

# Rolling Stone

## The True Story of John/Joan

By John Colapinto

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**PROLOGUE** In 1967, an anonymous baby boy was turned into a girl by doctors at Johns Hopkins Hospital. For 25 years, the case of John/Joan was called a medical triumph — proof that a child’s gender identity could be changed — and thousands of “sex reassignments” were performed based on this example. But the case was a failure, the truth never reported. Now the man who grew up as a girl tells the story of his life, and a medical controversy erupts.

IN LATE JUNE 1997, I arrive at an address in a working-class suburb in the North American Midwest. On the front lawn, a child’s bicycle lies on its side; an eight-year-old secondhand Toyota is parked at the curb. Inside the house, a handmade wooden cabinet in the corner of the living room holds the standard emblems of family life: wedding photos and school portraits, china figurines and souvenirs from family trips. There is a knockoff-antique coffee table, a well-worn easy chair and a sofa - which is where my host, a wiry young man dressed in a jean jacket and scuffed work boots, seats himself. He is 31 years old but could pass for a decade younger. Partly it’s the sparseness of his beard - just a few blond wisps that sprout from his jaw line; partly it’s a certain delicacy to his prominent cheekbones and tapering chin. Otherwise he looks, and sounds, exactly like what he is: a blue-collar factory worker, a man of high school education whose fondest pleasures are to do a little weekend fishing with his dad in the local river and to have a backyard barbecue with his wife and kids. Ordinarily a rough-edged and affable young man, he stops smiling when conversation turns to his childhood. Then his voice - a burred baritone - takes on a tone of aggrievement and anger, or the pleading edge of someone desperate to communicate emotions that he knows his listener can only dimly understand. How well even he understands these emotions is not clear: When describing events



that occurred prior to his 15th birthday, he tends to drop the pronoun I from his speech, replacing it with the distancing you - almost as if he were speaking about someone else altogether. Which, in a sense, he is.

“It was like brainwashing,” he is saying now as he lights a cigarette. “I’d give just about anything to go to a hypnotist to black out my whole past. Because it’s torture. What they did to you in the body is sometimes not near as bad as what they did to you in the mind - with the psychological warfare in your head.”

He is referring to the extraordinary medical treatment he received after suffering the complete loss of his penis to a botched circumcision when he was 8 months old. On the advice of experts at the renowned Johns Hopkins medical center, in Baltimore, a sex-change operation was performed on him, a process that involved clinical castration and other genital surgery when he was a baby, followed by a 12-year program of social, mental and hormonal conditioning to make the transformation take hold in his psyche. The case was reported as an unqualified success, and he became one of the most famous (though unnamed) patients in the annals of modern medicine.



Joan, age 2, at a relative's farm, within a year of sex reassignment

It's a fame that derives not only from the fact that his medical metamorphosis was the first sex reassignment ever reported on a developmentally normal child but also from a stunning statistical long shot that lent a special significance to the case. He was born an identical twin, and his brother provided the experiment with a built-in matched control - a genetic clone who, with penis intact, was raised as a male. That the twins were reported to have grown into happy, well-adjusted children of opposite sex seemed unassailable proof of the primacy of rearing over biology in the differentiation of the sexes and was the basis for the rewriting of textbooks in a wide range of medical disciplines. Most seriously, the case set a precedent for sex reassignment as the standard treatment for thousands of newborns with similarly injured, or irregular, genitals. It also became a touchstone for the feminist movement in the 1970s, when it was cited as living proof that the gender gap is purely a result of cultural conditioning, not biology. For Dr. John Money, the medical psychologist who was the architect of the experiment, this case was to be the most publicly celebrated triumph of a 40-year career that recently earned him the accolade “one of the greatest sex researchers of the century.”

But as the mere existence of this young man in front of me would suggest, the experiment was a failure, a fact revealed in a March 1997 article in the Archives of Adolescent and Pediatric Medicine. Authors Milton Diamond, a biologist at the University of Hawaii, and Keith Sigmundson, a psychiatrist from Victoria, British Columbia, documented how the twin had struggled against his imposed girlhood from the start. The paper set off shock waves in medical circles around the world, generating furious debate about the ongoing practice of sex reassignment (a procedure more common than anyone might think). It also raised troubling questions about the way the case was reported in the first place, why it took almost 20 years for a follow-up to reveal the actual outcome and

why that follow-up was conducted not by Dr. Money but by outside researchers. The answers to these questions, fascinating for what they suggest about the mysteries of sexual identity, also bring to light a 30-year rivalry between eminent sex researchers, a rivalry whose very bitterness not only dictated how this most unsettling of medical tragedies was exposed but also may, in fact, have been the impetus behind the experiment in the first place.

But what for medicine has been a highly public scandal involving some of the biggest names in the world of sex research has been for the young man sitting in front of me a purely private catastrophe. Apart from two short television appearances (his face obscured, his voice disguised), he has never spoken on the record to a journalist and has never before told his story in full. For this article, he granted more than 20 hours of candid interviews and signed confidentiality waivers giving me exclusive access to a voluminous array of legal documents, therapists' notes, Child Guidance Clinic reports, IQ tests, medical records and psychological work-ups. He assisted me in obtaining interviews with his former therapists as well as with all of his family members, including his father, who, because of the painfulness of these events, had not spoken of them to anyone in more than 20 years.

The young man's sole condition for talking to me was that I withhold some details of his identity. Accordingly, I will not reveal the city where he was born and raised and continues to live, and I have agreed to invent pseudonyms for his parents, whom I will call Frank and Linda Thiessen, and his sole sibling, the identical twin brother, whom I will call Kevin. The physicians in his hometown I will identify by initials. The young man himself I will call, variously, John and Joan, the pseudonyms given for him by Diamond and Sigmundson in the journal article describing the macabre double life he has been obliged to live. No other details have been changed.

"My parents feel very guilty, as if the whole thing was their fault," John says. "But it wasn't like that. They did what they did out of kindness, and love and desperation. When you're desperate, you don't necessarily do all the right things."

THE IRONY was that Frank and Linda Thiessen's life together had begun with such special promise. A young couple of rural, religious backgrounds, they grew up on farms near each other and met when Linda was just 15, Frank 17. Linda, an exceptionally pretty brunette, had spent much of her teens fighting off guys who were too fresh. Frank, a tall, shy fair-haired man, was different. "I thought, 'Well, he's not all hands,'" Linda recalls. "I can relax with him." "Three years later, at ages 18 and 20, they married and moved to a nearby city. Linda remembers Frank's joy soon after, upon learning that he was going to be the father of twins - and his euphoria when the brothers were born, on Aug. 22, 1965. "The nurse asked him, 'Is it boys or girls?' " Linda recalls. "And he said, 'I don't know! I just know there's two of 'em!'"

Shortly before the births, Frank had landed his highest-paying job ever, at a local unionized plant, and the couple now moved with their newborns into a sunny one-bedroom apartment on a quiet side street downtown. But when the twins were 7 months old, Linda

noticed that their foreskins were closing, making it hard for them to urinate. Their pediatrician explained that the condition, called phimosis, was not rare and was easily remedied by circumcision. He referred them to a surgeon. The operations were scheduled for April 27, 1966, in the morning. Because Frank needed the family car to get to his job on the late shift, they brought the kids in the night before. “We weren’t worried,” Linda says. “We didn’t know we had anything to worry about.”

But early the next morning, they were jarred from sleep by a ringing phone. It was the hospital. “There’s been a slight accident,” a nurse told Linda. “The doctor needs to see you right away.”

In the children’s ward, they were met by the surgeon. Grim-faced, businesslike, he told them that John had suffered a burn to his penis. Linda remembers being shocked into numbness by the news. “I sort of froze,” she says. “I didn’t cry. It was just like I turned to stone.” Eventually she was able to gather herself enough to ask how their baby had been burned. The doctor seemed reluctant to give a full explanation - and it would, in fact, be months before the Thiessens would learn that the injury had been caused by an electro-cautery needle, a device sometimes used in circumcisions to seal blood vessels as it cuts. Through mechanical malfunction or doctor error, or both, a surge of intense heat had engulfed John’s penis. “It was blackened,” Linda says, recalling her first glimpse of his injury. “It was like a little string. And it went right up to the base, up to his body.” Over the next few days, the burnt tissue dried and broke away in pieces.

John, with a catheter where his penis used to be remained in the hospital for the next several weeks, while Frank and Linda, frantic, watched as a parade of the city’s top local specialists examined him. They gave little hope. Phallic reconstruction, a crude and makeshift expedient even today, was in its infancy in the 1960’s - a fact made plain by the plastic surgeon when he described the limitations of a phallus that would be constructed from flesh farmed from John’s thigh or abdomen: “Such a penis would not, of course, resemble a normal organ in color, texture or erectile capability,” he wrote in a report to the Thiessens’ lawyer. “It would serve as a conduit for urine, but that is all.”

Even that was optimistic, according to a urologist: “Insofar as the future outlook is concerned,” he wrote, “restoration of the penis as a functional organ is out of the question.” A psychiatrist summarized John’s emotional future this way: “He will be unable to consummate marriage or have normal heterosexual relations; he will have to recognize that he is incomplete, physically defective, and that he must live apart....”

Now desperate, Frank and Linda took baby John on a daylong train trip to the Mayo Clinic, in Rochester, Minn., where he was examined by a team of doctors who merely repeated the dire prognoses delivered by the Thiessens’ local physicians. Back home, with nowhere to turn, the couple sank into a state of mute depression. Months passed during which they could not speak of John’s injury even to each other. Then one evening in December 1966, some seven months after the accident, they saw a TV program that jolted them from their despondency.

On their small black-and-white television screen appeared a man identified as Dr. John Money. A suavely charismatic and handsome individual in his late 40s, bespectacled and with sleekly brushed-back hair, Dr. Money was speaking about the wonders of gender transformation taking place at the Johns Hopkins medical center, where he was a medical psychologist. Also on the program was a woman - one of the satisfied post-operative transsexuals who had recently been converted at Johns Hopkins.

Today, with the subject of transsexualism a staple of daytime talk shows, it's difficult to imagine just how alien the concept seemed on that December evening in 1966. Fourteen years earlier, a spate of publicity had attended the announcement by American ex-GI George Jorgensen that he had undergone surgical transformation to become Christine. But that operation, performed in Denmark, had been roundly criticized by American doctors, who refused to perform such surgeries. The subject had faded from view - until now, when Johns Hopkins announced that it had not only performed two male-to-female sex changes (a first in America) but also established the world's first Gender Identity Clinic, devoted solely to the practice of converting people from one sex to the other. Along with gynecologist Howard W. Jones Jr., the driving force behind Hopkins' pioneering work in the study and treatment of transsexuals was the man on the Thiessens' television screen: Dr. John Money.

"He was very self-confident, very confident about his opinions," Linda recalls of her first glimpse of the man who would have such a lasting effect on the Thiessen's lives. "He was saying that it could be that babies are born neutral and you can change their gender. Something told me that I should get in touch with this Dr. Money."

She wrote to him soon after and described what had happened to her child. Dr. Money responded promptly, she says. In a letter, he expressed great optimism about what could be done for her baby at Johns Hopkins and urged her to bring John to Baltimore without delay. He also happened to inquire, Linda says, about the twin brother whom she had mentioned in passing. "He asked if they were identical twins," Linda says. She informed him that they were. Dr. Money replied that he would like to run a test on the babies at Johns Hopkins, just to make sure.

