WHEN the practice of sex-change surgery first emerged back in the early 1970s, I would often remind its advocating psychiatrists that with other patients, alcoholics in particular, they would quote the Serenity Prayer, “God, give me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference.” Where did they get the idea that our sexual identity (“gender” was the term they preferred) as men or women was in the category of things that could be changed?

Their regular response was to show me their patients. Men (and until recently they were all men) with whom I spoke before their surgery would tell me that their bodies and sexual identities were at variance. Those I met after surgery would tell me that the surgery and hormone treatments that had made them “women” had also made them happy and contented.
None of these encounters were persuasive, however. The post-surgical subjects struck me as caricatures of women. They wore high heels, copious makeup, and flamboyant clothing; they spoke about how they found themselves able to give vent to their natural inclinations for peace, domesticity, and gentleness—but their large hands, prominent Adam’s apples, and thick facial features were incongruous (and would become more so as they aged). Women psychiatrists whom I sent to talk with them would intuitively see through the disguise and the exaggerated postures. “Gals know gals,” one said to me, “and that’s a guy.”

The subjects before the surgery struck me as even more strange, as they struggled to convince anyone who might influence the decision for their surgery. First, they spent an unusual amount of time thinking and talking about sex and their sexual experiences; their sexual hungers and adventures seemed to preoccupy them. Second, discussion of babies or children provoked little interest from them; indeed, they seemed indifferent to children. But third, and most remarkable, many of these men-who-claimed-to-be-women reported that they found women sexually attractive and that they saw themselves as “lesbians.” When I noted to their champions that their psychological leanings seemed more like those of men than of women, I would get various replies, mostly to the effect that in making such judgments I was drawing on sexual stereotypes.

Until 1975, when I became psychiatrist-in-chief at Johns Hopkins Hospital, I could usually keep my own counsel on these matters. But once I was given authority over all the practices in the psychiatry department I realized that if I were passive I would be tacitly co-opted in encouraging sex-change surgery in the very department that had originally proposed and still defended it. I decided to challenge what I considered to be a misdirection of psychiatry and to demand more information both before and after their operations.

Two issues presented themselves as targets for study. First, I wanted to test the claim that men who had undergone sex-change surgery found resolution for their many general psychological problems. Second (and this was more ambitious), I wanted to see whether male infants with ambiguous genitalia who were being surgically transformed into females and raised as girls did, as the theory (again from Hopkins) claimed, settle easily into the sexual identity that was chosen for them. These claims had generated the opinion in psychiatric circles that one’s “sex” and one’s “gender” were distinct matters, sex being genetically and hormonally determined from conception, while gender was culturally shaped by the actions of family and others during childhood.

The first issue was easier and required only that I encourage the ongoing research of a member of the faculty who was an accomplished student of human sexual behavior. The psychiatrist and psychoanalyst Jon Meyer was already developing a means of following up with adults who received sex-change operations at Hopkins in order to see how much the surgery had helped them. He found that most of the patients he tracked down some years after their surgery were contented with what they had done and that only a few regretted it. But in every other respect, they were little changed in their psychological condition. They had much the same problems with relationships, work, and emotions as before. The hope that they would emerge now from their emotional difficulties to flourish psychologically had not been fulfilled.
We saw the results as demonstrating that just as these men enjoyed cross-dressing as women before the operation so they enjoyed cross-living after it. But they were no better in their psychological integration or any easier to live with. With these facts in hand I concluded that Hopkins was fundamentally cooperating with a mental illness. We psychiatrists, I thought, would do better to concentrate on trying to fix their minds and not their genitalia.

Thanks to this research, Dr. Meyer was able to make some sense of the mental disorders that were driving this request for unusual and radical treatment. Most of the cases fell into one of two quite different groups. One group consisted of conflicted and guilt-ridden homosexual men who saw a sex-change as a way to resolve their conflicts over homosexuality by allowing them to behave sexually as females with men. The other group, mostly older men, consisted of heterosexual (and some bisexual) males who found intense sexual arousal in cross-dressing as females. As they had grown older, they had become eager to add more verisimilitude to their costumes and either sought or had suggested to them a surgical transformation that would include breast implants, penile amputation, and pelvic reconstruction to resemble a woman.

