# ANNALS OF SCIENCE

#### A SILENT CHILDHOOD-I

NOMETIME 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 unbientific 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



ased rigor and a devotion to the sci- us of the Phrygian language-Psamtik'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 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 Tartter'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 bodied 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 tabuwas the birthplace of the flute and the lations 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 us. While his experiment was flawed the isolation in the shepherd's hut, in fulfilling its declared intention, it sometimes with far more attendant was in other ways brilliant—an inci- horror. The cases are exceedingly rare texts and inscriptions little remains to sive bit of scientific prescience. It em- and mostly fleeting. They become the

property of whichever researcher is for- that prevails in the wealthy precincts featured a photograph of two men tunate enough to be present at whichever 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.

EMPLE 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 Arca-

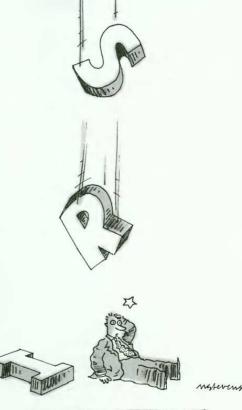
dia, and the San Gabriels remain a taunting vision, as distant in their way as the affluent hills of Hollywood, fifteen miles to the west.

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

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

The disruption was spectacularenough 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"

as the quietest family of all.



APRIL SHOWERS

APRIL 13, 1992

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, neckcraning 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 across her forehead. Her head is turned with an attentive tilt toward the camera, but her eyes do not meet the lens. She looks above us, as though some object of interest were hovering over the photographer's shoulder. Her expression gives nothing away. It is composed but not self-conscious, withdrawn

but with no trace of sullenness. Her mouth, its full lower lip closed against the serrated curve of the upper in a perfect Cupid's bow, turns up at the ends in what might be the beginning of a smile, except that she is otherwise so serious, so pensive and watchful. The energy in her face is all in her eyes. Without beseeching, they attract. If her face has an adult's earnestness, her eyes have the straightforward curiosity of a toddler, unburdened by any evident capacity for prejudice or appraisal. Her innocence is incongruous with the report of the epic abuse she suffered.

That her condition was cause for concern had been immediately apparent to the social worker who received her and her mother in the welfare office one morning in early November. Like much else in the child's history, her arrival there was a fluke. The mother had come seeking help not for the child but for herself; three weeks earlier, she had finally managed to flee an abusive marriage, and was living nearby with her parents, who were all but desti-

tute. Cataracts and a detached retina had rendered her ninety per cent blind in her left eye and totally blind in the right. She was searching for the services for the blind. But, leading her daughter by one hand and her aged mother by the other, she had stumbled mistakenly into the general socialservices office. The eligibility worker whom she approached was transfixed by the child, a small, withered girl with a halting gait and a curious posture-unnaturally stooped, hands held up as though resting on an invisible rail. The worker alerted her supervisor to what she thought was an unreported case of autism in a child she estimated to be six or seven years old.

The supervisor did not confirm the autism diagnosis but agreed that something was amiss. The ensuing inquiries found the girl to be a teen-ager, though she weighed only fifty-nine pounds and was only fifty-four inches tall. She was in much worse physical shape than at first suspected: she was incontinent, could not chew solid food and could hardly swallow, could not focus her eyes beyond twelve feet, and, according to some accounts, could not cry. She salivated constantly, spat indiscriminately. She had a ring of hard callus around her buttocks, and she had two nearly complete sets of teeth. Her hair was thin. She could not hop, skip, climb, or do anything requiring the full extension of her limbs. She showed no perception of heat or cold.

Of most interest to the scientists who were to become her constant companions was that she could not talk. What the social worker had mistaken for an autistic's abstention from verbal communication was in fact a complete inability. Her vocabulary comprised only a few words-probably fewer than twenty. She understood "red," "blue," "green," and "brown"; "Mother" and some other names; the verbs "walk" and "go"; and assorted nouns, among them "door," "jewelry box," and "bunny." Her productive vocabulary—those words she could utter-was even more limited. She seemed able to say only "Stopit" and "Nomore," and a couple of shorter negatives. The social worker paid a visit to the child's home and convinced the mother that her daughto Childrens Hospital of Los Angeles,



"I ask that the record show that the witness does not presume to speak for the animal kingdom but is testifying here strictly in his capacity as a beaver."

was eventually pieced together, thanks with little prospect except the assurin 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 was to spend the most time with her, begins, "To understand this case history, one must understand [the] family background." And, indeed, every scientist involved with the unfortunate child would be drawn again and again through that background, much as the rubberneckers had been drawn down Golden West Avenue-hoping to find in the neighborhood, the house, and the story of the household some answer.

Like most personal histories, the child's preceded her by years. Her parents migrated to the Los Angeles area from different parts of the country but from similarly impoverished circumstances. Clark, her father, was a native of the Pacific Northwest, and Irene, her mother, was from Oklareal-life Joads, they ran out of contifor treatment of extreme malnutrition. nent before reaching the promised land, An explanation for the child's state and the children approached maturity daughter. The infant's crying infuri-

to the efforts of the Temple City police ance of a restricted future. When Irene was in her early twenties, she found a traditional solution for her predicament (and, traditionally, her parents opposed it): like her mother, she married a man twenty years her senior.

Clark had a good job as a machinist in the aircraft industry, and was good at it. He bet moderately on the horses at nearby Santa Anita racetrack. In a photograph taken during their early years together, Irene and Clark appear to be a happy couple, even a bit glamorous. They are leaning against a shining black sedan; Clark's crisp fedora is tipped onto the back of his head as he and his wife turn to each other with broad smiles. But the felicities were all on the surface; Irene had run headlong out of a confining upbringing into a confining marriage. She would later say that her life came to an end on her wedding day.

Prominent among Clark's restrictions was his express desire not to have any children. For one thing, they were noisy. Late in Irene's first pregnancy, homa. Irene's family had moved west five years into their marriage, Clark ter needed attention. She was admitted to escape the dust bowl. Like other beat her severely. In the hospital for treatment of her injuries, Irene went into labor and gave birth to a healthy 44

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 grandmother, 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

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

older brother, but this time there was

no paternal grandmother to rescue her

said that she thought her son intolerably straitlaced. But straitlaced or not, he was slavishly devoted to her, to the point where Irene never became more than a secondary allegiance in his life. In December of 1958, Clark's mother

was struck by a car and killed as she crossed the street with her grandson to buy an ice-cream cone. Clark arrived soon after the accident to find his mother's body still in the road and no sign of the vehicle that had hit her. A teenager was arrested the next day and charged with hit-and-run and drunken driving. He received a probationary sentence. The court's leniency fuelled Clark's fury. He decided that a world without his mother, a world that did not care enough to punish her murder

adequately, was a world he could best do without. He quit his job and moved his family into his mother's two-bedroom house, on Golden West Avenue, where he would live out the last decade of his life as a recluse, with his family as virtual prisoners.

Irene's world closed in on her severely at this time. Her encroaching blindness made her almost completely dependent on her tormentor. Their son was allowed out of the house to attend school or to play with a neighbor but for little else, and within the house he was effectively a hostage. He slept on the living-room floor; his parents also slept in the living roomhis mother on a couch and Clark in an easy chair in front of a defunct television set, sometimes with a gun in his lap. The main bedroom, according to some accounts, was kept as a shrine to Clark's mother. But it was the daughter-twenty months old when the family moved-who bore the brunt of Clark's renunciation. "In essence, Clark appointed himself a guardian to his family," Jay Shurley, a professor of psychiatry and behavioral science at the University of Oklahoma, who became involved with the case, explained to me recently. "His delusion was that his daughter was retarded and was going to be very vulnerable to exploitation. He dreaded the idea of people taking advantage of her."

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

APRIL 13, 1992

by her scientific alias, Genie—the name used in the symposium papers, the psychology magazines, and the textbooks, and contrived in order to protect the child's identity. Curtiss's account agrees with that of other investigators. She

In the house Genie was confined to a small bedroom, harnessed to an infant's potty seat. 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; 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 envi-ronmental 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 Genie's room 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 occa-sional 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 re-neged 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 13½ 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 livingroom 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.

Clark did not leave a note for his wife or his daughter, but he did in-



"This is definitely the last time for Chapter Seventeen!"

clude 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, expen-

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 missionto go along with her new name.

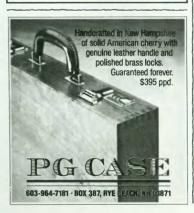
BY the summer of 1988, when Susan Curtiss and I first met, Curtiss had become an associate professor of linguistics at U.C.L.A. She was sharing a small office in Campbell Hall with two of her graduate students. Her desk was crammed into a far corner of the room, and over it were several pictures, tacked 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 sive, and up-to-date pediatric facilities figure, made with a series of quick





(301) 663-4900

(Free with order.) Box NYD2 303 E. Main Street Burkittsville, MD 21718



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: philologists, psychologists, biologists, 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 Susan Curtiss was in the vanguard of and a first-year graduate student in the the newest of a hundred raiding parties.

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

guistics. Besides, I love children. It to establish the science of biology. There 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 research, right down to today. I was just starting on the core curriculum then. I hadn't been exposed to many me. I wasn't even aware of the criticalperiod hypothesis."

In 1971, the science of linguistics was perplexing to some of its old hands as well. The critical-period hypothesis-the idea that there are certain distinct periods in a person's development during which skills like a first language can be learned-was there was also a shift in who was asking them. Curtiss's field-the ac-

crayon strokes. It wasn't easy to decide Linguistics is arguably the most hotly contested property in the academic realm. It is soaked with the blood of poets, theologians, philosophers, and neurologists, along with whatever blood can be got out of grammarians. Each discipline has at one time or another set its flag in the territory, knowing that its internal orthodoxies would be partly determined by whoever owned the language question.

Until the High Renaissance, European philosophers had related the language question, along with most other questions, to the Bible. Then Descartes made a heretical attempt to prove the complete independence of the

most of the central questions of lin- soul from the body, and thereby helped was impressive 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 not 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 of the issues that Genie presented to the theological dock and the other in the naturalist boat.

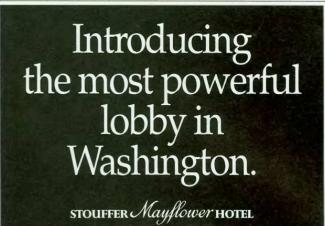
The discomfort was relieved somewhat by the rise of the social sciences, at the end of the eighteenth century. If language was somewhere between theology and biology, then perchance it could be considered a problem for anthropologists, with linguists playing a backup role. The voyages of explojust one of a host of new contentions. ration and colonization had shaped the As the questions changed rapidly, public imagination the way the Crusades had in earlier times, but with a more utilitarian grail. Comparative quisition of language by children-had linguists quit worrying about the quespreviously been the carefully guarded tions of the Vulgate text and got busy purview of psychology departments. 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

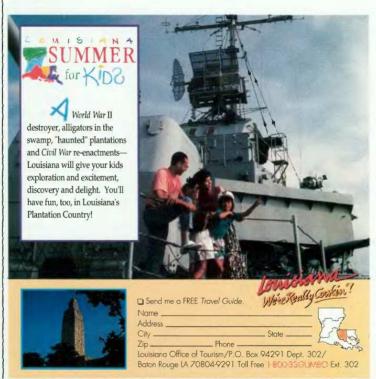


Come visit a real Washington power structure: the newly renovated Stouffer Mayflower Hotel. From our impressive lobby to our historic Promenade, new guest rooms with lavish new marble bathrooms, and our renewed commitment to service excellence, we think you'll agree: This is true Washington clout. For reservations or more information, call your travel agent or 1.800.HOTELS.1.