After so many months of grim predictions, bleak prognoses and hopelessness, Dr. Money's words, Linda says, felt like a balm. "Someone," she says, "was finally listening."

DR. MONEY was, indeed, listening. But then, Linda's cry for help was one that he might have been waiting for his entire professional life.

At the time that the Thiessen family's plight became known to Dr. Money, he was already one of the most respected, if controversial, sex researchers in the world. Born in 1921 in New Zealand, Money had come to America at about age 26, received his Ph.D. in psychology from Harvard and then joined Johns Hopkins, where his rise as a researcher and clinician specializing in sexuality was meteoric. Within a decade of joining Hopkins, he was already widely credited as the man who had coined the term "gender identity" to describe a person's inner sense of himself or herself as male or female, and was the



world's undisputed authority on the psychological ramifications of ambiguous genitalia. "I think he's a thoroughly ethical and professional person," says John Hampson, a child psychiatrist who co-authored a number of Money's groundbreaking papers on sexual development in the mid-1950s. "He was a very conscientious scientist when it comes to collecting data and making sure of what he's saying. I don't know very many social scientists who could match him in that regard." According to Hampson, Money's ability to persuade others to adopt his point of view is one of the psychologist's chief strengths: "He's a terribly good speaker, very organized and very persuasive in his recital of the facts regarding a case." Indeed, Hampson admits that Money is almost too good at the art of persuasion. "I think a lot of people were envious," says Hampson. "He's kind of a charismatic person, and some people dislike him. As a person, he was a little bit . . . oh . . . flamboyant; he might have been a little glib."

Money's often-overweening confidence actually came to him at some cost. His childhood and youth in rural New Zealand had been beset by anxieties, personal tragedies and early failure. The son of an Australian father and an English mother, he was a thin, delicate child raised in an atmosphere of strict religious observance - or what he has called "tightly sealed, evangelical religious dogma." At age 5 he was bullied by his classmates and took shelter with a female cousin in the girls' play shed, where no boy would be caught dead. "My fate was sealed," he wrote in an anthology titled *How I Got Into Sex*. "Having not measured up as a fighter, I was set on the pathway of outwitting other kids by being an intellectual achiever. That was easier for me than for most of them."



Dr. John Money in 1986

He was 8 years old when his father, after a long illness, died. "His death was not handled very well in our family," Money wrote. Three days after watching his father get mysteriously carried off to the hospital, the boy was told that his father had died. His shock was compounded by the trauma of being informed by an uncle that now he would have to be the man of the household. "That's rather heavy duty for an 8-year-old." Money wrote. "It had a great impact on me." Indeed. As an adult, Money would forever avoid the role of "man of the household." After one brief marriage ended, he never remarried, and he has never had children.

Following his father's death, Money was raised by his mother and spinster aunts. A solitary adolescent with passions for astronomy and archaeology, he also harbored ambitions to be a musician. His widowed mother could not afford piano lessons, so Money worked as a gardener on weekends to pay for music classes and used every spare moment to practice. It was an ambition doomed to disappointment, partly because Money had set the bar so high for himself: "It was difficult for me to have to admit that, irrespective of effort, I could never achieve in music the goal that I wanted to set for myself. I would not even be a good amateur."

Upon entering Victoria University, in Wellington, Money discovered a new passion into which he would channel his thwarted creativity: the science of psychology. Like so many drawn to the study of the mind and emotions, Money initially saw the discipline as a

means of solving certain gnawing questions about himself. His first serious work in psychology, the thesis for his master's, concerned "creativity in musicians"; in it, Money writes, "I began to investigate my relative lack of success in comparison with that of other music students."

His later decision to narrow his studies to the psychology of sex had a similarly personal basis. Having lost his religious faith in his early 20s, Money increasingly reacted against what he saw as the repressive religious strictures of his upbringing and, in particular, the anti-masturbatory, anti-sexual fervor that went with them. The academic study of sexuality, which removed even the most outlandish practices from moral considerations and placed them in the "pure" realm of scientific inquiry, was for Money an emancipation. From now on, he would be a fierce proselytizer for sexual exploration. According to journalist John Heidenry, a personal confidant of Money's and author of the recent book *What Wild Ecstasy*, which traces Money's role as a major behind-the-scenes leader of the sexual revolution of the 1960s and '70s, the psychologist's sexual explorations were not confined to the lab, lecture hall or library. An acknowledged but discreet bisexual, Money engaged in affairs with a number of men and women - "some briefly," Heidenry writes, "others over a longer duration." Indeed, by the mid-1970s, with the sexual revolution in full rampage, Money would step out publicly as a champion of open marriage, nudism and the dissemination of explicit pornography. His promotion of the culture's sexual unbuttoning seemed boundless. "There is plenty of evidence that bisexual group sex can be as personally satisfying as a paired partnership, provided each partner is 'tuned in' on the same wavelength," he wrote in his 1975 pop-psych book, *Sexual Signatures*. A former patient who was treated by Money in the 1970's for a rare endocrine disorder recalls the psychologist once casually asking him if he'd ever had a "golden shower." The patient, a sexually inexperienced youth at the time, did not know what Money was talking about. "Getting pissed on," Money airily announced with the twinkling, slightly insinuating little smile with which he delivered such deliberately provocative comments.

According to colleagues and other former patients, such sexual frankness in conversation is a hallmark of Money's personal style. Dr. Fred Berlin, a professor of psychiatry at the Johns Hopkins School of Medicine and a colleague who considers Money one of his most important mentors, agrees that Money is aggressively outspoken. "Because he thinks it's important to desensitize people in discussing sexual issues, he will sometimes use four-letter words that others might find offensive," says Berlin. "Perhaps he could be a little more willing to compromise on that. But John is an opinionated person who isn't looking necessarily to do things differently from the way he's concluded is best."

But while Money's conclusions about the best approach to sexual matters merely raised eyebrows in the mid-1970's, they provoked outrage at the dawn of the more conservative 1980's. Undaunted, Money continued to push on into uncharted realms. In an April 14, 1980, article in *Time*, Money was sharply criticized for what looked dangerously like an endorsement of incest and pedophilia. "A childhood sexual experience, such as being the partner of a relative or of an older person, need not necessarily affect the child adversely," Money told *Time*. And according to a right-wing group critical of his

teachings, Money reportedly told *Paidika*, a Dutch journal of pedophilia, "If I were to see the case of a boy aged 10 or 12 who's intensely attracted toward a man in his 20s or 30s, if the relationship is totally mutual, and the bonding is genuinely totally mutual, then I would not call it pathological in any way."

Money's response to criticism has been to launch counterattacks of his own, lambasting his adoptive country for a puritanical adherence to sexual taboos. In an autobiographical essay included in his book *Venuses Penuses*, Money describes himself as a "missionary" of sex - and points out, with a lofty and defiant pride, "It has not been as easy for society to change as it had been for me to find my own emancipation from the 20th-century legacy of fundamentalism and Victorianism in rural New Zealand."

Money's experimental, taboo-breaking approach to sex was paralleled in his professional career. Eschewing the well-traveled byways of sex research, Money sought out exotic corners of the field where he could be a pioneer. He found just such a relatively undiscovered realm of human sexuality while in the first year of his Ph.D. studies in psychology at Harvard. In 1948, in a social-relations course, he learned of a 15 year-old male who was born not with a penis but with a tiny, nublike phallus resembling a clitoris and who, at puberty, developed breasts. It was Money's first exposure to hermaphroditism - also known as intersexuality - a condition that, in its extreme or its milder forms, is estimated to occur once in every 2,000 births. Characterized by ambiguities of the external sex organs and the internal reproductive system, intersexuality is caused by any of a wide variety of genetic and hormonal irregularities, and can vary from a female born with a penis-sized clitoris and fused labia resembling a scrotum to a male born with a penis no bigger than a clitoris, undescended testes and a split scrotum indistinguishable from a vagina.

Money became fascinated with intersexuality and wrote his doctoral dissertation on the subject, which led to his invitation, in 1951, to join Johns Hopkins, where the world's largest clinic for the study of intersexual conditions had been established. Up until then, the syndrome had been studied solely from a biological perspective. Money came at it from a psychological angle and would make a name for himself as a pioneer in examining the mental and emotional repercussions of being born as neither boy nor girl. At Hopkins, he enlisted Hampson and Hampson's wife, Joan, to help him study some 105 intersex children and adults. Money claimed to have observed a striking fact about people who had been diagnosed with identical genital ambiguities and chromosomal makeups but who had been raised as members of the opposite sex: More than 95 percent of these intersexes fared equally well, psychologically, whether they had been raised as boys or as girls. To Money, this was proof that the primary factor that determined an intersexual child's gender identity was not biological traits but the way that the child was raised. He concluded that these children were born psychosexually undifferentiated.

This theory was the foundation on which Money based his recommendation to pediatric surgeons and endocrinologists that they surgically and hormonally stream intersexual newborns into whichever sex the doctors wished. Such surgeries would duly range from cutting down enlarged clitorises on mildly intersexual girls to performing full



sex reversals on intersexual boys born with testicles but a penis deemed too small. Money's only provisos were that such "sex assignments" be done as early as possible - preferably within weeks of birth - and that once the sex was decided on, doctors and parents never waiver in their decision, for fear of introducing dangerous ambiguities into the child's mind. In terms of the possible nerve destruction caused by the amputation of genital appendages, Money assured doctors that according to studies he had conducted with the Hampsons, there was no evidence of loss of sensation. "We have sought information about erotic sensation from the dozen non-juvenile . . . women we have studied," he wrote in a 1955 paper. "None of the women . . . reported a loss of orgasm after clitoridectomy."

Money's protocols for the treatment of intersexual children hold to this day. Placing the greatest possible emphasis on the child's projected "erotic functioning" as an adult and taking into account that medical science had never perfected the reconstruction of injured, or tiny, penises, Money's recommendations meant that the vast majority of intersexual children, regardless of their chromosome status, would be turned into girls. Current guidelines dictate that to be assigned as a boy, the child must have a penis longer than 2.5 centimeters; a girl's clitoris is surgically reduced if it exceeds 1 centimeter.

By providing a seemingly solid psychological foundation for such surgeries, Money had, in a single stroke, offered physicians a relatively simple solution to one of the most vexing and emotionally fraught conundrums in medicine: how to deal with the birth of an intersexual child. As Money's colleague Dr. Berlin points out, "One can hardly begin to imagine what it's like for a parent when the first question - 'Is it a boy or a girl?' - results in a response from the physician that they're just not sure. John Money was one of those folks who, years ago, before this was even talked about, was out there doing his best trying to help families, trying to sort through what's obviously a difficult circumstance."

But Money was not interested solely in intersexes. As he has stated often in his writings, he saw intersexual syndromes, which he called "experiments of nature," chiefly as a way to learn about the sexual development of so-called normal humans. Thus, he immediately generalized his theories about intersexes to include all children, even those born without genital irregularities. "In the light of hermaphroditic evidence" he wrote in a 1955 paper that would become a classic in the field of sexual development, "it is no longer possible to attribute psychological maleness or femaleness to chromosomal, gonadal or hormonal origins. . . . The evidence of hermaphroditism lends support to a conception that, psychologically, sexuality is undifferentiated at birth and that it becomes differentiated as masculine or feminine in the course of the various experiences of growing up." In simple terms, Money was advancing the view that all children form a



The twins at home, around age 3

sense of themselves as male or female according to whether they are dressed in blue or pink, given a masculine or feminine name, clothed in pants or dresses, given guns or Barbies to play with.