Further study of similar subjects in the psychiatric services of the Clark Institute in Toronto identified these men by the auto-arousal they experienced in imitating sexually seductive females. Many of them imagined that their displays might be sexually arousing to onlookers, especially to females. This idea, a form of “sex in the head” (D. H. Lawrence), was what provoked their first adventure in dressing up in women’s undergarments and had eventually led them toward the surgical option. Because most of them found women to be the objects of their interest they identified themselves to the psychiatrists as lesbians. The name eventually coined in Toronto to describe this form of sexual misdirection was “autogynephilia.” Once again I concluded that to provide a surgical alteration to the body of these unfortunate people was to collaborate with a mental disorder rather than to treat it.

This information and the improved understanding of what we had been doing led us to stop prescribing sex-change operations for adults at Hopkins—much, I’m glad to say, to the relief of several of our plastic surgeons who had previously been commandeered to carry out the procedures. And with this solution to the first issue I could turn to the second—namely, the practice of surgically assigning femaleness to male newborns who at birth had malformed, sexually ambiguous genitalia and severe phallic defects. This practice, more the province of the pediatric department than of my own, was nonetheless of concern to psychiatrists because the opinions generated around these cases helped to form the view that sexual identity was a matter of cultural conditioning rather than something fundamental to the human constitution.

Several conditions, fortunately rare, can lead to the misconstruction of the genito-urinary tract during embryonic life. When such a condition occurs in a male, the easiest form of plastic surgery by far, with a view to correcting the abnormality and gaining a cosmetically satisfactory appearance, is to remove all the male parts, including the testes, and to construct from the tissues available a labial and vaginal configuration. This action provides these malformed babies with female-looking genital anatomy regardless of their genetic sex. Given the claim that the sexual identity of the child would easily follow the genital appearance if backed up by familial and cultural support, the pediatric surgeons took to constructing female-
like genitalia for both females with an XX chromosome constitution and males with an XY so as to make them all look like little girls, and they were to be raised as girls by their parents.

All this was done of course with consent of the parents who, distressed by these grievous malformations in their newborns, were persuaded by the pediatric endocrinologists and consulting psychologists to accept transformational surgery for their sons. They were told that their child’s sexual identity (again his “gender”) would simply conform to environmental conditioning. If the parents consistently responded to the child as a girl now that his genital structure resembled a girl’s, he would accept that role without much travail.

This proposal presented the parents with a critical decision. The doctors increased the pressure behind the proposal by noting to the parents that a decision had to be made promptly because a child’s sexual identity settles in by about age two or three. The process of inducing the child into the female role should start immediately, with name, birth certificate, baby paraphernalia, etc. With the surgeons ready and the physicians confident, the parents were faced with an offer difficult to refuse (although, interestingly, a few parents did refuse this advice and decided to let nature take its course).

I thought these professional opinions and the choices being pressed on the parents rested upon anecdotal evidence that was hard to verify and even harder to replicate. Despite the confidence of their advocates, they lacked substantial empirical support. I encouraged one of our resident psychiatrists, William G. Reiner (already interested in the subject because prior to his psychiatric training he had been a pediatric urologist and had witnessed the problem from the other side), to set about doing a systematic follow-up of these children—particularly the males transformed into females in infancy—so as to determine just how sexually integrated they became as adults.

