

"THAT SEXE WHICH PREVAILETH"



ANNE FAUSTO STERLING. from SEXING THE BODY

The Sexual Continuum

IN 1843 LEVI SUYDAM, A TWENTY-THREE-YEAR-OLD RESIDENT OF SALISBURY, Connecticut, asked the town's board of selectmen to allow him to vote as a Whig in a hotly contested local election. The request raised a flurry of objections from the opposition party, for a reason that must be rare in the annals of American democracy: it was said that Suydam was "more female than male," and thus (since only men had the right to vote) should not be allowed to cast a ballot. The selectmen brought in a physician, one Dr. William Barry, to examine Suydam and settle the matter. Presumably, upon encountering a phallus and testicles, the good doctor declared the prospective voter male. With Suydam safely in their column, the Whigs won the election by a majority of one.

A few days later, however, Barry discovered that Suydam menstruated regularly and had a vaginal opening. Suydam had the narrow shoulders and broad hips characteristic of a female build, but occasionally "he" felt physical attractions to the "opposite" sex (by which "he" meant women). Furthermore, "his feminine propensities, such as fondness for gay colors, for pieces of calico, comparing and placing them together and an aversion for bodily labor, and an inability to perform the same, were remarked by many."¹ (Note that this nineteenth-century doctor did not distinguish between "sex" and "gender." Thus he considered a fondness for piecing together swatches of calico just as telling as anatomy and physiology.) No one has yet discovered whether Suydam lost the right to vote.² Whatever the outcome, the story conveys both the political weight our culture places on ascertaining a person's correct "sex" and the deep confusion that arises when it can't be easily determined.

European and American culture is deeply devoted to the idea that there are only two sexes. Even our language refuses other possibilities; thus to write

about Levi Suydam (and elsewhere in this book) I have had to invent conventions—s/he and h/er to denote individuals who are clearly neither/both male and female or who are, perhaps, both at once. Nor is the linguistic convenience an idle fancy. Whether one falls into the category of man or woman matters in concrete ways. For Suydam—and still today for women in some parts of the world—it meant the right to vote. It might mean being subject to the military draft and to various laws concerning the family and marriage. In many parts of the United States, for example, two individuals legally registered as men cannot have sexual relations without breaking antisodomy laws.³

But if the state and legal system has an interest in maintaining only two sexes, our collective biological bodies do not. While male and female stand on the extreme ends of a biological continuum, there are many other bodies, bodies such as Suydam's, that evidently mix together anatomical components conventionally attributed to both males and females. The implications of my argument for a sexual continuum are profound. If nature really offers us more than two sexes, then it follows that our current notions of masculinity and femininity are cultural conceits. Reconceptualizing the category of "sex" challenges cherished aspects of European and American social organization.

Indeed, we have begun to insist on the male-female dichotomy at increasingly early ages, making the two-sex system more deeply a part of how we imagine human life and giving it the appearance of being both inborn and natural. Nowadays, months before the child leaves the comfort of the womb, amniocentesis and ultrasound identify a fetus's sex. Parents can decorate the baby's room in gender-appropriate style, sports wallpaper—in blue—for the little boy, flowered designs—in pink—for the little girl. Researchers have nearly completed development of technology that can choose the sex of a child at the moment of fertilization.⁴ Moreover, modern surgical techniques help maintain the two-sex system. Today children who are born "either/or—neither/both"⁵—a fairly common phenomenon—usually disappear from view because doctors "correct" them right away with surgery. In the past, however, intersexuals (or hermaphrodites, as they were called until recently)* were culturally acknowledged (see figure 2.1).

How did the birth and acknowledged presence of hermaphrodites shape ideas about gender in the past? How did, modern medical treatments of intersexuality develop? How has a political movement of intersexuals and their supporters emerged to push for increased openness to more fluid sexual iden-

* Members of the present-day Intersexual Movement eschew the use of the word *hermaphrodite*. I will try to use it when it is historically proper. Since the word *intersexual* is a modern one, I will not use it when writing about the past.

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FIGURE 2.1: Sleeping hermaphrodite, Roman second century B.C.
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tities, and how successful have their challenges been? What follows is a most literal tale of social construction—the story of the emergence of strict surgical enforcement of a two-party system of sex and the possibility, as we move into the twenty-first century, of the evolution of a multiparty arrangement.