In a retrospective essay written in 1985 about his career as a sex researcher, Money offered crucial insight into the way he arrived at some of his more unusual theories about human sexual behavior. "I frequently find myself toying with concepts and working out potential hypotheses," he mused. "It is like playing a game of science fiction. . . . It is as much an art as the creative process in painting, music, drama or literature."

Money's theory that newborns are psychosexually neutral was both unorthodox and against the current climate of science, which for decades had centered on the critical role of chromosomes and hormones in determining sexual behavior. But if his colleagues considered Money's ideas to be science fiction, they weren't prepared to say so publicly. His papers outlining his theory became famous in his field, helping not only to propel him to international renown as a sex researcher but also to speed his rise up the ladder at Johns Hopkins, where he ascended from assistant to associate professor of medical psychology, teaching his theory of infant sexual development to generations of medical students. By 1965, the year of John and Kevin Thiessen's birth, Money's reputation was virtually unassailable. He had for more than a decade been head of Hopkins' Psychohormonal Research Unit (his clinic for treating and studying intersex kids), and he was shortly to help co-found Hopkins' groundbreaking Gender Identity Clinic - a coup that helped earn him a reputation, says John Hampson, as "the national authority on gender disorder."

There was, however, at least one researcher who was willing to question Money. He was a young graduate student at the University of Kansas. The son of struggling Ukrainian-Jewish immigrant parents, Milton Diamond, whom friends call Mickey, was raised in the Bronx, where he had sidestepped membership in the local street gangs for the life of a scholar. As an undergraduate majoring in biophysics at City College of New York, Diamond became fascinated by the role of hormones in the womb and their possible role in defining a person's gender identity and sexual orientation. In his late 20s, as a grad student in endocrinology at Kansas, he conducted animal research on the subject, injecting pregnant guinea pigs and rats with different hormone cocktails to see how pre-birth events would affect later sexual behavior. The evidence in Diamond's lab suggested a link between the hormones that bathe a developing fetus's brain and nervous system and its later sexual functioning. It was in an effort to raise funds for his continued research that Diamond applied for a grant from the National Science Foundation Committee for Research in Problems of Sex an application that required the submission of a research paper. For his topic, Diamond decided to write a response to Money's now-classic papers on sexual development.

Diamond's critique appeared in *The Quarterly Review of Biology* in 1965. Marshaling evidence from biology, psychology, psychiatry, anthropology and endocrinology to argue that gender identity is hardwired into the brain virtually from conception, the paper was an audacious challenge to Money's authority (especially coming from an unknown grad student at the University of Kansas). First addressing the theory

about the psychosexual flexibility of intersexes, Diamond pointed out that such individuals suffer “a genetic or hormonal imbalance” in the womb. Diamond argued that even if intersexuals could be steered into one sex or the other as newborns, this was not necessarily evidence that rearing is more influential than biology. It might simply mean that the cells in their brains had undergone, *in utero*, an ambiguity of sexual differentiation similar to that of the cells in their genitals. In short, intersexes have an inborn, neurological capability to go both ways - a capability, Diamond hastened to point out, that genetically normal children certainly would not share.

Even a scientist less thin-skinned than John Money might have been stung by the calm, relentless logic of Diamond’s attack - which, near the end, raised the most rudimentary, Science 101 objection to the widespread acceptance of Money’s theory of psychosexual malleability in normal children. “To support [such a] theory,” Diamond wrote, “we have been presented with no instance of a normal individual appearing as an unequivocal male and being reared successfully as a female.”

It was a year and a half after Diamond had thrown down the gauntlet that Dr. Money received Linda Thiessen’s letter describing the terrible circumcision accident that had befallen her baby boy.

THE THIESSENS made their first trip to Johns Hopkins early in 1967, within weeks of first seeing Dr. Money on TV. The young couple were awestruck by the vast medical center dominating the top of a rise on Wolfe Street. Dr. Money’s Psychohormonal Research Unit was located in the Phipps Clinic, a gloomy Victorian building tucked away in a courtyard; the unit’s offices, located on an upper floor, were reached by way of a rickety turn-of-the-century elevator. Money’s own inner sanctum (where most of his meetings with the Thiessens would take place during the ensuing 12 years) was furnished with a couch, Oriental rugs and potted plants - reminding Frank more of a living room than of an office. There was also a collection of carved aboriginal sculptures of erect phalluses, vaginas and breasts that adorned a mantel. But if these artifacts were unsettling, Money himself, with his smoothly confident, professional manner - not to mention the diplomas on his wall - made the Thiessens feel that they were in the best possible hands. “I looked up to him like a god,” says Linda, who at the time was not yet out of her teens. “I accepted whatever he said.” And what Dr. Money had to say was exactly what the Thiessens ached to hear.

In his many published versions of this first interview, Money has recounted how he spelled out to the young couple the advantages of sex reassignment for baby John - “using nontechnical words, diagrams and photographs of children who had been reassigned.” What is not clear from Money’s accounts is whether Linda and Frank, whose educations at the time did not go beyond the sixth grade, understood that such a procedure was, in fact, purely experimental - that while such surgeries had been performed on intersexual children, no such sex changes had ever been attempted on a child born with normal genitals and a normal nervous system. Today, Frank and Linda say that this was a distinction they did not fully grasp until later. The crucial point that they gleaned from Dr. Money was his conviction that the procedure had every chance for success. “I see no

reason,” Linda recalls him saying, “that it shouldn’t work.”

Indeed, Money’s eagerness to begin is evident in a description of the interview written almost 10 years later. In *Sexual Signatures*, he wrote: “If the parents stood by their decision to reassign the child as a girl, surgeons could remove the testicles and construct feminine external genitals immediately. When she was 11 or 12 years old, she could be given the female hormones.”

If Dr. Money seemed to be in a hurry, he was. He explained to Frank and Linda that they would have to make up their minds quickly. For according to one of the finer points of his theory, the “gender identity gate” - Money’s term for that moment after which a child has locked into an identity as a male or a female - comes a little after 2 years of age. John was now 17 months. “The child was still young enough so that whichever assignment was made, erotic interest would almost certainly direct itself toward the opposite sex later on,” Money wrote, “but the time for reaching a final decision was already short.”

Frank and Linda, however, needed time to decide on something as momentous as having their child undergo a surgical sex change. They went home to think about it. Linda says that Dr. Money made no secret of his impatience with the delay. “He wrote in a letter that we were ‘procrastinating,’” Linda recalls. “But we wanted to move slow, because we had never heard of anything like this.”

Back home, they canvassed opinions. Their pediatrician recommended against such drastic treatment, and so did their parents. But finally, Frank and Linda realized that they alone had to decide. They alone were the ones living with the reminder, at each diaper change, of John’s terrible injury. After months of indecision, they made up their minds.

That summer, five months after their first meeting with Money, they returned to Baltimore with their baby. Now 22 months old, the child was still within the window of 30 months that Money had established as safe for an infant sex change. And so, on July 3, 1967, the baby underwent surgical castration. According to the operating-room record, Dr. Howard W. Jones Jr. slit open the baby’s scrotum along the midline and removed the testes, then reclosed the scrotal tissue so that it resembled labia. The urethra was lowered to approximate the position of the female genitalia, and a cosmetic vaginal cleft was made by forming the skin around a rolled tube of gauze during the healing. It was also during this visit to Johns Hopkins, says Linda, that the promised chromosome test was conducted on the twins to determine if they were, indeed, identical. They were.

Linda and Frank say that by the time they decided to have their baby undergo clinical castration, they had eradicated any doubts they might have had about the efficacy of the treatment - a crucial turnabout, since, according to Dr. Money, it was a “vital consideration” that the parents of a sex-reassigned child harbor no second thoughts. “For any lingering doubts whatsoever in their minds,” Money wrote, “would weaken the child’s identification as a girl and woman.”

Whether Money himself was able to eradicate his own doubts about the child’s future development is debatable. In a letter he wrote a few weeks after the castration, his

tone admitted of considerable caution regarding the prognosis. But then this was perhaps to be expected, since the letter was addressed to the lawyer whom Frank and Linda had hired to sue the hospital that botched the circumcision.

“The reassignment of a baby’s sex is usually undertaken only in cases of a birth defect of the genitalia,” Money wrote. “Then one usually expects that the child’s psychosexual differentiation will be congruous with the sex of rearing. In any given case, however, it is not possible to make an absolute prediction.”

CENTRAL TO Money’s program for sex reassignment of hermaphrodites was his edict that the children, when very young, know nothing of their ambiguous sexual status at birth. Money put the same stricture into effect in the case of the Thiessens’ baby, whom they now called Joan. “He told us not to talk about it,” Frank says. “Not to tell Joan the whole truth and that she shouldn’t know she wasn’t a girl.”

Linda had sewn dresses and bonnets for her new daughter. It was shortly before Joan’s second birthday when Linda first put her in a dress. “It was a pretty, lacy little dress,” Linda recalls. “She was ripping at it, trying to tear it off. I remember thinking, ‘Oh, my God, she knows she’s a boy and she doesn’t want girls’ clothing. She doesn’t want to be a girl.’ But then I thought, ‘Well, maybe I can teach her to want to be a girl. Maybe I can train her so that she wants to be a girl.’ “

Linda and Frank did their best to do just that. When Joan’s brother, Kevin, at age 4, was watching Frank shave and asked to shave, too, Frank gave him an empty razor and some shaving cream to play with. But when Joan also clamored for a razor, Frank refused. “I told her that girls don’t shave,” Frank recalls. “I told her girls don’t have to.” Linda offered to put makeup on her. But Joan didn’t want to wear makeup.

“I remember saying, ‘Oh, can I shave, too?’ “ John says of this incident, which forms his earliest childhood memory. “My dad said, ‘No, no. You go with your mother.’ I started crying, ‘Why can’t I shave, too?’ “ Kevin says that the incident was typical of the way their parents tried to steer them into opposite sexes - and how such efforts were, inevitably, doomed to failure.

“I recognized Joan as my sister,” Kevin says, “but she never, ever acted the part. She’d get a skipping rope for a gift, and the only thing we’d use that for was to tie people up, whip people with it. Never used it for what it was bought for. She played with my toys: Tinkertoys, dump trucks. Toys like this sewing machine she got just sat.”

Today, with the twins having rejoined each other on the same side of the gender divide, the stark physical differences between them eerily testify to all that John has been through. At 32, Kevin is a dark-bearded, bearlike man with the thickly muscled arms and shoulders of a manual laborer. To see him standing alongside his scarecrow-thin, scantily bearded brother, you would never guess that every cell in their bodies bears identical DNA - until you compare their eyes, noses and mouths, which are indistinguishable from one twin to the other.

As children, their physical differences were, if less pronounced, equally deceptive. Photographs of them as preschoolers show a puppy-eyed little boy with a crew cut and a slim, brown-eyed girl with wavy chestnut hair framing a face of delicate prettiness. But by all accounts, this illusion of two children occupying opposite sexes disappeared the second that Joan moved, spoke, walked, gestured. “When I say there was nothing feminine about Joan,” Kevin laughs, “I mean there was nothing feminine. She walked like a guy. She talked about guy things, didn’t give a crap about cleaning house, getting married, wearing makeup.... We both wanted to play with guys, build forts and have snowball fights and play army.” Enrolled in Girl Scouts, Joan was miserable. “I remember making daisy chains and thinking, ‘If this is the most exciting thing in Girl Scouts, forget it,’ “ John says. “I kept thinking of the fun stuff my brother was doing in Cubs.”

