From Fausto-Sterling, A. "Sexing the Body: Gender Politics and the Construction of Sexuality"

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SHOULD THERE BE ONLY TWO SEXES?

Hermaphroditic Heresies

In 1993 I published a modest proposal suggesting that we replace our two-sex system with a five-sex one.[1] In addition to males and females, I argued, we should also accept the categories herms (named after "true" hermaphrodites), merms (named after male "pseudo-hermaphrodites"), and ferms (named after female "pseudo-hermaphrodites"). I'd intended to be provocative, but I had also been writing tongue in cheek, and so was surprised by the extent of the controversy the article unleashed. Right-wing Christians somehow connected my idea of five sexes to the United Nations–sponsored 4th World Conference on Women, to be held in Beijing two year later, apparently seeing some sort of global conspiracy at work. "It is maddening," says the text of a *New York Times* advertisement paid for by the Catholic League for Religious and Civil Rights,[2] "to listen to discussions of 'five genders' when every sane person knows there are but two sexes, both of which are rooted in nature."[3]

John Money was also horrified by my article, although for different reasons. In a new edition of his guide for those who counsel intersexual children and their families, he wrote: "In the 1970's nurturists . . . became . . . 'social constructionists.' They align themselves against biology and medicine. . . . They consider all sex differences as artifacts of social construction. In cases of birth defects of the sex organs, they attack all medical and surgical interventions as unjustified meddling designed to force babies into fixed social molds of male and female. . . . One writer has gone even to the extreme of proposing that there are five sexes . . . (Fausto-Sterling)."[4] Meanwhile, those battling against the constraints of our sex/gender system were delighted by the article. The science fiction writer Melissa Scott wrote a novel entitled *Shadow Man*, which includes nine types of sexual preference and several genders, including fems (people with testes, XY chromosomes, and some aspects of female genitalia), herms (people with ovaries and testes), and mems (people with XX chromosomes and some aspects of male genitalia).[5] Others used the idea of five sexes as a starting point for their own multi-gendered theories.[6]

Clearly I had struck a nerve. The fact that so many people could get riled up by my proposal to revamp our sex/gender system suggested that change (and resistance to it) might be in the offing. Indeed, a lot *has* changed since 1993, and I like to think that my article was one important stimulus. Intersexuals have materialized before our very eyes, like beings beamed up onto the Starship Enterprise. They have become political organizers lobbying physicians and politicians to change treatment practices. More generally, the debate over our cultural conceptions of gender has escalated, and the boundaries separating masculine and feminine seem harder than ever to define.[7] Some find the changes under way deeply disturbing; others find them liberating.

I, of course, am committed to challenging ideas about the male/female divide. In chorus with a growing organization of adult intersexuals, a small group of scholars, and a small but growing cadre of medical practitioners,[8] I argue that medical management of intersexual births needs to change. *First*, let there be no unnecessary infant surgery (by *necessary* I mean to save the infant's life or significantly improve h/her physical well-being). *Second*, let physicians assign a provisional sex (male or female) to the infant (based on existing knowledge of the probability of a particular gender identity formation—penis size be damned!). *Third*, let the medical care team provide full information and long-term counseling to the parents and to the child. However well-intentioned, the methods for managing intersexuality, so entrenched since the 1950s, have done serious harm.

First, Do No Harm

Stop infant genital surgery. We protest the practices of genital mutilation in other cultures, but tolerate them at home.[9] Some of my medical colleagues are apparently so scandalized by my thoughts on intersexuality that they refuse to discuss them with me.[10] Perhaps they think that I am sacrificing the well-being of unfortunate children on the altar of gender politics. How could I possibly consider using a poor intersexual child as a battering ram to assault the fortress of gender inequality? From the point of view of caring medical practitioners, this critique makes some sense. In the midst of daily medical crises that require rapid and highly pragmatic solutions, it is hard to step back, survey the broad picture, and ask whether another response is possible. Nevertheless, one reason I am convinced that my proposal is neither unethical nor

implausible is that the medical "cure" for intersexuality frequently does more damage than good.

As we have seen, infant genital surgery is cosmetic surgery performed to achieve a social result—reshaping a sexually ambiguous body so that it conforms to our two-sex system. This social imperative is so strong that doctors have come to accept it as a medical imperative, despite strong evidence that early genital surgery doesn't work: it causes extensive scarring, requires multiple surgeries, and often obliterates the possibility of orgasm. In many of the case reports of clitoral surgery, the only criteria for success are cosmetic, rather than later sexual function. Table 4.1 summarizes information from nine clinical reports on the results of reduction clitoroplasties (see figure 3.6) on eighty-eight patients.[11] The inadequacy of the evaluations is glaringly obvious. Two of nine reports never state the criteria for success; four emphasize cosmetic criteria; only one considers psychological health or does long-term follow-up. Intersexual activists have increasingly revealed the complex and painful stories behind these anonymous numbers, challenging the medical establishment's most cherished beliefs and practices regarding intersexual children.[12]

Cheryl Chase, the charismatic founder of the Intersex Society of North America (ISNA), has played a particularly important role in this battle. She has chosen to go public with her own story, reaching out to other intersexuals and to the medical profession. At age thirty-six, Chase operated a successful small business that sent her traveling all over the world.[13] Were she not eager to share her past, there would be no way of knowing, by simply meeting her, about her medical history. Born with ovo-testes but internal and external genitalia that were female, the only external sign of her difference was an enlarged clitoris. Her parents raised her as a boy until she was eighteen months old. Then, at the advice of physicians, she underwent complete clitorectomy (see figure 3.5). Her parents changed her name, threw away all her boy's clothes, destroyed all photos of Cheryl as a boy and raised her as girl.

When she was older, doctors operated again, this time to remove the testicular portion of her gonads. She was told that she had a hernia operation. Her medical records confirm her personal recollections that during the annual check-ups that followed, the doctor never spoke directly to her. Nor did her mother ever follow up on a psychiatric referral noted in the case records. Still, at age eighteen, Chase knew something had happened. She sought to learn the contents of her medical records. But a doctor who agreed to help changed her mind after reading the records and refused to tell Chase of their contents. Finally, at the age of twenty-three, she got another doctor to tell her that she had been diagnosed as a true hermaphrodite and surgically "corrected" to be female.[14]

For fourteen years Chase buried this information somewhere in her subconscious. Then, while living abroad, she fell into a suicidal depression. She returned home, began therapy, and struggled to come to terms with her past. In her quest to find out whether she can ever hope to become orgasmic without having a clitoris, she has consulted concerned sex therapists and anatomists. The lack of help from intersex specialists has dismayed her. "When I began to search them out," she writes, "I expected to find some help. I thought that these doctors would have excellent connections to therapists skilled in dealing with histories like mine. They have none, nor do they have any sympathy."[15]

Although Chase despairs of gaining full sexual function, she has dedicated her life to changing the practice of early genital surgery. She hopes that others may not be denied the possibility of the full range of sexual pleasure that she sees as a human birthright. In pursuing this goal, she does not advocate putting kids in the front line of a gender war. Rather, she suggests they grow up as either social males or females; then, as adolescents or adults, they can make up their own minds about surgery—with the full knowledge of the risks to continued sexual function. They may also reject their assigned gender identity, and if they do, they will not be missing critical parts of their anatomy because of premature surgery.

