application for a new three-year grant. “The rule is that under the Freedom of Information Act you may buy only documents about projects which have been approved,” Ruch gloated to one scientist. She characterized the committee’s appraisal as “scathing.”

The N.I.M.H. grants committee met to decide on its recommendations in September of 1974. A two-day site visit to Los Angeles had convinced the committee that “very little progress has been made” and that “the research goals projected probably will not be realized.” Its report continued:

The Committee feels that the proposed research plan is deficient in its own right and inappropriate for the special needs and circumstances of this unique case study. . . . The failure during the past year to implement the recommendations made by the Committee for which funds were made available . . . is disquieting. The Committee feels that this application is clearly lacking in scientific merit, and, therefore, unanimously recommends disapproval, requesting that its comments be conveyed to Dr. Rigler.

On the bright side, the committee expressed its opinion that the research had posed “no substantial risks to the individual who is the object of this proposal,” and observed that “the therapeutic benefits to the subject have been and continue to be considerable.” The
well-being of the “subject” was nonetheless a worry:

The Committee is concerned about Genie’s future welfare and the consequences of disapproval which will directly affect Genie. The Riglers have indicated that without support for their research project, they would probably have to terminate their foster relationship with Genie and leave her future care to the State of California. The Committee appreciates that Genie is properly a ward of California, not of N.I.M.H., and feels that the appropriation of funds for Genie’s maintenance outside of a research context would not be in her best interest or that of the Federal Government.

“There were some good reasons and some bad reasons for rejecting the grant,” David Rigler told me. “But, essentially, they didn’t understand. The study wasn’t like most scientific studies. There were no controls. It’s a study of a single case, and those are rare. They’re anecdotal. They can’t be done in the way of normal science. The people on the N.I.M.H. staff are involved with grants. I used to work with them, and I know what that means. There was pressure on me to be more scientific in my approach. Measurements, that’s what they wanted. Not that I didn’t want to make measurements, but I didn’t want to do so in ways that would be intrusive to the well-being of the kid. I was never able to satisfy people on the committee that I was doing this in the best way for science and for the child.”

On June 4, 1975, Rigler addressed a letter to an administrator at Childrens Hospital summarizing Genie’s progress over the past four and a half years. She was capable of some autonomy, he said, but still needed substantial supervision. She could care for her hygiene and even prepare simple meals. Her self-destructive tantrums were less frequent. Rigler described Genie’s performance on “a very large number of standardized and custom-designed tests, many of them [administered] repetitively over time,” and added that, “the tests notwithstanding, Genie remains in some sense an enigma.”

“She was still an emotionally disturbed child,” he said, but there was hope. “At age 18, Genie has not stopped her process of achievement in any sphere,” Rigler wrote, noting that she had “clearly established powerful emotional ties to both the foster mother and to her biological mother.” He concluded by saying, “As you know, we are contemplating relinquishing Genie’s foster care; however, we have a continuing wish to be of service to her in a new placement.”

Before the month was out, Genie’s bags were packed. She went home to Irene—to the house on Golden West Avenue in Temple City, where she had spent the bulk of a painful childhood and almost every weekend of the previous six months. “After we gave her up, we were worried how the mother would take care of her,” Rigler told me. “We have some money. We can afford babysitters and help. Irene was impoverished. So that first summer we made arrangements for Genie to go to summer school and, when that was over, to day camp. But the mother asked her ‘Do you want to go to day camp?’ and Genie said no. So she didn’t go. She stayed home, and before long the mother was calling for help. Not to us, but to the protective services.”

So Genie was moved again, in the fall of 1975, entering the first of five new foster homes. Now she was beyond the direct care of both her mother and the scientists; John Miner’s legal guardianship, too, had ended, on the day she turned eighteen.

That she was in crisis was evident from her behavior. She seemed to be intentionally regressing. She closed up, depriving the world of whatever she thought it wanted. A barometer of her happiness had always been her bathroom habits. Her lifelong bowel problems had waned at Jean Butler’s house and returned when she moved to the Riglers’, only to improve again as she settled in. Now they resumed, forcefully, and the consequence showed just how full circle her life had come. During her childhood, a chronic constipation had been Genie’s physical protest. At one point, Clark had tried to remedy her daughter’s obstinacy by forcing her to down an entire bottle of castor oil. The overdose had landed her in a physician’s office. That battle, as it turns out, was premonitory.

According to Rigler, “the lady running one of the foster homes was rather bizarre.” He recalled visiting the home “from time to time,” and counselling Genie in her regular outpatient visits to Childrens Hospital. “The woman was very rigid, and Genie had a powerfully strong will,” he said. “Ultimately, the collision occurred over the issue of her toilet behavior. What happened in this home was that she became constipated, and...
The woman tried to extract fecal material with an ice-cream stick. There was no injury. But she was traumatized."

Genie’s reaction to the trauma, as the scientists interpreted it, was to up the ante. If the world would go to that extreme to invade her sovereignty over her body, she would deprive it of something else—something it had desired from her and rewarded her for.

For five months, she didn’t speak. "Genie wanted to have some control over her life, and she never did," Curtiss told me. "She never had any control whatever over what happened to her. The only way for her to control her life was to withhold feces or withhold speech, and so she did. It wasn’t an attempt to quit communicating that made her quit speaking. She had had this terrible—a couple of terrible experiences. She had a fear of vomiting, and she had vomited a couple of times and been punished for it. And then—oh, this story is so terrible I can’t tell you all of it—she was in one of her foster homes, and it was an abusive home, and they told her that if she vomited once more she would not ever get to see her mother again. She didn’t know what she had done wrong, but she was afraid that if she opened her mouth she would vomit. But even during her elective mutism she wanted to communicate with certain people, and one of them was me, and, thank God, she’d been taught some sign language. She signed furiously to me, about how much she loved her mother and missed her—about everything. You could see her wanting to eat, but she would refuse to open her mouth. It was very labored eating. She would—" Curtiss twisted her face sidewise and looked up, like a fish eying a morsel of food on the surface of the water. "And then she would open quickly and gulp it. After not eating, and living with that abusive foster family, she ended up in the hospital."