Linda and Frank were troubled by Joan’s masculine behavior. But they had been told by Dr. Money that they must not entertain any doubts about their daughter, and they felt that to do so would only increase the problem. Instead, Frank and Linda seized on those moments when Joan’s behavior could be construed as stereotypically feminine. “And she could be sort of feminine, sometimes,” Linda says, “when she wanted to please me. She’d be less rough, keep herself clean and tidy, and help a little bit in the kitchen.”

In her letters to Dr. Money describing Joan’s progress, Linda made sure to emphasize those moments so that the psychologist would know that she and Frank were doing everything they could to implement his plans. Meanwhile, Linda comforted herself by thinking of her daughter as a tomboy. “I have seen all kinds of women in my life,” she says, “and some of them, you’d swear they were men. So I thought, ‘Well, maybe it won’t be a problem, because there are lots of women who aren’t very effeminate. Maybe it could work.’ I wanted it to work.”

Kevin didn’t question his sister’s boyish ways until they went off to school. “I was in grade one or two,” he says, “and I saw all the other girls doing their thing - combing their hair, holding their dolls. Joan was not at all like that. Not at all.” At that time, Joan had voiced the ambition to be a garbage man. “She’d say, ‘Easy job, good pay,’ “ Kevin recalls. “She was 6 or 7 years old. I thought it was kinda bizarre - my sister a garbage man?” Indeed, Kevin would finally grow so perplexed with his sister’s unconventional behavior that he went to his mother about it. “Well, that’s Joan being a tomboy,” Linda told him. “I accepted that,” Kevin says and shrugs.

That was not an explanation Joan’s schoolmates were prepared to accept. Upon entering kindergarten, she became the object of instant ridicule from classmates, both male and female. “As you’d walk by, they’d start giggling,” John remembers. “Not one, but almost the whole class. It’d be like that every day. The whole school would make fun of you about one thing or another.”



Joan at age 13, with the effects of estrogen treatment now visible in her physique



“They were cruel,” says Kevin, who witnessed his sister’s humiliation at school. “Teased every day. It wasn’t a weekly thing. Or a monthly thing. This was a daily thing. They’d call her names, ignore her, not involve her in the groups.”

“It started the first day of kindergarten,” Linda says. “Even the teacher didn’t accept her. The teachers knew there was something different.”

By then, Joan also knew that there was “something different” about her. But she didn’t know what. “You know generally what a girl is like,” John says, “and you know generally what a guy is like. And everyone is telling you that you’re a girl. But you say to yourself, ‘I don’t feel like a girl.’ You think girls are supposed to be delicate and like girl things - tea parties, things like that. But I like to do guy stuff. It doesn’t match. So you figure, ‘Well, there’s something wrong here. If I’m supposed to be like this girl over here but I’m acting like this guy, I guess I gotta be an it.’ “

Joan’s personal difficulties were obvious in her functioning in the classroom. Though tests had revealed her to be in the normal intelligence range, she seemed unable, or unwilling, to master the skills required in kindergarten. When the school threatened to hold Joan back, Linda complained to Dr. Money. He wrote a letter to the school, urging that Joan, despite her emotional difficulties, be promoted to first grade. But her problems only got worse. On Oct. 29, 1971, a few weeks after she started first grade, her behavior prompted a teacher to file a report with the district’s Child Guidance Clinic. The teacher noted that Joan “has been doing just the opposite of anything the other children do” and described the girl as “very negativistic.”

IT WAS at a December 1972 meeting of the American Association for the Advancement of Science in Washington, D.C. that John Money unveiled, for the first time, his “twins case.” Time magazine ran a full-page story on the debut, which happened to coincide, that same week, with the release of Money’s book *Man Woman, Boy Girl*. Co-authored with his colleague Dr. Anke Ehrhardt, the book contained his first written account of the extraordinary twins case.

*Man Woman, Boy Girl* made mention of Joan’s “tomboyish traits” in passing but focused on the ways in which she conformed to the stereotypes of female behavior - examples of which were culled from Linda’s hopeful cataloging, over the years, of Joan’s fitful attempts to act more like a girl. “One thing that really amazes me is that she is so feminine,” Linda is quoted as saying. “I’ve never seen a little girl so neat and tidy as she can be when she wants to be.” No mention was made of the problems Joan had been having in school.

Indeed, the account portrayed the experiment as an unqualified success - a conclusion bolstered by what Money pointed out was an “extreme unusualness” to the case. He was referring, of course, to the existence of the identical male twin, whose interest in “cars and gas pumps and tools” was contrasted to his sister’s interest in “dolls, a doll house and a doll carriage” - a sharp division of tastes along gender lines that seemed to provide compelling evidence that boys and girls are made, not born. The significance of

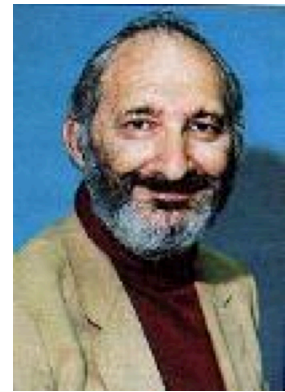
the case to the then-burgeoning women's movement was obvious, since feminists had been arguing against a biological basis for sex differences for years. Indeed, Money's own papers from the 1950's on the total psychosexual flexibility of newborns were cited by Kate Millett in her best-selling, seminal 1970 feminist text, *Sexual Politics*. Money's new twins case buttressed the feminist claim that the observable differences in the tastes, attitudes and behaviors of men and women are attributable solely to cultural expectations.

"This dramatic case," Time duly reported in its Jan. 8, 1973, edition, "provides strong support for a major contention of women's liberationists: that conventional patterns of masculine and feminine behavior can be altered. It also casts doubt on the theory that major sexual differences, psychological as well as anatomical, are immutably set by the genes at conception." The New York Times Book Review hailed *Man Woman Boy Girl* as "the most important volume in the social sciences to appear since the Kinsey reports" and praised Money for producing "real answers to that ancient question: Is it heredity or environment?" But it was on the pediatric wards of hospitals around the world that the twins case would have its most lasting impact.

"It was the hallmark case," says Dr. William Reiner a child psychologist at Johns Hopkins. "It was the hallmark because it was followed and written up a number of times by Money and then essentially was the source of his statements - and subsequent statements in any of the pediatric textbooks in endocrinology, urology, surgery and psychology - that you can reassign the sex of a child because it's the social situation that is the most important." The undisputed success of the twins case legitimized the practice of infant sex reassignment globally, says Reiner. Once confined principally to Johns Hopkins, the procedure soon spread and today is performed in virtually every major country, with the possible exception of China and India. While no annual tally of infant sex reassignments has ever been made, Reiner makes a rough, "conservative" estimate that three to five cases crop up in every major American city each year - giving the U.S. alone a total of 100 to 200 sex reassignments a year. Globally, he puts the figure at perhaps 1,000 per year. In the 25 years since Money's twins case was first published, as many as 15,000 similar sex reassignments may have been performed.

Dr. Mel Grumbach, a pediatric endocrinologist at the University of California, San Francisco, and a world authority on the subject, confirms that the findings detailed in Money's twins case were the decisive factor in the widespread acceptance of the practice. "'Doctors] were very influenced by the twin experience." he says. "John Money stood up at a conference and said, 'I've got these two twins, and one of them is now a girl, and the other is a boy.' They were saying they took this normal boy and changed him over to a girl. That's powerful. That's really powerful. I mean, what is your response to that? This case was used to reinforce the fact that you can really do anything. You can take a normal XY male and convert it into a female in the neonatal period and it won't make any difference." Grumbach adds, "John Money is a major figure, and what he says gets handed down and accepted as gospel by some."

But not all. In the seven years since he had first published his challenge to Money, Mickey Diamond, who had been hired as a biology professor at the University of Hawaii, continued his laboratory research into how the sexual nervous system is organized before birth. His studies had further convinced him that neither intersexes nor normal children are born psychosexually undifferentiated - a conviction that made him view with alarm the expanding practice of infant sex reassignment. And he was more convinced than ever that converting a non-intersexual infant from one sex to the other would be impossible. "But I didn't have any proof at the time," Diamond says. "I didn't have anything except a theoretical argument to challenge the case."



Mickey Diamond, 1996: He disputed Money's findings from the start.

Diamond vowed to follow the case of the sex-changed twin closely - a decision, he says, that was affected by purely scientific motives. But if, by now, Diamond also felt a degree of personal involvement in his dispute with Money, that was perhaps understandable: In the chapter directly following his account of the twins case in *Man Woman, Boy Girl*, Money lashed out at Diamond and his colleagues, characterizing their work as "instrumental in wrecking the lives of unknown numbers of hermaphroditic youngsters."

IN 1967, at the time of John's castration, Money stipulated that he see the child once a year for counseling. The trips, which were sometimes separated by as many as 18 months, were, as Money put it in his letter to the Thiessens' lawyer, meant to "guard against the psychological hazards" associated with growing up as a sex-reassigned child. But according to the Thiessens and to contemporaneous clinical notes, the trips to the Psychohormonal Research Unit at Johns Hopkins only exacerbated the confusion, fear and dread that Joan was already suffering.

"You get the idea something happened to you," John says of those mysterious annual visits to the unit, "but you don't know what - and you don't want to know." Kevin, who was also required on each visit to submit to sessions with Dr. Money, found the trips equally bewildering and unsettling: "For the life of me, I couldn't understand why, out of all the kids in my class, why am I the only one going with my [sister] to Baltimore to talk to this doctor? It made us feel like we were aliens." The twins developed a conviction that everyone, from their parents to Dr. Money and his colleagues, was keeping something from them. "There was something not adding up," Kevin says. "We knew that at a very early age. But we didn't make the connection. We didn't know."

All they did know was that from the time they were 6 years old, Dr. Money wanted to talk to them, both singly and together, about subjects that, as Joan would later complain to an outside therapist, "I can't even talk to my mom about."

"Dr. Money would ask me, 'Do you ever dream of having sex with women?'" Kevin recalls. "He'd say, 'Do you ever get an erection?' And the same with Joan. 'Do you think about this? About that?'"

While attempting to probe the twins' sexual psyches, Money also tried his hand at programming Kevin's and Joan's respective sense of themselves as boy and girl. One of his theories of how children form their different "gender schemes" - Money's term - was that they must understand, at an early age, the differences between male and female sex organs. Pornography, he believed, was ideal for this purpose. "Explicit sexual pictures," he wrote in his book *Sexual Signatures*, "can and should be used as part of a child's sex education"; such pictures, he said, "reinforce his or her own gender identity and gender role."

"He would show us pictures of kids, boys and girls, with no clothes on," Kevin says. John recalls that Dr. Money also showed them pictures of adults engaged in sexual intercourse: "He'd say to us, 'I want to show you pictures of things that moms and dads do.'"

During these visits, the twins discovered that Money had two sides to his personality. "One when mom and dad weren't around," Kevin says, "and another when they were." When their parents were present, they say, Money was avuncular, mild-spoken. But alone with the children, he could be irritable or worse. Especially when they defied him. The children were particularly resistant to Money's request that they remove their clothes and inspect each other's genitals. Though they could not know this, such inspections were central to Money's theory of how children develop a sense of themselves as boy or girl - and thus, in Money's mind, were crucial to the successful outcome of Joan's sex reassignment. As Money stressed in his writings of the period: "The firmest possible foundations for gender schemes are the differences between male and female genitals and reproductive behavior, a foundation our culture strives mightily to withhold from children. All young primates explore their own and each others' genitals . . . and that includes human children everywhere.... The only thing wrong about these activities is not to enjoy them."