Chase has become a savvy political organizer. Although she started her battle single-handedly, her troops increase daily. "When I established ISNA in 1993, no such politicized groups existed. . . . Since ISNA has been on the scene, other groups with a more resistant stance vis-à-vis the medical establishment have begun to appear. . . . In 1996, another mother who had rejected medical pressure to assign her intersex infant as a female . . . formed the Hermaphroditic Education and Listening Post (Help)."[16] Although many of the newer groups are less explicitly political, some nevertheless appreciate ISNA's more radical approach.[17] And Chase continues to build coalitions among various organizations of intersexuals, academics, and practicing physicians and psychologists. Slowly, Chase and others have begun to change medical practice in the United States.[18]

Still, these activists face strong opposition. Chase was clitorectomized in the early 1960s. I have had physicians tell me that both the surgery she received and the lack of information offered her were typical then, but not now. While surgical styles have changed (with no evidence that they are any better),[19] clitorectomy still does occur on occasion.[20] So does the practice of lying to

TABLE 4.1 *Outcomes of Reduction Clitoroplasty*

# OF SUBJECTS	AGE AT FIRST SURGERY	AGE AT EVALUATION	CRITERIA FOR SUCCESS	RESULTS	COMMENTS	SOURCE
14	2 mos.–15 yrs.	Immediately post-op	Not stated	1 "good," 1 "unsatisfactory," and 12 "excellent" (p. 225)	3 cases involved females with "idiopathic enlargement"; no painkillers used on infants and young children	a
18	< 6 mos. to 38 yrs.	Not stated	Cosmetic, social, and preservation of function	Unclear	Virtually no data offered	b
7	< 16 yrs.	Not stated	Cosmetic, possibility of sexual function	1 out of 2 adolescents reported "satisfactory sexual gratification" (p. 225)	Invoke work of Masters and Johnson to dispute earlier views that clitorectomy doesn't affect sexual function and argue against the earlier operation	c
11	Varied but no specifics	Unknown	Cosmetic, reports on sexual satisfaction (2 patients)	"Cosmetically satisfactory" (p. 355)	8-yr.-old with previous clitoral recession relieved of pain from sexual arousal by reduction; 2 sexually active females reported "the same pleasant clitoral sensations postoperatively" (p. 355)	d
3	Infants	Not stated	Not stated	Reports on a ventral approach that does less damage to clitoral nerves	"It is difficult to evaluate clinically whether the sensory function of the external genitalia has been left undisturbed" (p. 341)	e
10	Infants	Not stated	Cosmetic and function	"Excellent" (but no data)	Apparently this reports only on immediate post-op condition; no long-term follow-up	f
9	< 1 year	< 1 year	Cosmetic but no specifics	No follow-up or detailed description	Recommends early intervention	g
10	0.5–5 yrs.	median of 20.8 years	Psychological health and physical normality; independent evaluations via psychological, gynecological, and physical evaluations	"Neither the anatomical aspect nor the functionality of the external genitalia was satisfactory" (p. 48); patients mostly psychologically masculine or intermediate between masculine & feminine	Recommends continuous treatment (psychological and counseling) by an interdisciplinary team throughout childhood; each child averaged 3 genital surgeries (range: 1–6)	h
6	3–13 months	6–42 months	Cosmetic, esp. success in hiding the glans from view	"All patients achieved a pleasing cosmetic result" (p. 652)	Favors reduction clitoroplasty over recession	i
6	Not stated	15–30	Orgasm	"All . . . referred orgasm during intercourse"	Favors clitoroplasty	j
6	6 mos.–14 yrs.	Not stated	Not stated	4/6 required 2nd surgery	Results listed simply as "satisfactory"	k

a. Randolf and Hung 1970. b. Kumar et al. 1974. c. Fonkalsrun et al. 1977. d. Mininberg 1982. e. Rajfer et al. 1982. f. Oesterling et al. 1987. g. Sharp et al. 1987. h. Van der Kamp et al. 1992. i. Bellinger 1993. j. Costa et al. 1997. k. Joseph 1997.

patients and withholding medical information even after they have reached the age of majority. Consider Angela Moreno's more recent tale. In 1985, when she was twelve years old, her clitoris grew to a length of 1.5 inches. Having nothing to compare this to, she thought she was normal. But her mother noticed and with alarm hauled her off to a doctor who told her she had ovarian cancer and needed a hysterectomy. Her parents told her that no matter what, she would still be their little girl. When she awoke from surgery, however, her clitoris was gone. Not until she was twenty-three did she find out she was XY and had had testes, not ovaries. She never had cancer.[21] Today Moreno has become an ISNA activist and credits ISNA with helping her heal psychologically from the damage done by lies and surgery. She dreams of teaching in a Montessori school and perhaps adopting a child. She writes: "If I had to label myself man or woman, I'd say, a different kind of woman. . . . I'm not a case of one sex or the other, nor am I some combination of the two. I was born uniquely hermaphroditic—and from the bottom of my heart, I wish I'd been allowed to stay that way."[22]

Outspoken adult patients have begun to protest the practice of lying to children about their intersexuality. While in the past only a few professional voices advocated a more literal version of truth-telling,[23] new voices—those of the patients themselves—have recently begun to demand full disclosure. In 1994 a woman with AIS published her story anonymously in the *British Journal of Medicine*.[24]

She had never been told the full truth. The facts of her case had dribbled out—a slip of tongue by a nurse here, an inadvertent remark by a doctor there. And as a teenager she did something the treatment manuals rarely seem to bargain for. Smart and curious, she went to a medical library and did some detective work. What she discovered was not comforting. When she finally pieced together the full picture, she felt humiliated, sad, and betrayed. She experienced deep suicidal feelings. It took her years to resolve enough of the issues to feel better about herself. She advises physicians dealing with intersex children that full truth-telling combined with a frank discussion of ideas about gender identity is the best medical practice.

This woman's story struck a chord with those who had had similar experiences. A woman who had been born without a vagina wrote a letter to the journal's editor echoing the sentiments of the anonymously published piece:

> neither I nor my parents were offered any psychological support. . . . Unless parents can talk openly with a professional counselor (not a doctor) and are given information—on what and when to tell their child, contacts with other sufferers, sources of counseling or psychotherapy . . . they will become imprisoned by their own feelings . . . [failure to take such action] could be far more damaging than truth disclosure in a caring, supportive environment.[25]

Indeed, all the newly formed organizations of adult intersexuals[26] say the same thing: "Tell us the whole story. Don't insult our intelligence with lies. When speaking to children develop staged, age-appropriate information. But lying never works and it can destroy the relationship between patient and parents and patient and physician".[27]

In one sense it is hardly surprising that clitoral surgery continues today alongside unsubstantiated claims that it does not affect sexual function.[28] The anatomy and physiology of the clitoris are still poorly understood.[29] In the medical literature, this structure has gone through long periods—including the present—of underrepresentation. Current medical illustrations, for example, fail to portray the structure's variability,[30] or even its complete, complex structure.[31] Indeed, in medical texts (with the exception of women's self-help books), the clitoris was more completely represented and labeled at the turn of the last century than it is today. If doctors are unaware of genital variation and know little about clitoral function, how can they know whether the cosmetic appearance or functional physiology following surgery is "satisfactory"?

SCARRING AND PAIN

Personal accounts from intersexuals who have experienced genital surgery breathe life into some otherwise dry facts. Foremost among these is that long-term studies of genital surgery are scarce as hen's teeth.[32] Nevertheless, the medical literature is rife with evidence of the negative effects of such surgery. In a survey of the existing medical articles, a colleague, Bo Laurent, and I noted mentions of scarring, which can cause insensitivity, and of multiple surgeries, which usually leave the genital area more heavily scarred than a single operation. We also found five mentions of residual pain in the clitoris or clitoral stump.[33] Particularly striking was a report noting that ten of sixteen patients with clitoral recessions had clitoral hypersensitivity.[34]

Vaginoplasty, the general term for a variety of techniques to enlarge, reshape, or construct vaginas *de novo*, also carries dangers such as "dense scarring and vaginal stenosis"[35] (the obstruction or narrowing of a passage, duct, or canal). Laurent and I found ten different mentions of scarring associated with vaginal surgery. Stenosis is the most commonly listed complication.[36] One cause of this narrowing of the vaginal or introital opening is scar tissue. Thus one surgical team lists keeping the vagina free of an annular scar as a

goal.[37] In our literature review we found that vaginoplasties, especially when performed in infancy,[38] resulted in frequencies of vaginal stenosis as high as 80 to 85 percent.[39]

Multiple genital surgeries can have negative psychological as well as physical effects. One group of physicians concedes that the trauma of such surgery might partly cancel out its intended benefits: "if the child believes she is physically abused by medical personnel, with excessive and painful attention focused on the genitalia, the psychological adjustment may be less favorable."[40] Personal accounts from intersexuals confirm the downside of their medical treatments. Many intersexual adults report that repeated genital examinations, often with photographs and a parade of medical students and interns, constitute one of their most painful childhood memories. Joan/John, for instance, has described his yearly visits to the Johns Hopkins clinic as "abusive".[41]

Others concur. An intersexual man pointed out to me that one method of measuring penile growth and function in intersex boys involved the doctor masturbating the boy to achieve erection. Young girls who receive vaginal surgery suffer similarly invasive practices. When an infant or toddler is operated on, parents are taught to insert a dildo so that the newly built vagina won't close.[42] Medicine's focus on creating the proper genitals, meant to prevent psychological suffering, clearly contributes to it.[43]

