

The Gendered Society

READER



SIXTH EDITION

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Michael Kimmel
Amy Aronson

The Gendered Society Reader

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Sixth Edition

Michael Kimmel

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Amy Aronson

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*For Jimmie Briggs
and Gary Barker*

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Introduction

AMY ARONSON AND MICHAEL KIMMEL

Every day there's another story about how women and men are different. They say we come from different planets—women from Venus, men from Mars. They say we have different brain chemistries, different brain organization, different hormones. Different bodies, different selves. They say we have different ways of knowing, listen to different moral voices, have different ways of speaking and hearing each other.

You'd think we were different species. In his best-selling book, the pop psychologist John Gray informs us that not only do women and men communicate differently, "but they think, feel, perceive, react, respond, love, need, and appreciate differently" (Gray 1995, 5). It's a miracle of cosmic proportions that we ever understand one another!

Yet here we all are, together, in the same classes, eating in the same dining halls, walking on the same campus, reading the same books, being subject to the same criteria for grading. We live in the same houses, eat the same meals, read the same newspapers, and watch the same TV shows. What gives?

One thing that seems to be happening is that we are increasingly aware of the centrality of gender in our lives. In the past four decades, the pioneering work of feminist scholars, both in traditional disciplines and in women's studies, has made

us increasingly aware of the centrality of gender in shaping social life. We now know that gender is one of the central organizing principles around which social life revolves.

This wasn't always the case. Four decades ago, social scientists would have only listed social class and race as the master statuses that defined and proscribed social life. If you wanted to study gender in the 1960s in social science, for example, you would have found one course to meet your needs—"Marriage and the Family"—which was sort of the "Ladies Auxiliary" of the social sciences. There were no courses on gender. But today, gender has joined race and class in our understanding of the foundations of an individual's identity. Gender, we now know, is one of the axes around which social life is organized and through which we understand our own experiences.

While much of our cultural preoccupation seems to be about the differences between women and men, there are two near-universal phenomena that define the experiences of women and men in virtually every culture we have ever known. First: *Why is it that virtually every single society differentiates people on the basis of gender?* Why are women and men perceived as different in every known society? What are the differences that are perceived? Why is gender at least one—if not the central—basis for the division of labor? And, second: *Why is it that virtually every known society is also based on male domination?* Why does virtually every society divide social, political, and economic resources unequally between the genders? Why is a gendered division of labor also an unequal division of labor? Why are women's tasks and men's tasks valued differently?

Of course, there are dramatic differences among societies regarding the type of gender differences, the levels of gender inequality, and the amount of violence (implied or real) that is necessary to maintain both systems of difference and domination. But the basic facts remain: *Virtually every society known to us is founded upon assumptions of gender difference and the politics of gender inequality.*

Most of the arguments about gender difference begin, as does this book, with biology. Women and men *are* biologically different, after all. Our reproductive anatomies are different, as are our reproductive destinies. Our brain structures differ, our brain chemistries differ. Our musculature is different. We have different levels of different hormones circulating through our different bodies. Surely, these add up to fundamental, intractable, and universal differences, and these differences provide the foundation for male domination, don't they?

In these models, biological "sex"—by which we mean the chromosomal, chemical, anatomical apparatuses that make us either male or female—leads inevitably to "gender," by which we mean the cultural and social meanings, experiences, and institutional structures that are defined as appropriate for those males

and females. “Sex” is male and female; “gender” refers to cultural definitions of masculinity and femininity—the meanings of maleness or femaleness.

Biological models of sex difference occupy the “nature” side of the age-old question about whether it is nature or nurture that determines our personalities. Of course, most sensible people recognize that both nature *and* nurture are necessary for gender development. Our biological sex provides the raw material for our development—and all that evolution, different chromosomes, and hormones have to have some effect on who we are and who we become.

But biological sex varies very little, and yet the cultural definitions of gender vary enormously. And it has been the task of the social and behavioral sciences to explore the variations in definitions of gender. Launched originally as critiques of biological universalism, the social and behavioral sciences—anthropology, history, psychology, sociology—have all had an important role to play in our understanding of gender.

What they suggest is that what it means to be a man or a woman will vary in four significant ways. First, the meanings of gender vary from one society to another. What it means to be a man or a woman among aboriginal peoples in the Australian outback or in the Yukon territories is probably very different from what it means to be a man or a woman in Norway or Ireland. It has been the task of anthropologists to specify some of those differences, to explore the different meanings that gender has in different cultures. Some cultures, like our own, encourage men to be stoic and to prove their masculinity, and men in other cultures seem even more preoccupied with demonstrating sexual prowess than American men seem to be. Other cultures prescribe a more relaxed definition of masculinity, based on civic participation, emotional responsiveness, and the collective provision for the community’s needs. Some cultures encourage women to be decisive and competitive; others insist that women are naturally passive, helpless, and dependent.

Second, the meanings of masculinity and femininity vary within any one culture over time. What it meant to be a man or a woman in seventeenth-century France is probably very different from what it might mean today. My own research has suggested that the meanings of manhood have changed dramatically from the founding of America in 1776 to the present (see Kimmel 2011). (Although for reasons of space I do not include any historical material in this volume, inquiries into the changing definitions of gender have become an area of increasing visibility.)

Third, the meaning of masculinity and femininity will change as any individual person grows. Following Freudian ideas that individuals face different developmental tasks as they grow and develop, psychologists have examined the ways in which the meanings of masculinity and femininity change over the course

of a person's life. The issues confronting a man about proving himself, feeling successful, and the social institutions in which he will attempt to enact those experiences will change, as will the meanings of femininity for prepubescent women, women in child-bearing years, and post-menopausal women, or for women entering the labor market and those retiring from it.

Finally, the meanings of gender will vary *among* different groups of women and men within any particular culture at any particular time. Simply put, not all American men and women are the same. Our experiences are also structured by class, race, ethnicity, age, sexuality, and region of the country. Each of these axes modifies the others. Just because we make gender visible doesn't mean that we make these other organizing principles of social life invisible. Imagine, for example, an older, black, gay man in Chicago and a young, white, heterosexual farm boy in Iowa. Wouldn't they have different definitions of masculinity? Or imagine a twenty-two-year-old heterosexual poor Asian American woman in San Francisco and a wealthy white Irish Catholic lesbian in Boston. Wouldn't their ideas about what it means to be a woman be somewhat different? The interplanetary theory of gender differences collapses all such differences and focuses *only* on gender. One of the important elements of a sociological approach is to explore the differences *among* men and *among* women, since, as it turns out, these are often more decisive than the differences between women and men.

If gender varies across cultures, over historical time, among men and women within any one culture, and over the life course, that means we really cannot speak of masculinity or femininity as though they were constant, universal essences, common to all women and to all men. Rather, gender is an ever-changing, fluid assemblage of meanings and behaviors. In that sense, we must speak of *masculinities* and *femininities*, in recognition of the different definitions of masculinity and femininity that we construct. By pluralizing the terms, we acknowledge that masculinity and femininity mean different things to different groups of people at different times.

At the same time, we can't forget that all masculinities and femininities are not created equal. American men and women must also contend with a dominant definition, a culturally preferred version that is held up as the model against which we are expected to measure ourselves. We thus come to know what it means to be a man or a woman in our culture by setting our definitions in opposition to a set of "others"—racial minorities, sexual minorities. For men, the classic "other" is, of course, women. It often feels imperative that men make it clear—eternally, compulsively, decidedly—that they are not "like" women.

For both women and men, this is the "hegemonic" definition—the one that is held up as the model for all of us. The hegemonic definition of masculinity is

“constructed in relation to various subordinated masculinities as well as in relation to women,” writes sociologist R. W. Connell (1987, 183). The sociologist Erving Goffman once described this hegemonic definition of masculinity like this:

In an important sense there is only one complete unblushing male in America: a young, married, white, urban, northern, heterosexual, Protestant, father, of college education, fully employed, of good complexion, weight, and height, and a recent record in sports. . . . Any male who fails to qualify in any one of these ways is likely to view himself—during moments at least—as unworthy, incomplete, and inferior. (Goffman 1963, 128)

Women also must contend with such an exaggerated ideal of femininity. Connell calls it “emphasized femininity.” Emphasized femininity is organized around compliance with gender inequality and is “oriented to accommodating the interests and desires of men.” One sees emphasized femininity in “the display of sociability rather than technical competence, fragility in mating scenes, compliance with men’s desire for titillation and ego-stroking in office relationships, acceptance of marriage and child care as a response to labor-market discrimination against women” (Connell 1987, 183, 188, 187). Emphasized femininity exaggerates gender difference as a strategy of “adaptation to men’s power” stressing empathy and nurturance; “real” womanhood is described as “fascinating” and women are advised that they can wrap men around their fingers by knowing and playing by “the rules.”