STOUFFER HOTELS • RESORTS (JH)



© 1992 Stouffer Hotel Company



50

APRIL 13, 1992

THE NEW YORKER

Use our weekly

listing to dial directly

to advertisers. Call

from any phone to

reach product and

service representatives:

Giorgio Beverly Hills, Inc. Free brochure and bonus gift with purchase 1-800-GIORGIO Ext. 467

Discoveries
Personalized Cartouche
Handmade in Egypt
1-800-237-3358

United States Virgin Islands
The American Paradise
1-800-USVI-INFO

The ANA Hotel
Washington D.C.
1-800-429-2400
Outside of Washington D.C.
Westin Reservation Number
1-800-228-3000

The Broadway Line
Call for free information
about Broadway, OffBroadway, ticket prices,
and theater locations
212-563-BWAY
(2929)

ADVERTISEMENT

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 linguisticsa 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 theatre, whose orchestra nit

in a steeply pitched lecture hall—a kind of theatre, 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

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 Search-

inger'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."

Chomsky looked momentarily baffled. "It's comparable to walking," Search-

inger prompted him.

"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 innatists, 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 innatists 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 relation-

ship 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 innatist 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 innatist cannot point to a gene or a cell for language. And even pital, told me. "We had calls from all

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 lan-

guage acquisition is that the nativists have proved that it's a mystery and the environmentalists have proved that it's

impossible."

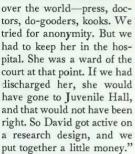
In the M.I.T. lecture hall, Noam Chomsky and Gene Searchinger were finding it impossible to proceed with the filming: a scheduled class was arriving, and a professor had come in and nodded timidly in Chomsky's direction before turning and writing "Developing Amphibian Oöcytes" on the blackboard.

"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."

HE 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 Childrens Hos-



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 Childrens 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 longrange 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 abusea 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



Boswell than her therapist." The day after her admission to Childrens Hospital, he paid her a visit. She had arrived in diapers, and was having them changed when he walked in. When she had been successfully outfitted in a new set of pajamas, she got out of bed and shuffled toward him, apparently attracted by what he had brought with him: a magazine, drawing paper, crayons, and a Denver kit-a set of toys used to gauge the developmental level of young children. He was amazed at the skill with which she flipped through the magazine. It seemed that all her dexterity was in her fingertips, for tests had shown her to have, in general, the motor skills of a two-yearold. As Kent removed items from the Denver kit-a bell, a block, a small doll-she took each one and held it momentarily to her cheek but then laid it aside. She made good eye contact with him, seemed very curious about her environment, and was attentive to sounds, moving about the room to determine the source of each. This Kent found promising. But his overall assessment was bleak. "As far as I'm concerned, Genie was the most profoundly damaged child I've ever seen," he told me. "There has been nothing in other cases to approach it. It was orders of magnitude worse. Genie's life was a wasteland."

The question for Kent-and, eventually, for Susan Curtiss-was what this damage meant for Genie's emotional and intellectual state. Because she couldn't talk, testing her intellect was almost impossible. But she was expressive of emotion: Kent noticed her fear when he pulled a puppet from the Denver kit. Genie started, yanked the puppet from his hand, and threw it on the floor. Kent feigned a horrified concern and said, "We have to get him back." To his astonishment, the child repeated the word "back" and gave a shrill, nervous laugh. Encouraged, Kent began a slapstick pantomime, picking up the puppet and letting Genie throw it again, which she did with bursts of laughter. She was playing, and was quick to enjoy his luggage overland—six hundred pounds reciprocating play.

She showed little beyond this, and Kent reported in a 1972 symposium paper that "apart from the peculiar laugh, frustration was the only other clear affective behavior we could discern." The frustration was just as lies that would imply abnormal brain on himself, floating in their null en-

#### THE SKELETON OF A TROUT IN SHALLOW WATER

wedged 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 skeletonskull, ribs, and spine polished cleanbefore 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 bleaching 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

or scratch objects with her fingernails. richest source of information you can When she was very angry, she would scratch her face, blow her nose violently into her clothes, and urinate. But she would not make a sound, and she would not turn her anger outward, toward another person. Her usual comportment, Kent noted, was a "sombre detachment." If not deliberately engaged, she drifted around in her new physical world, walking with bent elbows in her strange "bunny walk," spitting into her clothing or into a curtain hem, far more aware of the room than of the people in it. In fact, she seemed hardly able to differentiate between various visitors. Some observers referred to her as "ghostlike."

Among the first of the consultants to fly in was Jay Shurley. "That first trip, I paid my own way," he recalled. "I spent a week with her, examining her clinically. I determined for myself that she was the genuine article—that she had suffered the most extreme longduration social isolation of any child that had been described in any literature I could find.'

Shurley had sent the bulk of his of state-of-the-art equipment for investigating brain activity. For three nights running, on three of his early visits, he wired Genie to an array of meters, measuring her brain waves while she slept, looking for any anoma-

imagine," he said. "I responded to this, because I'm an investigator on a fundamental level. There were all kinds of questions that I felt she might shed some light on. Naturalistic cases of intense isolation don't come along often-not with a period of isolation as extensive as that.

Shurley had a charter interest in the isolation question; he had grown up unusual, in a hardscrabble Texas farm family. "I was a black sheep," he told me. "My family are all ranchers. I'm the first one that wanted to go to college and become an academic." After graduating from the University of Texas Medical Branch, at Galveston, Shurley went to Pennsylvania Hospital, in Philadelphia, for his psychiatric training. After a brief stint of private practice in Austin, he was drafted into the Army, where he taught psychiatrists who were accompanying the troops to Korea. After this tour of duty, he became the chief of the Adult Psychiatric Branch of the N.I.M.H.; there he spent his off-hours helping to develop the warm-water sensory-deprivation chambers that eventually made their way from science to parapsychology. Through the late nineteen-fifties and early nineteen-sixties, first at the N.I.M.H. and then at the Veterans Administration hospital in Oklahoma City, he used the tanks to experiment peculiar. She would scowl, tear paper, development. "Genie was about the vironment until he experienced the





#### ADVERTISEMENT

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 Curação, and the Indian ceremonial parks of Jamaica are as important

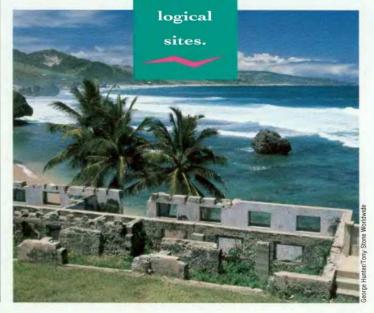
for tourism as the pink and white sands of Antigua and St. Thomas, the elegant hotels of Jamaica and St. Bart's, the dive resorts of the Cayman Islands, and the splendid yachts, sailboats, and cruise ships

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 antipollution 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. Coöperating with international conventions on drift netting and endangered species protec-

tion, 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.



Those in

search of

the past

will find it

in archeo-



#### Vacation on an island the travel writers haven't discovered yet.

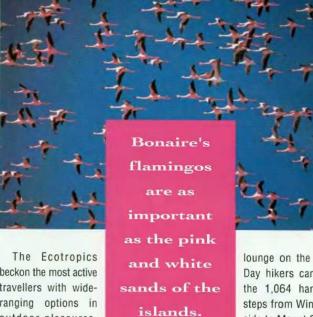
If you're looking for a private vacation island, come to Bonaire in the Dutch Caribbean, Here you'll discover Harbour Village, an intimate, luxury resort where the guest rooms are magnificent. Also, gourmet dining under the stars, a palmstudded beach, charter fishing and sailing boats, wonderful diving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







ADVERTISEMENT



beckon the most active travellers with wideranging 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 Boiling 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 Virgins, with their coralencrusted 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











800-548-4460 or 809-778-8920 St. Croix, U.S. Virgin Islands

Caribbean Cho

#### ADVERTISEMENT

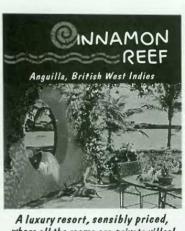
marine parks and dive facilities, too. There are plenty of new options for Caribbean-bound divers who think they've seen it all - Curação, the Turks and Caicos, the Family Islands of the Bahamas, Saba and St. Eustatius. Antigua and Barbuda, and Trinidad and Tobago among them.

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 eager 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 thirtytwo 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







#### ADVERTISEMENT

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, The nations
of the
Caribbean
are ensuring
the future of
their sea.

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 Larania 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 dutyfree allowance of island-produced comestibles, from Jamaica's Blue Mountain coffee to the liqueurs of Curação - 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.



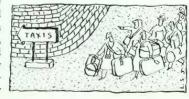
vivid hallucinatory state of the disembodied mind. Some of these dream states reminded him of reports he had heard in the military—the accounts of test pilots who flew the new reconnaissance jets so high that they could see neither clouds nor horizon and so fast that they escaped the sound of their own 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 thirteenmonth 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 to feel it. So when I met her and she began to notice me standing beside her bed, I held my hand out and she reached out and took my hand and carefully felt my thumb and fingers individually, and then put my hand against her

cheek," His 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 eves."

Shurley arrived on the scene in time to note some of Genie's initial progress. "When I saw her first, there was pendant flesh hanging around her buttocks where the hole of the chair had been. It was bruised black. There's no record of this except in my memory. Three weeks later, it had been reabsorbed, and the bruises had gone from blue to yellow." When he returned some two months later, he noted other, less encouraging transformations. "From being a totally neglected waif at the time I did my consultation, by the time I came back Genie had become a prize," he told me.
"There was a contest about who was going to investigate her, and howand research. You can't go everywhere. There were several leads, and after my initial sleep study I was trying to figure out where I wanted to go. Language acquisition was part of what I was interested in, but not a predominant part. Victoria Fromkin had declared an interest in the cognitive area, but if Genie turned out to be a mentally retarded child—genetically or because of her diet-she wouldn't be a good case for study of cognitive development. The potential for cognitive development would not be there; there would not be a flowering. This girl had lived on gruel and on milk from nursing bottles. I thought it would be easy to investigate whether her brain had suffered deprivation nutritionally, informationally, socially. I wanted to know what the effect was on her growing brain and, secondly, on her growing personality. I was more interested in the socioemotional aspects than in the cognitive. An issue that I thought could really be explored was whether she could be reattached to a



maternal figure. I thought it important to put her in contact with someone she could bond with. This case was something that was not duplicable. It was important that it be exploited fully and properly-and I don't mean exploitation in a pejorative sense."

APRIL 13, 1992

To Shurley, the prospects for a proper handling of the case seemed dim. "It was a politics-ridden situation, a matter of internecine warfare, almost from the word go," he said. "Childrens 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. It became almost an armed

camp, very quickly."

Genie, for one, seemed oblivious of about where to go with the treatment 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 singlestory 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 objectsbooks, 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





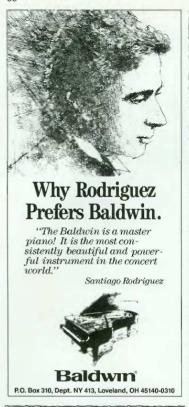


"Sculpture to Wear" Star of David® pendant, designed and created by nationally acclaimed sculptor Lucille Friedland. \$260 14K Gold \$130 Sterling Silver (Add applicable state sales to  $1'' \le 1^3/4''$ . For other styles & sizes available

order catalogue - \$1.