MULTIPLE SURGERIES

The statistics tell the story. Although the medical literature exudes confidence about the feasibility of genital makeovers, the procedures are complex and risky. From 30 to 80 percent of children receiving genital surgery undergo more than one operation. It is not uncommon for a child to endure from three to five such procedures. One review of vaginoplasties done at Johns Hopkins University Hospital between 1970 and 1990 found that twenty-two out of twenty-eight (78.5 percent) of girls with early vaginoplasties required further surgery. Of these, seventeen had already had two surgeries, and five had already had three.[44] Another study reported that achieving successful clitoral recessions "required a second procedure in a number of children, a third in several patients and a glansplasty in others." (Glansplasty involves cutting and reshaping the phallic tip, or glans.) They also reported multiple operations following initial early vaginoplasties.[45, 46]

There are fairly good data on vaginoplasty, one of the more common surgeries performed on intersexuals. Laurent and I summarized the information from 314 patients and offer it in table 4.2. The table suggests the spotty nature

of medical evaluation. Researchers gave specific criteria for evaluating an operation's success for only 218 patients. For adults (about 220 patients), one standard criterion was the ability to have vaginal intercourse. What emerges from these studies is that even on their own terms, these surgeries are rarely successful and often risky. *First*, there are relatively high frequencies of postoperative complications leading to additional surgeries. At times the multiple surgeries cause significant scarring. *Second*, several authors emphasize the need for psychological reinforcement to allow patients to accept the operation. *Third*, overall success rates can be very disappointing. One study found that although out of eighty patients, 65 percent had "satisfactory" vaginal openings, 23 percent of these didn't have sexual intercourse.[47] When initial surgeries did not succeed, many patients refused additional operations. Thus, in those studies of vaginoplasty for which evaluation of surgical success includes clear criteria and reporting, the surgery has a high failure rate.

Studies of hypospadias surgery reveal good news, bad news, and news of uncertain valence. The good news is that adult men who have undergone hypospadias surgery reached important sexual milestones—for example, age of first intercourse—at the same age as men in control groups (who had undergone inguinal, but not genital, surgery as children). Nor did they differ from control groups in sexual behavior or functioning. The bad news is that these men were more timid about seeking sexual contact, possibly because they had more negative feelings about their genital appearance. Furthermore, the greater the number of operations men had, the higher their level of sexual inhibition.[48] Surgery was least successful for men with severe hypospadias, who could often have normal erections but found that problems such as spraying during urination and ejaculation persisted.[49]

And the news of uncertain valence? It all depends on whether you think strict adherence to prescribed gender role signifies psychological health. One study, for example, found that boys who had been hospitalized more often for hypospadias-related problems showed higher levels of "cross-gender" behavior.[50] For intersex management teams, such as one that aims explicitly "to prevent the development of cross-gender identification in children born with . . . ambiguous genitalia," such results might signify failure.[51] On the other hand, practitioners have found that even when they follow Money's management principles to the T, as many as 13 percent of all intersex kids—not just boys with hypospadias—end up straying from the treatment's strict gender demands. This distresses psychologists who adhere to the two-party system.[52] But to those of us who believe gender is quite varied anyway, gender variability among intersexual children does not constitute bad news.

TABLE 4.2 *Evaluation of Vaginoplasty*

# OF SUBJECTS	AGE AT SURGERY	AGE AT EVALUATION	CRITERIA FOR SUCCESS	RESULTS	COMMENTS	SOURCE
7	Infants	Not given	Not given	"Satisfactory" (no stated criteria)	Says clitorectomy desirable with advanced degree of masculinization	a
42	< 1 yr. to >2 yrs.	>16	Comfortable vaginal penetration	• Initial surgery: 34% success • Success after 3 procedures: 62%	Significant patient failure to follow through on surgical options; higher success rates with older patients	b
23	Not given	15–37 yrs.	Coital activity; report of orgasm	• 15 with frequent activity (1x/day–2x/wk) • 5 "decreased frequencies" • 13 orgasmic during vaginal penetration • 9 orgasmic during manual stimulation by partner • 50% require vaginal lubricant	"The single most important factor determining success was the psychological adjustment of the patient as it existed before knowledge of the anomaly" (p. 546)	c
23	Average 1.84–5.5 yrs.	Not given	Not given	• 15 (the younger population) had serious post-op complications including stenosis and vaginal agenesis • 8 older patients listed as adequate	Recommends delaying "definitive vaginoplasty until . . . puberty, rather than provoke dense scarring and vaginal stenosis following an aggressive procedure at an earlier age"	d
80	Not given	18–70 yrs.	Questionnaires reporting on sexual activity, marital status	• 65% had satisfactory introitus and vagina • 23% of those with adequate introitus had no sexual activity, compared with 64% of those with inadequate introitus	Suggests greater emphasis on adequate surgical correction and "greater use of psychoendocrine services . . . to allow the patients to accept vaginoplasty" (p. 182)	e
14 (?)	Not given	Adult	Not given	• 2/4 with thigh flap operation: problems with vaginal size • 8/14 with pull-through operations: severe stenosis requiring 2nd operations • 3 have uncomfortable hair growth in introitus	Discusses pros and cons of various vaginoplasty techniques; does not comment on best age for the surgery, but apparently performed on infants	f
13	Before puberty	11–22 years	Not given	• Stenosis requiring additional surgery in 10/13 cases • 3/13 had successful intercourse	• Lack of success "discouraging" (p. 601) • "as a rule the introitus that has been revised early undergoes scarring" (p. 601) • "it is unwise to attempt introital reconstruction until after puberty" (p. 601)	g

(continued)

TABLE 4.2 *(Continued)*

# OF SUBJECTS	AGE AT SURGERY	AGE AT EVALUATION	CRITERIA FOR SUCCESS	RESULTS	COMMENTS	SOURCE
45	3 to > 15 yrs.	Not stated	Position of the posterior border of the vaginal opening; suppleness of the sutures and lack of inflammation and stenosis; quality of the vaginal opening; absence of hypertrophy of surrounding muscles	• 16/45 cases required additional operations after puberty • 6/12 favorable cases said they had satisfactory sexual intercourse	Corrective surgery has partly reached its goals in enabling sex reassignment at an early age	h
28	3 wks. to 5 yrs.	18–25 yrs.	Successful vaginal penetration	• 6/28 required only 1 surgery • 22/28 required 3–4 surgeries	Discusses anatomical factors leading to need for multiple surgeries, but continues to favor early surgery	i
23	Not given	14–38 yrs.	Penetration without pain or bleeding; orgasm	• With postsurgical dilation, 7/8 satisfactory • without dilation, 4/8 unsatisfactory • 7 had no sexual activity	Concludes that childhood vaginoplasty followed by adult dilation produces good results; also presents data on clitorectomy vs. clitoroplasty	j
38	All but 1 between 15 and 30 yrs.	Not stated	Lubrication; vaginal length or diameter; fertility; lack of psychological problems	• Lack of vaginal lubrication: 6/38 • vaginal size too small: 5/38 • infertile: 10/38 • psychological problems: 3/38 • lack of counseling: 12/38 • of 23 sexually active, 18 had satisfactory intercourse		k

a. Hendren and Crawford 1969. b. Azziz et al. 1986. c. Hecker and McGuire 1977. d. Allen et al. 1982. e. Mulaikal et al. 1987. f. Newman et al. 1992a. g. Sotiropoulos et al. 1976. h. Nihoul-Fekete 1981; Nihoul-Fekete et al. 1982. i. Bailez et al. 1992. j. Costa et al. 1997. k. Fliegner 1996.

The Right To Refuse

Modern management manuals devote a great deal of thought to how to get parents to go along with suggested treatments. Clearly it is a matter of great delicacy. And so it must be, because parents *can* be intractable. Sometimes they assert their own views about their child's sex and about the degree of surgical alteration they will permit. In the 1990s, Helena Harmon-Smith's son was born with both an ovary and a testis, and doctors wanted to turn him into a girl. Harmon-Smith refused. "He had parts I didn't have," she wrote, and "he is a beautiful child."[53] Harmon-Smith did not see the need for surgical intervention, but against her express instructions, a surgeon removed her son's gonads. In response she has become an activist, founding a support group for parents called Hermaphrodite Education and Listening Post (HELP).