The essays in the first four sections of this book recapitulate these disciplinary concerns and also present the development of the sociological argument chronologically. Following Darwin and others, biological evidence was employed in the nineteenth century to assert the primacy of sex differences, and the section on biological differences presents some evidence of distinct and categorical biological differences, as well as a couple of critiques of that research from a neurobiologist and a psychologist, respectively. Cross-cultural research by anthropologists, among them Margaret Mead, perhaps the nation’s most historically celebrated cultural anthropologist, offered a way to critique the claims of biological inevitability and universality lodged in those biological arguments. The selections in this section demonstrate how anthropologists have observed those cross-cultural differences and have used such specific cultural rituals as initiation ceremonies or the prevalence of rape in a culture to assess different definitions of gender.

Psychological research also challenged biological inevitability, locating the process of *acquiring* gender within the tasks of the child in his or her family. Achieving successful gender identity was a perilous process, fraught with danger of gender “inversion” (homosexuality) as the early and renowned social

psychologist Lewis Terman saw it in his treatise on *Sex and Personality* in 1936. Subsequent psychological research has refined our understanding of how individuals acquire the “sex roles” that society has mapped out for them.

And it falls to the sociologist to explore the variations *among* different groups of women and men, and also to specify the ways in which some versions of masculinity or femininity are held up as the hegemonic models against which all others are arrayed and measured. Sociologists are concerned less with the specification of sex roles and more with the understanding of *gender relations*—the social and political dynamics that shape our conceptions of “appropriate” sex roles. Thus, sociologists are interested not only in gendered individuals—the ways in which we acquire our gendered identities—but also in gendered institutions—the ways in which those gendered individuals interact with one another in the institutions of our lives that shape, reproduce, and reconstitute gender.

Sociologists argue that male domination is reproduced not only by socializing women and men differently, but also by placing them in organizations and institutions in which specifically gendered norms and values predominate and by which both women and men are then evaluated and judged. Gendered individuals do not inhabit gender-neutral social situations; both individuals and institutions bear the mark of gender.

The six central, institutional sections of this book explore how the fundamental institutions of family, education, religion, politics, media, and the workplace express and normalize gender difference and, in so doing, reproduce relations of inequality between women and men. In each of these arenas, the debates about gender differences and inequality have been intense, from the questions about the division of household labor, sexual orientation of parents, effect of religion on gender identity, comparable worth, workplace discrimination, and a variety of other critical policy debates. The essays in these sections will enable the reader to make better sense of these debates and understand the ways in which gender is performed and elaborated within social institutions.

Finally, we turn to our intimate lives, our bodies, and our experiences of friendship, love, and sex. Here, differences between women and men do emerge. Men and women have different ways of loving, of caring, and of having sex. And it turns out that this is true whether the women and men are heterosexual or homosexual—that is, gay men and heterosexual men are more similar to each other than they are different; and, equally, lesbians and heterosexual women have more in common than either does with men. On the other hand, the differences between women and men seem to have as much to do with the shifting definitions of love and intimacy, and the social arenas in which we express (or suppress) our emotions, as they do with the differences in our personalities. And there is

significant evidence that the gender gap in love and sex and friendship is shrinking as women claim greater degrees of sexual agency and men find their emotional lives (with lovers, children, and friends) impoverished by adherence to hegemonic definitions of masculinity. Men and women do express some differences in our intimate lives, but these differences are hardly of interplanetary cosmic significance. It appears that women and men are not from different planets—not opposite sexes, but neighboring sexes. And we are moving closer and closer to each other.

This may be the most startling finding that runs through many of these essays. What we find consistently is that the differences between women and men do not account for very much of the different experiences that men and women have. Differences *between* women and men are not nearly as great as the differences *among* women or *among* men—differences based on class, race, ethnicity, sexuality, age, and other variables. Women and men enter the workplace for similar reasons, though what they find there often reproduces the differences that “predicted” they would have different motivations. Boys and girls are far more similar to each other in the classroom, from elementary school through college, although everything in the school—from their textbooks, their teachers, their experiences in the playground, the social expectations of their aptitudes and abilities—pushes them to move farther and farther apart.

The most startling conclusion that one reaches from examining the evidence on gender difference is that women and men are not from different planets at all. In the end, we’re all Earthlings!

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Changes to the Sixth Edition

- Twenty-seven new essays, including three new pieces on The Gendered Media (Part 10) and new coverage of:
 - Transgender individuals
 - Female genital mutilation
 - The masculine overcompensation thesis
 - Conservative religious communities
 - High-achieving women

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The Gendered Society Reader

PART

Anatomy and Destiny

BIOLOGICAL ARGUMENTS ABOUT GENDER DIFFERENCE

Anatomy, many of us believe, is destiny; our constitution of our bodies determines our social and psychological disposition. Biological sex decides our gendered experiences. Sex is temperament. Biological explanations offer perhaps the tidiest and most coherent explanations for both gender difference and gender inequality. The observable differences between males and females derive from different anatomical organizations, which make us different as men and women, and those anatomical differences are the origin of gender inequality. These differences, as one biologist put it, are “innate, biologically determined, and relatively resistant to change through the influences of culture.”

Biologists rely on three different sets of evidence. Evolutionists, such as sociobiologists and evolutionary psychologists, argue that sex differences derive from the differences in our reproductive anatomies—which compel different reproductive “strategies.” Because a female must invest much energy and time in ensuring the survival of one baby, her “natural” evolutionary instinct is toward high sexual

selectivity and monogamy; females are naturally modest and monogamous. Males, by contrast, are naturally promiscuous, since their reproductive success depends upon fertilizing as many eggs as possible without emotional constraint. Males who are reproductively unsuccessful by seduction, biologists tell us, may resort to rape as a way to ensure that their reproductive material is successfully transmitted to their offspring.

A second source of evidence of biological difference comes from some differences in brain function and brain chemistry. In the late nineteenth century, studies showed definitively that men's brains were heavier or more complex than women's, and thus that women ought not to seek higher education or vote. (Similar studies also "proved" that the brains of white people were heavier and more complex than those of black people.) Today, such studies are largely discredited, but we still may read about how males and females use different halves of their brains, or that they use them differently, or that the two halves are differently connected.

Finally, some biologists rely on the ways in which the hormonal differences that produce secondary sex characteristics determine the dramatically divergent paths that males and females take from puberty onward. Testosterone causes aggression, and since males have far more testosterone than females, male aggression—and social, political, and economic dominance—is explained.

To the social scientist, though, this evidence obscures as much as it reveals, telling us more about our own cultural needs to find these differences than about the differences themselves. Biological explanations collapse all other sources of difference—race, ethnicity, age—into one single, dichotomous variable that exaggerates the differences between women and men, and also minimizes the similarities between them. "Believing is seeing," notes sociologist Judith Lorber, and seeing these differences as decisive is often used as a justification for gender inequality.

The readings in this section offer critiques of these biological arguments. Anne Fausto-Sterling uses biological evidence to undermine simplistic pop biological claims about binary difference. Martha McCaughey weighs the empirical evidence from evolutionary psychology and finds it somewhat lighter than the extensive media coverage it has received. Mixing a critique of the biology and that media coverage, McCaughey exposes evolutionary psychology as a "useful fiction," answering cultural needs even if it cannot answer scientific questions. Neuroscientist Lise Eliot reviews the research on brain differences—and critiques the pop psychology that makes far more of that literature than any serious scientist ever would. And neuroscientist Robert M. Sapolsky suggests that the research on hormonal differences does not make a convincing case. Together, these essays reveal that recourse to biology exclusively may justify existing inequalities by reference to observed differences and ignoring observed similarities. It's more than bad politics: it's also bad science.

Where Does Gender Come From?

ANNE FAUSTO-STERLING

Baby showers are often color-coded events. If the new arrival is a boy, then the purchase of a blue onesie featuring a truck is in order. For a girl, perhaps a pretty pink, flowered, lacy blanket.

Many people assume that this blue and pink color code represents not only a set of cultural norms, but also the innate preferences of the child. By the time a female becomes a toddler, the fact that she prefers pink dresses and toys seems like nature just taking its course. But is biology really the reason many modern girls like pink and modern boys like blue, even before they can speak the words for these colors?

A closer look at human development suggests that the truth is more complex. Rather than defaulting to explanations rooted in biology and genetics, sex-related preferences should be an invitation to ask broader questions about gender norms and cultural expectations.¹ For example: What is the source of the pleasure that girls and boys get from certain colors? Is it the pleasure for things that are familiar to them? Or perhaps it is the positive feedback children receive for liking “gender appropriate” colors?

Preferences for certain colors, toys (trucks or dolls), or types of play (physically active versus social) are sometimes assumed to be inherent because they typically appear when a child is as young as three or four years of age. Psychologists and biologists often point to hormones, genes, and other biological factors as the underlying causes.

But these arguments do little to explain the mechanisms or processes by which preferences

emerge and solidify. To more thoroughly understand the root of sex-related differences, we need to rigorously examine how potentially relevant biological and environmental factors influence development (and influence one another) over time. For example, I have been studying the development of sex-related differences through extensive video recording and analysis of infant and caretaker behavior under naturalistic conditions in the home.²

My research shows that, even at a young age, “nature” and “nurture” already interact.³ The first three years of a child’s life mark a period of extraordinary brain development and synapse growth. Like a sponge, the child absorbs everything around it, etching a record of its sensory experiences in its developing neurons. Social and cultural cues children experience during this period can influence their physiological development, establishing bodily patterns that set the stage for later phases of development.