The results here were even more startling than in Meyer’s work. Reiner picked out for intensive study cloacal exstrophy, because it would best test the idea that cultural influence plays the foremost role in producing sexual identity. Cloacal exstrophy is an embryonic misdirection that produces a gross abnormality of pelvic anatomy such that the bladder and the genitalia are badly deformed at birth. The male penis fails to form and the bladder and urinary tract are not separated distinctly from the gastrointestinal tract. But crucial to Reiner’s study is the fact that the embryonic development of these unfortunate males is not hormonally different from that of normal males. They develop within a male-typical prenatal hormonal milieu provided by their Y chromosome and by their normal testicular function. This exposes these growing embryos/fetuses to the male hormone testosterone—just like all males in their mother’s womb.

Although animal research had long since shown that male sexual behavior was directly derived from this exposure to testosterone during embryonic life, this fact did not deter the pediatric practice of surgically treating male infants with this grievous anomaly by castration (amputating their testes and any vestigial male genital structures) and vaginal construction, so that they could be raised as girls. This practice had become almost universal by the mid-1970s. Such cases offered Reiner the best test of the two aspects of the doctrine underlying such treatment: (1) that humans at birth are neutral as to their sexual identity, and (2) that for humans it is the postnatal, cultural, nonhormonal influences, especially those of early childhood, that most influence their ultimate sexual identity. Males with cloacal exstrophy
were regularly altered surgically to resemble females, and their parents were instructed to raise them as girls. But would the fact that they had had the full testosterone exposure in utero defeat the attempt to raise them as girls? Answers might become evident with the careful follow-up that Reiner was launching.

Before describing his results, I should note that the doctors proposing this treatment for the males with cloacal extrophy understood and acknowledged that they were introducing a number of new and severe physical problems for these males. These infants, of course, had no ovaries, and their testes were surgically amputated, which meant that they had to receive exogenous hormones for life. They would also be denied by the same surgery any opportunity for fertility later on. One could not ask the little patient about his willingness to pay this price. These were considered by the physicians advising the parents to be acceptable burdens to bear in order to avoid distress in childhood about malformed genital structures, and it was hoped that they could follow a conflict-free direction in their maturation as girls and women.

Reiner, however, discovered that such re-engineered males were almost never comfortable as females once they became aware of themselves and the world. From the start of their active play life, they behaved spontaneously like boys and were obviously different from their sisters and other girls, enjoying rough-and-tumble games but not dolls and “playing house.” Later on, most of those individuals who learned that they were actually genetic males wished to reconstitute their lives as males (some even asked for surgical reconstruction and male hormone replacement)—and all this despite the earnest efforts by their parents to treat them as girls.

Reiner’s results, reported in the January 22, 2004, issue of the *New England Journal of Medicine*, are worth recounting. He followed up sixteen genetic males with cloacal extrophy seen at Hopkins, of whom fourteen underwent neonatal assignment to femaleness socially, legally, and surgically. The other two parents refused the advice of the pediatricians and raised their sons as boys. Eight of the fourteen subjects assigned to be females had since declared themselves to be male. Five were living as females, and one lived with unclear sexual identity. The two raised as males had remained male. All sixteen of these people had interests that were typical of males, such as hunting, ice hockey, karate, and bobsledding. Reiner concluded from this work that the sexual identity followed the genetic constitution. Male-type tendencies (vigorous play, sexual arousal by females, and physical aggressiveness) followed the testosterone-rich intrauterine fetal development of the people he studied, regardless of efforts to socialize them as females after birth. Having looked at the Reiner and Meyer studies, we in the Johns Hopkins Psychiatry Department eventually concluded that human sexual identity is mostly built into our constitution by the genes we inherit and the embryogenesis we undergo. Male hormones sexualize the brain and the mind. Sexual dysphoria—a sense of disquiet in one’s sexual role—naturally occurs amongst those rare males who are raised as females in an effort to correct an infantile genital structural problem. A seemingly similar disquiet can be socially induced in apparently constitutionally normal males, in association with (and presumably prompted by) serious behavioral aberrations, amongst which are conflicted homosexual orientations and the remarkable male deviation now called autogynephilia.
Quite clearly, then, we psychiatrists should work to discourage those adults who seek surgical sex reassignment. When Hopkins announced that it would stop doing these procedures in adults with sexual dysphoria, many other hospitals followed suit, but some medical centers still carry out this surgery. Thailand has several centers that do the surgery “no questions asked” for anyone with the money to pay for it and the means to travel to Thailand. I am disappointed but not surprised by this, given that some surgeons and medical centers can be persuaded to carry out almost any kind of surgery when pressed by patients with sexual deviations, especially if those patients find a psychiatrist to vouch for them. The most astonishing example is the surgeon in England who is prepared to amputate the legs of patients who claim to find sexual excitement in gazing at and exhibiting stumps of amputated legs. At any rate, we at Hopkins hold that official psychiatry has good evidence to argue against this kind of treatment and should begin to close down the practice everywhere.