Recently Harmon-Smith published instructions, in the form of Ten Commandments, for physicians who encounter the birth of an intersexual child. The Commandments include: Thou shalt "not make drastic decisions in the first year"; thou shalt "not isolate the family from information or support"; thou shalt "not isolate the patient in an intensive care unit" but shalt "allow the patient to stay on a regular ward."[54] Kessler suggests a new script to be used in announcing the birth of an XX child affected by CAH: Congratulations. "You have a beautiful baby girl. The size of her clitoris and her fused labia provided us with a clue to an underlying medical problem that we might need to treat. Although her clitoris is on the large size it is definitely a clitoris. . . . The important thing about a clitoris is how it functions, not how it looks. She's lucky. Her sexual partners will find it easy to locate her clitoris."[55]

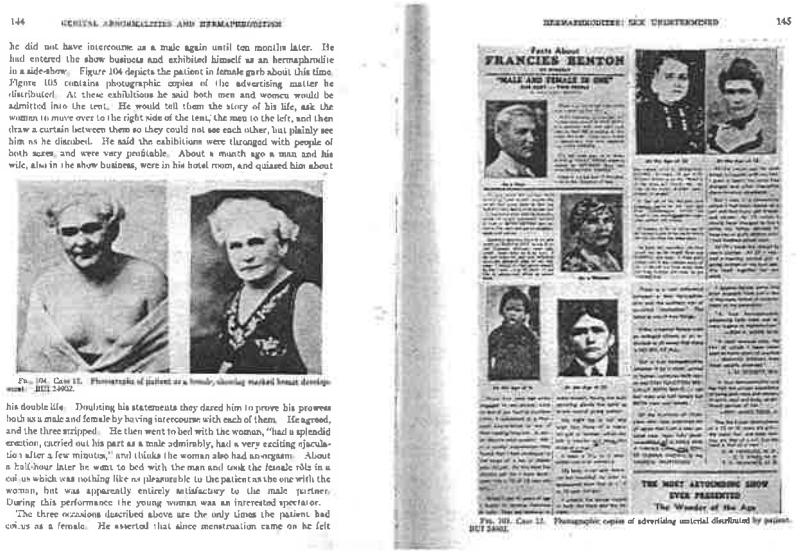
Parental resistance is not new. In the 1930s Hugh Hampton Young described two cases in which parents refused to let doctors perform surgery on their intersexual children. Gussie, aged fifteen, had been raised as a girl. After admission to a hospital (the reason for hospitalization is unclear), Young learned (from performing a surgical examination under general anesthesia) that Gussie had a testis on one side, an enlarged clitoris/penis, a vagina, and an underdeveloped fallopian tube and uterus but no ovary. While the child was on the operating table, they decided to bring the testis down into the scrotum/enlarged labium. They then told the mother that the child was not a girl, but a boy, advised her to change h/her name to Gus and to have h/her return for further "normalizing" surgery.

The mother's response was outraged and swift: "She became greatly incensed, and asserted that her child was a girl, that she didn't want a boy, and that she would continue to bring up the patient as a girl."[56] Parental resistance

testicle. Ought he to accommodate the mother's insistence that Gus remain Gussie? And if so, how? Should he offer to remove the penis and testicle, even though that would leave Gussie without any functioning gonad? Should he attempt to manipulate h/her hormonal productions? These questions remained unanswered; the child never returned to the hospital. In a similar case the parents refused to allow even exploratory surgery and, following an initial external examination of the child, never returned. Young was left to ponder the possibilities that lay beyond his control. "Should," he wondered, "this patient be allowed to grow up as a male . . . even if [surgery] shows the gonads to be female?"[57]

Young also discussed several cases of adult hermaphrodites who refused not only treatment but the chance to get a full "scientific" explanation of their "condition." George S., for example, raised as a girl, ran away from home at age fourteen, dressing and living as a man. Later s/he married as a man, but found it too hard to support a wife. So s/he emigrated from England to America , dressed again as a woman, and became some man's "mistress," although s/he also continued to be the male partner in intercourse with women. H/her fully developed breasts caused embarrassment and s/he asked Young to remove them. When Young refused to do so without operating to discover h/her "true" sex, the patient vanished. Another of Young's patients, Francies Benton, made h/her living as an exhibit in a circus freak show. The advertisement read "male and female in one. One body--two people" (see figure 4.1). Benton had no interest in changing h/her lifestyle, but sought Young's expertise to satisfy h/her curiosity and to provide medical testimony verifying the truth of h/her advertising claims.[58]

Dogma has it that without medical care, especially early surgical intervention, hermaphrodites are doomed to a life of misery. Yet there are few empirical investigations to back up this claim.[59] In fact, the studies gathered to build a case for medical treatment often do just the opposite. Francies Benton, for example, "had not worried over his condition, did not wish to be changed, and was enjoying life."[60] Claus Overzier, a physician at the Medical Clinic at the University of Mainz, Germany, reports that in the majority of cases the psychological behavior of patients agreed only with their sex of rearing and not with their body type. And in many of these cases, body type was not "smoothed over" to conform to sex of rearing. In only fifteen percent of his ninety-four cases were patients discontented with their legal sex; and in each of these it was a "female" who wished to become a "male". Even Dewhurst and Gordon, who are adamant about the importance of very early treatment, acknowledged great success in "changing the sex" of older patients. Th-



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he did not have intercourse as a male again until ten months later. He had entered the show business and exhibited himself as an hermaphrodite in a side-show. Figure 104 depicts the patient in female garb about this time. Figure 105 contains photographic copies of the advertising matter he distributed. At these exhibitions he said both men and women would be admitted into the tent. He would tell them the story of his life, ask the women to move over to the right side of the tent, the men to the left, and then draw a curtain between them so they could not see each other, but plainly see him as he disrobed. He said the exhibitions were thronged with people of both sexes, and were very profitable. About a month ago a man and his wife, also in the show business, were in his hotel room, and quizzed him about

his double life. Doubting his statements they dared him to prove his prowess both as a male and female by having intercourse with each of them. He agreed, and the three stripped. He then went to bed with the woman, "had a splendid erection, carried out his part as a male admirably, had a very exciting ejaculation after a few minutes," and thinks the woman also had an orgasm. About a half-hour later he went to bed with the man and took the female rôle in a coitus which was nothing like as pleasurable to the patient as the one with the woman, but was apparently entirely satisfactory to the male partner. During this performance the young woman was an interested spectator.

The three occasions described above are the only times the patient had coitus as a female. He asserted that since menstruation came on he felt

HERMAPHRODITES: SEX UNDETERMINED 145

Facts About
FRANCIES BENTON

"MALE AND FEMALE IN ONE"

THE MOST ASTOUNDING SHOW EVER PRESENTED
The Wonder of the Age

FIGURE 4.1: Francies Benton, a "practicing hermaphrodite," and his/her advertising copy. (Reprinted with permission from Young 1937, pp. 144–45.)

supposedly critical period of eighteen months. They deemed all the reclassifications "successful," wondering whether sex "re-registration can be recommended more readily than has been suggested so far."[61] Rather than emphasize this positive finding, however, they stressed the practical difficulties involved with late sex changes.

Sometimes patients refuse treatment despite strikingly visible consequences, such as beard growth in females. Randolf et al. discuss one girl who "has adamantly refused further surgery in spite of the disfiguring prominence of her clitoris,"[62] while Van der Kamp et al. report that nine out of ten adult women who had undergone vaginal reconstruction felt that such operations should not be done until early adolescence.[63] Finally, Bailez et al. report on an individual's refusal of a fourth operation needed to achieve a vaginal opening suitable for intercourse.[64]

Intersexual children who grow up with genitalia that seem to contradict their assigned gender identities are not doomed to lives of misery. Laurent and I turned up more than eighty examples (published since 1950) of adolescents and adults who grew up with visibly anomalous genitalia (see tables 4.3 and 4.4). In only one case was an individual deemed potentially psychotic, but that was connected to a psychotic parent and not to sexual ambiguity. The

case summaries make clear that children adjust to the presence of anomalous genitalia and manage to develop into functioning adults, many of whom marry and have active and apparently satisfying sex lives. Striking instances include men with small penises who have active marital sex lives without penetrative intercourse.[65] Even proponents of early intervention recognize that adjustment to unusual genitalia is possible. Hampson and Hampson, in presenting data on more than 250 postadolescent hermaphrodites, wrote: "The surprise is that so many ambiguous-looking patients were able, *appearance notwithstanding*, to grow up and achieve a rating of psychologically healthy, or perhaps only mildly non-healthy."[66]

The clinical literature is highly anecdotal. There exist no consistent or arguably scientific standards for evaluating the health and psychological well-being of the patients in question. But despite the lack of quantitative data, our survey reveals a great deal. Although they grew up with malformations such as small phalluses, sexual precocity, pubertal breast development, and periodic hematuria (blood in the urine; or in these cases menstrual blood), the majority of intersexual children raised as males assumed lifestyles characteristic of heterosexually active adult males. Fifty-five intersexual children grew up as females. Despite genital anomalies that included the presence of a penis, an enlarged clitoris, bifid scrota, and/or virilizing puberty, most assumed the roles and activities of heterosexually active females.