Curtiss’s notes from Genie’s tenure in foster homes display the girl’s longing. "I want live back Marilyn house," Genie said in November of 1975. In August of 1977, it was "Think about Mama love Genie." These notes were intended as records not of Genie’s emotions but of her language ability, for Curtiss’s pursuit of Genie was still in the name of linguistics. In 1977, she..."
and Fromkin received a grant from the National Science Foundation, so they were able to continue their work irrespective of Rigler's fortunes with the N.I.M.H. They were now the only scientists funded to work with Genie. "None of the other research had panned out," Curtiss says.

OR Curtiss, it was panning out on two fronts. She continued her testing of Genie, and at the same time she was compiling her doctoral thesis—summing up the Rigler years, sorting out all the things that Genie had learned to do from all that she had not. "She had very quickly developed a vocabulary, and put her vocabulary in strings to express complex ideas," Curtiss told me. "She was a very communicative person. But, despite trying, she never mastered the rules of grammar, never could use the little pieces—the word endings, for instance. She had a clear semantic ability but could not learn syntax. There was a tremendous unevenness, or scatter, in what she was able to do."

That scatter had been one of the initial curiosities of Genie's case; now the years of research had seasoned it into significance. "One of the interesting findings is that Genie's linguistic system did not develop all of a piece," Curtiss told me. "So grammar could be seen as distinct from the non-grammatical aspects of language, and also from other mental faculties. The hallmark of cognitive development in normal children is its multiplicity. Everything is going on at once. It's difficult to tell by observing the average child that acquiring language is a cognitive task separate from others, and full of discrete pieces. But we saw with Genie that these things could sprout independently, by means of different mechanisms."

When Curtiss says "mechanisms," she is not being abstract or metaphorical. She means not only psychological but physical mechanisms—structures in the brain. As Curtiss chased her quarry deeper into her dissertation, she chased it more and more in Eric Lenneberg's direction; her last chapter was on neurolinguistics, and delved into the biological basis of Genie's language skills. Genie's disabilities bore out Lenneberg's theory, at least conditionally. She demonstrated that after puberty one could not learn language simply by being exposed to it. Her scatter was especially confirming. It divided the "learned" skills, such as vocabulary, from those said to be innate, such as syntax. Furthermore, the syntactic abilities, which both Chomsky and Lenneberg had predicted would be biologically determined, had indeed been constrained by Genie's biology—thwarted by her development.

It was a mischievous revelation. Though it appeared to affirm Chomsky, it could also be read as refuting him. If some parts of language were innate and others were provided by the environment, why would Genie's childhood hell have deprived her of only the innate parts? How could a child who lacked language because she had been shut away from her mother be proof of the contention that our mothers don't teach us language? Why should she be unable to gain precisely the syntax that Chomsky said she was born with? The problem was not peculiar to Genie's case. It was constitutional, an aspect of Chomskian thought that seemed, on the surface, paradoxical: if syntax is "innate," why must it be "acquired" at all?

The answer might lie in Genie's brain; perhaps she was not grasping grammar because she was using the wrong equipment. As early as the fall of 1971, Curtiss, Fromkin, and Stephen Krashen had begun doing neurolinguistic tests in the hope of finding out exactly what part of Genie's brain they had been talking to all those months, what part of Genie's brain had been talking back. The equipment search would have alarmed those early linguists who thought that seeking a biological center for something as ineffable as language was as futile a misadventure as looking for a center of the soul. Nevertheless, modern neurology has found concrete mechanisms for other incorporeal things—or, at least, found where those mechanisms reside. The ability to watch a baseball's flight and know where it will land inhabits the brain's right parietal lobe, above and behind the ear. Getting a joke, understanding a metaphor, and realizing that something is inappropriate to say
in a conversation are also talents of the right hemisphere. The right brain listens to music. Both hemispheres know the meanings of words. Mathematics, logic, and language—at least, the grammatical part of it—have a preference for the left hemisphere.

From the misfortunes of brain-damaged people, it is clear that language tasks are dispersed within their left-hemispheric home. Someone whose brain is injured above the left ear in a region called Wernicke's area may still be able to speak correctly, even glibly, but often there will be no discernible idea behind the voluble word strings. If the injury is forward of that, in Broca's area, the victim will struggle painfully toward expressing his thought, unable to form sentences. From the earliest observations of Genie, it appeared that her brain function was biased: the tasks she performed well were all right-brain tasks; the tasks she failed were all left-brain. Genie's response to tasks requiring an equal collaboration between hemispheres was frustrated and hesitant, with none of the quick confidence she displayed when thinking “right.”

The dominance of one hemisphere or one lobe in any given task is never total. Both sides of the brain work on every task, but their collaborations are lopsided. How the tasks are divided depends on the individual. In the fine points of brain layout, we are each different from our neighbors. Genie's deviation, however, was extreme, and Curtiss wanted to know why.

Her opportunity was provided by another aspect of brain physiology. Each side of the brain controls the opposite side of the body. Unfortunately for neurolinguists, you cannot whisper to the left brain through the right ear without the right brain's overhearing you, because each ear is wired to both sides of the brain. The connection to the opposite side is stronger, however, and in one circumstance it has a near monopoly: when a sound is presented to the left ear at the same time that a different and competing sound is presented to the right ear, each ear reports almost exclusively to the opposite side of the brain. This oddity makes possible what is called the dichotic listening test. By playing different things simultaneously into each of Genie's ears, Curtiss was able to speak directly to each hemisphere of...
her brain, and measure each hemisphere’s response. “What matters is the material the ear hears,” Curtiss told me. “Language is handled better by the right ear, and environmental or musical sounds by the left ear. We played environmental sounds to Genie and checked her response. Each ear alone performed perfectly; both ears with the same sounds were O.K.; but when the two ears competed the left ear performed better. That’s normal—but the degree of the asymmetry was not. Then we led her words the same way.” The results bore out long-standing suspicions. Genie’s brain was processing language just as it did environmental sounds—on the right. The right brain was handling work usually done across the aisle. The real surprise lay in the degree of the imbalance. Normally, the dominance of one side over the other shows up in the dichotic listening test only as a subtle preference—nothing too pronounced. With Genie, it was pronounced.