One of my studies focuses on the belief that boy infants are more physically active than girl infants.⁴ While the babies in the study show no sex-related differences in their own spontaneous activity, we discovered through detailed observation that the mothers interact with the boys in a more physically active way. They move boy infants, help them sit up, and touch them more often than they do girls.

The impact of the mothers’ behavior may go much deeper than just setting cultural expectations—it could actually have biological consequences. While more testing is needed to understand these

Anne Fausto-Sterling, “Where Does Gender Come From?” *Footnote*, December 18, 2014 (<http://footnote1.com/where-does-gender-come-from>). Copyright © 2014 by Footnote.

biological effects, it is possible that the sensory, motor, and neuromuscular systems of boys develop differently than those of girls, at least partly in response to different patterns of maternal handling.

If biological development is influenced by a child's environment in this way, "nature" and "nurture" are no longer distinct. They are a developmental unit, two sides of the same coin. Rather than talking about nature versus nurture, we should ask: How is nature being affected by certain kinds of nurturing events? And instead of viewing gender as something inherent and fixed, we should understand it as a developmental process involving the ongoing interaction of genes, hormones, social cues, cultural norms, and other factors.⁵

Moving beyond the nature versus nurture dichotomy allows us to have a more nuanced, accurate understanding of gender. For those who want to move beyond the pink and blue split, perhaps a first step is to purchase something green for the next baby shower.

Notes

1. For a thorough exploration of questions about the role of cultural, environmental, and social factors in the development of sex-related differences, see Anne Fausto-Sterling (2012) *Sex/Gender: Biology in a Social World*, New York: Routledge.
2. For examples of studies using this methodology, see: Richard Evan Ahl, Anne Fausto-Sterling, Cynthia García-Coll, Ronald Seifer (2013) "Gender and discipline in 5–12-month-old infants: A longitudinal study," *Infant Behavior and Development*, 36(2): 199–209; and Jihyun Sung, Anne Fausto-Sterling, Cynthia García-Coll, and Ronald Seifer (2013) "The Dynamics of Age and Sex in the Development of Mother-Infant Vocal Communication Between 3 and 11 Months." *Infancy* 18(6): 1135–1158.
3. Anne Fausto-Sterling, Cynthia García-Coll, and Meaghan Lamarre (2012) "Sexing the baby: Part 1—What do we really know about sex differentiation during the first three years of life?" *Social Science and Medicine*, 74(11): 1684–1692.
4. This work is currently in draft manuscript form. Readers can contact Anne Fausto-Sterling for further information.
5. Anne Fausto Sterling, Cynthia García Coll, and Meaghan Lamarre (2012) "Sexing the baby: Part 2—Applying dynamic systems theory to the emergences of sex-related differences in infants and toddlers," *Social Science and Medicine*, 74(11): 1693–1702.

Caveman Masculinity: Finding Manhood in Evolutionary Science¹

MARTHA McCAUGHEY

The Caveman as Retrosexuality

Most of us can call up some image of prehistoric man and his treatment of women. He's a shaggy, well-muscled caveman, whose name is Thor, and we might picture him, club in hand, approaching a scrawny but curvaceous woman, whom he bangs

over the head and drags by the hair into a cave to mate. I'm sure the majority of readers recognize this imagery. Indeed, today an image of modern men as guided by such prehistoric tendencies is even celebrated on T-shirts sold to American men on web sites that allow people to post and sell their

own designs. One such image for sale on the Cafe Press web site features a version of Thor, wearing a fur pelt and holding a club, accompanied by the slogan “ME FIND WOMAN!” Another image available for T-shirts, boxer shorts, baseball caps, and coffee mugs features a man dressed in a one-shoulder fur pelt, with his club, smiling behind a cavewoman who is wearing a fur bikini outfit and cooking a skinned animal on a spit, with the saying “MENS PRIORITYS [sic] : 10,000 YEARS LATER AND STILL ON THE HUNT FOR FOOD AND SEX!” Another image features only the club, with the saying, “caveman: primitive pimpin’.”

Everywhere we look we can find applications of an increasingly fashionable academic exercise—the invocation of evolutionary theory to explain human male behaviors, particularly deplorable behaviors such as sexual harassment, rape, and aggression more generally. The familiar portrayals of sex differences based in evolution popularize and legitimize an academic version of evolutionary thought known increasingly as evolutionary psychology, a field referred to as the “science of the mind.”² The combination of scholarly and popular attention to evolution and human male sexuality has increasingly lodged American manhood in an evolutionary logic. The discourse of evolutionary science—however watered down or distorted the “science” becomes as it flows through popular culture—has become part of popular consciousness, a sort of cultural consensus about who men are.

The evolutionary theory is that our human male ancestors were in constant competition with one another for sexual access to fertile women, who were picky about their mate choices given the high level of parental investment required of the human female for reproduction—months of gestation, giving birth, and then years of lactation and care for a dependent child. The human male’s low level of parental investment required for reproduction, we are told, resulted in the unique boorishness of the hairier sex: He is sexually promiscuous, he

places an enormous emphasis on women’s youth and beauty, which he ogles every chance he gets, he either cheats on his wife or wants to, and he can be sexually aggressive to the point of criminality.

We find references to man’s evolutionary heritage not only on T-shirts but in new science textbooks, pop psychology books on relationships, men’s magazines, and Broadway shows. There are caveman fitness plans and caveman diets. *Saturday Night Live*’s hilarious “Unfrozen Caveman Lawyer” and the affronted caveman of the Geico car insurance ads joke about the ubiquity of caveman narratives. More disturbingly, the Darwinian discourse also crops up when men need an excuse for antisocial behavior. One man, who was caught on amateur video participating in the Central Park group sexual assaults in the summer of 2000, can be heard on video telling his sobbing victim, “Welcome back to the caveman times.” How does a man come to think of himself as a caveman when he attacks a woman? What made so many American men decide that it’s the DNA, rather than the devil, that makes them do it?

Using the late sociologist Pierre Bourdieu’s theory of habitus, or the account of how cultural ideas are taken up in the form of bodily habits and tastes that reinforce behavioral norms and social inequality, I suggest that scientific theories find their way into both popular culture and men’s corporeal habits and attitudes. Evolution has become popular culture, where popular culture is more than just media representations but refers to the institutions of everyday life: family, marriage, school, work—all sites where gender and racial knowledges are performed according to images people have available to them in actionable repertoires, scripts, and narratives. As popular culture, evolutionary narratives offer men a way to think of, and embody, male sexuality.

That an evolutionary account of heterosexual male desire has captured the popular imagination is obvious from *Muscle and Fitness* magazine’s

Based on Martha McCaughey, *The Caveman Mystique: Pop-Darwinism and the Debates over Sex, Violence, and Science* (New York: Routledge, 2008). Reprinted by permission of Martha McCaughey.

article on “Man the Visual Animal,” which explains why men leer at women. Using a theory of the evolved difference between human male and female sexual psychologies developed by leading evolutionary psychologist Donald Symons, the article offers the following explanation under the subheading “Evolution Happens”:

Not much has changed in human sexuality since the Pleistocene. In his landmark book *The Evolution of Human Sexuality* (Oxford University Press, 1979), Symons hypothesizes that the male’s sexual response to visual cues has been so rewarded by evolution that it’s become innate.³

Such stories provide a means by which heterosexual male readers can experience their sexuality as acultural, primal: “The desire to ogle is your biological destiny.”⁴

Evolution may happen (or may have happened), but these stories do not just happen. Their appeal seems to lie precisely in the sense of security provided by the imagined inevitability of heterosexual manhood. In a marketplace of masculine identities the caveman ethos is served up as Viagra for the masculine soul. Just as the 1950s women suffering what Betty Friedan famously called the “feminine mystique” were supposed to seek satisfaction in their Tupperware collections and their feminine figures, men today have been offered a way to think of their masculinity as powerful, productive, even aggressive—in a new economic and political climate where real opportunities to be rewarded for such traits have slipped away.⁵

It’s hardly that most men today find themselves raising children at home while female partners bring home the bacon. But, like the 1950s housewife, more men must now find satisfaction despite working below their potential (given that their job skills have lost their position to technology or other labor sources) in a postindustrial service economy that is less rewarding both materially and morally. As journalist Susan Faludi puts it in her book *Stiffed*:

The fifties housewife, stripped of her connections to a wider world and invited to fill the void with shopping and the ornamental display of her ultrafemininity, could be said to have morphed into the nineties man, stripped of his connections

to a wider world and invited to fill the void with consumption and a gym-bred display of his ultra-masculinity.⁶

On top of the economic changes affecting men, during the 1990s a growing anti-rape movement also challenged men, taking them to task for the problem of violence against women. More state and federal dollars supported efforts to stop such violence, and men increasingly feared complaints and repercussions for those complaints. The rape trials of Mike Tyson and William Kennedy Smith, Jr., the increasingly common school shootings (executed overwhelmingly by boys), the sexual harassment of women by men at the Citadel, the media attention given to the notorious Spurr Posse (a gang of guys who sought sex for “points” at almost all costs), the local sexual assault trials of countless high school and college athletic stars, the sexual harassment allegations against Supreme Court Justice nominee Clarence Thomas, and the White House sex scandals involving Bill Clinton meant more men lost ground. Indeed, the 1990s saw relentless—though not necessarily ill-founded—criticism of men’s sexual violence and other forms of aggression.