Two interesting differences appear between the group raised as males (RAM) and the one raised as females (RAF). First, only a minority of the RAF's chose to feminize their masculinized genitalia during adolescence or adulthood, while well over half of the RAM's elected surgery to masculinize their feminized bodies. Second, 16 percent of the RAF's decided as adolescents or adults to change their identities from female to male. Individuals who initiated such changes adjusted successfully—and often with expressed delight—to their new identities. In contrast, only 6 percent of the RAM's wished to change from male to female. In other words, males appear to be more anxious to change their feminized bodies than females are to change their masculinized ones. In a culture that prizes masculinity, this is hardly surprising. Again we see that it is possible to visualize the medical and biological only by peering through a cultural screen.[67]

Revisiting the Five Sexes

Those who defend current approaches to the management of intersexuality can, at best, offer a weak case for continuing the status quo. Many patients are scarred—both psychologically and physically—by a process heavy on sur-

BLE 4.3 *Psychological Outcomes of Children Raised as Males with Unusual Genitalia*

VELOPMENTAL ITTERN AMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
(intersex (1)	None; raised as male	Age 11: removal of 1 ovary; age 24: ovarian biopsy	Physical and hormonal only	A married male with a satisfactory sex life	Never told about his actual physical condition	a
nall penis, bifid scro-m, urinate at base of allus; at puberty east growth and iden-fication of uterus, ovi-ucts, and ovaries	Raised as male; reassigned female as teenager	Vaginal reconstruction at age 17; no clitoral surgery	Physical, hormonal, psychiatric interviews, and MMPI, Rorschach test	Married at age 20 and hoping to have child	As a child liked being a boy; received considerable sex ed from parents; mother encouraged her to be secret about genitals because of anatomical difference	b
exual precocity in enetic, gonadal, and ormonal male (1)	None; raised as male	Extensive family counseling	IQ; standard psychological tests; interviews	"Thoroughly adequate psychological adjustment" (p. 15)	Healthy family life	c
X intersex; small hy-ospadic phallus; fused, mpty labioscrotum (1)	None; raised as male	As teenager, breasts and female internal organs removed; hormone treatments; at age 25 plastic surgery on penis	Extensive interviews	Married male; "to the world at large . . . he passed as an ordinary male college graduate—one of the more stable and well-adjusted" (p. 317)	Only case study in a paper that summarizes a large number of studies but gives few specific details	d
CAH; small phallus with urethra running through it (1)	None; raised as male; hematuria at age 18 warranted medical workup	At age 18, removal of uterus and ovaries; hormonal treatment	Clinical report	"Attending college, majoring in music, and was interested in 'sports"; had sexual contacts with women (p. 157)	"At age 10 the patient noticed that his external genitalia were smaller than those of other boys his age, and, from that time on, took care not to expose himself before his schoolmates" (p. 156)	e
CAH; penile urethra; phallus 5 cm long at age 21 (1)	None; raised as male; cyclic urethral bleeding	None	Physical only	A married male	No data given on psychological status	f
CAH; pubic and axillary hair since age 5; menstruation at age 26; micropenis; penile urethra (1)	None; at age 35 expressed wish to be a woman	Adrenal surgery, which resulted in death of patient	Physical and casual observation	Normal intelligence; served in Army during WWII	During adolescence, attracted to male companions	g
Same physical development (1) (Younger brother of previous case)	None	Hormone treatment starting at age 25 (refused surgery due to death of brother)	Physical and casual observation	Married at age 22; had sexual intercourse regularly	Began menstruation at 22	h
CAH with microphallus (2)	None; raised as males	Ovaries, uterus removed at ages 12 and 31, respectively	Psychological, via interview	Both married; one with child via donor insemination; rate sex lives as good	Adapted to sexual activity other than vaginal intercourse	i

(continued)

TABLE 4.3 *(Continued)*

DEVELOPMENTAL PATTERN (SAMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
Intersex with small penis and developed breasts (1)	One; raised as male	At 15 yrs. surgical removal of ovary and uterus	None	Married to a woman, sought infertility counseling		k
Intersex; enlarged clitoris, menstruation; good breast development, no beard, pubic, or axillary hair (1)	None; raised as male	At age 20: removed ovary and uterus but left remaining ovo-testis	Physical and brief observation	Married as a male; worked as a farmer	"Comparatively quiet . . . preferred to work alone . . . had some inferiority complex" (p. 148)	l
Intersex raised as male (1)	None	Ovo-testis removed at age 29	Case report of interviews	Aware of genital abnormality since age 8; managed to hide it and was active in male sports such as football; worked in masculine occupations; married at age 26 to a genetic and social female	Breast development at age 15 led him to abandon competitive swimming and football	m
Abnormal genitalia, enlarged breasts, periodic hematuria (1)	None; raised as male	Surgery at age 21 to remove uterus and ovary	Conversations with patient	Patient behaved, worked as a male; had female sexual partners	Wanted to make him female; patient refused, preferring sex of rearing	n
Ambiguous genitalia, breasts (1)	None: raised as male	At age 15–16: mammoplasty, 3-stage repair of hypospadias, hysterectomy	Conversations with patient	Participated in sports with other boys; "social adaptation adequate throughout childhood" (p. 663)		o
Intersex raised as male (1)	None	As a young man: hysterectomy to stop menstruation and breast reduction	Case report	Patient "totally pleased" (p. 1,151), but he had to sit down to urinate	Patient managed to conceal from his family his need to sit down to urinate	p
Various causes: hormonal and secondary body morphology contradicted assigned sex (27)*	None; 4 raised as males; 23 raised as females	Uncertain	Psychological and physical	"4 ambivalent with respect to gender role" (p. 256)	All ambivalent cases reared as girls	q
Intersex: XX, XY mosaic: breasts and hematuria; unusual genitalia noted at birth (1)	None; raised as male	Diagnosis at age 14 included uterus and fallopian tubes, which were removed	Case report focused on chromosome composition	Psychological examiners recommended against sex change	No details of life outcome	r

(continued)

TABLE 4.3 *(Continued)*

DEVELOPMENTAL PATTERN (SAMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
12 adults raised as males with small penises	None	Some had had testes removed; others may have had surgery for hypospadias	Interviews	• 9 had sexual intercourse starting at ≈ 16 yrs. • All heterosexual males • 6 felt normal • 6 got teased	Parents who "emphasized the abnormalities or refused to discuss them, often telling the child to hide himself, produced shy and anxious children" (p. 571); "a small penis does not preclude normal male role and a micropenis or microphallus alone should not dictate a female gender assignment in infancy" (p. 571)	s

* Also listed in table 4.4. a. Glen 1957. b. Norris and Keettel 1962. c. Money and Hampson 1955. d. Money 1955; Money et al. 1955b. e. Peris 1960. f. Maxted et al. 1965. g. Madsen 1963. h. Madsen 1963. i. Van Seters and Slob 1988. j. Van Seters and Slob 1988. k. Ten Berge 1960. l. Ben-lih and Kai 1953. m. Capon 1955. n. Ben-lih et al. 1959. o. Hughes et al. 1958. p. Jones and Wilkins 1961. q. Money 1955. r. Gilgenkrantz 1987. s. Reilly and Woodhouse 1989.

gical prowess and light on explanation, psychological support, and full disclosure. We stand now at a fork in the road. To the right we can walk toward reaffirmation of the naturalness of the number 2 and continue to develop new medical technology, including gene "therapy" and new prenatal interventions to ensure the birth of only two sexes. To the left, we can hike up the hill of natural and cultural variability. Traditionally, in European and American culture we have defined two genders, each with a range of permissible behaviors; but things have begun to change. There are househusbands and women fighter pilots. There are feminine lesbians and gay men both buff and butch. Male to female and female to male transsexuals render the sex/gender divide virtually unintelligible.

