

How Many Sexes Are There?

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Western culture is committed to the idea that there are only two sexes. For the situations described in this essay, I have to invent conventions -- s/he and his/her -- to denote someone who is neither male nor female or who is perhaps both sexes at once. Legally, too, every adult is either man or woman, and the difference is not trivial. It means being available for, or exempt from, draft registration, as well as being subject to laws governing marriage, the family and human intimacy.

But if the state and the legal system have an interest in maintaining a two-party sexual system, they are defying nature. For biologically speaking, there are many gradations running from female to male; along that spectrum lie at least five sexes -- perhaps even more.

Medical investigators recognize the concept of the intersexual body. But medicine uses the term "intersex" as a catch-all for three major subgroups with some mixture of male and female characteristics: the so-called true hermaphrodites, whom I call herms, who possess one testis and one ovary (the sperm- and egg- producing vessels, or gonads); male pseudo-hermaphrodites ("merms"), who have testes and some aspects of female genitalia but no ovaries; and female pseudo-hermaphrodites ("ferms"), who have ovaries and some aspects of the male genitalia but lack testes.

It is difficult to estimate the frequency of intersexuality; it's not the sort of information one volunteers on a job application. John Money of Johns Hopkins University, a specialist in the study of congenital sexual-organ defects, suggests that intersexuals may constitute as many as four percent of births.

However, few intersexuals maintain their natural sexuality. Medical advances enable physicians to catch most at birth. Such infants are entered into a program of hormonal and surgical management so that they can slip quietly into society as "normal" heterosexual males or females. The aims of the policy are

humanitarian, reflecting the wish that people fit in. In the medical community, however, the assumptions behind that wish -- that there be only two sexes, that heterosexuality alone is normal -- have gone virtually unexamined.

The word "hermaphrodite" comes from the Greek names Hermes and Aphrodite. According to Greek mythology, the gods parented Hermaphroditus, who at 15 became half male and half female when his body fused with the body of a nymph he fell in love with. In some true hermaphrodites, the testis and the ovary grow separately but bilaterally; in others, they grow together within the same organ, forming an ovo-testis. Not infrequently, at least one of the gonads functions well, producing either sperm cells or eggs, as well as functional levels of the sex hormones: androgens or estrogens.

In contrast with true hermaphrodites, pseudo-hermaphrodites possess two gonads of the same kind along with the usual male (XY) or female (XX) chromosomal makeup. But their external genitalia and secondary sex characteristics do not match their chromosomes. Thus, merms have testes and XY chromosomes, yet they also have a vagina and a clitoris, and at puberty they often develop breasts. They do not menstruate, however. Femms have ovaries, XX chromosomes and sometimes a uterus, but they also have at least partly masculine external genitalia.

No classification scheme could more than suggest the variety of sexual anatomy encountered in clinical practice. In 1969, Paul Guinet of the Endocrine Clinic in Lyons, France, and Jacques Decourt of the Endocrine Clinic in Paris, classified 98 cases of true hermaphroditism solely according to the appearance of the external genitalia and the accompanying ducts.

In some cases, the people exhibited strongly feminine development. They had separate openings for the vagina and the urethra, a cleft vulva defined by both the large and the small labia, or vaginal lips, and at puberty they developed

breasts and usually began to menstruate. It was the oversize and sexually alert clitoris, which threatened sometimes to grow into a penis, that usually impelled them to seek medical attention.

Members of another group also had breasts and a feminine body type, and they menstruated. But their labia were at least partly fused, forming an incomplete scrotum. The phallus (here an embryological term for a structure that during usual fetal development goes on to form either a clitoris or a penis) was between 1.5 and 2.8 inches long; nevertheless, they urinated through a urethra that opened into or near the vagina.

The most frequent form of true hermaphrodite encountered by the French doctors -- 55 percent -- appeared to have a more masculine physique. In such people the urethra runs either through or near the phallus, which looks more like a penis than a clitoris. Any menstrual blood exits during urination. But in spite of the relatively male appearance of the genitalia, breasts appear at puberty.

Intersexuality itself is old news. Early biblical scholars believed Adam began life as a hermaphrodite and later divided into two people -- a male and a female -- after falling from grace. According to Plato, there once were three sexes -- male, female and hermaphrodite -- but the third sex was lost with time. The Talmud lists regulations for people of mixed sex.