Seeking to provide herself with a second opinion, Curtiss took Genie to the Brain Research Institute, on the U.C.L.A. campus. “We attached electrodes to her skull to read her brain waves as we showed her pictures or read her sentences,” Curtiss told me. “First, we showed her faces. Her response pattern was parallel to the environmental-sounds test—that is, the right hemisphere showed a greater response than the left. Normal. Then we played sentences.” The results, as before, were radical. Genie’s performance was as lopsided as that of children whose left hemispheres have been surgically removed. She didn’t seem to be using her left brain for language at all. When it came to its central function, her left brain appeared to be functionally dead.

“Why should this be so?” Curtiss asked, in a paper on language and cognition published in Working Papers in Cognitive Linguistics in 1981. She continued, “Genie’s case suggests the possibility that normal cerebral organization may depend on language development occurring at the appropriate time.” To the question “Why must we acquire what’s innate?” Genie was suggesting an answer. Eric Lenneberg had claimed that the brain organized language learning. Now it seemed likely that some stimulus was needed to organize the brain. Curtiss had run her finger down the string of Genie’s experience until she encountered the fabled, elusive knot—the tie between language and humanity. If Genie was any indication, we are physically formed by the influence of language. An essential part of our personal physical development is conferred on us by others, and comes in at the ear. The organization of our brain is as genetically ordained and as automatic as breathing, but, like breathing, it is initiated by the slap of a midwife, and the midwife is grammar.

A slap is all that’s needed. “It seems to take a phenomenally small amount of input to trigger this special process,” Helen Neville told me. Neville is a neuroscientist with the Salk Institute, in La Jolla. In Curtiss’s 1981 paper, she cites experiments by Neville to corroborate her observations of Genie. In 1977 and 1978, Neville carried out experiments on deaf children who used American Sign Language. Such children have provided the armamentarium of modern linguistics with one of its most potent weapons. Their usefulness lies in their history. Even today, deafness in children is often misdiagnosed as retardation, and the children languish in misdirected programs. The best-intentioned families may feel that their deaf children would be better off learning to read the speaking world’s lips rather than the hand signs of an insular culture. Thus, the deaf may have contact with A.S.L., their first bona-fide language, at two or at five or at fifteen years of age. Their plight has provided linguistics with a thousand Genies, and, far better, with Genies who have not been psychologically abused but only linguistically deprived. Neville found that the deaf who learned A.S.L. during childhood had left brains lateralized for language as well as for other tasks, but those who were deprived of sign language in their early years did not. Their brains were unformed. The midwife had not spanked the baby. “Relating Neville’s data to Genie’s case suggests that language development may be the crucial factor in hemispheric specialization,” Curtiss wrote. “While [language] develops, it determines what else the language hemisphere will be specialized for. In its
absence, it prevents the language hemisphere from specializing for any higher cortical functions." The insight promised to redefine some basic intertwined ideas: What does it mean to say that something is a language? Language is a logic system so organically tuned to the mechanism of the human brain that it actually triggers the brain's growth. What are human beings? Beings whose brain development is responsive to and dependent on the receipt at the proper time of even a small sample of language.

In the light of all this, then, what was Genie?

Curtiss's best attempt to grapple with this question remains her doctoral thesis. It is the most significant published result of all the research on Genie—significant enough to be cited in virtually every current American textbook on basic linguistics, sociology, or psychology. In addition (something rare for a scientific thesis), it was picked up for publication as a book. "Genie: A Psycholinguistic Study of a Modern-Day 'Wild Child'" was published by Academic Press, in mid-1977. Besides sporting hard covers, it differed from the dissertation in having a dedication page, which read "To Genie," and a frontispiece, which was a pencil drawing of a smiling person in its left arm. Curtiss's caption for this drawing read, in part:

Early in 1977, filled with loneliness and longing, Genie drew this picture. At first she drew only the picture of her mother and then labeled it "I miss Mama." She then suddenly began to draw more. The moment she finished she took my hand, placed it next to what she had just drawn, motioning me to write, and said "Baby Genie." Then she pointed under her drawing and said, "Mama hand." I dictated all the letters. Satisfied, she sat back and stared at the picture. There she was, a baby in her mother's arms. She had created her own reality.

Irene's response to Curtiss's dissertation was apparently instantaneous. She disliked it even before she had opened it. "When I saw the title of the book, I felt hurt," she wrote. "My daughter... classified as a 'wild child.'" Her rebuttal was handwritten on lined loose-leaf paper and was addressed "To Sam"—R. Samuel Paz, a lawyer in Alhambra. It became Exhibit B in the long season that was about to ensue. Exhibit A was the dissertation itself.

Irene was especially incensed at Curtiss's opening chapter, which recounted Irene's life with Clark and the dreadful tribulations of their children. Irene's letter (in it, she calls her daughter by her real name, which I have replaced) quibbled with much of that description. She wrote:

I was not frequently beaten. 2 times in the last year, He did try 1 time to kill me... Genie was never forgotten and I did the best I could in taking care of her... It depended on the weather to what she wore while sitting on the potty chair. She was able to move her arms, legs, bend forward and to the sides.

[Curtiss] writes as though Genie stayed all the time on the potty chair.