Right-wing leaders were as upset with men as were feminists and other progressives. Those opposing abortion rights argued that sexual intercourse without procreation was undermining male responsibility, and those opposing women’s equal-rights legislation argued that women’s liberation would only allow men to relinquish their economic obligations to their families, sending women and children into divorce-induced poverty. Considering that critics of men came from both liberal and conservative camps, and from among men as well as women, it seems fair to say that in turn-of-the-century America moral disdain for men, whatever their age, race, or economic rank, had reached an all-time high.

For some men, the response was to cultivate a rude-dude attitude—popularized by Howard Stern, *The Man Show*, and MTV’s endless shows about college spring-break vacations. For some others, the response was to face, with a sense of responsibility and urgency, men’s animal natures and either accept or reform their caveman ways. While some men

were embracing the role of consumers and becoming creatures of ornamentation—the “metrosexuals”—other men revolted against metrosexuality, embracing a can-do virility that Sara Stewart in *The New York Post* referred to as “retrosexuality,” or that “cringe-inducing backlash of beers and leers.”⁷ Caveman masculinity is a form of retrosexuality that seems to carry the authority of objective science.

The popular understanding of men’s sexuality as naturally vigorous and irrepressibly heterosexual helps fuel a culture Michael Kimmel⁸ labeled “guyland” in his book by that name. Guyland is a social space in addition to a life stage, in which young single men act rough, gruff, sexually aggressive, and anti-gay, and do lewd, rude-dude things—resenting anything intellectual, politically correct, or smacking of either responsibility or women’s authority. According to Kimmel, the five main markers of adulthood—leaving home, completing one’s education, starting work, getting married, and becoming a parent—no longer happen all at once and so have left young men without a clear social marker of manhood.⁹ In this context, the caveman discourse offers guys a *biological* marker of manhood.

Interestingly, feminist philosopher Sandra Lee Bartky made an argument about women’s changing status impacting women’s bodily comportment, saying that modern Western women began to restrict and constrict their bodies more as they gained institutional and social freedoms.¹⁰ Bartky writes:

As modern industrial societies change and as women themselves offer resistance to patriarchy, older forms of domination are eroded. But new forms arise, spread, and become consolidated. Women are no longer required to be chaste or modest, to restrict their sphere of activity to the home, or even to realize their properly feminine destiny in maternity: normative femininity is coming more and more to be centered on a woman’s body—not its duties and obligations...[but] its presumed heterosexuality and its appearance.¹¹

While women are now expected to restrict themselves in a tightly controlled, carefully managed feminine bodily comportment to compensate for

their increased freedoms, I would suggest, appropriating Bartky, that we now see men finding their freedom and power in a bodily comportment just the opposite of Bartky’s modern feminine woman: Men are boozing and belching their way to a lack of restrictions—to combat the increased restrictions they find in life and law.

Evolutionary theorists offer their ideas not to promote the caveman identity or fuel men’s aggression, but in part because they believe the scientific facts about men’s nature could help society address, and remedy, the violence and other problems so many have been blaming on men. What these scholars didn’t predict is that so many average Joes would take up their ideas for slightly different reasons, namely as a move to feel powerful and domineering in a world squeezing men’s resources and demanding that they be civil. Because of the ways caveman discourse appeals to many guys, it’s important to consider the caveman story not simply as it is told by evolutionary scholars but as it is taken up throughout popular culture.

The Caveman as Popular Scientific Story

Popular culture is a political Petri dish for Darwinian ideas about sex. Average American guys don’t read academic evolutionary science, but many do read about science in popular magazines and in bestselling books about the significance of the latest scientific ideas. As such, it is worth examining—even when magazine writers and television producers intentionally “dumb down” relatively sophisticated academic claims. In this section, I look at the way some popular texts make sense of evolutionary claims about men. Later I suggest that the caveman ideology, much of which centers on men’s aggressive heterosexuality, gets embodied and thereby reproduced.¹²

In September of 1999, *Men’s Health* magazine featured a caveman fitness program. Readers are shown an exercise routine that corresponds to the physical movements their ancestors would have engaged in: throwing a spear, hauling an animal carcass, honing a stone. A nice-looking, clean-shaven young man is shown exercising, his physical posture mirrored by a scruffy animal-skin-clad

caveman behind him in the photo. Each day of the week-long routine is labeled according to the caveman mystique: building the cave home; the hunt; the chase; the kill; the long trek home; prepare for the feast; and rest. That an exercise plan is modeled after man-as-caveman reveals the common assumption that being a caveman is good for a man, a healthy existence.

Another issue of *Men's Health* magazine explains "the sex science facts" to male readers interested in "the biology of attraction." We follow the steps of a mating dance, but don't quite understand that's what we're doing. Indeed, we must learn the evolutionary history of sex to see why men feel the way they do when they notice a beautiful woman walking down the street:

Of course, out there in the street, you have no thoughts about genetic compatibility or child-bearing. Probably the farthest thing from your mind is having a child with that beautiful woman. But that doesn't matter. What you think counts for almost nothing. In the environment that crafted your brain and body, an environment in which you might be dead within minutes of spotting this beauty, the only thing that counted was that your clever neocortex—your seat of higher reason—be turned off so that you could quickly select a suitable mate, impregnate her, and succeed in passing on your genes to the next generation.¹³

The article proceeds to identify the signals of fertility that attract men: youth, beauty, big breasts, and a small waistline. Focusing on the desire for youth in women, the article tells men that "the reason men of any age continue to like young girls is that we were designed to get them pregnant and dominate their fertile years by keeping them that way. . . . When your first wife has lost the overt signals of reproductive viability, you desire a younger woman who still has them all."¹⁴ And, of course, male readers are reminded that "your genes don't care about your wife or girlfriend or what the neighbors will say."¹⁵

Amy Alkon's *Winston-Salem Journal* advice column, "The Advice Goddess," uses an evolutionary theory of men's innate loutishness to comfort poor "Feeling Cheated On," who sent a letter

complaining that her boyfriend fantasizes about other women during their lovemaking. The Advice Goddess cited a study by Bruce J. Ellis and Donald Symons (whose work was also mentioned in *Muscle & Fitness*) to conclude that "male sexuality is all about variety. Men are hard-wired to want you, the entire girls' dorm next door, and the entire girls' dorm next to that."¹⁶

Popular magazines tell men that they have a biological propensity to favor women with the faces of 11½-year-old girls (where the eyes and chin are close together) and a waist-to-hip ratio of .7 (where the waist measures 70% of the hips). Men are told that their sexist double standard concerning appearance is evolutionary. Some of this research is very speculative—for instance, in some studies, men are simply shown photos of women with specific waist-to-hip ratios and then asked, "Would you like to spend the rest of your life with this woman?"—as though such staged answers reveal something about the individuals' real-life choices (or genes). But the results of this research make great copy.

Men's Health magazine in 1999 offered an article called "The Mysteries of Sex . . . Explained!" and relied on evolutionary theory, quoting several professors in the field, to explain "why most women won't sleep with you." The article elucidates:

Stop blaming your wife. The fault lies with Mother Nature, the pit boss of procreation. Neil M. Malamuth, Ph.D., professor of psychology at UCLA, explains. "You're in Las Vegas with 10 grand. Your gambling strategy will depend on which form your money takes. With 10 chips worth \$1,000 each, you'd weigh each decision cautiously. With 10,000 \$1 chips, you'd throw them around." That's reproductive strategy in a nutshell.¹⁷

Popular magazine articles like this follow a standard formula. They quote the scientists, reporting on the evolutionary theorists' research, and offer funny anecdotes about male sexuality to illustrate the research findings. This *Men's Health* article continues to account for men's having fetishes:

Men are highly sexed creatures, less interested in relationship but highly hooked on visuals, says David Givens, Ph.D., an anthropologist. "Because

sex carries fewer consequences for men, it's easier for us to use objects as surrogate sexual partners." Me? I've got my eye on a Zenith, model 39990.¹⁸

It's not just these popular and often humorous accounts of men that are based in some version of evolutionary theory. Even serious academic arguments rely on evolutionary theories of human behavior. For example, Steven Rhoads, a member of the University of Virginia faculty in public policy, has written *Taking Sex Differences Seriously* (2004), a book telling us why gender equity in the home and the workplace is a feminist pipe dream. Rhoads argues that women are wrong to expect men to take better care of children, do more housework, and make a place for them as equals at work because, he states, "men and women still have different natures and, generally speaking, different preferences, talents and interests."¹⁹ He substantiates much of his argument about the divergent psychological predispositions in men and women with countless references to studies done by evolutionary scholars.