Hermaphrodite History

Intersexuality is old news. The word *hermaphrodite* comes from a Greek term that combined the names Hermes (son of Zeus and variously known as the messenger of the gods, patron of music, controller of dreams, and protector of livestock) and Aphrodite (the Greek goddess of sexual love and beauty). There are at least two Greek myths about the origins of the first hermaphrodite. In one, Aphrodite and Hermes produce a child so thoroughly endowed with the attributes of each parent that, unable to decide its sex for sure, they name it Hermaphroditos. In the other, their child is an astonishingly beautiful male with whom a water nymph falls in love. Overcome by desire, she so deeply intertwines her body with his that they become joined as one.

If the figure of the hermaphrodite has seemed odd enough to prompt speculation about its peculiar origins, it has also struck some as the embodiment of a human past that predated dualistic sexual division. Early biblical interpreters thought that Adam began his existence as a hermaphrodite and that he divided

into two individuals, male and female, only after falling from grace. Plato wrote that there were originally three sexes—male, female, and hermaphrodite—but that the third sex became lost over time.⁶

Different cultures have confronted real-life intersexuals in different ways. Jewish religious texts such as the Talmud and the Tosefta list extensive regulations for people of mixed sex, regulating modes of inheritance and of social conduct. The Tosefta, for example, forbids hermaphrodites from inheriting their fathers' estates (like daughters), from secluding themselves with women (like sons), and from shaving (like men). When they menstruate they must be isolated from men (like women); they are disqualified from serving as witnesses or as priests (like women); but the laws of pederasty apply to them. While Judaic law provided a means for integrating hermaphrodites into mainstream culture, Romans were not so kind. In Romulus's time intersexes were believed to be a portent of a crisis of the state and were often killed. Later, however, in Pliny's era, hermaphrodites became eligible for marriage.⁷

In tracking the history of medical analyses of intersexuality, one learns more generally how the social history of gender itself has varied, first in Europe and later in America, which inherited European medical traditions. In the process we can learn that there is nothing natural or inevitable about current medical treatment of intersexuals. Early medical practitioners, who understood sex and gender to fall along a continuum and not into the discrete categories we use today, were not fazed by hermaphrodites. Sexual difference, they thought, involved quantitative variation. Women were cool, men hot, masculine women or feminine men warm. Moreover, human variation did not, physicians of this era believed, stop at the number three. Parents could produce boys with different degrees of manliness and girls with varying amounts of womanliness.

In the premodern era, several views of the biology of intersexuality competed. Aristotle (384–322 B.C.), for example, categorized hermaphrodites as a type of twin. He believed that complete twinning occurred when the mother contributed enough matter at conception to create two entire embryos. In the case of intersexuals, there was more than enough matter to create one but not quite enough for two. The excess matter, he thought, became extra genitalia. Aristotle did not believe that genitalia defined the sex of the baby, however. Rather, the heat of the heart determined maleness or femaleness. He argued that underneath their confusing anatomy, hermaphrodites truly belonged to one of only two possible sexes. The highly influential Galen, in the first century A.D., disagreed, arguing that hermaphrodites belonged to an intermediate sex. He believed that sex emerged from the opposition of male and female principles in the maternal and paternal seeds in combination

with interactions between the left and right sides of the uterus. From the overlaying of varying degrees of dominance between male and female seed on top of the several potential positions of the fetus in the womb, a grid containing from three to seven cells emerged. Depending upon where on the grid an embryo fell, it could range from entirely male, through various intermediate states, to entirely female. Thus, thinkers in the Galenic tradition believed no stable biological divide separated male from female.⁸

Physicians in the Middle Ages continued to hold to the classical theory of a sexual continuum, even while they increasingly argued for sharper divisions of sexual variation. Medieval medical texts espoused the classical idea that the relative heat on the right side of the uterus produced males, the cooler fetus developing on the left side of the womb became a female, and fetuses developing more toward the middle became manly women or womanly men.⁹ The notion of a continuum of heat coexisted with the idea that the uterus consisted of seven discrete chambers. The three cells to the right housed males, the three to the left females, while the central chamber produced hermaphrodites.¹⁰

A willingness to find a place for hermaphrodites in scientific theory, however, did not translate into social acceptance. Historically, hermaphrodites were often regarded as rebellious, disruptive, or even fraudulent. Hildegard of Bingen, a famous German abbess and visionary mystic (1098–1179) condemned any confusion of male and female identity. As the historian Joan Cadden has noted, Hildegard chose to place her denunciation “between an assertion that women should not say mass and a warning against sexual perversions. . . . A disorder of either sex or sex roles is a disorder in the social fabric . . . and in the religious order.”¹¹ Such stern disapproval was unusual for her time. Despite widespread uncertainty about their proper social roles, disapproval of hermaphrodites remained relatively mild. Medieval medical and scientific texts complained of negative personality traits—lustfulness in the masculine femalelike hermaphrodite and deceitfulness in the feminine malelike individual,¹² but outright condemnation seems to have been infrequent.