Genie was never forgotten.

Genie was able to move her arms when she had her sleeping bag on. It was not a straitjacket. It was an oversized infant's crib with wire screen around sides. There was a wire screen top but I never used it... Genie did hear speech. Our home is very small... She could hear the traffic noise from street. She heard the neighbors next door coming and going... She heard airplanes, birds, neighbors, traffic noises.

Genie was not forgotten.

Her father did not beat her.

The paddle was not left in Genie's room.

Her father did talk to her.

Once in a while he did bark at her to distract her making noise without opening door.

He never barked at her face to face.

He talked to her.

He did not scratch her... He did not beat Genie.

He did not stand outside of her room and bark and growl at her...

I was not frequently beaten. 2 times in the last year, He did try 1 time to kill me... Genie was never forgotten and I did the best I could in taking care of her... It depended on the weather to what she wore while sitting on the potty chair. She was able to move her arms, legs, bend forward and to the sides.

[Curtiss] writes as though Genie stayed all the time on the potty chair.

Genie was never forgotten.

Genie was able to move her arms when she had her sleeping bag on. It was not a straitjacket. It was an oversized infant's crib with wire screen around sides. There was a wire screen top but I never used it... Genie did hear speech. Our home is very small... She could hear the traffic noise from street. She heard the neighbors next door coming and going... She heard airplanes, birds, neighbors, traffic noises.

Genie was not forgotten.

Her father did not beat her.

The paddle was not left in Genie's room.

Her father did talk to her.

Once in a while he did bark at her to distract her making noise without opening door.

He never barked at her face to face.

He talked to her.

He did not scratch her... He did not beat Genie.

He did not stand outside of her room and bark and growl at her...

I was not frequently beaten. 2 times in the last year, He did try 1 time to kill me... Genie was never forgotten and I did the best I could in taking care of her... It depended on the weather to what she wore while sitting on the potty chair. She was able to move her arms, legs, bend forward and to the sides.

[Curtiss] writes as though Genie stayed all the time on the potty chair.

Genie was never forgotten.

Genie was able to move her arms when she had her sleeping bag on. It was not a straitjacket. It was an oversized infant's crib with wire screen around sides. There was a wire screen top but I never used it... Genie did hear speech. Our home is very small... She could hear the traffic noise from street. She heard the neighbors next door coming and going... She heard airplanes, birds, neighbors, traffic noises.

Genie was not forgotten.

Her father did not beat her.

The paddle was not left in Genie's room.

Her father did talk to her.

Once in a while he did bark at her to distract her making noise without opening door.

He never barked at her face to face.

He talked to her.

He did not scratch her... He did not beat Genie.

He did not stand outside of her room and bark and growl at her...

I was not frequently beaten. 2 times in the last year, He did try 1 time to kill me... Genie was never forgotten and I did the best I could in taking care of her... It depended on the weather to what she wore while sitting on the potty chair. She was able to move her arms, legs, bend forward and to the sides.
Genie. That wasn't all, or even the worst. The fourth of five causes of action in the suit accused the scientists of subjecting Genie to "extreme, unreasonable, and outrageous testing, experimentation, and observation..." under "conditions of duress and servitude..." in short, of performing unethical human experimentation. The remaining cause of action faulted John Miner, Genie's guardian from 1972 to 1975, for not protecting her from harm. Irene asked for both compensatory and punitive damages.

"The suit was right out of the blue," Rigler says. "One Sunday morning, we got a call from a friend who said, 'Did you know your name is in the paper? So we got the L.A. Times, and that's how we learned we were being sued. And it had Genie's real name, and we'd been so careful all those years to keep that away from the public."

The debacle had been brewing. In 1975, when Miner lost guardianship, Irene took receipt of the guardianship papers chronicling Genie's career, and a full awareness dawned on her of just what her daughter had been living through. And in 1978 she had had to defend Genie's estate against a claim filed by Miner and David Rigler; Rigler was requesting compensation for therapy given to Genie in the first six months of 1975, after the N.I.M.H. grant had run out and before Genie had left the Rigler home. Irene's lawyers objected that Rigler had no documentation of the therapy sessions and only an incomplete memory of them, and that he had not presented Miner with an itemized bill. The judge agreed that Rigler had benefitted from "substantial sums" paid out by the N.I.M.H., and from the foster-home subsidy from the county, but he praised the Riglers' role in Genie's rehabilitation. Noting that the forty-five-hundred-dollar claim would "virtually exhaust the estate," he awarded the petitioners thirty-one hundred dollars, including six hundred dollars to cover legal fees. Nevertheless, the biggest provocation for Irene remained Curtiss's book, according to Samuel Paz, who along with another attorney, Louise Monaco, represented Irene in her suit against the scientists. Paz was well prepared for the issues in the case, scientific as well as legal. As an undergraduate at U.C.L.A., he had majored in psychology and had trod some of the same intellectual hallways as Victoria Fromkin and Susan Curtiss. "At one point, I went through Curtiss's book and tallied up the experimentation that was done," he told me. "The intensity and frequency of sessions was high. There were other research papers, too, and if you look through them you will get a good idea of what Genie had to endure. She was on a testing regimen, at one point, of sixty or seventy hours a week. The response when we asked the researchers about this was that it was fun—that Genie thought of most of this as a game." The case provided plenty of other fuel for outrage. In one early deposition, Howard Hansen stated that the records of Irene's psychotherapy, which contained information so sensitive that they were not allowed out of the psychiatric ward, were lost entirely, gone without a trace.

However amply inspired, the suit was remarkably adventurous, coming from a woman who was described even by her lawyers as a timid individual. David Rigler remembers the moment when the mystery was made clear to him, the hidden hand revealed. "When I gave my deposition, Irene's lawyer had a copy of Curtiss's dissertation marked up, with passages underlined that were supposedly slandering of Irene," he told me. "I asked if I could see the book, and he handed it to me, and the front cover fell open, and the name written inside was Jean Butler Ruch."