News magazines and television programs have also spent quite a bit of time popularizing evolutionary science and its implications for understanding human sex differences. The ABC News program *Day One* reported in 1995 on evolutionary psychologist David Buss's book, *The Evolution of Desire*.²⁰ Buss appeared on the show, which elaborated his theory by presenting us with super-model Cindy Crawford and Barbie (the doll), presumably as representations of what men are wired to find desirable. As Buss explained in the interview, our evolutionary forebrothers who did not prefer women with high cheekbones, big eyes, lustrous hair, and full lips did not reproduce. As Buss put it, those men who happened to like someone who was older, sicker, or infertile "are not our ancestors. We are all the descendants of those men who preferred young healthy women and so as offspring, as descendants of those men, we carry with us their desires."²¹ On that same television show, *Penthouse* magazine publisher Bob Guccione was interviewed and explained that men are simply biologically designed to enjoy looking at sexy women: "This may be very politically incorrect but that's the way it is. . . . It's all part of our

ancestral conditioning."²² Evolutionary narratives clearly work for publishers of pornography marketed to men.

Newsweek's 1996 cover story, "The Biology of Beauty: What Science Has Discovered About Sex Appeal," argues that the beautylust humans exhibit "is often better suited to the Stone Age than to the Information Age; the qualities we find alluring may be powerful emblems of health, fertility and resistance to disease. . . ." ²³ Though "beauty isn't all that matters in life," the article asserts, "our weakness for 'biological quality' is the cause of endless pain and injustice."²⁴

Sometimes the magazines and TV shows covering the biological basis of sexual desire give a nod to the critics. The aforementioned *Newsweek* article, for instance, quotes feminist writer Katha Pollitt, who insists that "human beings cannot be reduced to DNA packets."²⁵ And then, as if to affirm Pollitt's claim, homosexuality is invoked as an example of the countless non-adaptive delights we desire: "Homosexuality is hard to explain as a biological adaptation. So is stamp collecting. . . . We pursue countless passions that have no direct bearing on survival."²⁶ So when there is a nod to ways humans are not hardwired, homosexual desires are framed as oddities having no basis in nature, while heterosexual attraction along the lines of stereotypical heterosexual male fantasy is framed as biological. Heterosexual desire enjoys a *biologically correct* status.

Zoologist Desmond Morris explains how evolutionary theory applies to humans in his 1999 six-part television series, *Desmond Morris' The Human Animal: A Personal View of the Human Species*.²⁷ The first show in the series draws from his book, *The Naked Ape*, explaining that humans are relatively hairless with little to protect themselves besides their big brains.²⁸ This is stated as we watch two naked people, one male and one female, walk through a public place where everyone else is dressed in modern-day clothing. Both are white, both are probably 25 to 30 years old, both look like models (the man with well chiseled muscles, a suntan, and no chest hair; the woman thin, yet shapely with larger than average breasts, shaved legs, and a manicured pubic region). This presentation

of man and woman in today's aesthetically ideal form as the image of what all of us were once like is *de rigueur* for any popular representation of evolutionary theory applied to human sexuality. No woman is flabby, flat chested, or has body hair; no man has pimples or back hair. These culturally mandated ideal body types are presented as the image of what our human ancestors naturally looked like and desired. In this way and others, such shows posit modern aesthetic standards as states of nature.

Time magazine's 1994 cover story on "Our Cheating Hearts" reports that "the emerging field known as evolutionary psychology" gives us "fresh detail about the feelings and thoughts that draw us into marriage—or push us out."²⁹ After explaining the basics about men being less discriminating about their sexual partners than women, the article moves on to discuss why people divorce, anticipating resistance to the evolutionary explanation:

Objections to this sort of analysis are predictable: "But people leave marriages for emotional reasons. They don't add up their offspring and pull out their calculators." But emotions are just evolution's executioners. Beneath the thoughts and feelings and temperamental differences marriage counselors spend their time sensitively assessing are the stratagems of the genes—cold, hard equations composed of simple variables: social status, age of spouse, number of children, their ages, outside romantic opportunities and so on. Is the wife really duller and more nagging than she was 20 years ago? Maybe, but maybe the husband's tolerance for nagging has dropped now that she is 45 and has no reproductive future.³⁰

In case *Time* readers react to the new evolutionary psychology as part of a plot to destroy the cherished nuclear family, they are told that "progress will also depend on people using the explosive insight of evolutionary psychology in a morally responsible way. . . . We are potentially moral animals—which is more than any other animal can say—but we are not naturally moral animals. The first step to being moral is to realize how thoroughly we aren't."³¹

While many accounts of evolution's significance for male sexuality seem simply to rationalize sexist double standards and wallow in men's loutishness, a number of pop-Darwinist claims have the moral purpose of liberating men from being controlled by their caveman natures. Their message: men can become enlightened cavemen. These stories make an attempt to liberate men by getting them to see themselves differently. They tell men that they are cavemen with potential. They either make fun of men's putatively natural shortcomings or encourage them to cage the caveman within through a kind of scientific consciousness-raising.

For example, Jeff Hood's book *The Silverback Gorilla Syndrome* uses the logic of let's-face-that-we're-cavemen to get men to become more compassionate and peaceful.³² Hood, an organizational consultant and nature lover, recognizes the common problems of contemporary Western masculinity: fierce competition in the workplace; a lack of introspection and authentic relationships; and a reliance on cunning and bluffery to maintain one's self-image or position of power. This form of masculinity is an exhausting, life-threatening charade, which costs men their marriages and their health, and threatens the entire planet due to the destruction men wreak on the environment and on other people.

Hood's introduction explains:

In the course of emerging from the jungles of our primate ancestors, we have stumbled onto, some would say earned, a thing called awareness. This faculty has spawned a body of knowledge leading to science, industry, technology—and ultimately increased comfort and longer lives. But it has also sparked an illusion of separation from the rest of the animal kingdom. Forging ahead in the quest for control over our destiny and our planet, we act as if the laws of nature do not apply to us. We are blind to the many ways in which the dominant attitudes and competitive behavior we have inherited threaten to push us dangerously out of balance with our world. Our saving grace may be to use our awareness instead for tempering the silverback gorilla syndrome that has brought us success at such great cost. This book is an attempt to increase that awareness.³³

Hood wants to turn men into responsible, compassionate creatures, insisting that awareness of the caveman within—an inner gorilla whom Hood playfully calls “Big G”—is the only way out.

Even well-meaning applications of evolutionary theory like Hood’s book, however, fail to question the idea of men’s heterosexual, aggressive inner core or evolved psychology. As such, they have a limited ability to move beyond the assumptions that lead so many others to use the same basic theory to rationalize being boorish. Men reformed via an evolutionary consciousness are still going to see themselves as different from, and even superior to, women.

The Caveman as Embodied Ethos

In a culture so attached to scientific authority and explication, it is worth examining the popular appeal of evolutionary theory and its impact on masculine embodiment. The popularity of the scientific story of men’s evolved desires—however watered down or distorted the science becomes as enthusiasts popularize it—can tell us something about the appeal and influence of that story.

If the evolutionary stories appeal to many men, and it seems they do indeed, it’s because they ring true. Many men feel like their bodies are aggressive. They feel urges, at a physical level, in line with evolutionary theoretical predictions. The men who feel like cavemen do not see their identity as a fiction; it is their bodily reality and seems to be backed by the authority of science.

The work of Pierre Bourdieu provides a tool for understanding how power is organized at the level of unconscious embodiment of cultural forces. I suggest that popular manifestations of scientific evolutionary narratives about men’s sexuality have a real material effect on many men. Bourdieu’s theory of practice develops the concepts of *habitus* and *field* to describe a reciprocally constitutive relationship between bodily dispositions and dominant power structures. Bourdieu concerned himself primarily with the ways in which socioeconomic class is incorporated at the level of the body, including class-based ways of speaking, postures, lifestyles, attitudes, and tastes.

Significant for Bourdieu is that people acquire tastes that mark them as members of particular social groups and particular social levels.³⁴ Membership in a particular social class produces and reproduces a class sensibility, what Bourdieu called “practical sense.”³⁵ *Habitus* is “a somatized social relationship, a social law converted into an embodied law.”³⁶ The process of becoming competent in the everyday life of a society or group constitutes *habitus*. Bourdieu’s notion of embodiment can be extended to suggest that *habitus*, as embodied field, amounts to “the pleasurable and ultimately erotic constitution of [the individual’s] social imaginary.”³⁷

Concerning the circulation of evolutionary narratives, we can see men taking erotic pleasure in the formation of male identity and the performance of accepted norms of heterosexual masculinity using precisely these tools of popular evolutionary science. Put differently, pop-Darwinism is a discourse that finds its way into men’s bones and boners. The caveman story can become a man’s practical sense of who he is and what he desires. This is so because masculinity is a dimension of embodied and performative practical sensibility—because men carry themselves with a bodily comportment suggestive of their position as the dominant gender, and they invest themselves in particular lifestyle practices, consumption patterns, attire, and bodily comportment. Evolutionary narratives thus enter the so-called *habitus*, and an aestheticized discourse and image of the caveman circulates through popular culture becoming part of natural perception, and consequently is reproduced by those embodying it.

