"The nature vs. nurture debate on whether biology or environment causes human beings to choose certain roles and lifestyles is a perennial controversy in sociobiology, but since the seventies the debate has been extended to whether nurture, i.e. culture, can override biology and be a determinant of sex itself.

This issue reached high drama at the June 2000 Beijing+5 United Nations Women's Conference in New York when the development agencies of the Scandinavian countries and Germany threatened to withhold development money from Nicaragua unless the Nicaraguan government sacked the head of their delegation from his Cabinet post as Minister for the Family. His offense was to refuse to accept the European Union definition of "gender" as an arbitrary social construct which could include several "genders," He insisted that "gender" be defined in its common meaning of two sexes, male and female. The hapless Max Padilla was duly recalled — Nicaragua is a poor country vulnerable to economic coercion. The only consolation was that his replacement also held the belief that humans come in two kinds, male and female.

"Equity Feminists"

Liberal feminists of the ’60s, or what Christina Hoff Sommers, author of *Who Stole Feminism*, refers to as “equity feminists,” believed that women should have as much freedom and opportunity as men and that discriminatory laws should be eliminated. However, within a decade, liberal feminism was overtaken by the far more radical “gender feminism,” which, building on Marxist ideology, requires the elimination not only of economic classes but of sex classes, i.e. the division of humans into male and female.

Hence the substitution of the word “gender” for sex. “Gender” is primarily a grammatical term, which may be determined by a distinguishing characteristic, i.e. sex, but gender can also be arbitrary like the gender of some nouns in Spanish and French — “table” in Spanish
is feminine (la mesa), in French it is masculine (le table). This malleable view of gender and
the expansion from two sexes to five genders was most clearly expressed in the writings of
Marta Llama at the Regional Conference and Non-Government Organisations Forum
(prelude to the U.N.’s 1995 Beijing Conference on Women) in Argentina, in September
1994. According to Llama:

Biology shows that outwardly human beings can be divided into two
sexes; nevertheless, there are more combinations that result from
the five physiological areas which ... determine what is called the
biological sex of a person: genes, hormones, gonads, internal
reproductive organs and external reproductive organs .... a quick
but somewhat insufficient classification of these combinations
obliges us to recognize at least five biological sexes .... our
dichotomy man/woman, more than a biological reality, is a symbolic
and cultural reality.3

Gender is a Social Construction

According to Llama man/woman, masculine/feminine are merely cultural constructions, and
thinking that heterosexuality is the “natural” sexuality is only another “example of a
‘biological’ social construction.” At the U.N. World Conference on Women in 1995, feminists
claimed that the sexuality of multiple genders found expression as heterosexual,
homosexual, bisexual, asexual, hermaphrodite, transvestite and transgendered, the latter
group being further sub-divided into those who were awaiting surgery, those who had
surgery, and those who had surgery but now wished to revert back to their original
condition.

The views of Llama and other gender feminists has dominated the United Nations agencies
for the past decade, requiring the U.N. and member States to “mainstream the gender
perspective” in all documents and Plans of Action. According to a booklet published by the
UN International Research & Training Institute for the Advancement of Women:
To adopt a gender perspective is .... to distinguish between what is natural and biological and what is socially and culturally constructed, and in the process to re-negotiate the boundaries between the natural — and hence relatively inflexible — and the social — and hence relatively transformable.

How to Liberate Women

Kate Bornestein, who writes of a man who underwent a “sex change,” argues that the way to liberate women is to deconstruct gender:

Women couldn’t be oppressed if there was no such thing as ‘women’, ... doing away with gender is key to the doing away with patriarchy ... Gender fluidity is the ability to freely and knowingly become one or many of a limitless number of genders, for any length of time.

Congenital malformations are comparatively rare and it is my contention that they do not prove there are more than two sexes any more than the fact that some babies are born blind proves that it isn’t natural for human beings to see. Biological sex is not determined by external organs but by genetic structure. Every cell of the human body is clearly marked male or female, and the human brain, which is the primary sex organ, is masculinized or feminized in the fetal stage of development by the presence or absence of testosterone.