**GALLERIE LUJÉ, INC.** VISA & M/C • 1(800) 522-6231

APRIL 13, 1992









any way that she distinguished him months. She showed what experts in 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 specialeducation 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 outdoors 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

when he arrived but did not show in areas a year in development every few 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.

Ay 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 Hansen 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 profligacy; 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 dangled the boy from a fifth-story window to frighten him out of his recalcitrance), Victor made some hardwon 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

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 NEW YORKER READER SERVICES 1. 800 - 447 - 6553

**Timely Information** 

**Special Promotions** 

**Retail Location** 

Use our convenient touch-tone phone line to hear special messages about the quality products and services listed below. Call toll-free from any touch-tone phone:

#### B and B Recipe Booklet

B and B—a unique blending of Benedictine and Brandy. A collection of B and B's signature drinks is now available.

For your free copy: 30143

B and B Liqueur. 40% Alc./Vol. Hiram Walker & Sons, Inc., Farmington Hills, MI.

#### Genoa Colombo '92

In 1992, Genoa honors its most celebrated voyager, on the quincentennial of his magnificent achievements, with the international exhibition "Christopher Colombus: Ships and the Sea." For information on this exhibition and special one-week tours—

Call now: 30144

#### The New Yorker "At Large"

Receive the March 1992 issue of "At Large,"

The New Yorker marketing department's
quarterly travel newsletter which features
in-depth coverage of travel-related
advertisers' destinations, properties, and services.

For your free copy: 30110

A D V E R T I S E M E N T

APRIL 13, 1992



#### Sonesta Bermuda's Best on the Beach \$ Fun starts at just

In less than two hours from most East coast cities you could be basking in glorious surroundings at Bermuda's only beachside resort. 3 beaches, indoor/outdoor pools, a European health & beauty spa, tennis, fabulous food, terrific shopping, championship golf nearby and nightly entertainment.

Call your travel agent or 1-800-SONESTA.

### Sonesta Beach Hotel & Spa Bermuda

Southampton, Bermuda (809) 238-8122

\*Per person, per night, double occupancy, room only. Subject to availability. Effective through November 15, 1992. Meal plans and vacation packages available. Airdre, taxes, gratuities and energy surcharge not included.







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 Gineste, 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 beargirl; Tomko of Zips; the Salzburg sow-girl; Clemens, the Overdyke pigchild; Dina Sanichar of Sekandra; the Indian panther-child; the Justedal snow-hen; the Mauretanian gazellechild; 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 these situations much more with their the cinema ads in the entertainment thalamus than with their

cortex." On the first day of the conference, Shurley gave the results of his sleep studies. Genie's brain waves, he said, had shown a large number of what are called

dicate retardation. Others' observations were more subjective, less technical. Jean Butler reported that Genie was euphoric on holidays and weekends, when she got to leave the Rehabilitation Center on chaperoned trips; that she often said "No" but didn't mean it; that she called people "peepa"; that "dert" meant "doctor." She had had no problem with urine soiling since Christmas. She had been afraid of some boys who one day came past the classroom windows carrying rifles. She was ter- the attendees was quickly disabused.

rified of big dogs, and of all men wearing khakis. She thought that singing was exclusively for her benefit. Videotapes were shown of Genie in the Rehabilitation Center, and Rigler described a party that had been held there to celebrate her fourteenth birthday. It had overwhelmed her, he said, and her anxiety had mounted with each present opened, until at last she had to leave the room and sit in a corner holding Rigler's hand while she calmed down.

The second day was reserved for "deliberations of the consultant panel," meaning that it did not include those people seen only as caretakers, like Butler and the Rehabilitation Center cooks, who had been invited to participate on Monday. ("So Genie responds well to your intrasupportive initiatives?" a scientist had asked one of the cooks. "I just gives her love," the cook had replied.) Tuesday was for scientists only; besides Shurley, Rigler, Hansen, Kent, and Fromkin, there were some fifteen psychologists 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 première 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

section, art and life seemed to be doing a do-si-do. At four-thirty Monday afternoon, the day's testimony on Genie finished, the symposium members adjourned to a movie theatre a few blocks from the hospital

sleep spindles—artifacts that may in- for a private screening of "The Wild Child."

> "No one had seen it before," Shurley recalled. "I hadn't seen it. The impact on the whole group was stunning. At first, there was silence. It was very moving-no one could say anything. Once people overcame the shock, the questions began to flow." The questions flowed through dinner and into the next morning's session, but anyone who may have hoped that the film would promote accord among

"There were so many things commented on," Shurley said. "All of us saw in the movie what we were prepared to see to confirm our own biases,"

The biases concerned two areas: what Genie could best reveal to science and what, in the course of that revealing, science could ethically ask of Genie. Shurley's handwritten notes of the Tuesday meeting include the sentence "Rigler talked on second day on constraints on research, legal and moral." After the movie, even more than before, moral concerns seemed to be on everyone's mind.

"My pitch was-and some others agreed-that the interests of the girl, 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 opportunitythat research had to be primary." Three months after the conference, Rigler elegantly expressed the interdependence 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 essentially upon successful rehabilitation," he wrote. "Theories of child development hold that there are essential experiences 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 information 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 rehabilitative efforts. The research goals thus coincide with [Genie's] own welfare and happiness. Conversely, if our research 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 interfering. "Dr. Rigler and others argued for the primacy of research—couched, of course, in ethically sensitive terms," he told me. The meeting ended in what one conferee called "some considerable 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 conferees 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 University 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 detrimental 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 Medicine, in Houston, argued that the acquisition 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 presented in the videotapes, noting the "very dramatic . . . change in her appearance 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 breakfast. 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 leading 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 relation 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 fourteenyear-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 herself with and pleasing...

Without the creation of such an attachment, 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 whatever 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

70



# Your Window On The Weather

Full line of matched weather instruments are housed in 6½" solid brass cases. Microprocessor-based weather computers display trends as well as current information on wind speed/direction, barometer, thermometer and wind chill. Analog displays also available.

Ideal for home or office, for a gift or for yourself, Maximum instruments are available through select dealers, or direct from us. Maximum, Inc., Suite NO4, 30 Barnet Blvd., New Bedford, MA 02745 (508) 995-2200.

MAXIMUM

WE DON'T JUST GIVE YOU A PLACE TO PUT YOUR MONEY... WE GIVE YOU A PLACE TO PUT

YOUR VALUES.

Since 1973 South Shore Bank has been reviving struggling communities by making millions in loans. A miracle? No. Just a bank doing what banks were meant to do: show faith in good,

hard-working people. If you share these values and have funds to invest, call us.

1-800-669-7725 71st & Jeffery Boulevard Chicago, IL 60649 . Member FDIC



WHAT BANKING WAS MEANT TO BE.





Genie in talking.... She should be, in my view, bathed, clothed, toileted, massaged, kissed, cuddled, and fondled all by one person. Other people should be available but in a distinctly secondary role. Out of such an intense relation should grow both an awareness of herself and of whoever it is who is caring for her. Such an awareness, to reiterate, seems to me to be the necessary first step in her

Later that summer, Rigler made his grant decision, and its focus was on language acquisition-not teaching Genie language so much as watching how she learned it. The main beneficiary was the scientist whom Shurley remembers as having had the least to say at the May session. "It was a surprise when I learned that Victoria Fromkin initiated a major study," he told me. "But Rigler thought a language study was a good idea—though he later came to doubt it."

Shurley fully understood why the case might be perplexing. "At first, confronted with this child, we didn't know what questions to ask her," he told me. "Genie was an absolutely beautiful example of a process: when confronted with nature—human nature-in the raw, you stumble around and come up with one or two questions to ask. If they are the right questionswhich is to say, if they are the relevant questions-then you get around to the content, and you begin to read what was written there all along. The questions come out of your culture. The Wild Boy of Aveyron-Victor-came along when all the questions of the Enlightenment were being asked. And they were asked of him. But he didn't answer them."

STRUCK though Shurley and the other conferees were by Truffaut's movie, they could not have imagined, as they sat in the otherwise empty movie theatre, how deep would run the parallels between the two so distant cases-the boy abandoned to the forests of revolutionary France and the girl trapped in a twentieth-century American suburban bedroom-or how insistently the similarities would surface. Indeed, simply by viewing the movie the committee was aligning the case in hand with the one on the screen: in 1800, the scientists deciding the fate of the Wild Boy had also sought counsel from popular entertainment. They attended a play, then the rage in Paris, about a fictitious enfant sauvage. The melodrama was called APRIL 13, 1992

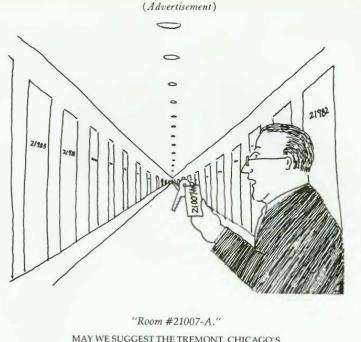
"The Forest's Child," and Victor was named after its protagonist.

Like Genie, Victor seemed on discovery to be impervious to heat and cold: 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 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 on a leash-created a public furor. Rumors flowed through the crowd surrounding the institute grounds that he was perhaps the long-lost Louis XVII, who, like some premonitory Anastasia, had survived the execution of his royal parents and was said to have fled into the forest; however, the foundling's age seemed wrong. Oddsmakers set up shop, taking bets on whether the boy would ever talk, ever be civilized. Newspapers carried the betting charts. Itard sequestered Victor from the more indiscriminate attentions; later, however, he acted as Victor's chaperon among the perils of Parisian high society. When the two accepted a summons to dine with Mme. Récamier, the ravishing young socialite whose attentions conferred social beatification in the capital, Victor left the table and ran into the yard, tore off his clothes, and climbed a tree; he was not invited back. On another occasion, he met the Marquis de Sade-an encounter that the official history of the Institut describes as "vraiment un rendez-vous manqué."

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, Condillac, and Locke.

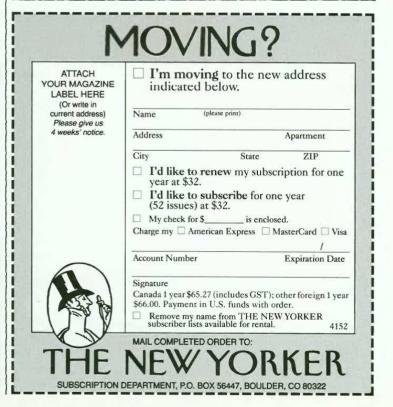
Whatever its more general effects, the Revolution seemed to have worked to Victor's advantage. Foremost among its courtesies was its timely end, which permitted a renewal of interest in things scientific. During the preceding decade, Paris had not been a happy place for scientists, among others. Intellectual 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



71

MAY WE SUGGEST THE TREMONT. CHICAGO'S BEST SMALL HOTEL. EUROPEAN INTIMACY, JUST OFF THE MAGNIFICENT MILE. 800 621 8133

THE TREMONT HOTEL



appointed a doctor, Philippe Pinel, to run Bicêtre, instead of the usual policeman. 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, a true and irremediable idiot. After that harsh dismissal, the boy languished for months in a limbo of neglect, until Itard, disagreeing with Sicard, his mentor, took on the task of proving Victor's potential.

Like bronze, French science is a useful amalgam of two slightly softer elements. Descartes set out the basic scientific method, rooting it in a rigorous adherence to what can logically be inferred; he trusted the corporeal senses the way a Bedouin trusts the shimmer of silver in distant sands. A century later, the philosopher Étienne Bonnot de Condillac adopted a more generous opinion of outward experience. Taking his cue from the empiricism of John Locke, Condillac contended that our minds are blank slates at birth and are tutored entirely by our surroundings. The world lived in Descartes; Condillac lived in the world.