In the eight years that Jean Ruch had been Rigler's antagonist within the scientific community, he had had no suspicion of her growing association with Irene. By Ruch's account, that association had suffered a hiatus of four years, after Irene called her one afternoon to cancel a meeting, saying that Rigler had forbidden her to see Ruch under penalty of losing visitation rights with her daughter. When the guardianship was no longer under the control of John Miner, the mother and the schoolteacher were emboldened to find in their common antipathies the grounds for an alliance.

"Ruch stayed in the shadows, but she was constantly chiding Irene—putting a bug in her ear that the
scientists were overreaching,” Paz told me. “Her involvement seemed to be the catalyst. My own assessment is that Irene was very passive, that she would never have done this on her own. When she called me, I felt that I wasn’t really talking with her but with Mrs. Ruch. She wouldn’t sound like herself, she would be very assertive. ‘I want to do this’ or ‘I know what’s going on’ I didn’t get the feeling that I was dealing only with Irene.’”

In length as well as rancor, the court case proved epic: the process of discovery, deposition, hearing, and judgment stretched out over five years. The longer it dragged on, the stronger grew the suspicion on the part of Irene’s lawyers that they were contesting marshy ground. The same endless recitation of test procedures and test results which had given rise to the charges of human experimentation made a mockery of the notion that Curtiss had intended her dissertation as a potboiler—had exploited Genie’s sad past for the sake of profit. Early in the proceedings, Curtiss had offered a compromise. Paz and Monaco recommended to Irene that she accept it. “We got to the point of settling the case in what I thought were the just interests of Genie,” Paz said. “Curtiss had proposed putting into Genie’s trust fund money that came from profits on her dissertation or any other scientific work based on Genie. But Irene was prodded by Jean Ruch to decline that offer. Ruch thought that it was unsatisfactory—that Irene should receive a lot of money. But the privacy issues related to Irene just weren’t that strong. She had become a public figure.”

Facing with Irene’s intransigence, Paz and Monaco withdrew from the case. It was to be decided in chambers, and Irene went before the judge representing herself. It was now 1984, and the principal characters were subtly (or not so subtly) changed from those who had been there at the start. Floyd Ruch had died, leaving Jean a widow. Susan Curtiss, now Dr. Curtiss, had married and had given birth to her first child. Paz had become the president of the Los Angeles A.C.L.U. Owing to “economic exigencies,” Childrens Hospital had undergone something of a reorganization: James Kent had moved to Children’s Institute International, a child-abuse treatment center, and David Rigler, whose position had been eliminated, had opened a small private practice in Northern California.

The complaint was essentially dismissed—or, rather, upheld, in a Tom Sawyerish bit of jurisprudence. The things that Curtiss had wanted to do with Genie she was now instructed to do by the Court. She agreed to direct a program for Genie of linguistic, neurolinguistic, and neuropsychological evaluation and language instruction. Childrens Hospital was enjoined to give Genie yearly physical and psychiatric evaluations. To fulfill such obligations, Curtiss and the other defendants had full access to and use of Genie’s records, and were granted the use of Genie’s family history in scientific publications and speeches as long as they observed certain modest proprieties and donated any income to Genie’s trust fund. As a first step in that direction, Curtiss relinquished $8,383.79, her royalties to date. No other financial penalties were imposed.

Irene’s anger overrode the settlement’s condition that she not deprive the scientists of access to her daughter. She hid Genie away. Genie currently lives in a home for retarded adults, and visits her mother on one weekend each month. With the exception of Jay Shurley, none of the scientists have seen her. They do not know where she is, nor, except for rumors, have they heard how she is doing. In 1987, Irene sold the house on Golden West Avenue. She left—for the scientists, at least—no forwarding address.

NOT long ago, I paid a visit to David and Marilyn Rigler in their new home, a pretty, two-story frame house on the Northern California coast. The house was smaller than their previous one, but it didn’t need to accommodate the life they had led in Laughlin Park: the children were grown, the Steinway was sold, and Tori’s ashes were spread beyond a windbreak of eucalyptus in a field across the road. Genie remained only in a voluminous collection of reports, films, drawings, and photographs squirreled away in the back of the Riglers’ garage.

When I asked David Rigler about the claim he had brought against Genie’s estate in 1978, he looked uncomfortable and forlorn. “I didn’t do that for the money,” he said. “I never had funds in mind when I took Genie in.” His memory of the
claim was both fragmented and adam- 
ant. It had been Miner's idea, and not his, he said. He had never seen any money from it. He didn't know if Miner had received the money. And anyway they intended to put any money they received into a trust fund for Genie.

We were sitting in his office, a downstairs room so strewn with papers, books, old tape recorders, and film projectors that it seemed more the reliquary of a career than a place where one might still be carried on. There was a cloth-covered couch and a gray metal desk, and on the wall, amid the diplomas and citations, a print that seemed an odd choice to grace the office of a therapist. It was the optical illusion by M. C. Escher of an endless circular stairway going nowhere.

Rigler was in his late sixties, burly, gray-haired, and marked by an air of gentle domesticity and an expression of earnest and distracted kindliness. He described his feeling about the telling of Genie's story as "discomfort" and, later, as "dread." But to the degree that he was not reticent he was often con-

fessional. Though he was too jealous of his documents cache to let me peruse it, he made repeated trips to the mysterious garage to drag out paper after video after drawing.

"Understand," he said. "No one ever came to me and said, 'Dave, you should be doing X, Y, and Z'—except for Jay Shurley, who came in with a philosophical point of view. From his work with isolation cases, he said, 'You've got to let up on the pressure gradually, as though you had someone with the bends and you were bringing them to the surface. Let her come out a little at a time.' That had an impact on me. It was a useful notion. I don't think Shurley ever understood how much I tried to use his ideas."