In his study of the overwhelmingly white and male workspace of the Options Exchange floor, sociologist Richard Widick uses Bourdieu’s theory to explain the traders’ physical and psychical engagement with their work. Widick holds that “the traders’ inhabitation and practical mastery of the trading floor achieves the bio-physical psychosocial state of a natural identity.”³⁸ Hence the traders describe their manner as a “trading instinct.” In a similar way, American men with what we might call a caveman instinct can be said to have acquired a “pre-reflexive practical sense” of themselves as heterosexually driven.³⁹

Bourdieu gives the name “symbolic violence” to that process by which we come to accept and embody power relations without ever accepting them in the conscious sense of knowing them and choosing them. We hold beliefs that don’t need to be thought—the effects of which can be “durably and deeply embedded in the body in the form of dispositions.”⁴⁰ From this perspective, the durable dispositions of evolutionary discourse are apparent in our rape culture, for example, when a member of the group sexual assault in New York tells the woman he’s attacking, “Welcome back to the cave-man times.” Embodying the ideology of irrepressible heterosexual desire makes such aggression appear to be natural.

Bourdieu’s theory allows us to see that both cultural and material forces reveal themselves in the lived reality of social relations.⁴¹ We can see on men’s bodies the effects of their struggle with slipping economic privilege and a sense of entitlement to superiority over women. If men live out power struggles in their everyday experiences, then caveman masculinity can be seen as an imagined compensation for men’s growing sense of powerlessness.⁴² To be sure, some men have more social and economic capital than others. Those with less might invest even more in their bodies and appearances.⁴³

Sociologist R. W. Connell discusses the significance of naturalizing male power. She states:

The physical sense of maleness is not a simple thing. It involves size and shape, habits of posture and movement, particular physical skills and the lack of others, the image of one’s own body, the way it is presented to other people and the ways they respond to it, the way it operates at work and in sexual relations. In no sense is all this a consequence of XY chromosomes, or even of the possession on which discussions of masculinity have so lovingly dwelt, the penis. The physical sense of maleness grows through a personal history of social practice, a life-history-in-society.⁴⁴

We see and believe that men’s power over women is the order of nature because “power is translated not only into mental body-images and fantasies, but into muscle tensions, posture, the feel and

texture of the body.”⁴⁵ Scientific discourse constitutes the field for some men in the constructed figure of the caveman, enabling those men to internalize such an identity. The caveman thus becomes an imaginative projection that is experienced and lived as real biological truth.

In his book, *Cultural Boundaries of Science*, Thomas Gieryn comments on the cultural authority of science, suggesting that “if ‘science’ says so, we are more often than not inclined to believe it or act on it—and to prefer it to claims lacking this epistemic seal of approval.”⁴⁶ To his observation I would add that we are also more likely to *live* it. Ideas that count as scientific, regardless of their truth value, become lived ideologies. It’s how modern American men have become cavemen and how the caveman ethos enjoys reproductive success.

Cultural anthropologist Paul Rabinow gives the name “biosociality” to the formation of new group and individual identities and practices that emerge from the scientific study of human life.⁴⁷ Rabinow offers the example of neurofibromatosis groups whose members have formed to discuss their experiences, educate their children, lobby for their disease, and “understand” their fate. And in the future, he points out, “. . . [i]t is not hard to imagine groups formed around the chromosome 17, locus 16,256, site 654,376 allele variant with a guanine substitution.”⁴⁸ Rabinow’s concept of biosociality is instructive here, for the discourse of the caveman offers this form of biosociality. The caveman constitutes an identity based on new scientific “facts” about one’s biology.

Of course, evolutionary psychologists might insist that men’s desires are, in some final instance, biological properties of an internal psyche or sexual psychology. I am suggesting, in line with Bourdieu, that men’s desires are always performed in relation to the dominant discourses in circulation within their cultural lifeworlds, either for or against the representations that permeate those lifeworlds. We can see that a significant number of men are putting the pop-Darwinian rhetoric to good use in social interactions. The scientific discourse of the caveman (however unscientific we might regard it by the time it gets to everyday guys reading magazines and watching TV) is

corporealized, quite literally incorporated into living identities, deeply shaping these men's experiences of being men.

The Caveman as Ethnicity

I recognize the lure of the caveman narrative. After all, it provides an explanation for patterns we do see and for how men do feel in contemporary society, tells men that they are beings who are the way they are for a specific reason, offers them an answer about what motivates them, and carries the authority of scientific investigation about their biological makeup. Evolutionary theory offers an origin story. Plus, it's fun: thinking of the reasons you might feel a certain way because such feelings might have been necessary for your ancestors to survive a hostile environment back in the Pleistocene can be a satisfying intellectual exercise.

In telling men a story about who they are, naturally, pop-Darwinism has the normalizing, disciplinary effect of forging a common, biological identity among men. Embodying ideology allows men to feel morally exonerated while they reproduce that very ideology. The discourse of male biological unity suppresses many significant differences among men, and of course many ways in which men would otherwise identify with women's tastes and behaviors. The evolutionary explanation of men's sexual behavior is an all-encompassing narrative enabling men to frame their own thoughts and experiences through it. As such it's a *grand narrative*, a totalizing theory explaining men's experiences as though all men act and feel the same ways, and as though the ideas of Western science provide a universal truth about those actions and feelings.

I'm skeptical of this kind of totalizing narrative about male sexuality because evolution applied to human beings does not offer that sort of truth. The application of evolutionary theory to human behavior is not as straightforwardly scientific as it might seem, even for those of us who believe in the theory of evolution by natural selection. It is a partial, political discourse that authorizes certain prevalent masculine behaviors and a problematic acceptance of those behaviors. I think there are better—less totalizing, and differently

consequential—discourses out there that describe and explain those same behaviors. I'm also skeptical of men's use of the evolutionary narrative because, at its best, it can only create "soft patriarchs"—kinder, gentler cavemen who resist the putative urges of which evolutionary science makes them aware.⁴⁹

Because evolutionary stories ultimately affirm a vision of men as naturally like one another, and naturally unlike women, caveman masculinity lends itself to becoming an "ethnic option," a way of identifying and living one's manhood. Sociologist Mary C. Waters explains that ethnic identity is actually not "the automatic labeling of a primordial characteristic" but instead is a complex, socially created identity.⁵⁰ The caveman as an ethnicity reveals an embrace of biology as a reaction to social constructionist understandings of masculinity, feminist demands on men, and the changing roles of men at work and in families. As an ethnicity, caveman masculinity is seen as not only impossible but undesirable to change.⁵¹

Did scholars in evolutionary psychology intend to present modern men with such an ethnic option? Of course not. To repeat: Darwinian ideas are often spread by enthusiasts—secondary school teachers, science editors of various newspapers and magazines, and educational television show producers—who take up evolutionary theorists' ideas and convey them to mass audiences. Evolutionary thinking has become popular in part because it speaks to a publicly recognized predicament of men. Changing economic patterns have propelled men's flight from marriage and breadwinning, in conjunction with women's increased (albeit significantly less prosperous) independence. If a man today wants multiple partners with as little commitment as possible, evolutionary rhetoric answers why this is so.

Evolutionary discourse doesn't offer a flattering story about men. But, more significantly, many people don't understand that it's *a story*. Evolution has become not only a grand narrative but a lived ideology. Maleness and femaleness, like heterosexuality and homosexuality, are not simply identities but *systems of knowledge*.⁵² And those systems of knowledge inform thinking and acting.

Bourdieu's concept of habitus explains the ways in which culture and knowledge, including evolutionary knowledge, implant themselves at the level of the body, becoming a set of attitudes, tastes, perceptions, actions, and reactions. The status of science as objective, neutral knowledge helps make evolution a lived ideology because it feels truthful, natural, real.

Taking the historical and cultural changes affecting men seriously and embracing the diversity among men demand new understandings of masculinity, identity, and science. In gaining such a sociological perspective, men might resist making gender a new ethnicity and instead take a great leap forward to become new kinds of men.