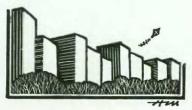
Much scientific endeavor of the eighteenth century was aimed at determining the physical distinctions between man and beast. It had long been held by some that the physiological feature most innately human was the fanny, or perhaps the calf-or, at least, the upright posture that had created both of them. But then the voyages of exploration reached Borneo, where Europeans encountered upright and eminently fannied orangutans, and the distinction 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 men 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 contemplated that it was proposed that one be mated with a prostitute to see what progeny would ensue.

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 enabled language; language enabled living one, someone or something perched squarely on the species' frontier. 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. So distinct from humanity were feral children considered that Linnaeus, in his "Systema Naturae," accorded them status as a separate species, Homo ferus.

Victor, even before he reached Paris, was debunking some of the prominent theories. To the dismay of the uprightstance advocates, he was seen, during one of his several escape attempts, to cross a field on all fours, running close to the ground, like an animal. J.-J. Virey found no sign of another "innate" human trait: "Is our young Aveyronnais capable of pity?" he asked. "Personally, I venture to believe that if this young man could . . . bring some interest to bear on the things around him, then he would be inclined to commiserate as much as children ordinarily are." Like Genie, Victor hoarded what he cherished, and he refused to share. Like Genie, he warmed only slowly to adults and not at all to other children. Having given the lie to physical rectitude and empathic feeling as defining characteristics, the boy, like Genie, was called to preside over a grander mystery—the mystery near the center of the web.

Montaigne said, in an essay of 1580, "I believe that a child brought up in complete solitude, far from all intercourse (which would be a difficult experiment to carry out), would have some kind of speech to express his ideas," and he implied that the inherent enigma was still that of Psamtik: Which language would the child speak? The Enlightenment tortured new subtleties out of that question. Was our native language that of the soul, of society, or of the intellect? Did thought lead to language, and language to society? Some inverted the progression: society was our most innate characteristic, they said; it



thought. Did the child in the woods not think, then? Was it possible to think with something other than language? Was it impossible to think alone? Or was thinking alone the necessary precursor to all else? The questions outlived the age. By the end of the nineteenth century, the German philologist Heymann Steinthal had concluded that language was not meant solely for communication. "Language is self-awareness," he said. "That is, understanding oneself . . . as one is understood by another. One understands oneself: that is the beginning of language."

For Victor, 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-Marc-Gaspard Itard. If he could resurrect the boy from savagery, he would provide what he termed "concrete proof" of Condillac's theories. He would demonstrate 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 chaussure, for instance, with a particular shoe. This accomplishment led to a game-a combination of flash cards and hideand-seek, in which Itard wrote a word and Victor ran around their chambers seeking its correlate. Then Itard took the game a step further, depriving Victor 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 sentences. Interestingly, even a little bit of language seemed to open up new ways of thinking for him. The boy APRIL 13, 1992

# 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 NordicRow TBX burns up to 8% more



◆ It only takes 20 minutes a day, 3 times a week!

 Try NordicRow TBX in your own home for 30 days.



FREE VIDEO BROCHURE, CALL
1-800-468-4491 FM.
7131D2
OF Write: Nordic Track, Dept.713D2, 141 Jonathan Blvd.,
MAN SAIR

©1992 NordicTrack. A CML Company

All rights reserve







who had been completely adrift could concentrate. Chores he had performed mechanically were suddenly imbued with spontaneity and imagination. He even seemed better able to imagine the needs of others.

The triumphant note at the end of Truffaut's movie marks the point of Itard's First Report, presented in 1801, when Victor had made a certain amount of frail early progress and seemed on the verge of much more. Five years later, Itard offered the Society of Observers of Man his Second Report, and it is markedly different. There had been progress, true, but Itard had come to appreciate the limits, rather than the potential, of his young student's mind. The boy was clearly capable of hearing and producing the necessary sounds, but he had shown that he would never learn to speak. His writing skills could proceed only so far. And his progress had been obstructed by the debilitating "crisis" of puberty, which drove the boy into torments and distractions that he was even less able to control or understand than other boys his age. Itard bled him to relieve his hormonal storms and recommended stopping the experiment.

In 1811, when Victor was in his early twenties, he was evicted from the Institut. He went to live with his caretaker, Mme. Guérin, in a small house in the Impasse de Feuillantines, a few blocks away. He received a small state pension, but he was otherwise forgotten by the government and the public, and even by Itard, his former champion. Itard was on the way to being famous: in 1814, he received the Medal of the Legion of Honor; in 1821, he was elected to the Academy of Medicine. He continued to work at the Institut, but he never walked over to visit his onetime pupil. Victor died in 1828. His obscurity in his later years was not just the result of the failure of Itard's experiment; the times had changed. The questions of the Enlightenment had lost their urgency. When a new wild child was discovered in the provinces some years later, the provincial authorities notified the government in Paris, and the Parisians replied, "You keep him."

If 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 Deconstruction, 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 donning Cartesian and Lockean robes. Genie intruded into that argument, and fell into a wonderland of ancient rivalries. Her Hansens and Kents were children of Pinel, her Jean Butlers descendants of Itard. Condillac attended, his ghost guiding those who hoped that education would determine the remainder of Genie's life. Condillac is the patron, and Descartes the hobgoblin, of social workers everywhere.

Unlike most of the known wild children, both Victor of Aveyron and Genie of Temple City arrived to expectant audiences. Victor's début was timed roughly to the questions of Condillac and precisely to the creation of the Society of Observers of Man. In 1971, Genie had the services of a different advance team. As David Elkind, one of her early observers, puts it, "Chomsky was new then, and linguistics was hot—there was a new theory coming out every day." Her arrival was even more precisely timed to the advent of one of those theories.

The study of language acquisition in children turns on a single simple idea—one that I heard most succinctly expressed in the keynote speech at the 1989 Stanford Child Language Research Forum. The address was delivered by Lila Gleitman, a professor of psychology and linguistics at the University of Pennsylvania. In her late fifties, with close-cropped dark-gray hair and wearing an orange-patterned frock and sneakers, she managed to give the impression, as she leaned on the lectern, of a truant leaning against a gymnasium wall smoking a cigarette instead of going to class, and being too cool to care. "Can you hear me?" she barked into the microphone, and then snorted to herself, "Huh! Only too well." The snort, it turned out, was a trademark-the nasal harrumph of a prizefighter, equal parts cynicism and deviant relish. On the movie screen behind her appeared a slide of the front page of a supermarket tabloid, with a headline reading "MOM GIVES BIRTH TO 2-YEAR-OLD BABY," beneath which was the subhead "CHILD WALKS, TALKS IN 3 DAYS."

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



# "Boat shoes are like boats. The beauty lies in the details."

Ted Hood's Little Harbor Yachts are legendary for their attention to detail. Dovetail joiner work and custom stainless deck hardware reflect the standards of a very particular man. Which only makes it more gratifying to us that Ted has enjoyed the handsewn comfort of Sebago Docksides® for years.





Sebago Docksides, official footwear of the 1992 US SAILING TEAM.

78

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 eves out. Still, you know what? The little bastards learned language. 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

was a convert, the Three Days ques-

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 sentence with them."

tion 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 Day 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

"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 lanit weren't tied to our biology?

His concreteness notwithstanding, Lenneberg was, like Chomsky, a theo-In the innatism to which Gleitman retician. What was needed was a not good in hospitals. It's not my clinician's validation, but the clinician strong suit. I was also scared-or, at



"This sounds serious—like something we should go to Maine and work out."

Condillac. As Catherine Snow puts it, 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.

APRIL 13, 1992

'HE 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 dauntguage be tied to our biological clock if ing. "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

> 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, noseblowing, food-filching behavior could be somewhat less appealing. "It was hard," Curtiss said of the early contacts. "She was

very— She was—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 languaged 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."

"The child has no passwords," Gleitman said on that occasion. "He doesn't know he's in the U.S. He doesn't know he's learning English.

His mom shows him this room"—she the young listener first grabs phowaved a hand out over the audience-"and describes it. What does she say? 'Bahbahbahbahbahbahbahbah.' That's what she says. She could have said that the lady in back there is wearing blue, but what she really said, as far as the child knows, is 'Bahbahbahbahbahbahbah.' The question is: How does he figure out what his mother is saying about the room? O.K.? That's the story. That's bootstrapping."

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

nemes-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 ON KIAWAH

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 lather and son. From lamilies 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 shore traditions of your own.

The Beach Is Only The Beginning

PHONE

NY4

NAME ADDRESS

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

Obtain the Property Report required by Federal law and read it before signing sayshing. No Federal agency has judged the merits or value, if any, of this property. Void where prohibited by law. A Statement and Offering Statement has been filed with the Department of State of the State of the State of New York. The filing does not constitute approval of the sake or lease or offer for sake or lease by the Department of State or any officer thereof or that the Department of State has in any way passed upon the merits of such officering A copy of the Offering Statement is available, upon request, from the subdivider. (NYA 91.163). This project is registered with the New Jerrey Real Estate Commission. Registration does not constitute an enduranment of the merits or value of the project. Obtain and read the N.J. Public Offering Statement and read it before signing soything. (NJ Reg. 1891.5.175/1)

CITY/STATE

80

psychological and neurological tests, would within five years make Genie, in David Rigler's words, "perhaps one of the most tested children in history."

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-nineteeneighties, 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 the nine-month-old has in its mother tongue the infant may have in any language. It has not yet let languish the grammars it will not use.

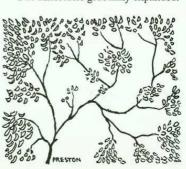
Though Genie had embarked on language learning before Curtiss met her, she hadn't acquired enough to make her available to the standardized tests that determine children's linguistic competence. In the summer of 1971, Curtiss and Fromkin faced the task of inventing a completely new set of linguistic examinations, appropriate to her. They eventually devised twentysix of them. The administration of those tests, along with a battery of

Fortunately, the linguistic-research tradition allows for other, less rigid methods. Curtiss began a diary on the day she met Genie, recording everything that Genie said and analyzing it for signs of progress. Even here, Genie was stubbornly enigmatic. Most of the time, she said nothing; her vocalizations were usually whimpers or squeaks. "She had been beaten for vocalizing," Curtiss explained to me. "So when she spoke 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 fundamental pitch. It was so high that we couldn't analyze it on the instruments we use to acoustically analyze human speech. And she was monotonic-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 disconcerting 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.

APRIL 13, 1992

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 potty 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 shrinkwrapped meat packages. He opened the service window and held out to her

an unwrapped cut of steak, and she permanence," he told me. "That's a 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 understanding. Occasionally, when Curtiss reached the checkout counter the cashier would produce a toy or a trinket, 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 preternatural communication—an explicit, unvoiced understanding-that her careful notebook analysis was unequipped 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 and gave it to Genie and then ran back to the car. A plastic purse. Genie hadn't said a word."