But the children did not enjoy these enforced activities, which they were instructed to perform sometimes in front of Dr. Money, sometimes with as many as five or six of his colleagues in attendance. But to resist Money's requests was to provoke his ire. "I remember getting yelled at by Money because I was defiant," John says. "He told me to take my clothes off, and I just did not do it. I just stood there. And he screamed, 'Now!' Louder than that. I thought he was going to give me a whupping. So I took my clothes off and stood there, shaking." In a separate conversation with me, Kevin recalls that same incident. "'Take your clothes off - now!' " Kevin shouts.

As early as age 8, Joan began to resist going to Baltimore. Dr. Money suggested to Linda and Frank that they sweeten the pill of the annual visits by blending the trip to Hopkins with a family vacation. "Soon," Linda says, "we were promising Disneyland and side trips to New York just to get her to go."

It was also around Joan's eighth birthday that Dr. Money began increasingly to focus on the issue of vaginal surgery. At the time of her castration at 22 months, Joan was left with only a cosmetic exterior vagina; the surgeon had elected to wait until Joan's body

was closer to full grown before excavating a full vaginal canal. For Dr. Money, there was now an urgent need for Joan to prepare for this operation. Because genital appearance was critical to Money's theory of how one "learns" a sexual identity, Money believed that Joan's psychological sex change could not be complete until her physical sex change was finished.

There was only one problem: Joan was determined not to have the surgery - ever. The child's increasingly stubborn refusal was not only a result of her deep-seated fear of hospitals, doctors and needles. It also had to do with the realization that she'd made around the time of grade two - that she was not a girl and never would be, no matter what her parents, her doctor, her teachers or anyone else said. For when Joan daydreamed of an ideal future, she saw herself as a 21-year-old male with a mustache and a sports car, surrounded by admiring friends. "He was somebody I wanted to be," John says today, reflecting on this childhood fantasy. By now Joan was ever more certain that submitting to vaginal surgery would lock her into a gender in which she felt increasingly trapped.

She quietly told Dr. Money that she did not want to have the surgery. But the psychologist did not seem to want to hear this. Instead, Dr. Money would once again break out his cache of photographs of naked women. He would focus Joan's gaze on the labia, vulva, clitoris. "Can't you see that you're different?" he would say. "That's why you need the surgery."

Joan, frightened but adamant, would simply refuse to lift her eyes. "Don't you want to be a normal girl?" Dr. Money would ask repeatedly. "Don't you want to be a normal girl?"

Dr. Money also continued to probe for the content of Joan's sexual fantasies. She tried to keep this information secret from the psychologist, and she believed herself successful. But, according to Frank and Linda, she was wrong. By the time Joan turned 9, Dr. Money had informed them that something had come up in his private sessions with Joan. "Money told us that he had asked Joan what partner she would rather have, a boy or a girl," Frank recalls. "Joan had said, 'A girl.'" Frank recalls that Dr. Money wanted to know how they felt about raising a lesbian. At a loss as to how to respond to this news but relieved that Money did not seem to think it significant, Frank said what he honestly believed about homosexuality: "It's not the most important thing in life."

Money evidently agreed, for this clinical finding was not included in his next report on the twins, which appeared in 1975, when they were 10 years old. Published in the *Archives of Sexual Behavior*, the update was, if anything, a more glowing report than the one from three years before. After recapping the earlier findings and adding a new example of the girl's happy femininity, Money concluded: "No one [outside the family] knows [that she was born a boy]. Nor would they ever conjecture. Her behavior is so normally that of an active little girl, and so clearly different by contrast from the boyish ways of her twin brother, that it offers nothing to stimulate one's conjectures."

That same year, Money published yet another account of Joan's successful

metamorphosis. But this time the intended audience was not only Money's scientific and medical colleagues but also the general public. *Sexual Signatures*, co-authored with journalist Patricia Tucker, was Money's bid for a wider audience. Stripped of the often-impenetrable psychological jargon that characterizes his earlier reports of the sex reassignment, the book offered Money's most unrelievedly upbeat, almost triumphant, account of the case yet. Describing Joan's sex reassignment as "dramatic proof that the gender-identity option is open at birth for normal infants," Money went on to say of baby John's castration as an infant, "The girl's subsequent history proves how well all three of them [parents and child] succeeded in adjusting to that decision."

UP TO the age of 11, Joan's only psychological therapy was her annual visits to Dr. Money at John Hopkins. But this changed in the fall of 1976, when she entered a new school, where her anxiety, social isolation and fear immediately drew the attention of teachers, who, once again, notified the Child Guidance Clinic. "Joan's interests are strongly masculine," a teacher wrote in her report. "She has marvelous plans for building treehouses, go-carts with CB radios, model gas airplanes . . . and appears to be more competitive and aggressive than her brother and is much more untidy both at home and in school." A session with the clinic's psychologist revealed that Joan had "strong fears that something [had] been done to her genital organs" and that she had had "some suicidal thoughts."

Her case was referred to the unit's head of psychiatry, Dr. Keith Sigmundson, an amiable, self-deprecating 34-year-old whose career ascent had been rapid. "Because I was just ahead of the baby boomers, I got a position that I was too young for and probably didn't deserve in the first place," he says. From his very first meeting with Joan, Sigmundson was struck by the child's appearance. "She was sitting there in a skirt with her legs apart, one hand planted firmly on one knee," Sigmundson says. "There was nothing feminine about her." But despite strong misgivings, he decided that in overseeing Joan's psychiatric treatment, he would support the process that Money had begun. It had gone too far to turn back, Sigmundson decided, so he attempted to persuade the child to accept herself as a girl and to submit to vaginal surgery. To increase Joan's female identification, he referred her case to a woman psychiatrist, Dr. M.

As Dr. M.'s clinical notes reveal, early in her sessions Joan voiced her conviction that she was "just a boy with long hair in girl's clothes" and that people looked at her and said she "looks like a boy, talks like a boy." She also opened up about how she dreaded the trips to Baltimore, where people looked at her and "a man show[ed] her pictures of nude bodies." But the psychiatrist reassured Joan that she was, indeed, a girl and impressed upon her the necessity that she undergo surgery on her genitals.

Troubled nonetheless by the case, the psychiatrist wrote to Dr. Money and told him of Joan's emotional difficulties and school problems. Money wrote back in January 1977 that he was very pleased that Dr. M. was willing to become involved in treating Joan. He explained that the second stage of Joan's vaginal surgery had not yet been performed due to the child's "fanatical fear of hospitals" - a fear, Money wrote, "that I have encountered on only one other occasion in 25 years of work at Johns Hopkins." He added that mention



of hormone treatments or surgery induced in Joan a “panic so intense that it’s impossible to broach any conversation on such matters without the child fleeing the room, screaming.” Nevertheless, Money continued, there was now an “urgency” that Joan’s fears be overcome, because the need for hormone therapy and surgery was rapidly increasing with her approaching adolescence. “It will be one of the best things you can do for her,” Money wrote to the psychiatrist, “if you can help her break down this extraordinary veto.”

Despite all efforts, Joan continued to hold out against surgery. Nine months passed, and she remained unmovable - refusing even to permit her pediatric endocrinologist to conduct a physical exam of her genitals. Then, in the late summer of 1977, when Joan turned 12, she suddenly had to fend off an attack on another front. On her last several trips to Baltimore, Dr. Money had spoken about the medication she would soon need in order to become a “normal girl.” He was talking about estrogen, the female hormone needed to simulate the effects of female puberty on Joan’s broad-shouldered, narrow-hipped boy’s physique. Like vaginal surgery, the prospect of developing a female figure struck Joan as nightmarish. So she was suspicious when, one day, her father produced a bottle of pills and told her to start taking them.

“What’s this medicine for?” Joan asked.

Frank, struggling for the best way to put it, finally came up with: “It’s to make you wear a bra.”

“I said, ‘I don’t wanna wear a bra!’” John recalls. “I threw a fit.”

But after repeated entreaties from her parents and the endocrinologist (not to mention the threat, which Dr. Money had introduced, that she would grow disproportionate limbs if she failed to take the drugs), Joan finally, and with great reluctance, began to take the pills.

It was around this time that Dr. Money authored another update on the twins. The report would appear in a 1978 journal. Once again, the outlook was sunny. “Now prepubertal in age, the girl has . . . a feminine gender identity and role, distinctly different from that of her brother,” he reported. Perhaps forgetting what he had told Joan’s parents four years earlier about her sexual orientation, he wrote: “The final and conclusive evidence awaits the appearance of romantic interest and erotic imagery.”

Though Joan often only pretended to take her estrogen pills, by May 1978, three months prior to her 13th birthday, the effects were visible. A pair of small but distinct breasts had appeared on her chest, along with a padding of fat around her waist and hips. But she remained stubbornly opposed to further surgery - a fact that became dramatically clear during her visit that spring to Johns Hopkins. It would prove to be the last time Joan would ever consent to go to Baltimore.

That something remarkable had occurred during Joan’s visit is obvious from a letter that Dr. Money wrote in August 1978, some weeks after the encounter. He said that Joan was still determined to avoid talk of sex or surgery and, when she was pressed on those

points, she left the room to join her brother. “I followed,” Money wrote, “and, in bringing the session to a close, put my hand on her shoulder in what most youngsters would accept as a reassurance. She fled in panic.” Money then described how one of his students followed Joan to help her recover her composure. “They walked, saying little, for about a mile.” In concluding his oddly elliptical-sounding account of these events, Dr. Money referred to the student as a woman.

What he did not mention was that the woman had begun life as a man. She was a male-to-female transsexual one of many readily available from the Johns Hopkins Gender Identity Clinic. She had apparently been enlisted by Money to speak to Joan about the positive aspects of surgical construction of a vagina.

“Dr. Money said, ‘I’ve got someone for you to talk to who’s been through what you’re going to be going through,’ “ John recalls.

Joan was then ushered into the presence of a person whom she immediately identified as a man wearing makeup, dressed in women’s clothing, with a woman’s hairstyle. When the person spoke, it was in a breathy, artificially high-pitched voice.

“He’s telling me about the surgery,” John says, “how fantastic it was for her and how her life turned out beautifully.”

Joan sat immobile, silent, apparently listening. But the words reached her through a clamoring, rising panic in her mind: “I was thinking, ‘I’m gonna end up like that?’ “

Today, John cannot remember bolting from the room. “I remember running,” John says. “That’s all.”

Joan ran, blindly, until she reached a set of stairs, which she dashed up. She emerged onto a rooftop, where she tried to hide. But the transsexual had followed - only increasing Joan’s panic. Coaxed down from the roof, Joan told her mother that if forced to return to see Dr. Money, she would kill herself.

BUT DR. MONEY was, it seemed, not inclined to lose contact with this unique patient so easily. In early 1979, roughly eight months after Joan’s last trip to Hopkins, Money wrote to Linda, saying that he would soon be passing through her city to give a talk at the local university and medical center. He said he would like to drop by the house and see the Thiessens.