All of which brings me back to the five sexes. I imagine a future in which our knowledge of the body has led to resistance against medical surveillance,[68] in which medical science has been placed at the service of gender variability, and genders have multiplied beyond currently fathomable limits. Suzanne Kessler suggests that "gender variability can . . . be seen . . . in a new way—as an expansion of what is meant by male and female."[69] Ultimately, perhaps, concepts of masculinity and femininity might overlap so completely as to render the very notion of gender difference irrelevant.

In the future, the hierarchical divisions between patient and doctor, parent and child, male and female, heterosexual and homosexual will dissolve. The critical voices of people discussed in this chapter all point to cracks in the monolith of current medical writings and practice. It is possible to envision a new ethic of medical treatment, one that permits ambiguity to thrive, rooted in a culture that has moved beyond gender hierarchies. In my utopia, an intersexual's major medical concerns would be the potentially life-threatening conditions that sometimes accompany intersex development, such as salt imbalance due to adrenal malfunction, higher frequencies of gonadal tumors, and hernias. Medical intervention aimed at synchronizing body image and gender identity would only rarely occur before the age of reason. Such technological intervention would be a cooperative venture among physician, patient, and gender advisers. As Kessler has noted, the unusual genitalia of intersexuals could be considered to be "intact" rather than "deformed"; surgery, seen now as a creative gesture (surgeons "create" a vagina), might be seen as destructive (tissue is destroyed and removed) and thus necessary only when life is at stake.[70]

Accepted treatment approaches damage both mind and body. And clearly, it is possible for healthy adults to emerge from a childhood in which genital anatomy does not completely match sex of rearing. But still, the good doctors

TABLE 4.4 *Psychological Outcomes of Children Raised as Females with Unusual Genitalia*

DEVELOPMENTAL PATTERN (SAMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
Raised as female with a penislike clitoris; menstruated at 13 (1)	None	Surgery in adulthood; clitoral amputation	Psychological, hormonal	States that patient was satisfied	Patient was primarily attracted to women but had a female gender identity; psychiatrist wanted to surgically turn her into a man (to prevent homosexuality?), but she refused	a
Sexual precocity in genetic, gonadal, and hormonal female (3)	None; raised as female	Extensive family counseling	IQ and standard psychological tests and interviews	2/3 well adjusted; 1 predicted to become psychotic	Unadjusted individual has psychotic father/poorly adjusted family	b
XY intersex; enlarged clitoris (2–3 cm); bifid scrotum; urinates through vagina (2 "sisters")	None; raised as female	None; examined at time of marriage because of urinary oddity	Physical, hormonal	Apparently healthy females who married	Both aware of physique at age 10 because of how they urinated. No mention of discomfort with large clitoris	c
XY intersex; small penis and vagina (1)	None; raised as female	As a married adult, penis removed and vagina dilated	None	Happily married but infertile		d
XY intersex; malformed external genitalia; no breast development (1)	None; raised as female	At age 21 testes removed, vagina enlarged, estrogen treated	Unknown	"Quite well adjusted in her role as a woman" (p. 43)		e
Testicular failure; ambiguous but feminized genitalia (3)	Sex change from female to male at ages 20–33		Conversations with physician	2: no information; 1: "patient most satisfied" (p. 1,214)	Calls for a "somewhat less rigid attitude" about when to do surgery (p. 1,216)	f
Normal male with severe perineal hypospadias, raised as female (1)	Sex reassigned at 14	Surgery to correct hypospadias	Psychological tests and interviews	Successful adjustment following a period of several months	"The Johns Hopkins team . . . [has] not provided convincing evidence" for view that early sex change is imperative (p. 1,217)	g
CAH females (7)	None; raised as female	None	Psychological and interviews	2 are married; "were entirely feminine in their outlook and ways" (p. 255)		h

(continued)

TABLE 4.4 *(Continued)*

DEVELOPMENTAL PATTERN (SAMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
Various causes: hormonal and secondary body morphology contradicted assigned sex (27)*	None; 4 raised as males, 23 as females	Uncertain	Psychological and physical	"4 ambivalent with respect to gender role" (p. 256)	All ambivalent cases reared as girls	i
Intersexes with penis, bifid scrotum, testes, and ovotestis (2)	None; raised as female	At age 26 and 24, surgery to reshape genitalia	Conversations with physicians; physical	Both married as women; "apparently normal girls" (p. 280)	One had no vaginal opening; husband had "intercourse" using space between perineum and legs; the other had no orgasms; both experienced postsurgical loss of libido	j
Penis-sized clitoris (1)	None; raised as female	At age 17, penile extirpation and vaginal dilation	None	Patient felt herself to be female	"She was, with some difficulty, persuaded to submit to surgical treatment" (p. 79)	k
Hypospadias; raised as female (1)	Changed from female to male at age 13	Several surgeries at patient's request to repair hypospadias	Extensive first-hand account of how he coped with the change	Married with 2 adopted children	Wishes he could have intercourse and biological children, but resigned; "I have a full and for the most part happy life" (p. 1,256)	l
Hypospadias; raised as female (1)	Changed from female to male at age 13	Surgical repair of hypospadias and exposure of hooded penis	Anecdotal	Successful marriage	Patient anxious to make the change, "had his own ideas . . . even to selection of a name and a decidedly masculine program of activities" (p. 490)	m
Intersex; raised as female (1)	None	Surgery at 18 to open vagina	Case report	Identified as male at birth but mother raised as female; oriented toward males and wished to marry	Early in her life the patient was told by her mother that "she was different from other boys and girls and that she should not let others see her genitalia" (p. 431)	n
Intersex, raised as male (1)	None	Repair of hypospadias at age 29	Case report	Married to genetic female; reported coitus twice weekly with orgasms for both partners	Small, curved penis "did not trouble the patient before he got married" (p. 332), and he only sought help because he could not ejaculate inside the vagina and he wanted to have children	o

(continued)

TABLE 4.4 *(Continued)*

DEVELOPMENTAL PATTERN (SAMPLE SIZE)	CHANGE IN ASSIGNED SEX	MEDICAL INTERVENTION	METHODS OF ASSESSMENT	OUTCOME	COMMENTS	SOURCE
XY intersex, raised as female (1)	At puberty became typically male and chose to change sex	Not clearly stated	Case report	"He was totally relieved by being told he was a male" (p. 1,151)	At age 22 married as a man	p
Incomplete AIS; 46 XY; raised as female with enlarged clitoris (1)	At age 33 had breasts removed	Breast removal in adulthood	Case report; hormonal, anatomical, and psychiatric testing	Individual had strongly male gender identity apparently from a very early age; sexual orientation to females	Male gender identity evident in early childhood	q

If not specified, surgery occurred at the time of change in sex of rearing. * Also listed in table 4.3. a. Nogales et al. 1956. b. Hampson and Money 1955. c. Lubs et al. 1959. d. Ten Berge 1960. e. Jones 1957. f. Dewhurst and Gordon 1963. g. Berg 1963. h. Money 1955. i. Money, Hampson, et al. 1955. j. Witschi and Mengert 1942. k. Laycock and Davies 1953. l. Armstrong 1966. m. Brown and Fryer 1957. n. Brewer et al. 1952. o. Zachariae 1955. p. Jones and Wilkins 1961. q. Gooren and Cohen-Kettenis 1991.

are skeptical.[71] So too are many parents and potential parents. It is impossible not to personalize the argument. What if you had an intersexual child? Could you and your child become pioneers in a new management strategy? Where, in addition to the new intersexual rights activists, might you look for advice and inspiration?