Genie's more conventional communication was improving. She still spoke in one-word snippets, but with an enhanced vocabulary. She was catching on to the give-and-take of conversation. She seemed, in fact, to have gained roughly the level that Victor had achieved at the Institut National des Sourds-Muets: she was forming social attachments and had picked up enough crude language (though hers was spoken, while Victor's was written) 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 gin to reveal herself.—Russ RYMER she retrieved an item from her dresser drawer. "She had the idea of object

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 terminology of Piaget, the Swiss psy-

chologist who believed that children have critical periods not just in language acquisition but in general mental development. The mind doesn't expand only by learning, he said. It unfolds 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 inclined 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 meantime 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 egocentrism. There might well be an intermediate step. According to L. S. Vygotsky, a contemporary of Piaget's who applied the Master's theories to language, the name-learning stage is followed by a period in which the child uses its new vocabulary to speak to itself, to encode its inner ideas. Vygotsky's theory embellished Heymann Steinthal's old formulation: perhaps, behind her inscrutability, Genie was building self-awarenessunderstanding herself as she was understood by others, for "that is the beginning of language." Through the summer 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-

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



81

## Try a different APPROACH TO WEIGHT LOSS

Regin 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





# ANNALS OF SCIENCE

#### A SILENT CHILDHOOD-II

year-old girl came to live at Childrens Hospital of Los Angeles. under restraints in a bedroom of a 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 divi- there was no humane way to isolate sion'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.

URTISS'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 Childrens 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" was a two-story house a block from the Wilshire Country Club, on Cahuenga Boulevard-a house that seemed somewhat beyond the means of

N November of 1970, a thirteen- a schoolteacher with an income of thirteen thousand dollars a year. But Jean Butler was doing all right. She Since the age of two, Genie (her sci- had recently turned down an offer entific pseudonym) had been kept amounting to almost a quarter of a happy to be in my home," Butler wrote million dollars for twenty-five acres modest house in the Los Angeles 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 wreaker in schools, but in the light of Genie's past

her. The obvious solution was to quarantine her with her teacher, and on July 7th she moved in.

"It was apparent that Genie was 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



"How about a nice, big coffee-table book about women?"

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 Childrens Hospital; still, the

#### 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 Kasdorf

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 Childrens Hospital, had reservations. For one thing, it was against hospital policy to place patients in the homes of people who worked at home with a foster father as well as a foster mother.

Butler had a handy solution to that not at midnight.") 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



two institutions were bound together in 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 in the homes of people who worked at rising to break it up. (Rigler doesn't the hospital. For another, it was felt recall the incident. "Oh, something that Genie would be better off in a like that might have happened," he told me. "We did argue about administrative stuff. But not shouting. And

> 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

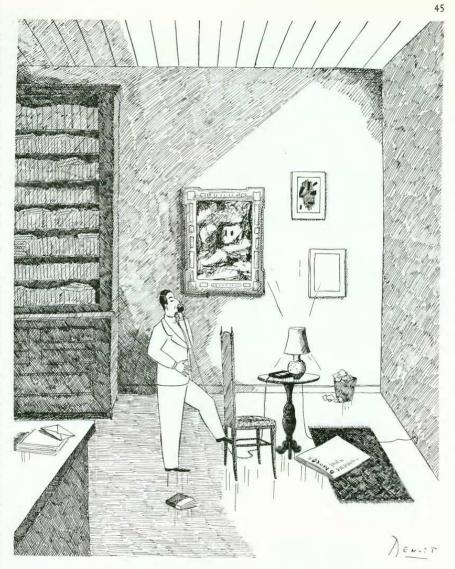
of the puppy. Rigler relates it this way: "At one point, I visited Jean Butler's home and had a golden-retriever puppy with me, and Genie must have seen the puppy through the window, because according to Butler she got very upset. Now, this puppy was only ten or twelve weeks old. It was just a fur ball, 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 р.м., Genie and I were folding sheets and the task was giving her great satisfaction...Just then Dr. Rig-ler 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, slam-ming 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

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 trying to get Genie over her alarm. He thing Genie would do when she saw



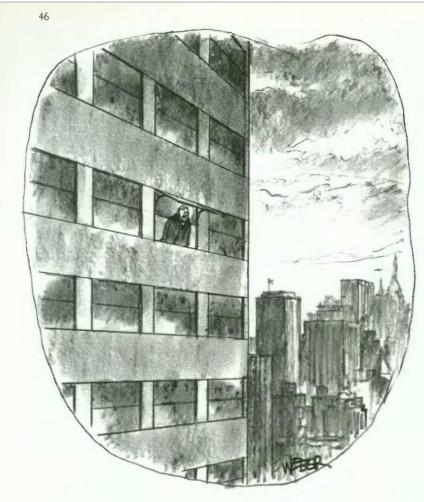
The artist tries to explain to a TV reporter why he declines to take part in a talk show.

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."

a pole," he told me. "Or she would desert you altogether. You'd look around and she'd be heading for the white line. 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 watched episodes of "Lassie" with her,

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 numbered officially among them. She requested a thirtyeight-per-cent raise in pay, and she also asked to be acknowledged alonga cat or dog, she would climb you like and bought her a battery-operated toy side 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 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 studthat summer in her diary: she claimed ied 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 ½ 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 obcome 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

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 im-provement" 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

APRIL 20, 1992

situation," it began, and proceeded to defend the charter of the research from Butler's charges of exploitation: "This child is not for sale, but in our view and in the view of funding agencies, knowledge obtained from study of this unique child is important knowledge to be employed for humanitarian purposes." Rigler extolled the staff of the Rehabilitation Center, which he described as "one of the best institutions of its kind to be found anywhere," but he also endorsed Butler's claims as a potential foster mother: "In this regard, I would offer my opinion that Genie is receiving excellent and loving care within your home at the present time." Nevertheless, he bemoaned what he saw as Butler's lack of coöperation, and he discouraged her hopes of increased compensation: "It is not likely that any parent or foster parent of a difficult-to-care-for child is adequately compensated for the endless and extraordinary demands placed upon them."

On the morning of August 13th, Sue Omansky and her supervisor from the D.P.S.S. arrived at Butler's house. They brought with them their department's final decision on her application to be Genie's foster parent. It had been rejected. Butler wrote in her journal:

For about twenty minutes Genie knew something was wrong. She was very upset when I told her that she must go with Mr. Wodowski and Miss Omansky back to Rehab. She said, "No, no, no?" I told her I loved her very much but she must do what I say and go with them.

Just before Mr. Wodowski took out her clothes he thanked me for all that I've done for Genie....

They left at about 10:30.

No sooner had Genie been taken back to the Rehabilitation Center than she was turned over to her new foster parents. Apparently, the policy concerning patients' living with hospital employees was a flexible one: the foster parents were David and Marilyn Rigler.

The sudden end of Genie's short summer on Cahuenga Boulevard marked a turning point of sorts for Jean Butler. Her defeat confirmed her in the struggle against Rigler and the other members of the Genie Team. She began a relentless campaign to avenge the wrong that she felt she and Genie had suffered, firing off letters critical of the team's research to various scientists, and muckraking through the grant proposals and symposium papers of team members for the least sign of misfea-

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 coincidence 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 hushed, 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 adjustments. "For one thing, we prize books," Rigler told me. "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."

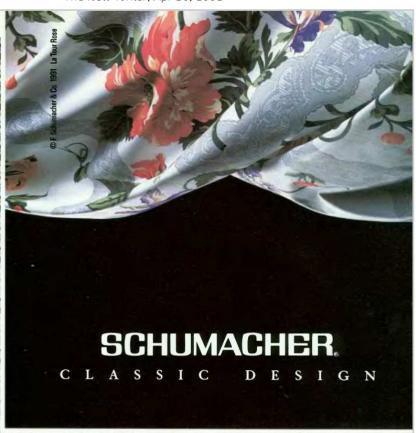
And she might just do other things as well. On her arrival at the house, Genie ran her fingers nervously around the perimeter of each room, then defecated in Rigler's daughter's wastebasket. She urinated every ten minutes, wherever she happened to be. That habit eased almost immediately, but others didn't. 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.

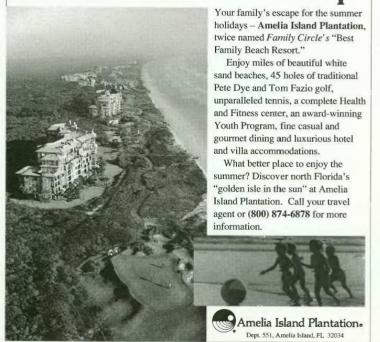
She eventually reached out when the dog was turned the other way, and touched its tail, and from that time on she was fine."

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 Childrens 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 Childrens 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 twoword 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 Great Summer Escape



## 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 Package. And our Deluxe Weekend Golf Package. 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 commuter service by USAir and United Express. Rates are daily per person, double occupancy. The Greenbrier. White Sulphur Springs, WV 24986. A CSX Resort.

> MID-WEEK GOLF PACKAGES \$210

DELLIXE WEEKEND PACKAGES \$237

The Jeading Hotels of the World\*

reenorier is "Ladies and Gentlemen serving Ladies and Gentlemen". 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 compre-

hension 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 dinnertime, 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

version only on firm request. Genie's Genie's incarceration, a neighbor's child took piano lessons, and his practice sessions, filtering in through the barely opened window, were Genie's matinées. Whatever their source, Genie's tastes were adamant. If Curtiss's repertoire strayed too far into the popular, Genie would pull her hands from the keyboard and replace the sheet music with a piece she recognized as being more highbrow.

> On November 10th, Curtiss was playing some nursery songs she had

discovered that Genie would tolerate, and singing along. To her surprise, Genie clapped, danced, and stamped her feet to the music when Curtiss asked her to, and she sang, changing pitch in a semblance of tonal control she

had never previously demonstrated. A week later, music provided the context for another innovation-not in inflection this time but in volume. During a drive to the hospital, Curtiss sang Genie an improvised song about their destination. Genie joined in, repeating "hospital" over and over, and once, in defiance of her fear of vocalizing, belting the word out. Some months later, she defied that fear again, this time letting out a scream when David Rigler tried to remove some wax from her ear. The event went straight into the notebooks. As far as the researchers know, the scream was her first and her last. But coming from a child whose explosions were almost always underground it was remarkable.

Advances in speaking came packaged with behavioral leaps. The person unofficially in charge of teaching Genie how to act was Marilyn Rigler. To show Genie how to chew, she chewed with Genie's hand held to her jaw. In four months, Genie had learned to move her own jaw in approximate fashion, and the Rigler dinner table recovered a semblance of normality, disrupted only by Genie's gesturing. Instead of asking for what she wanted, Genie would grab Marilyn's face or arm and then point or otherwise gesture to indicate her need. Her gestures were a kind of language, peculiar and peculiarly effective. To express pleasure, she would moisten two fingers in her mouth and rub them quickly against Marilyn's nose. But communication at dinnertime required conversation of a more conventional sort, years in the little room: during part of and soon Genie was pressured into learning to state, not manually indicate, her desires.

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 not sob or shed tears," Curtiss wrote Genie." Then Victoria Fromkin reripped at her face. Marilyn found herself in the strange position, for a parent figure, of teaching a child how to have a good king-hell-buster of a fit-how to slam doors and stamp her feet. She nie. As with other accounts in Curtiss's would drag Genie out of the kitchen dissertation, it is hard to tell who, 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. Curtiss witnessed a further breakthrough in emotional expression one morning when she arrived to find Genie crying. She had had a cough and a cold and had complained that her ear was aching, and had just learned from Marilyn the scary news that she would have to go see a doctor. "I noticed the striking change in this girl who such a short time previously did



"He was well on his climb to the top when they declawed him."

in her dissertation. In mid-June of 1972, Curtiss recorded an event that approximately marked the first anniversary of her acquaintance with Gesubject or scientist, was being more changed by the experiment. "Today I took Genie into the city," Curtiss wrote. "We browsed through shops for about an hour. We sang and marched and carried on in our own nutty, special way as we walked. Genie seemed elated and delighted by everything I did. She commented, 'Genie happy.' So was I. Our relationship had developed into something special."