Biologists and physicians of that era did not have the social prestige and authority of today’s professionals and were not the only ones in a position to define and regulate the hermaphrodite. In Renaissance Europe, scientific and medical texts often propounded contradictory theories about the production of hermaphrodites. These theories could not fix gender as something real and stable within the body. Rather, physicians’ stories competed both with medicine and with those elaborated by the Church, the legal profession, and politicians. To further complicate matters, different European nations had different ideas about the origins, dangers, civil rights, and duties of hermaphrodites.¹³

For example, in France, in 1601, the case of Marie/Marin le Marcis engendered great controversy. “Marie” had lived as a woman for twenty-one years before deciding to put on men’s clothing and registering to marry the woman with whom s/he cohabited. “Marin” was arrested, and after having gone through harrowing sentences—first being condemned to burn at the stake, then having the penalty “reduced” to death by strangling (and we thought *our* death row was bad!!)—s/he eventually was set free on the condition that s/he wear women’s clothing until the age of twenty-five. Under French law Marie/Marin had committed two crimes: sodomy and cross-dressing.

English law, in contrast, did not specifically forbid cross-gender dressing. But it did look askance at those who donned the attire of a social class to which they did not belong. In a 1746 English case, Mary Hamilton married another woman after assuming the name “Dr. Charles Hamilton.” The legal authorities were sure she had done something wrong, but they couldn’t quite put their finger on what it was. Eventually they convicted her of vagrancy, reasoning that she was an unusually ballsy but nonetheless common cheat.¹⁴

During the Renaissance, there was no central clearinghouse for the handling of hermaphrodites. While in some cases physicians or the state intervened, in others the Church took the lead. For instance, in Piedra, Italy, in 1601, the same year of Marie/Marin’s arrest, a young soldier named Daniel Burghammer shocked his regiment when he gave birth to a healthy baby girl. After his alarmed wife called in his army captain, he confessed to being half male and half female. Christened as a male, he had served as a soldier for seven years while also a practicing blacksmith. The baby’s father, Burghammer said, was a Spanish soldier. Uncertain of what to do, the captain called in Church authorities, who decided to go ahead and christen the baby, whom they named Elizabeth. After she was weaned—Burghammer nursed the child with his female breast—several towns competed for the right to adopt her. The Church declared the child’s birth a miracle, but granted Burghammer’s wife a divorce, suggesting that it found Burghammer’s ability to give birth incompatible with role of husband.¹⁵

The stories of Marie/Marin, Mary Hamilton, and Daniel Burghammer illustrate a simple point. Different countries and different legal and religious systems viewed intersexuality in different ways. The Italians seemed relatively nonplussed by the blurring of gender borders, the French rigidly regulated it, while the English, although finding it distasteful, worried more about class transgressions. Nevertheless, all over Europe the sharp distinction between male and female was at the core of systems of law and politics. The rights of inheritance, forms of judicial punishment, and the right to vote and partici-

participate in the political system were all determined in part by sex. And those who fell in between? Legal experts acknowledged that hermaphrodites existed but insisted they position themselves within this gendered system. Sir Edward Coke, famed jurist of early modern England wrote "an Hermaphrodite may purchase according to that sexe which prevaieth."¹⁶ Similarly, in the first half of the seventeenth century, French hermaphrodites could serve as witnesses in the court and even marry, providing that they did so in the role assigned to them by "the sex which dominates their personality."¹⁷

The individual him/herself shared with medical and legal experts the right to decide which sex prevailed but, once having made a choice, was expected to stick with it. The penalty for renegeing could be severe. At stake was the maintenance of the social order and the rights of man (meant literally). Thus, although it was clear that some people straddled the male-female divide, the social and legal structures remained fixed around a two-sex system.¹⁸