On a gray day in mid-March 1979, Money arrived at their doorstep carrying only a single knapsack. The twins, aware of Money’s arrival, disappeared into the basement and refused to come upstairs. The adults engaged in small talk. Money had said that he was catching a flight later in the day. But both Frank and Linda noticed that he was showing no symptoms of being in a hurry. On a tour of the small house, Money complimented Linda’s ink drawings, which decorated the walls, and looked at a wooden wall cabinet that Frank had made. He reminisced about his childhood in New Zealand. Finally, Dr. Money announced that he had missed his flight. Frank and Linda looked at each other and felt that

it was the right thing to do to invite Dr. Money to stay over, although they had only a foam air mattress in the front room for him to sleep on. To their surprise, the eminent psychologist from Johns Hopkins accepted the offer. In order to accommodate their unexpected house guest, the Thiessens phoned out for a bucket of chicken. The children continued to hide in the basement.

“We didn’t want to come up,” Kevin recalls. “We were forced into it. They said, ‘Come up,’ so we came up.”

“I wound up being Mr. Polite,” John says, recalling the stiff encounter. Kevin remembers that Dr. Money asked “general questions” about how the twins were doing in school. Kevin asked how Dr. Money liked their city and how long he was staying. “Then,” Kevin says, “we wanted to go.” But before the two retreated back into the basement, Dr. Money pulled out his wallet and, saying something about how he would have spent the money on a hotel room anyway, bestowed on the children \$15 each. The kids fled to the basement and did not emerge until the next morning, when the world-famous sexologist had left for the airport. It was the last that the family and Dr. Money would ever see of each other.

BY THE TIME she turned 14, in August 1979, Joan had been on female hormones for almost two years. But the drugs were now in competition with her male endocrine system, which, despite the absence of testicles, was now in the full flood of puberty - a fact readily apparent not only in her loping walk and the angular manliness of her gestures, but also in the dramatic deepening of her voice, which, after a period of breaking and cracking, had dropped into its current rumbling register. Physically, her condition was such that strangers turned to stare at her (as was noted by her therapist in contemporaneous clinical notes). But to the close observer, it was Joan’s mental state that would have drawn particular scrutiny and pity. For as photographs from this period reveal, Joan, for all her attempts to drag a smile onto her face, had the wounded eyes of a shamed and hunted animal.

It was at this point that Joan took the matter of her sexual destiny into her own hands and simply stopped living as a girl. Therapy notes from November 1979 reveal that she refused to wear dresses and now favored a tattered jean jacket, ragged cords and work boots. Her hair was unwashed, uncombed and matted. “I was at that age where you rebel,” John says. “I got so sick to death of doing what everyone wanted me to do. I got to that point in my life, I knew I was an oddball, I was willing to live my life as an oddball.... If I wanted to wear my hair in a mess, I wore it in a mess. I wore my own clothes the way I wanted to.”

And Joan had more private ways of rebelling. Since childhood she had been instructed, both by her parents and by her doctors, to urinate in the sitting position - despite a strong, overriding urge to address the toilet standing up. For years she had tried to adhere to this stricture on her bodily function. But no longer. “If no one was around, I’d stand up,” John recalls. “It was no big deal; it was easier for me to do that. Just stand up and go. I figured, what difference did it make?”

But it made a difference to her peers. That fall, Joan had transferred to a technical high school, where she enrolled in an appliance-repair course. There she was quickly dubbed Cave-woman and Sasquatch and was openly told, “You’re a boy.” But it was her inclination to urinate in the male posture that caused the greatest friction between her and her schoolmates. The girls barred her from using their bathroom. She tried sneaking into the boys’ room but was kicked out and threatened with a knifing if she returned. With nowhere else to go, Joan was reduced to urinating in a back alley. By December, she simply refused to go to school.

By now, it was impossible for the local treatment team to ignore the obvious. After almost four years of fruitlessly trying to implement Dr. Money’s plan, several physicians experienced a change of heart. Among those who believed that Joan would never submit to vaginal surgery was Dr. McK., a particularly empathetic female psychiatrist, then in semi-retirement, who had taken over Joan’s case in the winter of 1979. Joan’s endocrinologist, Dr. W., was among the last holdouts for the surgery, since he remained certain that it was the appearance of Joan’s uncompleted vagina that formed the stumbling block to her psychological acceptance of herself as a girl. But now, even he began to waver. “Early on I had . . . pushed for early surgery,” he wrote in a letter to Dr. McK. “I am not as convinced now that this is a good idea and therefore at the present time have no specific plans or opinions as to the proper time for the operation.”

Ultimately, Joan forced the endocrinologist to come down off the fence. During an appointment in his office, Joan refused to remove her hospital gown for a breast exam. The doctor asked again. She refused. The standoff lasted 20 minutes. “It comes to a point in your life where you say, ‘I’ve had enough,’” John says. “There’s a limit for everybody. This was my limit.”

But Dr. W. had reached his limit, too. “Do you want to be a girl or not?” he demanded. It was a question Joan had heard before - a question that Money had been asking her since the dawn of her consciousness, a question the local doctors had badgered her with for four years, a question she’d heard once too often.

She raised her head and bellowed into his face: “No!”

The doctor left his office for a moment, then returned. “OK,” he said. “You can get dressed and go home.”

Only later would John learn that Dr. W. had, in stepping out into the hallway, spoken with Dr. McK. He told her that in his opinion, it was time that the teenager was told the truth of who she was and what had happened to her.

IT WAS FRANK’S CUSTOM TO PICK UP Joan in the car after her weekly sessions with the psychiatrist. The afternoon of March 14, 1980, was no exception. But when Joan climbed into the car that day, Frank said that instead of driving straight home, they should get an ice-cream cone.

Immediately, Joan was suspicious. “Usually, when there was some kind of disaster

in the family, good old dad takes you out in the family car for a cone or something,” John says. “I was thinking: ‘Is mother dying? Are you guys getting a divorce? Is everything OK with Kevin?’ “

“No, no,” Frank said to Joan’s nervous questioning. “Everything’s fine.”

And, indeed, he couldn’t find the words to explain until Joan had bought her ice cream and Frank had pulled the car into the family’s driveway.

“He just started explaining, step by step, everything that had happened to me,” John says.

“It was the first time,” Linda says, “that John ever saw his father cry.”

Joan herself remained dry-eyed, staring straight ahead through the windshield, the ice-cream cone melting in her hand.

“She didn’t cry or anything,” Frank says almost two decades after this extraordinary encounter between father and child. “She just sat there, listening, real quiet. I guess she was so fascinated with this unbelievable tale that I was telling her.”

Today, John says that the revelations awoke many emotions within him anger, disbelief, amazement. But he says that one emotion overrode all the others. “I was relieved,” he says, blinking rapidly, his voice charged. “Suddenly it all made sense why I felt the way I did. I wasn’t some sort of weirdo.”

Joan did have a question for her father. It concerned that brief, charmed span of eight months directly after her birth, the only period of her life that she ever had been, or ever would be, fully intact.

“What.” she asked. “was my name?”

JOAN’S DECISION TO UNDERGO a sex change was immediate. She changed her name to John and demanded male-hormone treatments and surgery to complete her metamorphosis back from girl to boy. That fall, he had his breasts surgically excised; the following summer, a rudimentary penis was constructed. The operation was completed one month prior to his 16th birthday.

Socially, John says, it proved relatively easy to effect the change to his true status. Joan’s lifelong social rejection had guaranteed that no one had ever gotten close enough to her to remark on her sudden vanishing. Still, John did take the precaution of lying low for several months in his parents’ basement. “Watching TV, that’s all I did,” says John. “I wasn’t really happy; I wasn’t really sad.” But gradually he began to emerge, hanging out at the local fast-food joints, the roller rink and bars with Kevin and his friends, who immediately accepted him as one of the guys.

It was in John’s relations to girls that complications developed - and they were only exacerbated by the fact that by age 18 he was not merely a passably attractive young man

but an arrestingly handsome one. His sudden popularity with what was now the opposite sex introduced a terrible dilemma, because he knew that his penis neither resembled nor performed like the real thing (it was incapable of becoming erect). “How do you even start dating?” John says, recalling this period of his life. “You can’t. You’re in such an embarrassing situation. At the same time, if you’re not honest with them . . . they’re gonna want to start getting frisky with you.”

Eventually, he did date a girl two years his junior, a pretty but flighty 16-year-old. Several months into the relationship, John entrusted her with his secret, telling her that he had suffered an “accident.” Within days, John says, “everyone knew.” Just as in his childhood, he was suddenly the object of muttered comments, giggling, ridicule. Days later, he swallowed a bottle of anti-depressants and lay down on his parents’ sofa to die. His parents discovered him unconscious. “Me and Linda looked at each other,” Frank recalls, “and we were wondering if we should wake him up.”

Linda recalls her doubts: “I said to Frank, ‘I wonder if we should just leave him, because that kid has done nothing but suffer all his life. He really wants to die.’ Then I said, ‘No, no, I can’t let him die. I have to try to save him.’ “ They lifted him and rushed him to the hospital, where his stomach was pumped. On his release a week later, he tried it again. This time, Kevin saved him.

John withdrew from the world. He spent sojourns of up to six months at a time alone in a cabin in the woods, winter or summer. Unable to face people, he fantasized about committing a crime that would land him in solitary confinement for the rest of his days. “I despised myself; I hated myself,” he says. “I hated how my life turned out. I was frustrated and angry, and I didn’t know who I was angry at.”

At age 21, he underwent a second operation on his penis that yielded a significant improvement over his first phalloplasty (his penis resembled a real one, and nerve grafts from his arm supplied the organ with sensation), but it would be two years before John used it for sex. The delay had less to do with his feelings of confidence about his penis, he says, than with the legacy of what had been done to him by Dr. Howard W. Jones in the operating room at Johns Hopkins when he was 22 months old. “I kept thinking, ‘What am I going to say to the woman I meet who I want to marry?’ “ John remembers. “ ‘What am I going to say to her when she says she wants children and I can’t give her children?’ “

His brother, Kevin, had by that time married and become a father - everything that John had wanted for himself since high school. “I got so terribly lonely,” John says. “I decided to do something I’d never done before. I wound up praying to God. I said, ‘You know, I’ve had such a terrible life. I’m not going to complain to you, because you must have some idea of why you’re putting me through this. But I could be a good husband if I was given the chance; I think I could be a good father if I was given a chance.’ “

Two months later, Kevin and his wife introduced John to a young woman they had met. At age 26, she was three years John’s senior - a pretty, loving single mother of three children by three separate fathers. “By the time I met John,” she says with a rueful laugh,



“I’d come to the end of my rope with men. I kept trusting them - then it was, ‘You’re pregnant? I’m out of here.’ “ She says that John’s condition did not make a difference to her. “It probably would have if I didn’t already have kids. But after what I’d been through with men, I figured, ‘What does it matter what he’s got between his legs? If he’s good to me and the kids that’s all that matters.’ “

The two immediately hit it off. She liked John’s old-fashioned gallantry. “He still sends me flowers and writes me notes,” she says. “How many people have that after nine years together?” John fell in love with what he calls her “true heart.”

Less than a year after they started going out, John asked her to marry him. She accepted, and when John was 25, they wed. John landed a well-paying factory job, bought a house in a trim and tidy middle-class neighborhood near his parents, and settled down with his wife and three adopted children into a life of domestic anonymity.

FOR YEARS, KEITH SIGMUNDSON had been seeing the advertisements. They appeared like clockwork every year in the American Psychiatric Society Journal, and they always said the same thing: “Will whoever is treating the twins please report.” Below this entreaty was always the same address: Dr. Milton Diamond, University of Hawaii. “I would see it,” Sigmundson says, “but I couldn’t bring myself to answer.”