Notes

1. A version of this essay also appears in the new edition of *Men's Lives*, edited by Michael Kimmel and Michael Messner.
2. For defenses of the study of the popularization of scientific discourse, and exemplary studies of the popularization of Darwinian discourse in different eras, see Alfred Kelly, *The Descent of Darwin: The Popularization of Darwinism in Germany, 1860–1914* (Chapel Hill: University of North Carolina Press, 1981) and Alvar Ellegard, *Darwin and the General Reader: The Reception of Darwin's Theory of Evolution in the British Press, 1859–1872* (Chicago: University of Chicago Press, 1990).
3. Mary Ellen Strote, "Man the Visual Animal," *Muscle and Fitness* (February 1994): 166.
4. *Ibid.*, 166.
5. Betty Friedan, *The Feminine Mystique* (New York: Dell Publishing Company, Inc., 1963).
6. Susan Faludi, *Stiffed: The Betrayal of the American Man* (New York: HarperCollins, 1999), 40.
7. Sara Stewart, "Beasty Boys—'Retrosexuals' Call for Return of Manly Men; Retrosexuals Rising," *The New York Post*, July 18, 2006.
8. Michael Kimmel, *Guyland: The Perilous World Where Boys Become Men* (New York: HarperCollins, 2008).
9. *Ibid.*, 24–25.
10. Sandra Lee Bartky, "Foucault, Femininity, and the Modernization of Patriarchal Power," in *The Politics of Women's Bodies*, ed. Rose Weitz (New York: Oxford University Press, 1998), 25–45.
11. *Ibid.*, 41–42.
12. My argument here parallels a study of the pervasive iconography of the gene in popular culture. In *The DNA Mystique: The Gene as a Cultural Icon* (New York: W. H. Freeman, 1995), Dorothy Nelkin and M. Susan Lindee explain that popular culture provides "narratives of meaning" (p. 11). Those narratives filter complex ideas, provide guidance, and influence how people see themselves and evaluate other people, ideas, and policies. In this way, Nelkin and Lindee argue, DNA works as an ideology to justify boundaries of identity and legal rights, as well as to explain criminality, addiction, and personality. Of course, addict genes and criminal genes are misnomers—the definitions of what counts as an addict and what counts as a crime have shifted throughout history. Understanding DNA stories as ideological clarifies why, for example, people made sense of Elvis's talents and shortcomings by referring to his genetic stock (*Ibid.*, 79–80). To call narratives of DNA ideological, then, is *not* to resist the scientific argument that deoxyribonucleic acid is a double-helix structure carrying information forming living cells and tissues, but to look at the way people make sense of DNA and use DNA to make sense of people and events in their daily lives.
13. Laurence Gonzales, "The Biology of Attraction," *Men's Health* 20.7 (2005): 186–93.
14. *Ibid.*, 192.
15. *Ibid.*, 193.
16. Amy Alkon, "Many Men Fantasize During Sex, But It Isn't a Talking Point," *Winston-Salem Journal*, 29 September 2005, p. 34.
17. Greg Gutfeld, "The Mysteries of Sex . . . Explained!," *Men's Health* April (1999): 76.
18. *Ibid.*, 76.
19. Steven R. Rhoads, *Taking Sex Differences Seriously* (San Francisco: Encounter Books, 2004), 4.
20. David M. Buss, *The Evolution of Desire: Strategies of Human Mating* (New York: Basic Books, 1994).
21. David M. Buss, interview by *Day One*, ABC News.
22. *Ibid.*
23. Geoffrey Cowley, "The Biology of Beauty," *Newsweek* 127 (1996): 62.
24. *Ibid.*, 64.
25. *Ibid.*, 66.
26. *Ibid.*

27. Desmond Morris' *The Human Animal: A Personal View of the Human Species* ["Beyond Survival"] directed by Clive Bromhall (Discovery Communication/TLC Video, 1999).
28. Desmond Morris, *The Naked Ape* (New York: Dell Publishing Company, Inc., 1967).
29. Robert Wright, *The Moral Animal: Evolutionary Psychology and Everyday Life* (New York: Pantheon Books, 1994), 45.
30. *Ibid.*, 50.
31. *Ibid.*, 52.
32. Jeff Hood, *The Silverback Gorilla Syndrome: Transforming Primitive Man* (Santa Fe, NM: Adventures in Spirit Publications, 1999).
33. *Ibid.*, 1.
34. Pierre Bourdieu, *Distinction: A Social Critique of the Judgment of Taste* (Cambridge: Harvard University Press, 1984).
35. Pierre Bourdieu, *The Logic of Practice* (Stanford: Stanford University Press, 1990).
36. Pierre Bourdieu, *Masculine Domination* (Stanford: Stanford University Press, 2001).
37. Richard Widick, "Flesh and the Free Market: (On Taking Bourdieu to the Options Exchange)," *Theory and Society* 32 (2003): 679–723, 716.
38. *Ibid.*, 701.
39. *Ibid.*
40. Bourdieu, *Masculine*, 39.
41. Lois McNay, "Agency and Experience: Gender as a Lived Relation," in *Feminism After Bourdieu*, ed. Lisa Adkins and Bev Skeggs (Oxford: Blackwell Publishing, 2004), 177.
42. See McNay, 175–90, for a discussion of emotional compensation and lived experience.
43. See Beverley Skeggs, *Formations of Class and Gender: Becoming Respectable* (London: Sage Publications, 1997), for a study pointing this out about working class women.
44. R. W. Connell, *Gender and Power: Society, the Person and Sexual Politics* (Cambridge: Polity Press, 1987), 84.
45. *Ibid.*, 85.
46. Thomas F. Gieryn, *Cultural Boundaries of Science: Credibility on the Line* (Chicago: The University of Chicago Press, 1999), 1.
47. Paul Rabinow, *Making PCR, A Story of Biotechnology* (Chicago: University of Chicago Press, 1996), 101–2.
48. *Ibid.*, 102.
49. I am appropriating W. Bradford Wilcox's term, from his book *Soft Patriarchs, New Men: How Christianity Shapes Fathers and Husbands* (Chicago: University of Chicago Press, 2004). Wilcox argues that the Christian men's movement known as the Promise Keepers encourages men to spend more time with their wives and children without ever challenging the fundamental patriarchal family structure that places men at the top.
50. Mary C. Waters, *Ethnic Options: Choosing Identities in America* (Berkeley: University of California Press, 1990), 16.
51. See Michael S. Kimmel, *Manhood in America: A Cultural History* (New York: Free Press, 1996), 127–37.
52. Steven Seidman, *Difference Troubles: Queering Social Theory and Sexual Politics* (Cambridge, UK: Cambridge University Press, 1997), 93.

The Truth About Boys and Girls

LISE ELIOT

Parents anticipate sex differences from the first prenatal ultrasound but then seem amazed when their son goes gaga over trucks or their daughter will wear nothing but pink. Boys and girls are obviously different, and in many cases the gaps between them seem stark. But stereotypes do not always hold up to scientific scrutiny. Are boys really more aggressive and girls really more empathetic—or do we just see what we expect in them? Where true sex differences exist, are those gaps inborn, as our current Mars-Venus obsession implies, or shaped by environment—that is, by us?

A natural place to look for answers is in the brain. If there is a neurological disparity between the genders, it could explain important behavioral differences. But surprisingly, researchers have found very few notable differences between boys' and girls' brains, and even some of the widely-claimed differences between adult men's and women's brains—such as the idea that women have stronger connections between left and right hemispheres—have not held up to rigorous research. Yes, males have larger brains (and heads) than females—from birth through old age. And girls' brains finish growing earlier than boys'. But neither of these findings explains why boys are more active and girls more verbal or reveals a plausible basis for the consistent gaps in their reading, writing and science test scores that have parents and teachers up in arms.

Brain differences are indisputably biological, but they are not necessarily hardwired. The crucial, often overlooked fact is that experience itself changes

brain structure and function. Neuroscientists call this shaping plasticity, and it is the basis of all learning and much of children's mental development. Even something as simple as the act of seeing depends on normal visual experience in early life, without which a baby's visual brain fails to wire up properly and his or her vision is permanently impaired.

Does growing up as a boy or as a girl also wire the brain in a particular way? Obviously, girls and boys are not identical at birth: genetic and hormonal differences must launch the male and female brain down somewhat different developmental pathways. But early experience, we now know, permanently alters the chemistry and function of the genes inside cells, leading to significant effects on behavior. Neuroscientist Michael J. Meaney and his colleagues at McGill University, among others, have found that the quality of maternal care is associated with a host of neural and psychological consequences—from the production of new brain cells to altered stress responses and memory function. The different ways parents raise boys and girls may similarly leave its stamp on their developing brains.

Most sex differences start out small—as mere biases in temperament and play style—but are amplified as children's pink- or blue-tinted brains meet our gender-infused culture, including all the tea parties, wrestling matches, playground capers and cafeteria dramas that dominate boys' or girls' existence. Through better understanding of these environmental influences, we can break down some

of the gaps between boys and girls—in school achievement, risk taking, self-control, competitiveness, empathy and assertiveness.

The Kickoff

Boys are more physically active than girls, in infancy and throughout childhood. They kick, swing their arms and race around the house noticeably more than girls do, as many exhausted parents can testify. The difference may emerge before birth, although not every ultrasound study finds a sex difference in fetal movement. Nevertheless, the disparity is clear during the first year and expands through childhood, according to a 1986 analysis of more than 100 studies by psychologist Warren Eaton and his colleagues at the University of Manitoba in Canada, which reveals that the average boy is more active than about 69 percent of girls.