The Making of the Modern Intersexual

As biology emerged as an organized discipline during the late eighteenth and early nineteenth centuries, it gradually acquired greater authority over the disposition of ambiguous bodies.¹⁹ Nineteenth-century scientists developed a clear sense of the statistical aspects of natural variation,²⁰ but along with such knowledge came the authority to declare that certain bodies were abnormal and in need of correction.²¹ The biologist Isidore Geoffroy Saint-Hilaire played a particularly central role in recasting scientific ideas about sexual difference. He founded a new science, which he dubbed *teratology*, for the study and classification of unusual births. Saint-Hilaire and other like-minded biologists set out to study all anatomical anomalies, and they established two important principles that began to guide medical approaches to natural variation. First, Saint-Hilaire argued that "Nature is one whole"²²—that is, that even unusual or what had been called "monstrous" births were still part of nature. Second, drawing on newly developed statistical concepts, he proclaimed that hermaphrodites and other birth anomalies resulted from abnormal embryonic development. To understand their genesis, he argued, one must understand normal development. Studying abnormal variations could in turn illuminate normal processes. Saint-Hilaire believed that unlocking the origins of hermaphrodites would lead to an understanding of the development of sexual difference more generally. This scientific transposition of the old mythic fascination with hermaphrodites has remained, to this day, a guiding principle of scientific investigation into the biological underpinnings of sex/

gender roles and behaviors of nonintersexuals. (See chapters 3 and 4 for a discussion of the modern literature.)

Saint-Hilaire's writings were not only of importance to the scientific community, they served a new social function as well. Whereas in previous centuries, unusual bodies were treated as unnatural and freakish, the new field of teratology offered a natural explanation for the birth of people with extraordinary bodies.²³ At the same time, however, it redefined such bodies as pathological, as unhealthy conditions to be cured using increased medical knowledge. Ironically, then, scientific understanding was used as a tool to obliterate precisely the wonders it illuminated. By the middle of the twentieth century, medical technology had "advanced" to a point where it could make bodies that had once been objects of awe and astonishment disappear from view, all in the name of "correcting nature's mistakes."²⁴

The hermaphrodite vanishing act relied heavily on the standard scientific technique of classification.²⁵ Saint-Hilaire divided the body into "sex segments," three on the left and three on the right. He named these zones the "profound portion," which contained ovaries, testicles, or related structures; the "middle portion," which contained internal sex structures such as the uterus and seminal vesicles; and the "external portion," which included the external genitalia.²⁶ If all six segments were wholly male, he decreed, so too was the body. If all six were female, the body was clearly female. But when a mixture of male and female appeared in any of the six zones, a hermaphrodite resulted. Thus, Saint-Hilaire's system continued to recognize the legitimacy of sexual variety but subdivided hermaphrodites into different types, laying the groundwork for future scientists to establish a difference between "true" and "false" hermaphrodites. Since the "true" hermaphrodites were very rare, eventually a classification system arose that made intersexuality virtually invisible.

In the late 1830s, a physician named James Young Simpson, building on Saint-Hilaire's approach, proposed to classify hermaphrodites as either "spurious" or "true." In spurious hermaphrodites, he wrote, "the genital organs and general sexual configuration of one sex approach, from imperfect or abnormal development, to those of the opposite," while in true hermaphrodites "there actually coexist upon the body of the same individual more or fewer of the genital organs."²⁷ In Simpson's view, "genital organs" included not only ovaries or testes (the gonads) but also structures such as the uterus or seminal vesicles. Thus, a true hermaphrodite might have testes and a uterus, or ovaries and seminal vesicles.

Simpson's theory presaged what the historian Alice Dreger has dubbed the Age of Gonads. The honor of offering definitive powers to the gonads fell to a