In the past, Sigmundson himself had toyed with the idea of publishing the true outcome of John’s case. But he hadn’t done it - and for a very simple reason. “I was shit-scared of John Money,” he admits. “He was the big guy. The guru. I didn’t know what it would do to my career.” So he would put the idea out of his head. Diamond’s annual ad was an awkward reminder. A couple of times, he’d almost answered it. But he’d always resisted the urge.

Diamond, however, was not one to give up so easily. At 63, he’s a sad-eyed man with the white beard of a scholar, his intensity hidden behind soft-spokenness. Diamond is the author of more than a hundred journal articles and eight books on sexuality. The majority of Diamond’s time in Honolulu during the past 30 years has been spent hunched over his computer in the cluttered, windowless office he calls his “cave,” his work habits obvious to anyone who has seen his pale skin. It was from his cave that Diamond, in early 1991, decided to redouble his efforts to locate, and learn the fate of, the famous twins. That spring, he managed to track down Dr. M., the psychiatrist who had treated Joan Thiessen almost 21, years earlier. She had moved from the Thiessens’ hometown soon after referring Joan to a new psychiatrist and thus knew nothing of the girl’s sex change. She did, however, offer to give Diamond a phone number for the man who had overseen Joan’s psychiatric treatment: Keith Sigmundson.

“It’s funny,” Diamond says with a chuckle, “I remember the first words Sigmundson said to me [when I called]. It was to the effect of, ‘I was wondering how long it would take for you to get here.’ “

Sigmundson shakes his head at the memory of the call he’d been half hoping for, half dreading

“Mickey said, ‘Keith, we gotta do this,’ “ Sigmundson recalls. “I said, ‘Well, I haven’t really got the time and the energy....’ So Mickey kept on badgering me a little bit.”

As someone who had himself seen firsthand the disastrous results of a so-called “successful” sex reassignment, Sigmundson was inclined to agree with Diamond’s argument that the procedure is wrongheaded. But Sigmundson admits that some of his reservations about joining Diamond in a long-term follow-up on John’s case derived from colleagues who had warned him that Diamond was a “fanatic” with an ax to grind regarding Dr. Money. Further conversations with Diamond, and a reading of his journal articles on sexual development, convinced Sigmundson otherwise: “I came to see that Mickey is a serious researcher and a caring guy who really believed that Money’s theory had caused - and was continuing to cause - great harm to children.” Sigmundson agreed to contact John Thiessen and to ask if he would be willing to cooperate with a follow-up article on his case.

By then, John had been married for two years and wanted nothing more than to put his tortured past behind him. He, at first, refused to participate. But in a later meeting with Dr. Diamond - who flew in from Hawaii, John learned, for the first time, about his fame in the medical literature and how his reportedly successful switch from boy to girl stood as the precedent upon which thousands of sex reassignments had since been performed - and continued to be performed at an estimated rate of five a day globally. “There are people who are going through what you’re going through every day,” John recalls Diamond telling him, “and we’re trying to stop that.”

That was good enough for John. In the spring of 1994, and over the course of the following year, John, his mother and his wife sat for a series of interviews with Diamond and Sigmundson in which they recounted John’s harrowing journey from boy to girl and back again. Using these interviews, plus the detailed clinical records that Sigmundson had kept on Joan’s case, Diamond wrote up the results in a paper in which John’s life was cast as living proof of precisely the opposite of what Money had said it proved 25 years earlier. Diamond wrote that John’s case is evidence that gender identity and sexual orientation are largely inborn, and that while rearing may play a role in helping to shape a person’s sexual identity, nature is by far the stronger of the two forces so much so that even the concerted 12-year efforts of parents, psychologists, psychiatrists, surgeons and hormone specialists could not override it.

The paper, powerful as it was as anecdotal evidence of the neurobiological basis of sexuality, was also a clear warning to physicians about the dangers of sexual reassignment - and not just for children like John, who are born with normal genitals. Diamond argued that the procedure is equally misguided for intersexual newborns, since physicians have no way of knowing in which direction, male or female the infant’s gender identity has differentiated. To stream such children, surgically, into one sex or the other, Diamond argued, is guesswork that consigns a large percent of them to lives as tortured as John Thiessen’s.

It took nearly two years for Diamond and Sigmundson to find a publisher for their

paper. “We were turned down by all these journals that said it was too controversial,” says Sigmundson. “The New England Journal, American Psychiatric, American Pediatric.” The article was finally accepted for publication by the American Medical Association’s Archives of Adolescent and Pediatric Medicine in September 1996, with publication set for March 1997. In the intervening seven months, Diamond and Sigmundson felt considerable apprehension as they waited for their bombshell to go off. “We were basically telling all these physicians that they’d been doing the wrong thing for the past 30 years,” Sigmundson says. “We knew we were going to be pissing a lot of people off.”

They were not wrong. One pediatric endocrinologist who has attended medical meetings on the subject since the article’s publication has reported that the discussions cannot even be termed debates: “It’s like screaming fights in these medical conventions at the moment.” Some critics of the article have attempted to dismiss it on the grounds that Diamond is simply using John’s history to embarrass a scientific rival. But Dr. Melvin Grumbach, the eminence grise of pediatric endocrinology, offers a more measured response. “I think Diamond does have a case,” he says. “I think testosterone in utero and an XY-chromosome constitution does do things to you. But the question is: Is it invariable?”

Grumbach points out that sex reassignment is always done as a last resort and only when every other treatment option has been ruled out. And while he admits that sex reassignments are not foolproof, Grumbach insists that they can, and do, work “with good support.” But asked to offer up a “satisfied customer,” Grumbach voices the Catch-22 of every pediatric specialist contacted for this article. “I really lose track of all my patients after young adulthood,” he says.

Astonishingly, in the four decades since the first sex reassignments were performed, no comprehensive, long-term follow-up study of the patients has ever been conducted. Such a study was, finally, launched at the Johns Hopkins medical center in June 1995. Child psychiatrist (and former pediatric urologist) Bill Reiner has been following the lives of 16 reassigned people, focusing on six genetic males who were born without penises, castrated in infancy and raised as girls. Two years into his study, Reiner says that all six are closer to males than to females in attitudes and behavior. Two have spontaneously (without being told of their XY male chromosome status) switched back to being boys. “These are children who did not have penises,” Reiner points out, “who had been reared as girls and yet knew they were boys. They don’t say, ‘I wish I was a boy,’ or ‘I’d really rather be a boy,’ or ‘I think I’m a boy.’ They say, ‘I am a boy.’” Reiner (who wrote a supportive editorial to accompany Diamond and Sigmundson’s John/Joan paper) points to the parallel between the children he is studying and Joan Thiessen, who also “knew,” against all evidence to the contrary, that she was a he.

Reiner says that both the John/Joan case and the trend in his study support the findings that have emerged since Diamond’s early-1960s research into the neurobiological origins of gender identity and sexual orientation. A 1971 study done at Oxford University showed anatomical differences between the male and female brain in rats - and six years later, at UCLA, researchers narrowed these differences to a cluster of cells in a gland in the

brain called the hypothalamus. A study done in the mid-1980s in Amsterdam located the corresponding area in the human hypothalamus, noting that it is twice as large in homosexual men as it is in heterosexual men. Further studies done by others in the early 1990s support this finding. Then, in 1993 and again in 1995, researcher Dean Hamer announced a breakthrough on the genetic front: He was able, in two separate studies of gay male brothers, to find a certain distinctive pattern on their X chromosomes. The finding suggests that male homosexuality may have a genetic origin.

While many of these studies still need to be replicated, few sex researchers today dispute the mounting evidence of a strong inborn bias for sex and sexuality. "Which is why," Reiner says, "I have been advising physicians to be very prudent when prescribing sex reassignment for infants. Because it's quite clear that the vast majority of boys born with functioning testicles have masculine brains." Reiner endorses Diamond and Sigmundson's recommendation (published in a recent journal article) that in cases of injury or intersexuality, the assignment of sex be made socially, in terms of hair length, clothing and name, but any irreversible surgical intervention be delayed until the children are old enough to know, and are able to say, which gender they feel closest to. "We have to learn to listen to the children themselves," Reiner says. "They're the ones who are going to tell us what is the right thing to do."

WELL BEFORE DIAMOND AND Sigmundson's journal article appeared in the Archives of Adolescent and Pediatric Medicine last March, the American Medical Association's PR department alerted the media that something explosive was coming. "The AMA knew it was a big deal," Diamond says, "so they notified the big newspapers in advance." On the day of the article's publication, the New York Times ran a front-page story headlined SEXUAL IDENTITY NOT PLIABLE AFTER ALL, REPORT SAYS, which described John Thiessen's life as having "the force of allegory." Time (24 years after publishing news of the case's success) now ran a story declaring, "The experts had it all wrong." Similar news accounts appeared around the world - and soon Diamond was deluged with calls from reporters in several countries seeking interviews with the young man now known simply as John/Joan.

I met John for the first time in New York City in June 1997. Dr. Diamond, with whom I had spent months corresponding and whom I had visited in Hawaii, made the introduction. At that first meeting, John spoke bluntly about his difficulty in trusting strangers, but he quickly decided to talk to me for publication. His decision was based on his desire to warn people about the perils of infant sex reassignment. Over a beer at the Hard Rock Cafe on 57th Street, he began our conversation by telling me that he owes his survival to his family, his sole comfort in a childhood that he called "a pit of darkness." But a formidable sense of humor also clearly played a role in John's ability to rise above his sufferings. Describing the physical differences between him and his heavier, slightly balding twin, he shouted over the pounding music: "I'm the young, cool Elvis. He's the fat, old Elvis." But the strongest impression I was left with after that first meeting was of John's intense, unequivocal masculinity. His gestures, walk, attitudes, tastes, vocabulary - none of them betrayed the least hint that he had been raised as a girl. And, indeed, when asked whether he thought that his extraordinary childhood had given him a special insight

into women, he dismissed the question. Like the sex-reassigned boys in Reiner's study, John had apparently never been a girl - not in his mind, where it counts.

John's story, as told by Diamond and Sigmundson, loosed a flood of coverage on television and in magazines and newspapers on the heretofore unexamined phenomenon of infant sex reassignment. With this coverage, another set of voices in the debate began to be heard. These are the voices of those intersexes born after the publication of Money's 1955 protocols. Once cloaked in shame and silence, they had already begun to emerge, largely because of the efforts of one person: a San Francisco activist named Cheryl Chase.

At her birth, in 1956 in New Jersey, Chase presented a classic case of ambiguous genitalia - with a somewhat vaginallike opening behind the urethra and a phallic structure of a size and shape that could be described as either an enlarged clitoris (if she was assigned as a girl) or a micropenis (if assigned as a boy). After three days of deliberation, the doctors assigned Chase as a boy. She was christened Charlie. But a year and a half later, her parents, still troubled by Charlie's unusual appearance, consulted another team of experts, who (partly on the basis of her fairly normal vagina) reassigned her as a girl. Her name was changed from Charlie to Cheryl, and her phallus was amputated.



Cheryl Chase: Christened Charlie, reassigned at age 1, now an intersex activist

Like John Thiessen, Chase was then raised without knowledge of her true birth status (though her entire family knew). Thus, like John, she suffered a childhood punctuated with mysterious, unexplained surgeries and genital and rectal exams. Also like John, she grew up confused about her gender. "I was more interested in guns and radios," Chase says, "and if I tried to socialize with any kids, it was generally boys, and I would try to physically best my brother." As a pre-adolescent, she recognized that her erotic orientation was toward females.