The history of transsexualism offers food for thought. In European and American culture we understand transsexuals to be individuals who have been born with "good" male or "good" female bodies. Psychologically, however, they envision themselves as members of the "opposite" sex. A transsexual's drive to have his/her body conform with his/her psyche is so strong that many seek medical aid to transform their bodies hormonally and ultimately surgically, by removal of their gonads and transformation of their external genitalia. The demands of self-identified-transsexuals have contributed to changing medical practices, forcing recognition and naming of the phenomenon. Just as the idea that homosexuality is an inborn, stable trait did not emerge until the end of the nineteenth century, the transsexual did not fully emerge as a special type of person until the middle of the twentieth. Winning the right to surgical and legal sex changes, however, exacted a price: the reinforcement of a two-gender system.[72] By requesting surgery to make their bodies match their gender, transsexuals enacted the logical extreme of the medical profession's philosophy that within an individual's body, sex, and gender must conform. Indeed, transsexuals had little choice but to view themselves within this framework if they wanted to obtain surgical help. To avoid creating a "lesbian" marriage, physicians in gender clinics demanded that married transsexuals divorce before their surgery. Afterwards, they could legally change their birth certificates to reflect their new status.

Within the past ten to twenty years, however, the edifice of transsexual dualism has developed large cracks. Some transsexual organizations have begun to support the concept of *transgenderism*, which constitutes a more radical re-visioning of sex and gender.[73] Whereas traditional transsexuals might describe a male transvestite—a man dressing in women's clothing—as a transsexual on the road to becoming a complete female, transgenderists accept "kinship among those with gender-variant identities. Transgenderism supplants the dichotomy of transsexual and transvestite with a concept of continuity." Earlier generations of transsexuals did not want to depart from gender norms, but rather to blend totally into their new gender role. Today, however, many argue that they need to come out as transsexuals, permanently assuming a transsexual identity that is neither male nor female in the traditional sense.[74]

Within the transgender community (which has its own political organiza-

tions and even its own electronic bulletin board on the Internet), gender variations abound. Some choose to become women while keeping their male genitals intact. Many who have undergone surgical transformation have taken up homosexual roles. For example, a male-to-female transsexual may come out as a lesbian (or a female-to-male as a gay male). Consider Jane, born a physiological male, now in her late thirties, living with her wife (whom she married when her name was still John). Jane takes hormones to feminize herself, but they have not yet interfered with her ability to have erections and intercourse as a man:

> From her perspective, Jane has a lesbian relationship with her wife (Mary). Yet she also uses her penis for pleasure. Mary does not identify herself as a lesbian, although she maintains love and attraction for Jane, whom she regards as the same person she fell in love with although this person has changed physically. Mary regards herself as heterosexual . . . although she defines sexual intimacy with her spouse Jane as somewhere between lesbian and heterosexual.[75]

Does acceptance of gender variation mean the concept of gender would disappear entirely? Not necessarily. The transgender theorist Martine Rothblatt proposes a chromatic system of gender that would differentiate among hundreds of different personality types. The permutations of her suggested seven levels each of aggression, nurturance, and eroticism could lead to 343 (7 x 7 x 7) shades of gender. A person with a mauve gender, for example, would be "a low-intensity nurturing person with a fair amount of eroticism but not much aggressiveness."[76] Some might find Rothblatt's system silly or unnecessarily complex. But her point is serious and begins to suggest ways we might raise intersex children in a culture that recognizes gender variation.

Is it so unreasonable to ask that we focus more clearly on variability and pay less attention to gender conformity? The problem with gender, as we now have it, is the violence—both real and metaphorical—we do by generalizing. No woman or man fits the universal gender stereotype. "It might be more useful," writes the sociologist Judith Lorber, ". . . to group patterns of behavior and only then look for identifying markers of the people likely to enact such behaviors."[77]

Were we in Europe and America to move to a multiple sex and gender role system (as it seems we might be doing), we would not be cultural pioneers. Several Native American cultures, for example, define a third gender, which may include people whom we would label as homosexual, transsexual, or

intersexual but also people we would label as male or female.[78] Anthropologists have described other groups, such as the Hijras of India, that contain individuals whom we in the West would label intersexes, transsexuals, effeminate men, and eunuchs. As with the varied Native American categories, the Hijras vary in their origins and gender characteristics.[79] Anthropologists debate about how to interpret Native American gender systems. What is important, however, is that the existence of other systems suggests that ours is not inevitable.

I do not mean to romanticize other gender systems; they provide no guarantee of social equality. In several small villages in the Dominican Republic and among the Sambia, a people residing in the highlands of Papua, New Guinea, a genetic mutation causing a deficiency in the enzyme 5-α-reductase occurs with fairly high frequency.[80] At birth, XY children with 5-α-reductase deficiency have a tiny penis or clitoris, undescended testes, and a divided scrotum. They can be mistaken for girls, or their ambiguity may be noticed. In adolescence, however, naturally produced testosterone causes the penises of XY teenagers deficient in 5-α-reductase to grow; their testes descend, their vaginal lips fuse to form a scrotum, their bodies become hairy, bearded, and musclebound.[81]

And in both the Dominican Republic and New Guinea, DHT-deficient children—who in the United States are generally operated on immediately—are recognized as a third sex.[82] The Dominicans call it *guevedoche*, or "penis at twelve," while the Sambians use the word *kwolu-aatmwol*, which suggests a person's transformation "into a male thing."[83] In both cultures, the DHT-deficient child experiences ambivalent sex-role socialization. And in adulthood s/he most commonly—but not necessarily with complete success—self-identifies as a male. The anthropologist Gil Herdt writes that, at puberty, "the transformation may be from female—possibly ambiguously reared—to male-aspiring third sex, who is, in certain social scenes, categorized with adult males."[84]

While these cultures know that sometimes a third type of child is born, they nevertheless recognize only two gender roles. Herdt argues that the strong preference in these cultures for maleness, and the positions of freedom and power that males hold, make it easy to understand why in adulthood the *kwolu-aatmwol* and the *guevedoche* most frequently chose the male over the female role. Although Herdt's work provides us with a perspective outside our own cultural framework, only further studies will clarify how members of a third sex manage in cultures that acknowledge three categories of body but offer only a two-gender system.

Toward the End of Gender Tyranny: Getting There from Here

Simply recognizing a third category does not assure a flexible gender system. Such flexibility requires political and social struggle. In discussing my "five sexes" proposal Suzanne Kessler drives home this point with great effect:

> The limitation with Fausto-Sterling's proposal is that legitimizing other sets of genitals . . . still gives genitals primary signifying status and ignores the fact that in the everyday world gender attributions are made without access to genital inspection . . . what has primacy in everyday life is the gender that is performed, regardless of the flesh's configuration under the clothes.

Kessler argues that it would be better for intersexuals and their supporters to turn everyone's focus away from genitals and to dispense with claims to a separate intersexual identity. Instead, she suggests, men and women would come in a wider assortment. Some women would have large clitorises or fused labia, while some men would have "small penises or misshapen scrota—phenotypes with no particular clinical or identity meaning."[85] I think Kessler is right, and this is why I am no longer advocating using discrete categories such as herm, merm, and ferm, even tongue in cheek.

The intersexual or transgender person who presents a social gender—what Kessler calls "cultural genitals"—that conflicts with h/her physical genitals often risks h/her life. In a recent court case, a mother charged that her son, a transvestite, died because paramedics stopped treating him after discovering his male genitals. The jury awarded her $2.9 million in damages. While it is heartening that a jury found such behavior unacceptable, the case underscores the high risk of gender transgression.[86] "Transgender warriors," as Leslie Feinberg calls them, will continue to be in danger until we succeed in moving them onto the "acceptable" side of the imaginary line separating "normal, natural, holy" gender from the "abnormal, unnatural, sick [and] sinful."[87]

A person with ovaries, breasts, and a vagina, but whose "cultural genitals" are male also faces difficulties. In applying for a license or passport, for instance, one must indicate "M" or "F" in the gender box. Suppose such a person checks "F" on his or her license and then later uses the license for identification. The 1998 murder in Wyoming of homosexual Matthew Shepherd makes clear the possible dangers. A masculine-presenting female is in danger of violent attack if she does not "pass" as male. Similarly, she can get into legal trouble if stopped for a traffic violation or passport control, as the legal authority can accuse her of deception—masquerading as a male for possibly illegal purposes. In the 1950s, when police raided lesbian bars, they demanded that women be wearing three items of women's clothing in order to avoid arrest.[88] As Feinberg notes, we have not moved very far beyond that moment.