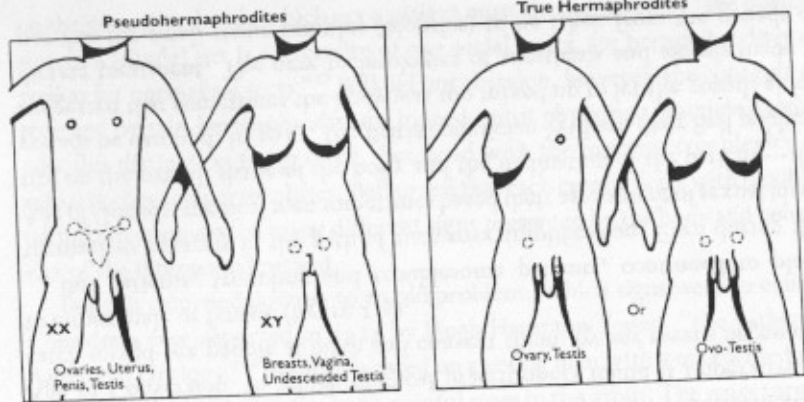


FIGURE 2.2: "Pseudo-hermaphrodites" have either ovaries or testes combined with the "opposite" genitalia. "True hermaphrodites" have an ovary and a testis, or a combined gonad, called an ovo-testis. (Source: Alyce Santoro, for the author)

German physician named Theodor Albrecht Klebs, who published his ideas in 1876. Like Simpson, Klebs contrasted "true" with what he called "pseudo"-hermaphrodites. He restricted the term *true hermaphrodite* to someone who had both ovarian and testicular tissue in h/her body. All others with mixed anatomies—persons with both a penis and ovaries, or a uterus and a mustache, or testes and a vagina—no longer, in Klebs's system, qualified as true hermaphrodites. But if they were not hermaphrodites, what were they? Klebs believed that under each of these confusing surfaces lurked a body either truly male or truly female. Gonads, he insisted, were the sole defining factor in biological sex. A body with two ovaries, no matter how many masculine features it might have, was female. No matter if a pair of testes were nonfunctional and the person possessing them had a vagina and breast, testes made a body male. The net result of this reasoning, as Dreger has noted, was that "significantly fewer people counted as 'truly' both male and female."²⁸ Medical science was working its magic: hermaphrodites were beginning to disappear.

Once the gonads became the decisive factor (figure 2.2), it required more than common sense to identify an individual's true sex. The tools of science—in the form of a microscope and new methods of preparing tissue for microscopic examination—became essential.²⁹ Rapidly, images of the hermaphrodite's body disappeared from medical journals, replaced by abstract photographs of thinly sliced and carefully colored bits of gonadal tissue. Moreover,

as Alice Dreger points out, the primitive state of surgical techniques, especially the lack of anesthesia and antisepsis, at the end of the nineteenth century meant that doctors could obtain gonadal tissue samples only after death or castration: "Small in number, dead, impotent—what a sorry lot the true hermaphrodites had become!"³⁰ People of mixed sex all but disappeared, not because they had become rarer, but because scientific methods classified them out of existence.

At the turn of the century (1896, to be exact), the British physicians George F. Blackler and William P. Lawrence wrote a paper examining earlier claims of true hermaphroditism. They found that only three out of twenty-eight previously published case studies complied with the new standards. In Orwellian fashion, they cleansed past medical records of accounts of hermaphroditism, claiming they did not meet modern scientific standards,³¹ while few new cases met the strict criterion of microscopic verification of the presence of both male and female gonadal tissue.

Arguing About Sex and Gender

Under the mantle of scientific advancement, the ideological work of science was imperceptible to turn-of-the-century scientists, just as the ideological work of requiring Polymerase Chain Reaction Sex Tests of women athletes is, apparently, to the I.O.C. (See chapter 1.) Nineteenth-century theories of intersexuality—the classification systems of Saint-Hilaire, Simpson, Klebs, Blackler, and Lawrence—fit into a much broader group of biological ideas about difference. Scientists and medical men insisted that the bodies of males and females, of whites and people of color, Jews and Gentiles, and middle-class and laboring men differed deeply. In an era that argued politically for individual rights on the basis of human equality, scientists defined some bodies as better and more deserving of rights than others.

If this seems paradoxical, from another point of view it makes good sense. Political theories that declared that "all men are created equal" threatened to do more than provide justification for colonies to overthrow monarchies and establish independent republics. They threatened to undermine the logic behind fundamental social and economic institutions such as marriage, slavery, or the limiting of the right to vote to white men with property. Not surprisingly, then, the science of physical difference was often invoked to invalidate claims for social and political emancipation.³²

In the nineteenth century, for example, women active in the movement to abolish slavery in the United States, soon began to insist on their right to speak in public,³³ and by mid-century women in both the United States and England

were demanding better educational opportunities and economic rights and the right to vote. Their actions met fierce resistance from scientific experts.³⁴ Some doctors argued that permitting women to obtain college degrees would ruin their health, leading to sterility and ultimately the degeneration of the (white, middle-class) human race. Educated women angrily organized counterattacks and slowly gained the right to advanced education and the vote.³⁵