At 19, Chase understood that she'd been subjected to a clitoridectomy. She began an investigation into her medical history but was thwarted by her doctors, who refused to reveal her past. It took three years for her to find a doctor who would show Chase her medical records. Only then did she learn that she had been born a "true hermaphrodite" - a person with both ovarian and testicular tissue - and that the operation she had undergone at age 8 (to relieve "stomachaches") had actually been to cut away the testicular part of her gonads.

Horrified and angered at the deception perpetrated upon her, and aggrieved at the loss of her clitoris, which has rendered her incapable of orgasm, Chase began to seek out others like her for emotional support. Through Internet postings and mailings, she established a network of intersexes in cities across the country and, in 1993, dubbed the group the Intersex Society of North America, a peer-support, activist and advocacy group.

To meet with Chase and members of ISNA - as I did last spring, when they held a

peaceful demonstration outside Columbia Presbyterian Hospital, in New York, where Chase's clitoral amputation was conducted - is to enter a world where it is impossible to think of sex with the binary, boy-girl, man-woman distinction we're accustomed to. There's Heidi Walcutt (genetically female but born with uterine, ovarian and testicular tissue and a micropenis, she describes herself as a "true American patchwork quilt of gender") and Martha Coventry, who was born with a penis-sized clitoris but a fully functioning female reproductive system and is the mother of two girls. Kira Triea was assigned as a boy at age 2 and did not learn of her intersexuality until puberty, when she began to menstruate through her phallus. She was a patient of Dr. Money's at the Johns Hopkins Psychohormonal Research Unit from age 14 to 17; this was in the mid-1970s, concurrent with John Theissen.

They have never met, but Triea's story bears striking parallels to his. She describes how Dr. Money, evidently attempting to ascertain whether she had assumed a male or female gender identity, questioned her about her sex life - in the frank language for which he was well known. "Have you ever fucked somebody?" she remembers Dr. Money asking. "Wouldn't you like to fuck somebody?" She also describes how Dr. Money showed her a pornographic movie. "He wanted to know who I identified with in this movie," she says. Contrary to Money's theory that an intersex reared as a boy will likely develop a male gender identity, Triea's sexuality and sense of self were far more complicated than that. At 17, she agreed to undergo feminizing surgery to create female genitals, but when she became sexually active for the first time, at age 32, her erotic orientation was toward women.

Impossible to classify as simply male or female, Chase and her colleagues want to, she says, "end the idea that it's monstrous to be different."

Chase emphasizes that ISNA's aim is to abolish all cosmetic genital surgery on infants - whether it be the full castration and sex reversal of microphallus boys or the supposedly less intrusive process of reducing a girl's enlarged clitoris. Chase says that such procedures are equally invasive. She denounces as "barbaric" the medically unnecessary treatments on newborns, who are not in a position to authorize surgery that may have an irreversible effect on their erotic or reproductive functioning. And Chase strongly endorses Diamond and Sigmundson's new recommendation against operating on newborns with ambiguous genitalia.

The medical establishment, she says, has shunned ISNA. According to Chase, she has tried for six years to gain an audience with the leading pediatric endocrinologists and surgeons at Johns Hopkins and elsewhere. They have refused to speak to her. Indeed, in a 1996 New York Times article on Chase and ISNA, Dr. John Gearhart, head of pediatric urology at Hopkins, dismissed the group as "zealots." In a conversation with me, he addressed ISNA's complaints. He maintained that sex reassignment is a viable option for boys who are born with micropenises or who lose their penises to injury although he adds that advances in penile reconstruction make him more hesitant to recommend the procedure today. "If John/Joan happened today," he says, "I would sit down with those parents and say, 'The child has testicles; it's a normal male child; and we can now make

penises, and they're pretty functional and pretty cosmetic' - and I would probably not give them the option. I would suggest that you could change the child's gender, but I would not recommend that, because reconstructive genital surgery has come light years since John/Joan's accident."

Gearhart insists that advances in medicine render ISNA's concerns obsolete. "When these people in ISNA were operated on, 25 and 30 years ago, there weren't really children's reconstructive surgeons around," he says. "So most of [these babies] had their clitoris or their penis amputated. That was wrong. OK? That was wrong. But the surgeons didn't know any better. Nowadays, people in modern reconstructive surgery are not cutting off little babies' clitorises or penises, or anything along those lines." Gearhart says that modern microsurgery retains sensation. "And if sensation is important to orgasm," he says, "then we retain orgasm."

Chase disputes this and says that Gearhart's electric-diagnostic test of sensation, which is administered immediately following genital surgery, doesn't prove anything. "How this [test] relates to sexual function 15, or 20 years later is anybody's guess," she says.

Chase says she understands why the medical establishment has resisted listening to ISNA. As she once wrote: "Our position implies that they have unwittingly at best and through willful denial at worst - spent their careers inflicting a profound harm from which their patients will never fully recover." So she does not expect doctors like Gearhart to change their views unless forced. "I think a context will open up for surgeons who keep doing this to be vulnerable to lawsuits," Chase says. "But it's going to take a while to create that context. Right now, we can't sue, because it's standard practice and parents give permission. The first thing that we want to have happen is that when they recommend this to parents, they tell them it's experimental and there's no evidence that it works and that there's plenty of people who've had it done to them who are mad as hell."

Other large changes will have to take place. Anne Fausto-Sterling, an embryologist at Brown University, endorses Diamond and Sigmundson's recommendation for delaying surgery but says that the medical establishment will have to provide education and emotional support to help parents with the difficult task of raising an infant whose genitals are atypical.

"A different kind of support system has to start getting built," Fausto-Sterling says. "At the moment there is no ongoing counseling done by people skilled in psychosexual development." Currently, she points out, counseling is done neither by experts trained in gender issues or psychology nor by intersexual peer-support counselors - it's handled by surgeons or endocrinologists, who conduct only cursory follow-up exams once a year. "If there was really a wholesale change in this," she continues, "the medical profession would have to do something like what they've done with genetic counseling - which is to develop a specialty of people who would work with these families long-term and help them resolve both emotional and practical questions. The practical questions are very real: 'What do I do when it comes to undressing in gym? How do I intervene with the school system?'"

There are a lot of things that have to happen to make what I'm arguing or Cheryl's arguing or Mickey's arguing work. There's a different infrastructure that has to get built and put into place. I think it's the responsibility of the medical profession to do it."

NOW 76 YEARS OLD AND IN SEMI-retirement, John Money has nevertheless remained a prolific and opinionated writer on the subject of sex and sexuality. His latest book, called *Principles of Developmental Sexology*, came out this year. Through the 1980s, his books and articles continued to appear with regularity - although his later work showed a shift from his earlier extreme position on the primacy of rearing over biology in the making of boys and girls. Indeed, in a May 1988 *Psychology Today* profile publicizing the publication of his book *Gay, Straight and In-Between*, Money characterized himself as a longtime champion of the role of biology in psychological sex differentiation. Money is quoted saying that in the 1950s, when he was publishing papers on the behavioral influence of prenatal sex hormones, "many people in various branches of the social sciences were just enraged at the idea that hormones in the bloodstream before you were born could have a sex-differentiating influence on you." In the same article, Money reiterated his claim that male babies with undeveloped penises and fully formed testicles can, with surgery and hormone treatment, be turned into heterosexual women.

To the many news organizations that requested comment from Money about the now-infamous John/Joan case, the psychologist refused to speak, citing confidentiality laws.

But he did speak with me briefly on the phone in early November, after six months of appeals. Though he refused to discuss John Thiessen directly, Money claimed that the media's reporting of the case has reflected a conservative bias. "It's part of the antifeminist movement," he said. "They say masculinity and femininity are built into the genes, so women should get back to the mattress and the kitchen." As to his failure to report the case's outcome, Money was unapologetic, saying that he had lost contact with the Thiessens when they did not return to Johns Hopkins and that the opportunity to conduct a follow-up had been denied to him. He stood by his original reporting of the case and dismissed my suggestion that he "misperceived" what was going on with the child. Furthermore, he implied that John's sex change to male at age 15 may not have been entirely his own decision. "I have no idea," Money said, "how much he was coached in what he wanted, since I haven't seen the person." He also hinted that the Diamond-Sigmundson paper had a hidden agenda. "There is no reason I should have been excluded from the follow-up, was there?" he asked. "Someone had a knife in my back. But it's not uncommon in science. The minute you stick your head up above the grass, there's a gunman ready to shoot you." (Diamond insists that there was "nothing personal" in his decision to publish the outcome of John's case.)

When I asked Money about Diamond's appeal to delay surgery on intersexual babies until they are old enough to speak for themselves, Money emphatically rejected the idea. "You cannot be an it," he declared, adding that Diamond's recommendations would lead intersexes back to the days when they locked themselves away in shame or worked as circus freaks.



I reminded Money that his book *Man Woman, Boy Girl* is still in print and that it reports the John/Joan case as a success. Asked if it would not be worthwhile for him to make changes in the text for a future edition, Money said flatly, "I'll be dead by then."

JOHN THIESSEN'S FINAL CONTACT with Dr. Money was almost 20 years ago, when the famous sexologist slipped him \$15 in his parents' living room. In the intervening years, John has often imagined what he might say, or do, to the psychologist if they were ever to meet face to face. As a younger man, his fantasies, he admits, ran to violence. But no more. "What's done," John says, "is done." He refuses to dwell on a past that he cannot change. In their paper, Diamond and Sigmundson describe John as a "forward-looking person." In conversation, Diamond calls him a "true hero." John's life today defies the dire prognosis of the local psychiatrist who, 31 years ago, declared that John would never marry and "must live apart." John's second phalloplasty allows him to have intercourse with his wife, and he is a strict but loving father to their three children, ages 15, 12 and 9. He has even mustered the emotional maturity to tell his eldest child about his painful history. And he prefers to focus on the positive changes that have resulted from his speaking out in public. For despite the brave four-year efforts of Cheryl Chase, despite the 30 years that Mickey Diamond spent trying to warn the medical establishment about the dangers of the current protocols for treatment of ambiguous or injured genitals, and despite the long-term follow-up of sex-reassigned youngsters in Bill Reiner's study, the medical establishment remained unwilling to address the issue until John went public.

His story has shaken to its foundations the edifice constructed on John Money's theories from the 1950s. And it has exposed a central flaw in a theory that has held sway for most of the 20th century. It was Sigmund Freud who first stated that a child's healthy psychological development as a boy or a girl rests largely on the presence, or absence, of the penis - the notion central to Money's theory of sexual development and the ultimate reason that John Thiessen was converted to girlhood in the first place. It is a notion that, today, has also been called into question by neurobiological research that, in the sexual realm, is leading scientists toward the conclusion that, as Dr. Reiner puts it, "the most important sex organ is not the genitals; it's the brain."

John Thiessen puts it another way when he speaks of his pride in his role as husband, father and sole breadwinner in the family that he never believed he would be lucky enough to have. "From what I've been taught by my father," he says, "what makes you a man is: You treat your wife well. You put a roof over your family's head. You're a good father. Things like that add up much more to being a man than just bang bang bang - sex. I guess John Money would consider my children's biological fathers to be real men. But they didn't stick around to raise the children. I did. That, to me, is a man."