Rigler stared at his hands awhile. "But it's one thing to come up with theories, and another to figure out what to do at breakfast," he said. "Someone had to meet the demands of research, and someone had to meet Genie's therapeutic needs, and I had both roles. And I was always aware that it was tricky mixing the two. I had a lot of ambivalence about it, at times. But in terms of the way we treated Genie—the things we did—I think we did about as good a job as anyone could have done. As far as the complexities of the case went, I wish they hadn't been there. In my hopes, I was blind to the complexities. They inhibited me from working right. There was no way of getting informed consent here, which has become a byword in human research. Genie never gave any indication that the filming or other activities were an imposition. If she had, we would have cut them out. Occasionally, we would get signs that she was stressed by the testing. But it's just like children's anxiety when they go to school for the first time: when they come home, they're very proud of themselves. Genie had a sense of triumph at doing many things for the first time. People don't grow when they're wrapped in cotton wool. They grow when they confront the world. The negative interpretations of the case are oversim-

plified, from my point of view. My own position—if I can psychoanalyze myself—was not one of expectation but of hope. The sky was not high enough for my hopes, but my expectations were down to earth. One easy out would have been for me to say early on that I would be much less involved. If I'd known what the outcome would be, I wouldn't have touched it—the outcome in general, and for me."

Other members of the Genie Team feel as bruised as Rigler does. They have imposed what amounts to a gag order on themselves and speak of the case reluctantly. As a result, a prominent piece of science has been forced into the shadows. Nevertheless, the research on Genie has proved its utility. "Genie was one of the first times scientists had used a case of an atypical child to understand the typical," Curtiss told me one evening recently, as we sat talking at her kitchen table. "During the Genie research, a lot of other projects of that sort started." Curtiss's house was a modest clapboard bungalow a few blocks from the Santa Monica Freeway, in the vast Los Angeles flatland. The soupçon of yard outside would not have accommodated a vol-
leyball game. Her husband, John, had lured their two young daughters away to leave us alone to talk, and the drone of a television sitcom and an occasional fit of giggles escaped from the living room.

Curtiss is currently studying children who have had diseased or damaged halves of their brains removed. What Genie suffered functionally, they have suffered physically. "I want to know to what extent hemisphere-tomies children can acquire grammar," Curtiss said. "The question is, how well can the right hemisphere do in supporting grammar functions? Is the left hemisphere essential?"

I recalled that this was a woman who had said of her younger self that hospitals were not her strong point—a woman of whom Jean Butler had said that she did not respond well to prompting, spoke movingly of her feelings for the child she had invested parts Genie had. It was from her we learned of her past. She told us of her feelings. She shared her heart and mind. From that perspective, who cares about grammar? Acquiring those parts of language didn't cure her. She's unbearably disturbed.

No one can be that wonderful. Then how would I react—I know I would say to her if I saw her. Not just how would I react—I know I would give her a hug—but what I would say. She is the most powerful, most inspiring person I've ever met. I'd give up my job, I'd change careers, to see her again. I worked with her, and I knew her as a friend. And, of the two, the important thing was getting to know her. I would give up the rest to know her again."

AFTER the death of her husband, in 1982, Jean Butler Ruch continued to live in a beach house they had bought in Santa Monica. On visits there with her mother, Genie would stand inside the sliding glass doors, her hands held up before her in her persisting bunny posture, and watch the waves that had once so frightened and delighted her. Ruch's letter writing continued; the campaign culminated in her plans to write a book with Jay Shurley, setting the record straight. ("I was bent on revenge.") The project was cut short in
1986 by a stroke—the result of vasculitis, which Ruch had suffered since childhood. It left her aphasic, unable to speak coherently; believers in fate might have found her final torment a tragic irony. In 1989, a further stroke killed her.

One late-spring day, I went to see Shurley. His study is an aluminum-sided sun porch tacked on to the back of his home in Oklahoma City. Through the open doorway leading to the back yard I could hear the tinkling of wind chimes, and the constant chirping of finches in the silver maples.

Shurley had unearthed for my benefit two cartons filled with manila folders and set them on his desk. They were his Genie files. As he talked with me during the next several days, he would dip into the boxes for letters, symposium papers, the scribbled logs of phone conversations he had had with Rigler, Ruch, Kent, and Hansen almost twenty years before. There was a file marked "Sleep Spindles" in one of the boxes, but by and large what he had preserved in his cardboard repository was not the science of Genie but the experience. The question that tormented him lay somewhere beyond the data.

"Here," Shurley said, reaching into a carton. The files were labelled "Genie Emerges" and "Jean's Input" and "Genie Book" (in the outline of which Genie's life was divided into Genesis and Exodus). He pulled out one labelled "Photos."

The first picture he handed me was of a nondescript house, seen from across a street through a picket of royal palms. Pages of a newspaper blow across a yard through the cold gray shade of a lemon tree. A second photograph was of the same house, but it was taken from the drive, where Irene stands in a plaid skirt and holds a cloth purse tight against her smooth yellow cardigan, as though expecting a sudden chill. It is the day, soon after her acquittal, when the house was first opened for inspection by curious strangers.

"Irene had all the instincts of motherhood, to my mind," Shurley said. "And she was very thwarted, and she was very weak. Only after a long period of befriending by Jean Ruch was Irene able to stand up and reassert herself. I remember some years ago, when she was living in almost abject poverty, one of the big networks—maybe overseas—came along and offered her ten thousand dollars for the story, and put all these documents in front of her, and she told them firmly 'No.' I was there at the time—at least, I was in Los Angeles and talking with her—and I was amazed at the strength of her fear, or the strength of her conviction."