For children with birth defects the most rational approach at this moment is to correct promptly any of the major urological defects they face, but to postpone any decision about sexual identity until much later, while raising the child according to its genetic sex. Medical caretakers and parents can strive to make the child aware that aspects of sexual identity will emerge as he or she grows. Settling on what to do about it should await maturation and the child’s appreciation of his or her own identity.

Proper care, including good parenting, means helping the child through the medical and social difficulties presented by the genital anatomy but in the process protecting what tissues can be retained, in particular the gonads. This effort must continue to the point where the child can see the problem of a life role more clearly as a sexually differentiated individual emerges from within. Then as the young person gains a sense of responsibility for the result, he or she can be helped through any surgical constructions that are desired. Genuine informed consent derives only from the person who is going to live with the outcome and cannot rest upon the decisions of others who believe they “know best.”

How are these ideas now being received? I think tolerably well. The “transgender” activists (now often allied with gay liberation movements) still argue that their members are entitled to whatever surgery they want, and they still claim that their sexual dysphoria represents a true conception of their sexual identity. They have made some protests against the diagnosis of autogynephilia as a mechanism to generate demands for sex-change operations, but they have offered little evidence to refute the diagnosis. Psychiatrists are taking better sexual histories from those requesting sex-change and are discovering more examples of this strange male exhibitionist proclivity.

Much of the enthusiasm for the quick-fix approach to birth defects expired when the anecdotal evidence about the much-publicized case of a male twin raised as a girl proved to be bogus. The psychologist in charge hid, by actually misreporting, the news that the boy, despite the efforts of his parents to treat him and raise him as a girl, had constantly challenged their treatment of him, ultimately found out about the deception, and restored himself as a male. Sadly, he carried an additional diagnosis of major depression and ultimately committed suicide.
I think the issue of sex-change for males is no longer one in which much can be said for the other side. But I have learned from the experience that the toughest challenge is trying to gain agreement to seek empirical evidence for opinions about sex and sexual behavior, even when the opinions seem on their face unreasonable. One might expect that those who claim that sexual identity has no biological or physical basis would bring forth more evidence to persuade others. But as I’ve learned, there is a deep prejudice in favor of the idea that nature is totally malleable.

Without any fixed position on what is given in human nature, any manipulation of it can be defended as legitimate. A practice that appears to give people what they want—and what some of them are prepared to clamor for—turns out to be difficult to combat with ordinary professional experience and wisdom. Even controlled trials or careful follow-up studies to ensure that the practice itself is not damaging are often resisted and the results rejected.

I have witnessed a great deal of damage from sex-reassignment. The children transformed from their male constitution into female roles suffered prolonged distress and misery as they sensed their natural attitudes. Their parents usually lived with guilt over their decisions—second-guessing themselves and somewhat ashamed of the fabrication, both surgical and social, they had imposed on their sons. As for the adults who came to us claiming to have discovered their “true” sexual identity and to have heard about sex-change operations, we psychiatrists have been distracted from studying the causes and natures of their mental misdirections by preparing them for surgery and for a life in the other sex. We have wasted scientific and technical resources and damaged our professional credibility by collaborating with madness rather than trying to study, cure, and ultimately prevent it.

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