Furthermore, human beings do not exist on a continuum between male and female. Those rare cases of infants born with anomalous genitals deserve sympathy and treatment on the basis of their chromosomal sex, the presence of a “Y” chromosome indicating a male, and its absence denoting a female.

The occurrence of some rare abnormalities does not require the re-assignment of the entire human race.
Nature vs. Nurture

In Australia the nature vs. nurture debates predated the appearance of “mainstreaming the gender perspective” in U.N. policy and Plans of Action. In 1975 I was appointed a member of the Victorian Committee on Equal Opportunity in Schools. I disagreed with the underlying premise of the other members that most of the observable differences in the educational outcomes for girls and boys were due to “discrimination” or “social conditioning.” While culture and parental influence obviously played a part, it seemed that many of the future career paths of girls and boys were based on their innate preferences, and the aggressive social engineering recommended by the Committee was not justified. Sex differences are apparent not only before birth but even before conception.

I was troubled by the belief of the other Committee members — and of feminists in general — that human nature is completely malleable, and that babies arrive as lumps of soft playdough on which society can imprint whatever they choose. Having four daughters and four sons myself, I knew from experience that girls and boys are different and that one can give them “counter-sexist” toys, but they will not necessarily play in the politically correct manner.

A recurring name in our discussions at the Victorian Committee on Equal Opportunity in Schools was that of Dr. John Money, who received his Ph.D. in psychology from Harvard and then specialized as a researcher at the John Hopkins Hospital in Baltimore. Credited with coinining the term “gender identity” to describe a person’s inner sense of himself or herself as male or female, Money established the world’s first Gender Identity Clinic at John Hopkins. His influence throughout the academic and scientific world would define the scientific landscape for decades to come. To the present day many of his students and protégés, trained in his theories of psychosexual differentiation, occupy top positions in some of the most respected universities, research institutions and scientific journals in the USA. His theories on the psychosexual flexibility at birth of humans forms the cornerstone of an entire medical specialty — pediatric endocrinology.

The Reimer Twins

Bruce and Brian Reimer, normal identical twin boys, were born in 1965. Due to a circumcision procedure which went terribly wrong. Bruce’s penis was burnt and destroyed. Doctors at the Mayo Clinic in Minnesota suggested to the parents, Ron and Janet Reimmer,
the possibility of raising Bruce as a girl. They were referred to Dr. John Money at John Hopkins.

The parents did not realize that the procedure Money recommended — castration and the construction of external female genitalia, followed by hormone treatment when the child was eleven — was experimental. It had never been attempted on a child born with normal genitals and nervous system. Fate had delivered into Money’s hands the opportunity for the perfect experiment, complete with the perfect “control” — the identical twin.

The Reimers’ pediatrician in Winnipeg advised against the procedure and recommended that they wait until the child was of pre-school age before starting the long process of phalloplasty, i.e. surgical reconstruction of the penis. However, Money wanted a quick decision — according to his theory, the “gender identity gate” — his term for that point after which a child has locked into an identity as male or female — comes at two and a half to three years of age. Money wrote: “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.”

The Birth of Brenda

In July 1967, aged 22 months, Bruce was surgically castrated and renamed “Brenda.” His parents made every effort to follow Dr. Money’s instructions scrupulously and raise Brenda as a girl. For the twins’ second birthday, Janet made her a dress. “It was pretty and lacy,” Janet recalls. “She was ripping at it, trying to tear it off. I remember thinking ... she knows she’s a boy and she doesn’t want to be a girl.”

The experiment was a failure from the outset — Brenda showed no signs of femininity and every sign of masculine behavior, including rough and tumble and fighting games. She failed to bond with her female school mates, and despite several changes of school, and referral to counseling and psychiatrists, had disciplinary and academic problems; she just did not fit in.