Shurley set the pictures of the house aside and drew a rectangle on a piece of notebook paper. He divided it up into smaller rectangles. "Here is the room they said was a shrine to Clark's mother," he said. "It was the master bedroom, and it was almost completely filled with the bed. It wasn't very large. Here's the living room, and there was a chair here, and the television, which didn't work. Clark slept in the chair most of the time. He slept there, and here is the pallet where his son slept, on the floor." He drew a square in the corner for Genie's room. "She had a window here, and another around the corner, over here. The dresser was here, between them, and here is where she slept." He drew a small rectangle and labelled it "Crib."
“And here is the potty chair,” he said. “Sometimes it was over here.” Shurley looked up and then back, and drew a yard around Genie’s house, with a driveway and a lemon tree.

The next several photographs were taken on that same winter day, but they were taken inside, in Genie’s room. The room was dim. Here were the closet doors—three plywood panels with chrome pull handles. The dresser was pine and had four drawers. And here were the two windows, the upper half of each covered by a shade. Yellowish half-curtains draped the lower halves, their fabric thin and patterned with red flowers. One window’s curtain had been pulled back and was fastened to the wall with packaging tape. “Genie’s room was not sensory deprivation so much as sensory monotony,” Shurley said. “Monotony. You know, variety is not the spice of life; it’s the very stuff of life. To the development of a defendable, adaptable ego, monotony is deadly. In that little room, a person would become confused about what was real and what was imagined—would lose the ability to differentiate between dream and waking. Socially isolated children usually have psychotic parents who treat them as animals. There is no encouragement of any human closeness. It is typical for them to be locked in a closet—it isn’t rare. There was a boy here in Oklahoma City recently who was four years old, and his parents were keeping him penned with the dogs in back of the house. He walked on all fours. Genie remains by a good bit the kingpin of these cases. She has the record. Though it’s not a record that anyone would envy.”

The next photograph had been taken half a year later. It was summer, and Genie was sitting on a floor, laughing and alert. A note on the back of the photograph read, “This photo was taken about three days after she came to stay with me (she has hospital p.j.s on).” The note is in Jean Ruch’s hand. “The ability of that little girl to elicit emotion on the part of the observer was fantastic,” Shurley said. “You had to witness it. Just hearing about it would be orders of magnitude from the actual experience. Jean and Floyd Ruch, they were almost obsessed with this child.

Jean really did latch on to Genie in the early days, and it was reciprocated. Jean, of course, had never had a child of her own. Rigler had three and felt that experience was on his side. But after I got to know Jean I didn’t see anything to suggest that she wouldn’t be a good foster parent. She was the teacher, and had developed a very positive relationship with Genie within a couple of weeks. I never found the Riglers to be that warm or empathetic with her. At their house, it was as though Genie were being studied in a cold frame rather than in a hothouse. I understand some of Rigler’s feelings about Jean Ruch. She had a very interesting paradoxical streak: she could be extraordinarily kind and sensitive to children—and she was, as teacher to some very disabled and sick children—and then she was capable of doing malicious and, I’ll say, sadistic things, not to the children but to those who she felt were in disagreement with her about how the children should be treated. But to several of us, it seemed a pity that Genie could not be with someone like Ruch, who would bond to her as a person and not as a scientific case. Be-

A MAGNIFICENT MEDITERRANEAN VILLAGE CALLED FISHER ISLAND.

On a breeze-swept island off Miami, in the warm waters of the Atlantic, a magnificent Mediterranean village awaits. Its name is Fisher Island.

Here are gathered people from around the world who share a common appreciation for life and living to the fullest. Their community offers a superb seaside golf course; a tennis center with grass and clay courts; an international spa named one of America’s finest; two deepwater marinas for yachts of any length; seven restaurants; a dinner theater and shops in an environment of privacy and security. Fisher Island is a world unto itself. Best of all, the residences are splendid: such as this four bedroom, 4,021 square foot luxury condominium in The Village of Bayview, with marble floors, Thermador appliances and more than 1,000 feet of terraces offering sensational views of the Miami skyline, Biscayne Bay and the Atlantic Ocean.

If you long for a superb home on a tropical island, join the discriminating people who have discovered Fisher Island.

Residences from $600,000 to $5.25 million.

Fisher Island, Florida 33109, 305/535-6071 Telefax 305/535-6008
Toll-free 800/624-3251

This project is registered with the New Jersey Real Estate Commission, NJREC 904-711 to 716. Registration does not constitute an endorsement of the merits or value of the project. Obtain and read the New Jersey Public Offering statement before signing anything. This is not an offering to any person in any state where such an offering may not lawfully be made. Equal Housing Opportunity.
sides, I tend to go with the child. If the child says, 'I like this person,' there's something real there that a child can latch on to. To adults there may be things that don't seem right, that cause concern. But the child's instinct is usually right on the issue that's most important.

There were a few other photographs from the summer of 1971: Genie at an art gallery, stepping into a patch of bright sun in a smart maroon dress with a white collar and big white pockets; Genie in a swimsuit at the beach, concentrating with apparent delight as a receding wave washes around her feet, and holding her hand up in the O.K. sign, the tip of the forefinger joined to the tip of the thumb.

The last two photographs were of someone else, or so I thought: a large, bumbling woman with a facial expression of cowlike incomprehension. In one picture, the woman sits in a car pretending to drive, her eyes at half mast, her front teeth protruding in a drawn grin, a starburst reflection of palm tops floating in the windshield glass. In the second, the woman is indoors. She is about to cut a birthday cake with white frosting. Her eyes focus poorly on the cake. Her dark hair has been hacked off raggedly at the top of her forehead, giving her the aspect of an asylum inmate. Something about her dress is sad and reminiscent: it is shapeless and has red flowers. Her right hand grips the cake knife, and her left hand is held in front of her, forefinger touching thumb.

Shurley watched grimly as my recognition dawned. "Her twenty-seventh birthday party," he said. "I was there, and then I saw her again when she was twenty-nine, and she still looked miserable. She looked to me like a chronically institutionalized person. It was heartbreaking."