Given the discrimination and violence faced by those whose cultural and physical genitals don't match, legal protections are needed during the transition to a gender-diverse utopia. It would help to eliminate the "gender" category from licenses, passports, and the like. The transgender activist Leslie Feinberg writes: "Sex categories should be removed from all basic identification papers—from driver's licenses to passports—and since the right of each person to define their own sex is so basic, it should be eliminated from birth certificates as well."[89] Indeed, why are physical genitals necessary for identification? Surely attributes both more visible (such as height, build, and eye color) and less visible (fingerprints and DNA profiles) would be of greater use.

Transgender activists have written "An International Bill of Gender Rights" that includes (among ten gender rights) "the right to define gender identity, the right to control and change one's own body, the right to sexual expression and the right to form committed, loving relationships and enter into marital contracts."[90] The legal bases for such rights are being hammered out in the courts as I write, through the establishment of case law regarding sex discrimination and homosexual rights.[91]

Intersexuality, as we have seen, has long been at the center of debates over the connections among sex, gender, and legal and social status. A few years ago the Cornell University historian Mary Beth Norton sent me the transcripts of legal proceedings from the General Court of the Virginia Colony. In 1629, one Thomas Hall appeared in court claiming to be both a man and a woman. Because civil courts expected one's dress to signify one's sex, the examiner declared Thomas was a woman and ordered her to wear women's clothing. Later, a second examiner overruled the first, declaring Hall a man who should, therefore, wear men's clothing. In fact, Thomas Hall had been christened Thomasine and had worn women's clothing until age twenty-two, when he joined the army. Afterward s/he returned to women's clothing so that s/he could make a living sewing lace. The only references to Hall's anatomy say that he had a man's part as big as the top of his little finger, that he did not have the use of this part, and that—as Thomasine herself put it—she had "a peece of an hole." Finally, the Virginia Court, accepting Thomas(ine)'s gender duality, ordered that "it shall be published that the said Hall is a man

and a woman, that all inhabitants around may take notice thereof and that he shall go clothed in man's apparel, only his head will be attired in a Coiffe with an apron before him."[92]

Today the legal status of operated intersexuals remains uncertain.[93] Over the years the rights of royal succession, differential treatment by social security or insurance laws, gendered labor laws, and voting limitations would all have been at stake in declaring an intersex legally male or female. Despite the lessening of such concerns, the State remains deeply interested in regulating marriage and the family. Consider the Australian case of an XX intersex born with an ovary and fallopian tube on the right side, a small penis, and a left testicle. Reared as a male, he sought surgery in adulthood to masculinize his penis and deal with his developed breasts. The physicians in charge of his case agreed he should remain a male, since this was his psychosexual orientation. He later married, but the Australian courts annulled the union. The ruling held that in a legal system that requires a person to be either one or the other, for the purpose of marriage, he could be neither male nor female (hence the need for the right to marry in the Bill of Gender Rights).[94]

As usual, the debates over intersexuality are inextricable from those over homosexuality; we cannot consider the challenges one poses to our gender system without considering the parallel challenge posed by the other. In considering the potential marriage of an intersexual, the legal and medical rules often focus on the question of homosexual marriage. In the case of *Corbett v. Corbett 1970,* April Ashley, a British transsexual, married one Mr. Corbett, who later asked the court to annul the marriage because April was really a man. April argued that she was a social female and thus eligible for marriage. The judge, however, ruled that the operation was pure artifact, imposed on a clearly male body. Not only had April Ashley been born a male, but her transforming surgery had not created a vagina large enough to permit penile penetration. Furthermore, sexual intercourse was "the institution on which the family is built, and in which the capacity for natural hetero-sexual intercourse is an essential element." "Marriage," the judge continued, "is a relationship which depends upon sex and not gender."[95]

An earlier British case had annulled a marriage between a man and a woman born without a vagina. The husband testified that he could not penetrate more than two inches into his wife's artificial vagina. Furthermore, he claimed even that channel was artificial, not the biological one due him as a true husband. The divorce commissioner agreed, citing a much earlier case in which the judge ruled, "I am of the opinion that no man ought to be reduced to this state of quasi-natural connexion."[96]

Both British judges declared marriage without the ability for vaginal-penile sex to be illegal, one even adding the criterion that two inches did not a penetration make. In other countries—and even in the several U.S. states that ban anal and oral contact between both same-sex and opposite-sex partners and those that restrict the ban to homosexual encounters[97]—engaging in certain types of sexual encounters can result in felony charges. Similarly, a Dutch physician discussed several cases of XX intersexuals, raised as males, who married females. Defining them as biological females (based on their two X chromosomes and ovaries), the physician called for a discussion of the legality of the marriages. Should they be dissolved "notwithstanding the fact that they are happy ones?" Should they "be recognized legally and ecclesiastically?"[98]

If cultural genitals counted for more than physical genitals, many of the dilemmas just described could be easily resolved. Since the mid-1960s the International Olympic Committee has demanded that all female athletes submit to a chromosome or DNA test, even though some scientists urge the elimination of sex testing.[99] Whether we are deciding who may compete in the women's high jump or whether we should record sex on a newborn's birth certificate, the judgment derives primarily from social conventions. Legally, the interest of the state in maintaining a two-gender system focuses on questions of marriage, family structure, and sexual practices. But the time is drawing near when even these state concerns will seem arcane to us.[100] Laws regulating consensual sexual behavior between adults had religious and moral origins. In the United States, at least, we are supposed to experience complete separation of church and state. As our legal system becomes further secularized (as I believe it will), it seems only a matter of time before the last laws regulating consensual bedroom behavior will become unconstitutional.[101] At that moment the final legal barriers to the emergence of a wide range of gender expression will disappear.

The court of the Virginia Colony required Thomas/Thomasine to signal h/her physical genitals by wearing a dual set of cultural genitals. Now, as then, physical genitals form a poor basis for deciding the rights and privileges of citizenship. Not only are they confusing; they are not even publicly visible. Rather, it is social gender that we see and read. In the future, hearing a birth announced as "boy" or "girl" might enable new parents to envision for their child an expanded range of possibilities, especially if their baby were among the few with unusual genitals. Perhaps we will come to view such children as especially blessed or lucky. It is not so far-fetched to think that some can become the most desirable of all possible mates, able to pleasure their partners in a variety of ways. One study of men with unusually small penises, for example, found them to be "characterized by an experimental attitude to positions

and methods." Many of these men attributed "partner sexual satisfaction and the stability of their relationships to their need to make extra effort including non-penetrating techniques."[102]

My vision is utopian, but I believe in its possibility. All of the elements needed to make it come true already exist, at least in embryonic form. Necessary legal reforms are in reach, spurred forward by what one might call the "gender lobby": political organizations that work for women's rights, gay rights, and the rights of transgendered people. Medical practice has begun to change as a result of pressure from intersexual patients and their supporters. Public discussion about gender and homosexuality continues unabated with a general trend toward greater tolerance for gender multiplicity and ambiguity. The road will be bumpy, but the possibility of a more diverse and equitable future is ours if we choose to make it happen.

5

SEXING THE BRAIN:

HOW BIOLOGISTS MAKE A DIFFERENCE

The Callosum Colossus

Suppose my utopian vision, as described in the last chapter, came to pass. Would all gender differences disappear? Would we award jobs, status, income, and social roles based only on individual differences in physique, intellect, and inclination? Perhaps. But some would argue that no matter how widely we opened the door, ineluctable differences between groups would remain. Scientists, such naysayers would argue, have proven that in addition to our genitalia, key anatomical differences between the male and female brain make gender an important marker of ability. To drive home their point, they might cite well-publicized claims that, compared to men's, the corpus callosum—the bundle of nerve fibers connecting the left and right brain hemispheres—in women's brains is larger or more bulbous. And *that*, they would exclaim, will limit forever the degree to which most women can become highly skilled mathematicians, engineers, and scientists. But not everybody believes in this difference in brain anatomy.

External anatomy seems simple. Does the baby's hand have five or six fingers? Just count them. Do boys have penises and girls vaginas (intersexuals notwithstanding)? Just look. Who could disagree about body parts? Scientists use the rhetoric of visibility to talk about gender differences in the brain, but moving from easily examined external structures to the anatomy of the interior is tricky. Relationships among gender, brain function, and anatomy are both hard to interpret and difficult to see, so scientists go to great lengths to convince each other and the general public that gender differences in brain anatomy are both visible and meaningful.[1] Some such claims provoke battles that can last for hundreds of years.[2] In coming to understand how and why these battles can last so long, I continue to insist that scientists do not simply read nature to find truths to apply in the social world. Instead, they use truths