Dr. Money stipulated that the parents with both Brenda and her twin, pay yearly visits to his Psychohormonal Research Unit at John Hopkins in Baltimore. These trips were an ordeal for the family and exacerbated the fear and confusion Brenda was experiencing. Without their parents being present, the twins were subjected to detailed questioning, some of it designed to persuade Brenda to accept her “femininity”; some questions were of a more explicit
sexual nature.

Despite all the indications that the experiment was a massive failure and that Brenda was having major psychological and behavioral problems, in December 1972, Dr. Money unveiled his famous twins’ case. In a two-day series devoted to “Sex Role Learning in Childhood and Adolescence” at the annual meeting of the American Association for the Advancement of Science in Washington D.C., Money’s paper was delivered to a capacity crowd of over one thousand scientists, feminists, students and reporters.

Money wrote that as planned experiments on humans are ethically unthinkable, one can only take advantage of unplanned opportunities. From his description the case was a great success — he contrasted Brian’s interest in “cars, gas pumps and tools” with Brenda’s avid interest in “dolls, a doll house and a doll carriage.” Brenda was interested in kitchen work, Brian disdained it. The twins seemed to embody an almost miraculous division of taste, temperament and behavior along gender lines, and seemed the ultimate proof that boys and girls are made not born. 

Money’s False Proof

The importance of the twins’ case cannot be underestimated. It was seized on by the feminist movement, which had been arguing for years against a biological basis for sex differences. Kate Millet in her 1970 definitive feminist tome, Sexual Politics, quoted Money’s papers as scientific proof that the differences between men and women reflect not biological imperatives but societal expectations and prejudices. The twins’ case offered apparently irrefutable proof to support that view.

Over the next few years Money continued to present Brenda’s case as a success. At a time when the Reimer parents, because of the behavioral problems Brenda was exhibiting at school, had been forced to break confidentiality and inform counselors and her psychiatrist of her medical history, Money wrote, “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 anyone’s conjectures.” The reality was that Brenda at age eleven was developing certain physiological changes — her shoulders had started to widen and grow more muscular, her neck and biceps began to thicken, and sometimes her voice would crack. She was rebellious about taking the estrogen pills intended to make her develop breasts, and she was totally resistant to the planned second stage of her vaginal reconstruction surgery.
In May 1980 when Brenda insisted to her Winnipeg endocrinologist and psychiatrist that she did not want to be a girl, they advised her father to tell her the truth. Brenda’s feelings were of anger, amazement, but overwhelmingly of relief. She said, “Suddenly it all made sense why I felt the way I did. I wasn’t some sort of weirdo. I wasn’t crazy.”

Money’s Views Accepted

Although Money’s views on the malleability of gender identity was the established wisdom of the scientific community and particularly of the feminist movement, there was at least one researcher who had been questioning his conclusions. With a pioneering team of endocrinologists at the University of Kansas in the 1950s, working on guinea pigs, biophysics researcher Dr. Milton Diamond established that prenatal sex hormones played a significant role not only on the development of the reproductive system and external genitalia of a fetus, but also on the masculinization or feminization of the brain.

The results were published in a 1959 issue of Endocrinology. In a follow-up paper entitled “A Critical Evaluation of the Ontogeny of Human Sexual Behavior.” Diamond rejected outright the John Hopkins team’s theory. Diamond stated that prebirth factors set limits on how far culture, learning and environment can direct gender in humans. Citing evidence from biology, psychology, psychiatry, anthropology and endocrinology, he argued that gender identity is hardwired into the brain virtually from conception.

Diamond’s paper was a direct challenge to the scientific authority of John Money, who had become one of the gurus of the feminist movement. A long and acrimonious academic debate spanning decades ensued. It may explain why when fate delivered to Money the opportunity for the “perfect” experiment on the identical twins, he seized it so eagerly and why he was so reluctant to acknowledge the signs of failure.