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

lated 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 twentymonth-old child," Fromkin said, and she delineated some ways in which that situation had changed. In the weeks before the convention, Genie had finally shown that she knew the difference between singular and plural nouns; when Curtiss said "balloons" to her, or "turtles" or "tails," Genie now responded to the final "s" and pointed to a picture of two balloons or turtles instead of a picture of one. Similarly, she knew the difference between positive and negative sentences. She understood the meaning of some prepositions, so that when Marilyn asked her where elephants are found she replied, "In zoo." She understood yesor-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-

APRIL 20, 1992

The Great Gathering Inc. proudly presents

INAUGURAL CLASSICAL MUSIC CRUISE FEBRUARY 6 - 13, 1993

Barbados (Embarkation), St. Martin, Ile des Saintes, Martinique, St. Lucia, Bequia, Barbados

Join These Renowned Artists:

\*LEIF OVE ANDSNES, PIANO • YEFIM BRONFMAN, PIANO • CHO-LIANG LIN, VIOLIN

\*YO YO MA, CELLO • MICHALA PETRI, \*FLORENCE QUIVAR, MEZZO-SOPRANO
\*JEAN PIERRE RAMPAL, FLUTE
\*ORION STRING QUARTET WILLIAM LITTLER, MUSIC CRITIC & LECTURER



On the World's Most Luxurious **Cruise Ship** 

## **PRIDE**

Suite Accommodation Only Reserve yours now and be one of only 160 passengers who will be able to enjoy 2 concerts daily. Suites: (Double occupancy) from US \$7000.00 per person.

For further information, full brochure and reservation contact: Mrs. Claudine Collar in Canada: 1.800.567.7592 outside Canada, call collect: 514.866.7592 fax. 514.392.1329

KN TRAVEL, 740 NOTRE DAME WEST. MONTREAL, QUEBEC, CANADA H3C=3X6

## ANTIQUE WILDLIFE LITHOGRAPHS

150-year-old hand-colored originals of Audubon's "Birds of North America." Large collection. Surprisingly affordable. Free book picturing all of Audubon's birds to interested parties.



Call 1-800-877-1726 for details

GEORGETOWN GALLERIES Investment Quality Collectibles 7315 Wisconsin Avenue Bethesda, MD 20814

### LEATHER BOUND FINE AND RARE BOOKS SETS AND SINGLES

(Send for free color brochure)

IMPERIAL FINE BOOKS 790 Madison Avenue, Room 200 (66th - 67th) New York, NY 10021 • (212) 861-6620\_

White Painted Mahogany Furniture Interior & Exterior Use



Free "Ouick-Ship" from stock Country Casual ermantown Rd., Suite 205 Germantown, MD 20874

Call 1-301-540-0040

prehension and production had progressed from one-word to two-word sentences, with an occasional threeworder 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

"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 toning 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 pencilled over to read, more firmly, "has acquired." And on another page came the declaration "Genie at this stage has a grammar." All three references were deleted by the time Fromkin reached Hawaii.

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

There was a certain justice in that. Both Lenneberg and Noam Chomsky had been invited to participate in the research on Genie, and both had dewhich they saw as complicated by the emotional trauma of her incarceration, was too muddy for good science. Fromkin and Curtiss strongly disagreed with this argument. "At first, Genie's state might have been a reflection of

getting (as she tends to do on the subject) a bit emotional herself. "But as she grew socially, and acquired the ability to be happy and live life, it became clear that her problems with language were not related to any distress or emotion. I don't see how an emotional profile could allow some aspects of language to grow but not others. There are a variety of views of language acquisition. The one I can best tell you about is my own, though my view is shared by most generative linguists. That view is that emotion has little to do with it. Certainly Genie was an emotionally disturbed child, but that wasn't relevant to my concerns."

It is easy to see why Lenneberg, in particular, might have overlooked the merit of Curtiss's argument. For him, Genie presented a dismal test case: at best, she could provide a flawed endorsement of his theory; at worst, a ringing refutation. If Genie could not learn language, her failure would be attributed ambiguously-either to the truth of the critical-period hypothesis or to her emotional problems. If Genie did learn language in spite of all that had happened to her, how much stronger the rebuttal!

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

T must be said, in looking back, that the prospects for Genie's eventual triumph were already beclouded 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 exploclined—on the ground that her case, sion. 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 natural state was non-talking, and that before her stay at Jean Butler's, but month after month passed and the her emotional state," Curtiss told me, explosion never came. She continued

to plod along at a slow, sled-pushing nicating or not. For instance, she would

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

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 planation—put forward by her father— ("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. silhouettes. She could categorize. Some "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 commu-

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 toy." Then they figure out how to use pictures, mime, use homonyms-try a supporting verb and say, "I do not have a toy," and the prodigies contract the verb to "don't." Genie stayed stuck 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. Nonverbally, 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 exthat 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 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

## Only NordicTrack<sup>®</sup> gives you a totalbody workout.









Treadmills, exercise bikes and stairclimbers don't give you half the workout NordicTrack® does.





Most in-home exercisers completely ignore the muscle groups in your back, chest, shoulders and arms.

But NordicTrack exercises all the major muscle groups in both your upper and lower body.

That's why it's more efficient at elevating your heart rate to the fitness building level.

And why it burns more calories — up to 1,100 per hour.

Don't settle for less than a total-body workout.

> Get on track with NordicTrack.

Models priced from \$299 to \$1,299.

Call today for a 30 day in-bome trial!

ordic rack

Call or write for FREE VIDEO & Brochure

1-800-328-5888 Ext. 261D2

NordicTrack, Dept. #261D2, 141 Jonathan Blvd. N., Chaska, MN 55318

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 most emphatically responded to ap-Genie re-created the structure from memory, she got not only the shape but all the colors correct-every last stickeven 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."

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,"

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 diver at Sea World, she did not calm 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 proval and was dismayed by reprimand. She craved affection and she gave it. She had a wonderful sense of humor." Around the house, Genie and sewed both by hand and with a sewing machine. And she drew. Her drawings seemed actually to be part of Genie's specialty-her ability with her lexicon-a compensatory, selftaught speech. When Genie was failgrab pencil and paper, and sketch what she could not describe. She sketched more than objects: she could depict her thoughts and desires. Curtiss remarked on her ability to convey with a few deft strokes on paper the gestalt of a situation—the juxtaposition of people or things central to one of her tales. Her perception of gestalts was uncanny. Her mind had no trouble seeing the organization behind a chaotic scene or perceiving a whole from scattered parts. It was on the gestalt tests that Genie scored higher than anyone in the literature. But her portrayal of her complex comprehension was better achieved through visual than verbal

Throughout her emergence, Genie grasped her everyday experiences by relating them to images in magazines Curtiss recalled. "I found that for and books. When fear of the Riglers'

pets was her greatest concern, she clipped photographs of similar cats and dogs and collected them, as though they had the magical protective qualities of voodoo dolls. When she saw a helmeted

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 Later, when investigations of Genie's brain unveiled the utter dominance of The nearest thing to an explanation

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 handled complex tasks: she ironed, 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 ing to transmit some idea, she would 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 answerpart 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 as the one that moved at Sea World. haunted by this image, and I have asked several of them, "Why a dog?"

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 Childrens 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

APRIL 20, 1992 was offered by Jay Shurley, who began 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 Childrens 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 guardinterested in her mother than in many ian of a child's estate without also



Our rafts offer effortless conveyance to the most spectacular landscapes on earth: Grand Canyon, Canyonlands, and Dinosaur National Parks on the Colorado, Snake, and Salmon Rivers. Trips vary from a weekend to two weeks, and from scenic adventures to some of the hottest whitewate in the West.

FREE WHITEWATER RAFTING CATALOG CALL 1-800-624-6323.



HOLIDAY RIVER EXPEDITIONS 544 East 3900 South, Suite N Salt Lake City, Utah 84107 (801) 266-2087 FAX (801) 266-1448

## The sound of bestsellers!

Unabridged on

Recorded Books™

1-(800)-638-1304 Ask about our easy rentals by mail

270 Skipjack Rd., Prince Frederick, MD 20678



### LONDON FLATS

English Charm with American Standards Selective Locations & Prices Weekly and Long Term Lets



1-800-366-2048



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.

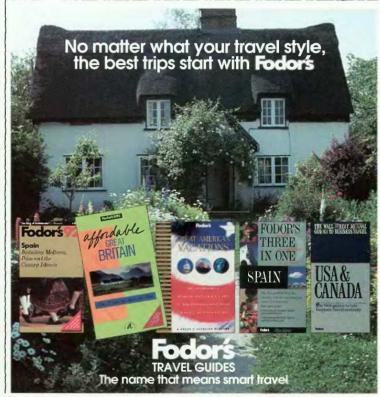
The convenience of it all did not at first seem dangerous. Letting a patient live with a doctor, a subject with a scientist, was, of course, somewhat unorthodox, but Genie's case was an unusual one. True, the men in control of Genie all knew each other, but at least they all knew each other to be reasonable 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





sink, beside her mother. Irene is to visit her daughter in the hospital. working at the sink, her hair permed, Irene commented to me about this her face a plain face, worn less with fancy hospital that her daughter was age than with worry. Genie flutters in-how she could not have afforded about her with a limby coquettishness, it if she had had to foot the bill. checking the counters and the refrig-Neither side had an appreciation of erator, occasionally coming to rest, like what life was like for the other. Irene a butterfly alighting precariously, at was suspicious of the Riglers' intellecher mother's side. In a fluty, urging tualism. And I never felt that Rigler, voice she asks for cereal, but her mother for his part, saw Irene as human, saw Clark as human. Rigler, Hansen, says no, cereal isn't for lunch-they have chicken for lunch. As the camera Kent—they came from environments follows, she leads Genie to the stove where they had always lived well. For and lifts the lid on a large pot, so that them, Irene was like something the cat Genie can see the chicken, and for a dragged in, and that was a problem for moment they are caught with their them." faces too close to the camera, frozen in In the unacknowledged class war, grainy black and white. They are the person with diplomatic immunity smiling. The mother's smile seems a little tight, but the child's is cheerful.

was Jean Butler Ruch. She and Floyd Ruch had married, and the couple had When Genie walks off to a corner of several homes and a yacht. "Neverthe kitchen, the camera pans after her, theless, I think Jean was more sensiand you can see her awkward hobble. tive to that socio-economic stuff than She asks for orange juice, and for Rigler was," Shurley said. "She knew cereal again, and her high voice is all how to keep her distance, respectfully, but lost in the roar through the kitchen and she didn't use her wealth and window of the traffic on Golden West 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 distaste for the scientists who were studying 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 reprimand, an indictment—as a reminder. And we were too busy congratulating

hospital. ourselves on our benevolence to notice how much we were antagonizing her." ter was afforded he bill. AS 1972 became 1973, and 1973 turned into 1974, David Rigler must have been well pleased with Susan

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.

APRIL 20, 1992

"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 uncollated and unprocessed, the sheer volume an impediment to the drawing of any significant conclusions. A handful of papers had ensued, most of them recapitulations 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 Phobia in a Historic Case of Extreme Psychosocial Deprivation." 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 were 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.