Such social struggles had profound implications for the scientific categorization of intersexuality. More than ever, politics necessitated two and only two sexes. The issue had gone beyond particular legal rights such as the right to vote. What if, while thinking she was a man, a woman engaged in some activity women were thought to be incapable of doing? Suppose she did well at it? What would happen to the idea that women's natural incapacities dictated social inequity? As the battles for social equality between the sexes heated up in the early twentieth century, physicians developed stricter and more exclusive definitions of hermaphroditism. The more social radicals blasted away at the separations between masculine and feminine spheres, the more physicians insisted on the absolute division between male and female.

Intersexuals Under Medical Surveillance

Until the early nineteenth century, the primary arbiters of intersexual status had been lawyers and judges, who, although they might consult doctors or priests on particular cases, generally followed their own understanding of sexual difference. By the dawn of the twentieth century, physicians were recognized as the chief regulators of sexual intermediacy.³⁶ Although the legal standard—that there were but two sexes and that a hermaphrodite had to identify with the sex prevailing in h/her body—remained, by the 1930s medical practitioners had developed a new angle: the surgical and hormonal suppression of intersexuality. The Age of Gonads gave way to the even less flexible Age of Conversion, in which medical practitioners found it imperative to catch mixed-sex people at birth and convert them, by any means necessary, to either male or female (figure 2.3).

But patients, troubling and troublesome patients, continued to place themselves squarely in the path of such oversimplification. Even during the Age of Gonads, medical men sometimes based their assessment of sexual identity on the overall shape of the body and the inclination of the patient—the gonads be damned. In 1915, the British physician William Blair Bell publicly suggested that sometimes the body was too mixed up to let the gonads alone dictate treatment. The new technologies of anesthesia and asepsis made it possible for small tissue samples (biopsies) to be taken from the gonads of



FIGURE 2.3: A cartoon history of intersexuality. (Source: Diane DiMassa, for the author)

living patients. Bell encountered a patient who had a mixture of external traits—a mustache, breasts, an elongated clitoris, a deep voice, and no menstrual period—and whose biopsy revealed that the gonad was an ovo-testis (a mixture of egg-producing and sperm-producing tissues).

Faced with a living and breathing true hermaphrodite Bell reverted to the older legal approach, writing that “predominating feminine characteristics have decided the sex adopted.” He emphasized that one need not rely wholly

on the gonads to decide which sex a patient must choose, but that "the possession of a [single] sex is a necessity of our social order, for hermaphrodites as well as for normal subjects."³⁷ Bell did not abandon, however, the concepts of true and pseudo-hermaphroditism. Indeed, most physicians practicing today take this distinction for granted. But faced with the insistent complexity of actual bodies and personalities, Bell urged that each case be dealt with flexibly, taking into account the many different signs presented by the body and behaviors of the intersexual patient.

But this returned doctors to an old problem: Which signs were to count? Consider a case reported in 1924 by Hugh Hampton Young, "the Father of American Urology."³⁸ Young operated on a young man with a malformed penis,³⁹ an undescended testis, and a painful mass in the groin. The mass turned out to be an ovary connected to an underdeveloped uterus and oviducts. Young pondered the problem:

A normal-looking young man with masculine instincts [athletic, heterosexual] was found to have a . . . functioning ovary in the left groin. What was the character of the scrotal sac on the right side? If these were also undoubtedly female, should they be allowed to remain outside in the scrotum? If a male, should the patient be allowed to continue life with a functioning ovary and tube in the abdomen on the left side? If the organs of either side should be extirpated, which should they be?⁴⁰

The young man turned out to have a testis, and Young snagged the ovary. As his experience grew, Young increasingly based his judgment calls on his patients' psychological and social situations, using sophisticated understandings of the body more as a guide to the range of physical possibilities than as a necessary indicator of sex.

In 1937, Young, by then a professor of urology at Johns Hopkins University, published *Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases*, a book remarkable for its erudition, scientific insight, and open-mindedness. In it he further systematized the classification of intersexes (maintaining Blackler and Lawrence's definition of true hermaphroditism) and drew together a wealth of carefully documented case histories, both his own and others', in order to demonstrate and study the medical treatment of these "accidents of birth." He did not judge the people he described, several of whom lived as "practicing hermaphrodites"—that is, they had sexual experiences as both men and women.⁴¹ Nor did he attempt to coerce any of them into treatment.