In Europe, a pattern emerged by the end of the Middle Ages that, in a sense, has lasted to the present day: hermaphrodites were compelled to choose an established gender role and stick with it. The penalty for transgression was often death. In the 1600's, a Scottish hermaphrodite living as a woman was buried alive after impregnating his/her master's daughter.

To determine questions of inheritance, legitimacy, paternity, succession to title and eligibility for certain professions, modern Anglo-Saxon legal systems require that newborns be registered as either male or female. In the U.S., sex

determination is governed by state laws. Illinois permits adults to change the sex recorded on their birth certificates if a doctor attests to having performed the appropriate surgery.

The New York Academy of Medicine takes an opposite view. In spite of surgical alterations of the external genitalia, the academy argued in 1966, the chromosomal sex remains the same. By that measure, a person's wish to conceal his or her original sex cannot outweigh the public interest in protection against fraud.

Ironically, a more sophisticated knowledge of sexuality led to the repression of intersexuality.

In 1937, Hugh H. Young, a urologist at Johns Hopkins, published "Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases." In this unusually even-handed study, Dr. Young drew together case histories to demonstrate and study the medical treatment of such "accidents of birth."

One of his cases was a hermaphrodite named Emma who had grown up as a female. Emma had a penis-size clitoris and a vagina, which made it possible for him/her to have "normal" heterosexual sex with men or women. As a teen-ager, Emma had had sex with a number of girls to whom s/he was attracted, but at 19 s/ he married a man. He gave Emma little sexual pleasure, and so throughout that marriage and subsequent ones s/he kept girlfriends on the side.

Though Dr. Young told Emma it would be relatively easy to turn him/ her into a man, the patient's reply struck a heroic blow for self-interest. "Would you have to remove that vagina? I don't know about that because that's my meal ticket. If you did that, I would have to quit my husband and go to work, so I think I'll keep it and stay as I am."

Yet even as Dr. Young was illuminating intersexuality with the light of scientific reason, he was beginning its suppression. His book is also a treatise on surgical and hormonal methods of changing intersexuals into either males or females. Dr. Young may have differed from his successors in being less judgmental and controlling of the patients and their families, but he nonetheless supplied the foundation on which current intervention practices were built.

By 1969, when Christopher J. Dewhurst and Ronald R. Gordon wrote "The Intersexual Disorders," medical approaches had neared a state of rigid uniformity: intersexual infants were almost always subject to surgery and hormonal treatment. The condition, they wrote, "is a tragic event which immediately conjures up visions of a hopeless psychological misfit doomed to live always as a sexual freak in loneliness and frustration." Though there are few empirical studies to back up such near-hysterical assertions, scientific dogma has held fast to the theory that without medical care hermaphrodites are doomed to a life of misery.

The treatment of intersexuality in this century demands scrutiny. Why should we care if there are people whose biological equipment enables them to have sex "naturally" with both men and women? The answers seem to lie in a need to maintain clear distinctions between the sexes. Society mandates the control of intersexual bodies because they blur and bridge the great divide; they challenge traditional beliefs about sexual difference. Hermaphrodites have unruly bodies. They do not fall into a binary classification: only a surgical shoehorn can put them there.

What if things were different? Imagine a world in which medical knowledge used to intervene in the management of intersexual patients had been placed at their service. Medicine's central mission would be to preserve life. Thus hermaphrodites would be concerned primarily not about whether they conform to society but about whether they might develop the life-threatening conditions

that sometimes accompany their development: hernias, gonadal tumors, adrenal malfunction. Medical intervention would take place only rarely before the age of reason; subsequent treatment would be a cooperative venture between physician, patient and, perhaps, a gender advisor.

I do not pretend that the transition to my utopia would be smooth. Sex, even the supposedly "normal," heterosexual kind, causes untold anxieties in Western society. And certainly a culture that has yet to come to grips with the ancient and relatively uncomplicated reality of homosexual love will not readily embrace intersexuality.

No doubt the most troublesome arena would be the rearing of children. Parents, at least since the Victorian era, have fretted over the fact that their children are sexual beings. But would rearing children as intersexuals be that fraught with peril? Modern investigators tend to overlook numerous case histories, such as those collected by Dr. Young, that describe children who grew up knowing they were intersexual and adjusted to their status.

With remarkable unanimity, the scientific community has avoided contemplating the alternative route of unimpeded intersexuality. Perhaps it will begin now.