A note by Shurley on the back of the photograph read, "Genie is very stooped and rarely makes eye contact. This photo was at her happiest, other than when momentarily greeting her mother and me an hour earlier." As I turned the photograph back over, my association with the dress came clear to me. "Irene sewed it," Shurley told me. "She'd been a master seamstress before her eyesight went."

The dress, its thin weight and floral pattern, reminded me of the curtains in the little room.

"What do you make of her expression?" I asked Shurley.

"What do I make of it?" he said. "She looks demented." He paused, and then spoke intensely, as though he were at the center of something. "The way I think of Genie, she was this isolated person, incarcerated for all those years, and then she emerged and lived in a more reasonable world for a while, and responded to this world, and then the door was shut and she withdrew again and her soul was sick." Without looking away from my face, he pointed to the photograph of the woman in the car. "This is soul sickness," he said. "There is no medical explanation for her decline into what appears to be organic, biological dementia."

For a while, Shurley seemed disinclined to speak, and we listened to the finches in the yard. 'Then he said, "At the time that Genie came to light, I went back to try to find, anywhere I could, any kind of directions. Anything that said, 'In case of earthquake do this, in case of tornado do this,' in case of experiment in nature do this.' I found it nowhere. There's nothing of the sort. But from my experience the research with Genie could not have been handled worse. The process went off track from the day it was conceived. It went, after a little while, a hundred and eighty degrees from the direction it ought to have taken. There is a fundamental issue here that nobody has grasped. The key issue—I believe very strongly, in terms of my own experiences with isolation in many different contexts—is not the acute effects of the isolation. It is the problem of reentry into the matrix from which the child has been isolated. Isolation places one's own readiness to react in a kind of cold storage. Imagine using a muscle that has been in a cast, or a sling. Once you take the encumbrance off, the muscle has to retrain itself. It's suffering from atrophy, from disuse. Rehabilitation involves figuring out how you allow the strength back without rupturing anything."

"We're born helpless. We are born into the world with no boundary between self and not-self. We spend the first twenty years of our life establishing that boundary. Children who are so abused, deprived, are losing that battle by the age of three or four. I felt..."
that Genie was one of those—a little
girl with no sense of herself as a sepa-
rate, inviolable entity. I wanted Genie
to come into the world as a core
ego, capable of trust and mistrust. Proper
reentry is a key ingredient in treat-
ment and in research. A proper reentry is not
one preempted by scientific exploita-
tion gone wild.

"A child needs more than appro-
val. She needs a sense of security, safety—
the absolute conviction that she is worth-
while. Well, Genie grew up in a house
where the father didn’t like
himself and the mother didn’t
like herself and no one liked
Genie. And later she was a
celebrity. All these people
looking at this extremely
primitive child—this larval
child. In this six-year-old
body, a thirteen-year-old girl. Talk
about a weird kid: Genie was a weird
kid. And that’s how she was treated by
everyone—as a weird kid: ‘What do
you do with a poor, weird kid like
that?’ Genie was viewed as a child
abused, was exploited all over again.

Genie’s problem was seen too much
as a pedagogical one, not an emotional
one. We tried to teach her language.
Well, I don’t know. There’s a prob-
lem. In Linnaeus’ classification, Homo
sapiens is known as cultura, not as
lingua. Our advancements take place
in a relationship. In order for an infant
to learn anything—and this takes you
back to Victor, the Wild Boy of
Aveyron—there has to be a relation-
ship in which the child gets enough
nurturance to proceed. Affective at-
tachment plays the primary role. It is
not an intellectual process. Intellect
rides on the back of affective bonding.
And affection’s not easy to come by.
Human beings have a unique talent
not only for cruelty but for indifference.
Compassion was not referred to by the
Enlightenment philosophers as the
essential or defining characteristic of
humankind. It’s something in our nature
that must be taught."

Shurley waved a hand dismissively.
"This is old stuff," he said. "I resolved
that if I lived long enough I would do
a case study that would show how
things should be approached in cases
like this. These experiments come along,
Victor in 1800. Kaspar Hauser in the
eighteen-twenties, I believe. Genie in
1970. None of the wild children have
been handled well. All of them were
handled the way Genie was. She could
have been handled well. She would
have been a disappointment in some
ways, but the outcome would have
been happier. Genie arrived at the
hospital, and within the first couple of
months she became hungry. She came
out of an environment that was un-
friendly but consistent. Now she was
in a new environment, with
noise and other kids. A hos-
pital is an overstimulating
place. The problem was how
to get her out of it and into
a home. But she went from
one home to another. More
noise. She went from famine
to feast. Her response was not to take
that feast. She was overwhelmed. This
is part of the emergence thing. She was
enormously starved, but the starvation
was so chronic, so long-lasting, that
she didn’t trust her world to give her
what she wanted. She was afraid that
part of what she would be given would
be toxic to her. As it turns out, she
was right. These were not bad people.
They just didn’t allow this child to
develop along normal lines. The course
of research defeated the treatment,
which defeated the research. The sci-
cence would have fared better if the
human aspect had been put first. We
probably would have learned a lot
more, and what we learned would
have been transferable to other cases.
The only generalization you can get
from this is as a bad example—an
example of how not to do it.

"What I saw happen with Genie
was a pretty crass form of exploita-
tion. I had to realize that I was a part of
it, and swear to refrain. It turned out
that Genie, who had been so terribly
abused, was exploited all over again.
She was exploited extrafamilially just
as she was exploited intrafamilially—
just by a different cast of characters, of
which I’m sorry to say I was one. As
far as Genie is concerned, it’s a fated
situation. As far as Genie is concerned,
the child. But you don’t get a third
chance, and that’s the situation now.
We can’t do the experiment over. We
can’t go back. And that’s the bitter-
ness."

—Ross Rymer

(From the second part of a
two-part article.)