One of Young's cases involved a hermaphrodite named Emma who grew

up as a female. With both a large clitoris (one or two inches in length) and a vagina, s/he could have "normal" heterosexual sex with both men and women. As a teenager s/he had sex with a number of girls to whom she was deeply attracted, but at age nineteen s/he married a man with whom s/he experienced little sexual pleasure (although, according to Emma, he didn't have any complaints). During this and subsequent marriages, Emma kept girlfriends on the side, frequently having pleasurable sex with them. Young described h/her as appearing "to be quite content and even happy." In conversation, Dr. Young elicited Emma's occasional wish to be a man. Although he assured her that it would be a relatively simple matter, s/he replied, "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. My husband supports me well, and even though I don't have any sexual pleasure with him, I do have lots with my girlfriend." Without further comment or evidence of disappointment, Young proceeded to the next "interesting example of another practicing hermaphrodite."⁴²

His case summary mentions nothing about financial motivations, saying only that Emma refused a sex fix because she "dreaded necessary operations,"⁴³ but Emma was not alone in allowing economic and social considerations to influence her choice of sex. Usually this meant that young hermaphrodites, when offered some choice, opted to become male. Consider the case of Margaret, born in 1915 and raised as a girl until the age of 14. When her voice began to deepen into a man's, and her malformed penis grew and began to take on adult functions, Margaret demanded permission to live as a man. With the help of psychologists (who later published a report on the case) and a change of address, he abandoned his "ultrafeminine" attire of a "green satin dress with flared skirt, red velvet hat with rhinestone trimming, slippers with bows, hair bobbed with ends brought down over his cheeks." He became, instead, a short-haired, baseball- and football-playing teenager whom his new classmates called Big James. James had his own thoughts about the advantages of being a man. He told his half-sister: "It is easier to be a man. You get more money (wages) and you don't have to be married. If you're a girl and you don't get married people make fun of you."⁴⁴

Although Dr. Young illuminated the subject of intersexuality with a great deal of wisdom and consideration for his patients, his work was part of the process that led both to a new invisibility and a harshly rigid approach to the treatment of intersexual bodies. In addition to being a thoughtful collection of case studies, Young's book is an extended treatise on the most modern methods—both surgical and hormonal—of treating those who sought help.

'wiring' for these behaviors persists. . . . In this sense Beach was correct in questioning the idea that perinatal steroids change the essential structure of the nervous system."¹⁷⁸

The notion of permanence faces other troubles as well. Activating effects were originally thought to be transitory, lasting from a few hours to a few days. In contrast, permanent organization events are supposed to last a lifetime. In practice, this has meant several months to about a year. But how does one classify hormonal effects on the brain that last for weeks rather than days or months? A variety of such cases exists for both songbirds and mammals. In these examples, particular brain structures respond to hormone increases, even in adulthood, by growth and to hormone reduction by shrinkage.¹⁷⁹ If the brain can respond to hormonal stimuli with anatomical changes that can endure for weeks or even months, then the door opens wide for theories in which experience can play a significant role. Even rodents engage in extensive periods of social play, activities that influence the development of the nervous system and future behaviors. It is at least plausible that play activities alter hormone levels and that the developing brain can respond to such changes.¹⁸⁰ Hormonal systems, after all, respond exquisitely to experience, be it in the form of nutrition, stress, or sexual activity (to name but a few possibilities). Thus, not only does the distinction between organizational and activational effects blur, so too does the dividing line between so-called biologically and socially shaped behaviors.

Humans are learners, and proudly so. We are, arguably, the most mentally complex of all animals (no offense meant to the great apes, who might argue with us if they could speak). It seems ironic, therefore, that our most prominent and influential accounts of the development of sexual behaviors in advanced mammals omit learning and experience. Because the control of hormone synthesis differs between primates and other species,¹⁸¹ a case can be made that studies on the hormonal basis of sexual behaviors in nonprimates tell us little, if anything, about primates, including humans.¹⁸² As I turn in the final chapter to theories of human sexuality, I make a broader claim: that the theories we have derived from rodent experimentation are inadequate even for rodents.