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 potty 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 told "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

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 al. went all over the USA, Hawaii, 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 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 eatbad fish" in explaining why she had tossed her new pet goldfish out into the vard? 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 and continue to be considerable." The

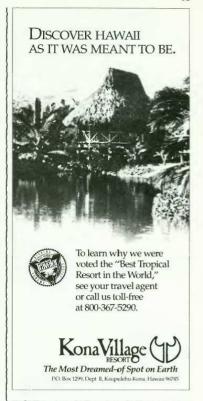
daughter in fast-food restaurants and other such places rather than at the Rigler home, and he had refused to abet those meetings with any financial assistance, even though Irene was running through her inheritance and was sewing and selling dolls to make ends meet. "Considering that Rigler et and Japan 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 sevenpage 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





### WALK ENGLAND

Travel back in time on our luxury tours of the encha villages and spectacular mountains in Wordsworth's Lake District, plus The Roman Wall and Yorkshire Dales. World-class walking and literary/cultural/culinary fun. 12-person groups. Private suites in a Victorian mansion ENGLISH ADVENTURES (303) 797-2365 803 Front Range Road • Littleton, CO 80120



APRIL 20, 1992

HAPPY MOTHER'S DAY! HAPPY BIRTHDAY! Give a unique gift to all those who are special to you.

### The ACTUAL NEWSPAPER printed on the day they were born.

It's the distinctive gift for family, friends and business as-sociates. This **authentic**, well-preserved edition of an original newspaper, published on the day they were born, is a personal gift that will be long remembered.



Clear Vinyl Portfolio \$39.50 Add \$4.95 UPS Relive the excitement of yesteryear! The newspapers are not reproductions (or just the front pages), but actual, editions of U.S. newspapers dating from 1880 right up to the present. Each page is a time capsule in itself, preserving a day in the life of the nation, a city and some-listing newspapers.

one special. Historic newspapers make thoughtful, one-of-a-kind gifts for birthdays, anniversaries and holidays; and each comes with its own Certificate of Authenticity. Major credit cards accepted. UPS charges for Continental USA only. NJ residents add 7% sales tax. "Sunday paper (main sections only). Historic dates priced higher.

To Order 1-800-221-3221
in NJ 1-908-381-2332 Ext. 283
For mail orders: Make money order payable to Historic Newspaper Archives Dept. 83, 1582 Hart St., Rahway, NJ 07065 CATALOG ON REQUEST

LEARN RUSSIAN on the BLACK SEA (Sochi) or Moscow

Earn Moscow State U. Certificate. Beginners to Advanced. Live with Russian families and Russian students. Lectures by Russians prominent in politics and business

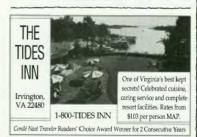
6/5-8/8 Sochi, incl. 7-day tour Moscow & St. Petersburg 6/5-8/15 Sochi, incl. 14-day tour Moscow, Kiev & St. Petersburg 7/7-8/15 Moscow, incl. 7-day tour Kiev & St. Petersburg

### SPECIAL FOR BUSINESS PEOPLE 7/7-8/1

Live, Vacation and Study (130 class hrs.) in modern Sochi intl. conference resort/hotel Tennis, private beach, pool, riding. Lectures by Russians prominent in politics and business. Assist with business contacts and information.

Optional 7- or 14-day tour offer course.

VIRTUS LIMITED 212-289-3120 1-800-274-9121 Anytim



Türkiye the native perspective Yacht cruises & tours of Turkey Club Voyages Box 7648 Shrewsbury NJ 07702 / 908-291-8228

well-being of the "subject" was nonetheless a worry:

The Committee is concerned about Genie's future welfare and how the consequences of disapproval 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 research 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 much 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 she still needed substantial supervision. She could care for her hygiene and even prepare simple meals. Her self-destructive tantrums were less 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 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 contemhowever, we have a continuing wish was that she became constipated, and

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.

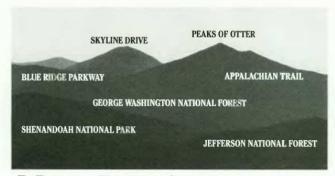
That she was in crisis was evident from her behavior. She seemed to be intentionally regressing. She closed up, depriving the world of whatever she thought it wanted. A barometer of her happiness had always been her bathroom habits. Her lifelong bowel problems had waned at Jean Butler's house and returned 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 frequent. Rigler described Genie's protest. At one point, Clark had tried to remedy his 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 achievement in any sphere," Rigler 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 plating relinquishing Genie's foster care; behavior. What happened in this home

this got to the point where it was very painful. 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 whatsoever 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



65

lore lop Attractions.

Panoramic mountain vistas and national parks are but a few of the high points of a Virginia vacation. To see them all, call 1-800-248-4833 to receive your free copy of our new full-color, 152-page travel guide. Or please write to Virginia Tourism, Department Y701, Richmond, Virginia 23219. © 1992 VIRGINIA DEPARTMENT OF ECONOMIC DEVELOPMENT-TOURISM GROUP



### Our Great Looking Campesino Hat...Just \$21. Postpaid!

In these trying times of global warming and increasing ozone depletion isn't it nice to know you can do something to protect yourself. In this regard, we proudly offer the Campesino Hat. This is the traditional, lightweight canvas hat worn in Costa Rica to provide cooling protection against the harsh, tropical sun. Now, it is available here. The Campesino Hat is the perfect protection to wear fishing on the ocean, boating on the bay, strolling on the beach, relaxing by the pool or walking city streets. Wear it gardening, hiking, camping, jogging, sailing or travelling. It features a tie-down chin strap for those windy days and a wide 3" brim that protects you front and back. The lightweight crown crushes for easy travel. The Campesino Hat comes with four loops that allow you to style it with the hatband or bandana of your choice. This handsome hat looks great on men and women. Natural white in color, the Campesino Hat is 100% cotton canvas. Available in five sizes: \$(6:94-7). M(71:8-71:A), L(71:8-71:2), XL(71:2-73:A) XXL(73:A+). Just \$21 postpaid for each Campesino Hat with tie-down chin strap. Multi-color bandanas just \$4.each additional.

Our Simple Guarantee: If you do not like this hat or it does not fit properly, simply return it for full refund or free replacement. Order by phone or mail - Call today 1-800-852-0925

Call today 1-800-852-0925 Mon-Fri 9am-5pm East Coast Time. NY Residents please add sales tax. VISA, MC, AMX, Checks & MOs accepted.

Harrison-Hoge Industries, Inc. Dept NY-1H, 200 Wilson Street Port Jefferson Station, NY 11776



"Get out of my face!"

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.

FOR Curtiss, it was panning out on two fronts. She continued her testing of Genie, and at the same time she was compiling her doctoral thesissumming 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

was on neurolinguistics, and delved into the biological basis of Genie's language skills. Genie's inabilities 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?

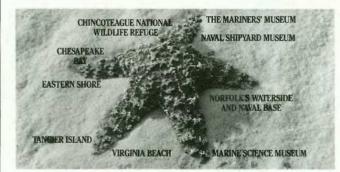
The answer might lie in Genie's brain; perhaps she was not grasping grammar because she was using the wrong equipment. As early as the fall of 1971, Curtiss, Fromkin, and Stephen Krashen had begun doing neurolinguistic tests in the hope of finding out exactly what part of Genie's brain they had been 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 Lenneberg's direction; her last chapter 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 braindamaged 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."

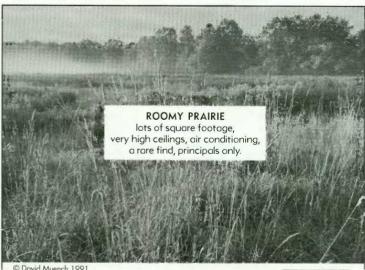
The dominance of one hemisphere or one lobe in any given task is never total. Both sides of the brain work on every task, but their collaborations are lopsided. How the tasks are divided depends on the individual. In the fine points of brain layout, we are each different from our neighbors. Genie's deviation,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

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



## More Places To Go To Sea.

Virginia's star attractions include sunny beaches, bustling seaports and secluded islands. But there's more. For the complete story, call 1-800-248-4833 for your free copy of our new full-color, 152-page travel 🥡 guide. Or please write to Virginia Tourism, Department Z701, Richmond, Virginia 23219.

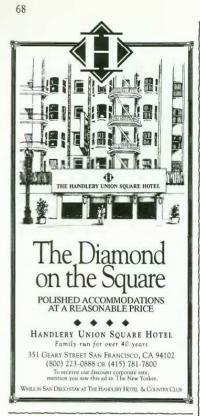


© David Muench 199

Prime Real Estate. For years, The Nature Conservancy has purchased large tracts of it so that endangered species can flourish there. Now, as partners in the public television series Nature, we're helping provide another place where wildlife can flourish. To learn more about these and all of our activities, call 1-800-628-6860.

The Nature Conservancy NATURE &

ature appears Sundays on PBS









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 fed 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 re-

sults, 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

'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 approprisuggesting 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

appeared to be functionally dead. 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 ate time." To the question "Why must may be the crucial factor in hemi-we acquire what's innate?" Genie was spheric specialization," Curtiss wrote. "When [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?

TURTISS'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 with curly hair and big ears holding a small figure 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

[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 oversize 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

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

He never barked at her face to face.

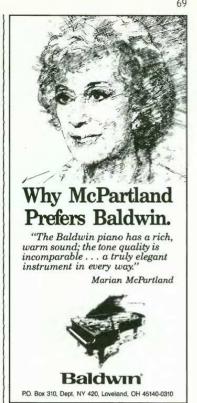
He talked to her.

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

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

There was a chest of drawers, a chair, a folding bed, 2 large trunks, window shades, and curtains. Oversize baby bed. Potty chair.

Irene's official complaint was not about inaccuracies. It was, rather, the opposite-that depictions as detailed as those related by Curtiss, and by other scientists in various papers and speeches, could only have been pilfered from Irene's own privileged conversations with her therapist, Vrinda Knapp, and with Knapp's supervisor, Howard Hansen. In October, 1979, Irene filed suit in Superior Court against Hansen, Knapp, David Rigler, James Kent, Susan Curtiss, and Childrens Hospital, accusing them of multiple infractions of patient-therapist and patientphysician confidentiality. The defendants had, the suit claimed, "exposed, revealed, and published to the public ... personal, confidential, and intimate details of the years of imprisonment, suffering, isolation, abuse, and torture" suffered by Irene and









APRIL 20, 1992

### COME TO **OUR ISLAND** AND COME OUT OF YOUR SHELL

Escape to a world that's oceans away. to uncrowded beaches, fishing, sailing, more great golf than you can shake a stick at, things for kids to do too. For package information



and a free copy of our complete and colorful vacation planner, the Armchair Guide, call us today toll free at 1-800-234-1666.

3 Day/2 Night Package From \$62. Per person, per night, double occupancy.

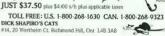
**BALD HEAD ISLAND** NORTH CAROLINA

# Unforgettable... Luxury Barge Cruises



P.O. Box 2195, Duxbury, MA 02331 800-222-1236 617-934-2454

LAUGH AT THE RAIN with Dick Shapiro's mad cat brolly Popped open umbrella shows wet and upset feline. When clouds clear it collapses to fit briefcase or pocket. JUST \$37.50 plus \$4.00 s/h plus applica



### GALÁPAGOS

u, 9 other adventurers and our licensed natural ill sail by yacht to explore more islands than other Galápagos expedition. 60 trip dates.