Media Investigation

The media inevitably became interested in the famous twins’ case which stood as the most compelling evidence to prove the primacy of rearing over biology in the formation of gender identity. However, when a BBC reporter began investigating, he heard rumors that the case was not all it seemed to be. A BBC documentary was produced. There were other media articles as well as the on-going debate in the scientific literature. Journalist John Colapinto’s article in Rolling Stone in December 1997 has now been expanded into a book, As Nature
The real hero of this story is not Milton Diamond or John Colapinto — it is Brenda, or as she was renamed “David,” who having learned the truth, wasted no time in reclaiming his sexual identity. By his fifteenth birthday he was living socially as a male. He began receiving injections of testosterone. Before his twenty-second birthday he had a successful phalloplasty in a 12-stage operation. In September 1990 David Reimer married Jane Fontane, a single mother of three children. His new name was symbolic of his struggle against the Goliath represented by John Money and the medical establishment, and of his courage in giving permission for his personal identity and medical details to be revealed. Until David Reimer spoke publicly about his ordeal the medical establishment was reluctant to admit the dangers of current practice in treating intersex babies, their reluctance no doubt underpinned by their deference to the feminist movement, which, still stuck in a time warp, believes that one can produce an androgynous society by adopting “counter-sexist” educational practices.

In Australia, Accreditation Guidelines for Child Care Centres forbid caretakers from telling a girl her dress is pretty. “Counter-sexist” educational practice is to encourage boys to play with dolls. On the other hand feminist ideology on the primacy of rearing over biology is being undercut by homosexual lobbies, who in the quest for civil rights insist they are “born that way,” not made.

A dose of reality eventually pervaded the medical establishment, at least in the U.S. The Gender Identity Clinic at John Hopkins was closed, and Money’s controversial course in human sexology was cancelled in the late seventies. Urologist William Reiner from John Hopkins reported that despite hormone treatment and surgery, 25 baby boys born with no penis but normal testicles, castrated and raised as girls, all retained “strong male characteristics” and most switched back to male. In a 1992 article in the American Scholar, Dr. Paul McHugh, Chairman of the Psychiatry Department at John Hopkins, criticized transexual surgery as “the most radical therapy ever encouraged by 20th century psychiatrists.” and likened it to the once widespread practice of frontal lobotomy. Dr. Jon Meyer, a Hopkins psychiatrist and former director of the Gender Identity Clinic, produced a long-term follow-up of fifty post-operative and pre-operative adult transexuals treated at John Hopkins and reported that none showed any measurable improvement in their lives.
and concluded that “sex re-assignment surgery confers no objective advantage in terms of social rehabilitation.”

Children should be reared, and adults should live in the sex that matches their chromosomes — XX or XY. The brain is the primary sex organ, and our brains are programmed before birth to be male or female. To paraphrase Cassius in Julius Caesar, “The fault, dear Brutus, is not in our stars but in ourselves — it is in our genes.”

Babette Francis is the National and Overseas Coordinator for the Endevour Forum, a pro-life, pro-family organization in Australia.

Endnotes

1 Austin Ruse, C-Fam; Beijing + 5 Press Conference at United Nations, New York, 7 June 2000.


5 Kate Bornestein, Gender Outlaw: On Men, Women and the Rest of Us, Rutledge, New York, 1994, 115.


7 Ibid.

8 Ibid.

9 Deborah Rhode, ed., Theoretical Perspectives on Sexual Differences; Rachel Hare-Martin and Jeanne Marececk, Making a Difference: Psychology and the Construction of Gender, both published by Yale University, 1990.

10 Colapinto.

11 Ibid.

13 Colapinto.

14 Quality Improvement and Accreditation System handbook: Putting Children First, National Childcare Accreditation Council, Canberra, Australia, 1993.


All of our PRI articles, unless otherwise noted, are released under a Creative Commons Attribution-No Derivatives license. You are free to reproduce these articles, as long as you do not change them, and you credit us as follows: “Population Research Institute, www.pop.org”. All the rest of the material on this site, such as pages, screens, and images, are under copyright by Population Research Institute. Please contact us for information on reuse. People pictured on this site do not thereby express agreement with our views.