Inca F.Ioats 510-420-1550 1311-Y 63rd St., Emeryville CA 94608

worst. The fourth of five causes of majored in psychology and had trod action in the suit accused the scientists of subjecting Genie to "extreme, un- as Victoria Fromkin and Susan Curreasonable, and outrageous intensive tiss. "At one point, I went through testing, experimentation, and observation" under "conditions of duress and servitude"-in short, of performing unethical human experimentation. The sessions was high. There were other remaining cause of action faulted John research papers, too, and if you look Miner, Genie's guardian from 1972 through them you will get a good to 1975, for not protecting her from idea of what Genie had to endure. She 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 for outrage. In one early deposition, 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 inexact 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

Genie. That wasn't all, or even the undergraduate at U.C.L.A., he had some of the same intellectual hallways Curtiss's book and tallied up the experimenting that was done," he told me. "The intensity and frequency of 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

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 slan-derous 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 controlled by 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 Irenecase, scientific as well as legal. As an 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 with Genie she was now instructed to 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 ment's condition that she not deprive 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."

Faced 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 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 settlethe 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 squirrelled 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



Use our weekly

listing to dial directly

to advertisers. Call

from any phone to

reach product and

service representatives:

Giorgio Beverly Hills, Inc. Free brochure and bonus gift with purchase 1-800-GIORGIO Ext. 467

Discoveries Personalized Cartouche Handmade in Egypt 1-800-237-3358

**United States Virgin Islands** The American Paradise 1-800-USVI-INFO

The ANA Hotel Washington D.C. 1-800-429-2400 Outside of Washington D.C. Westin Reservation Number 1-800-228-3000

The Broadway Line Call for free information about Broadway, Off-Broadway, ticket prices, and theater locations 212-563-BWAY (2929)

ADVERTISEMENT

Now To make your own 3 of the natural mulching Moths and oth vermin aid in decomposition. uny compost! Oust bunnies like it, too! synthetics provide good drainage!

money from it. He didn't know if Miner had received the money. And anyway they had 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 nowhere.

Rigler was in his late sixties, burly, gray-haired, and marked by an air of gentle domesticity and an expression of

claim was both fragmented and adamant. It had been Miner's idea, and not his, he said. He had never seen any later, as "dread." But to the degree that he was not reticent he was often confessional. 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.

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 grace the office of a therapist. It was them to the surface. Let her come out an endless circular stairway going 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 earnest and distracted kindliness. He theories, and another to figure out would not have accommodated a vol-

APRIL 20, 1992

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 oversimplified, 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 "Understand," he said. "No one order on themselves and speak of the ever came to me and said, 'Dave, you 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 optical illusion by M. C. Escher of a little at a time.' That had an impact 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

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 hemispherectomied 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 pointa woman of whom Jean Butler had said that she did not respond well to children. But watching her with her daughters and with her hemispherectomied subjects, I saw that children draw an easy, playful kindness from her. Curtiss is, in any case, a person of unsuspected softnesses. She had told me firmly when we first met that she would talk only about science-that her personal history with Genie was out of bounds. But at the end of that interview, and of each thereafter, she violated her own restriction and, without prompting, spoke movingly of her feelings for the child she had investigated. "I developed a need for her," Curtiss would say. "I missed her when she wasn't in my life."

Over a meal and dessert, and now over uncleared dishes, Curtiss and I had concluded our final hour of syntax and semantics, critical periods and hemispherectomies. As I folded up a notebook and put away a pencil, she veered again out of the confident realm of research and into that forbidden personal room. There was desolation in her voice. "I would pay a lot of money to see her," she said. "I would do a lot. I haven't heard from her in years. And I've heard only two reports. The last one was that she was speaking very little, that she was withdrawn, depressed. Genie was very lovable. She was beautiful. When John and I first met, I would tell him about her, and he would say, 'Stop! Stop! You're building this person up so much that if I meet her I'll be disillusioned. No one can be that wonderful.' Then he met her, and when we left he said, 'My God! Why didn't you tell me?"

Curtiss's older daughter pirouetted into the kitchen to show us her sunglasses. The earpieces were gone, and the lenses, perched on her nose, were heart-shaped. She leaned into her mother, and Curtiss put an arm around her shoulder, but her mind was elsewhere, and the little girl skittered back to the living room.

"What is it that language can do for a person?" Curtiss asked. "It allows us to cognize, to think, and that's important to me, because I'm that type of person. It also allows us to share ourselves with others-our ideas and thoughts. And that provides a huge part of what I consider to be human in my existence. Genie learned how to encode concepts through words. She used language as a tool: she could label things, ideas, emotions. It afforded her a completely new way to interact with her world. If I had to choose the pieces of language that would serve me best in being human, they would be the 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. But it allowed her to share herself with others. For years after I was not permitted to see her again, I would wonder about what 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 revelation," Shurley says. "She was bent on revenge.") The project was cut short in







Call or send for our **FREE CATALOG** full of great looking clothes guaranteed to fit you!

Tall to 4XL • Big to 8XL
 Shoes 12A-16EEE.

800-456-4334

### Hilding-Size

DEPT 2528 • PO 9115 • HINGHAM MA 02043

### ART PRINTS FOR LAWYERS AND JUDGES

Exceptionally Framed - for gifts, awards and office decoration

Works of Famous Artists Depicting Trial Scenes, Juries, Lawyers, Famous Courtrooms, Judges

Send for Catalog: LEGAL ARTWORKS
P. O. Box 437 Chester, CT 06412

### THE POKE BOAT®

TTS MORE THAN A CANOE BUT WEIGHS
ONLY 28 LBS

Remarkably stable, durable and easy to use. All for less than \$800. For a brochure and more information call Phoenix Products Inc. 1-606-986-2336

APRIL 20, 1992

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

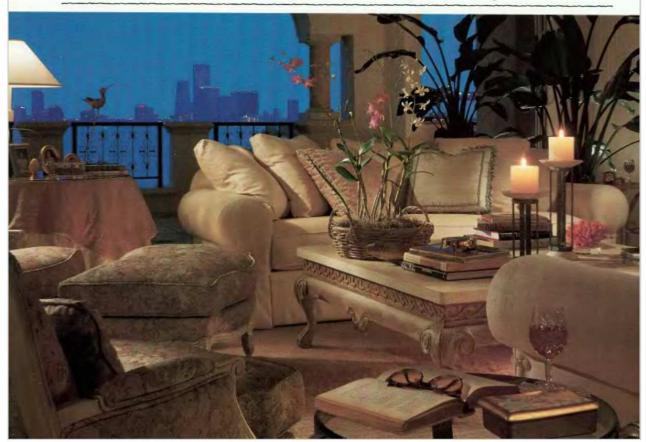
"Here," Shurley said, reaching into a carton. The files were labelled "Genie Emerges" and "Jean's Input" and "Genie Book" (in the outline of which Genie's life was divided into Genesis and Exodus). He pulled out one labelled "Photos."

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."



looked up and then back, and drew a yard around Genie's house, with a them as animals. There is no encourdriveway 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 defensible, adaptable ego, monotony is deadly. In that little room, a person would project internal images, not absorb outside ones, and would become confused about what was real and what was imagined—would lose the ability

"And here is the potty chair," he said. to differentiate between dream and "Sometimes it was over here." Shurley waking. Socially isolated children usually have psychotic parents who treat agement 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 childrenand 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

Toll-free 800/624-3251 Telefax 305/535-6008

This project is registered with the New Jersey Real Estate Commission, NJREC 90/4-711 to 716. Registration does not constitute an ement 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.

FISHER ISLAND



aged to tender perfection. Closely trimmed by band. Delivered to your door, frozen under dry ice, in a reusable cooler. A FREE COOKBOOK inside. Your satisfaction is Unconditionally Guaranteed!

### INTRODUCTORY OFFER...SAVE \$22.00! #469 6 (5 oz.) FILET MIGNONS,

each 1" thick \$29.95! Regularly 51.95... for fust

(plus \$6.50 shipping/handling) LIMIT OF 2 PKGS. AT THIS SPECIAL PRICE! NEW CUSTOMERS ONLY, PLEASE

OFFER (valid in 48 mainland states) EXPIRES 5/31/92 TO ORDER, CALL RIGHT NOW ... TOLL FREE 1.800.228.9055

(Ask for Free Catalog & 10% Discount Coupon!) Omaha Steaks 🖩

Dept. AD2042 • 4400 So. 96th Street • Omaha, NE 68127

International o

### A COOK'S GARDEN OF HERBS

Magnificent herb poster

—a central garden with
detailed illustrations of 28 herbs on cream colored background. Includes Latin and Inctudes Latin and common names, horticultural and culinary information, herb legend, lore, history and quotes. Perfect for gardeners and cooks! Full color. 22 × 36′ Free catalog available. \$28 plus \$4.75 s / h. MC, VISA, or ck. CA residents add tax. 1-800-666-5436



FOOD FOR THOUGHT





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 recog-

again when she was twentynine, 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, "Ge-

nie 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 tornado do this, in case of earthquake do this, and in case of an 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 now, very strongly, in terms of my own experiences with isolation in many different

nition dawned. "Her twenty-seventh birthday party," he said. "I isolation. It is the problem of was there, and then I saw her 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 encum-

brance 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 separate, inviolable entity. I wanted Genie to come into the world as a core ego, capable of trust and mistrust. Proper reëntry is a key ingredient in treatment and in research. A proper reentry is not one preëmpted by scientific exploitation gone wild.

"A child needs more than approval. She needs a sense of security, safetythe absolute conviction that she is worthwhile. 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 to feast. Her response was not to take 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 views feces-first as a treasure, then as shit, in Anglo-Saxon terms. And, really, what did Genie, taken apart, have to offer the world? Except for her unique early-life development, not much. Not much.

"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 problem. 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 relationship in which the child gets enough nurturance to proceed. Affective attachment 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 can't go back. And that's the bittera case study that would show how ness." 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 unfriendly but consistent. Now she was

in a new environment, with noise and other kids. A hospital 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

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 science 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 transferrable 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 exploitation. 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 intrafamiliallyjust 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 case. You have a second chance in a situation like that-a chance to rescue the child. But you don't get a third chance, and that's the situation now. We can't do the experiment over. We -Russ Rymer

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



### START FIGHTING SKIN CANCER NOW! Dermatologists Recommend The Sun Crusher™

The Duckster Sun Crusher<sup>TH</sup> offers many advantages:

- Wider brim All around, 23/4"min, vs 1 "on most bucket ha Whore form All anound, 24/4 min. vs. 11 for most busket hats,
   No Exposure At The Temple, plenty of shade for side of face and back of neck.

  4 "vsor-like reinforced front brim with green underside to Fight Glare.

  Poly/cotton fabric is Cool and absorbent.

  Stitched eyelets for Ventilation.

- Lightweight.
- Great Looking. Traditional look with enough fiare to provide Excellent Protection.

   Made by Duckster'\*, the quality hat maker, with Duckster's logo embroidered on back of hat.

Color: Traditional Light Khaki with traditional Maroon Club band. Chalk White with traditional Navy Club band.

Sizes: S (63/4-67/8); M (7-71/8); L (71/4-73/8); XL (71/2-75/8); XXL (73/4-77/8)

Price: \$20 + \$3.50 postage & handling per order.

Call (615) 886-5189 with MC or Visa 9 am-5 pm M-F Or Send Check or Money Order to:

Andrew Thompson Co. 843 Arden Way, Dept. N Signal Mountain, TN 37377





June 21 to June 27 at Amherst College Leam the secrets of Screen Writing from Jonathan Hales, an internationally known British Screenwriter whose credits include Young Indiana Jones Chronicles and Dallas. If you want to break into screenwriting, this intensive "hands-on" program is your opportunity to learn what TV and Film producers are looking for and to hatte, someone "who knows" personally review your work.