That gap is statistically moderate, larger than differences in verbal and math skills but small enough to permit many exceptions to the rule, notably the 31 percent of girls who are *more* active than the average boy. Sex hormones—in particular, a relative abundance of testosterone in the womb—appear to trigger boys' fidgetiness. And yet the sex difference in physical activity continues to widen during childhood, despite the fact that sex hormone levels do *not* differ between boys and girls from six months of age to puberty. Parenting is likely one factor amplifying the disparity. Mothers discourage physical risk taking more in daughters than in sons, suggest studies in the laboratory and on playgrounds. (Fathers encourage more risk taking in children than mothers do...but no one has tested the likely hypothesis that dads pressure sons more than daughters in this respect.) Peers also push conformity: in their preferred all-boy groups, energetic boys feed off one another, whereas energetic girls tend to settle down in clusters of more docile friends. In organized sports, girls start playing at a later age, quit earlier and join fewer teams overall than boys—differences that are influenced by parents and peers.

As many schools eliminate recess or cut back on physical education, both genders are paying the

price with higher rates of obesity and attention-deficit hyperactivity diagnoses. Boys especially need more frequent physical breaks to satisfy their higher activity levels, and both sexes need the mental recharging that exercise confers during a long school day. Exercise is also important for maintaining a positive body image, which turns out to be the biggest risk factor for depression in adolescent girls.

Trucks and Dolls

Yes, boys like trucks and girls like dolls. Given a choice of Power Rangers, Tonka, Bratz and a Barbie beauty set, preschool-age boys and girls strongly prefer the gender-obvious picks. In fact, children's gendered toy choice is one of the largest sex differences in behavior, second only to sexual preference itself! But this preference is not nearly so clear in infancy, when boys, in many studies, have been found to like dolls as much as girls do. (All babies are strongly attracted to faces, for obvious survival reasons.) Rather, toy preference emerges toward the end of infancy, grows stronger through the preschool years and then declines somewhat because of a complex interaction of nature and nurture.

Toddlers' toy preference is shaped, in part, by prenatal testosterone: girls with a genetic disorder that exposes them to high levels of testosterone and other androgens before birth are more interested in toy trucks and cars than typical girls are. Even male and female monkeys prefer gender-stereotyped toys, telling us there is something about vehicles, balls and moving parts that resonates with boys' hormonal priming, drawing them away from their initial face preference and toward toys they can interact with more physically.

Starting from this innate bias, children's toy preferences grow more extreme through social shaping. Parents reinforce play that is considered gender-appropriate, especially in boys, and beginning at age three, peers perpetuate gender norms even more than adults do. In one example of peer influence, psychologists Karin Frey of the University of Washington and Diane Ruble of New York University reported in 1992 that elementary school-age boys and girls both opted for a less desirable

toy (a kaleidoscope) over a slick Fisher-Price movie viewer after watching a commercial of a same-sex child choosing the kaleidoscope and an opposite-sex child choosing the movie viewer. By age five, girls show greater latitude, choosing “boy” toys and “girl” toys equally. Boys, however, rarely do this crossover—a divergence that reflects different societal norms. Girls today are allowed—and even encouraged—to play sports, wear pants and build with Legos much more than boys are pressed to don dresses and play house.

The different play preferences of boys and girls are important in shaping many mental circuits and later abilities. Sporting gear, vehicles and building toys exercise physical and spatial skills, whereas dolls, coloring books and dress-up clothes stimulate verbal, social and fine-motor circuits. Parents and preschool teachers can expand both sets of skills by encouraging girls to play with puzzles, building blocks, throwing games and even video games, while enticing boys to sew, paint, and play as caregivers using props for doctor, Daddy, zookeeper, EMT, and the like.

Sticks and Stones

Boys are more physically aggressive than girls, according to many studies, including a 2004 analysis by psychologist John Archer of the University of Central Lancashire in England. That difference is linked to prenatal testosterone but not, surprisingly, to the resurgence in boys’ testosterone level in adolescence, because boys do not suddenly become more aggressive when they go through puberty, as Archer’s work also indicates. Nor is this sex difference absolute. Two- and three-year-old girls, for instance, frequently kick, bite and hit other people—not quite as much as toddler boys but about three times more than either sex does later in childhood. In addition, girls fight with indirect, or relational, aggression. Through gossip, ostracism, whispers and, most recently, harassing text messages, girls leave more scars on competitors’ psyches than on their bodies.

Thus, both sexes compete and both sexes fight; what differs is the degree to which such behavior is overt or hidden. Because physical aggression is a

greater taboo for girls than boys, they learn, even early in elementary school, to keep it below the surface, in the eye rolling and best-friend wars that teachers rarely notice and are harder to police.

But by admitting that competitive feelings are natural for all children, we can find ways to channel them into healthier pursuits. In recent years educators have tended to take competition out of the classroom, reasoning that the opposite style of interaction—cooperation—is more important in a civil society. But competition can be highly motivating, especially for boys, and girls need to develop greater comfort with open competition, which remains essential to success in our free-market society. One solution is team competitions, where groups of students work together to try to beat others at solving math, vocabulary, history and science problems.

I Know How You Feel

Aggression and empathy are inversely related. It is hard to attack someone if you are acutely aware of what he or she is feeling. So whereas men and boys score higher on measures of physical and verbal aggression, girls and women score higher on most measures of empathy, or the awareness and sharing of other people’s emotions, conclude psychologist Nancy Eisenberg of Arizona State University and her colleagues in studies dating back to the 1980s.

And yet the sex difference in empathy is smaller than most people realize and also strongly dependent on how it is measured. When men and women are asked to self-report their empathetic tendencies, women are much likelier than men to endorse statements such as “I am good at knowing how others will feel” or “I enjoy caring for other people.” When tested using more objective measures, however, such as recognizing the emotions in a series of photographed faces, the difference between men and women is much smaller, about four tenths of a standard deviation, meaning the average woman is more accurate than just 66 percent of men.

In children, the difference is tinier still, less than half that found in adults, reported psychologist

Erin McClure of Emory University in 2000 after analyzing more than 100 studies of sex differences in facial emotion processing in infants, children and adolescents. So although girls do start out a bit more sensitive to other people's faces and emotions, their advantage grows larger with age, no doubt because of their stronger communication skills, more practice at role playing with dolls and more intimate friendships as compared with boys.

Little is known about the neural basis for the sex difference in empathy, although a grape-size region on each side of the brain called the amygdala is likely to be involved. The amygdala is highly activated by faces. According to a 2002 analysis of several studies, the amygdala is larger in men than in women, a fact that seemingly belies men's lesser ability to recognize facial emotions. Other studies reveal an imbalance in the activation of the right and left amygdala in men and women, however. When they are recalling highly charged emotional scenes—the kind that trigger empathetic responses—women's left amygdala is more strongly activated than their right amygdala, whereas the right amygdala is more strongly activated than the left in men, as indicated by both a study in 2004 led by neurobiologist Larry Cahill of the University of California, Irvine, and a report in 2002 by psychologist Turhan Canli, then at Stanford University, and his colleagues.

It is not yet known if this left-right difference in amygdala activation is related to empathy per se or if the same neural sex difference is present in children. Indeed, when it comes to emotionality, boys and girls differ much less in early life; if anything, baby boys are known to cry and fuss *more* than baby girls. As boys grow, they—much more than girls—are taught to hide their expressions of fear, sadness and tenderness. Scientists agree that social learning largely shapes the male-female gap in emotional responding. Boys are toughened up in a way girls rarely are, making them less expressive but also less attuned to others' feelings. This training almost certainly leaves its imprint on the amygdala, one of the more plastic structures in the brain. Teaching girls to be more resilient and boys to be more sensitive is possible and beneficial for both genders.

Girl Talk

First, let us dispense with the urban legend that “women speak three times more words every day than men.” The real numbers: 16,215 for women and 15,669 for men, according to a 2007 study of nearly 400 college students fitted with digital recorders, led by psychologist Matthias Mehl of the University of Arizona. Females do outscore males on most measures of speaking, reading, writing and spelling from early childhood and throughout life, but the gaps are generally small and change with age.

Language differences emerge early in development. As infants, girls begin talking about one month earlier than boys and are some 12 percent ahead of boys in reading skills when kindergarten begins. Girls' advantage in reading and writing continues to grow through school, until by 12th grade, an alarming 47 percent more girls than boys graduate as proficient readers, with an even larger gap for writing, a conclusion drawn from several decades of data collected by the U.S. Department of Education.

These gaps appear to shrink in adulthood, however. The average woman scores higher than just 54 percent of men on a combined measure of all verbal skills, indicates a 1988 analysis by psychologist Janet Hyde and her colleagues at the University of Wisconsin–Madison. That the difference is so tiny may explain why the neural bases for language or literacy differences have yet to be uncovered. In 2008 neuroscientist Iris Sommer and her colleagues at University Medical Center Utrecht in the Netherlands dispelled one popular theory—that women use both sides of the brain to process language, whereas men use mainly the left. In their analysis of 20 functional MRI studies, the researchers detected no difference in the degree of language lateralization between men and women.

Similarly, there is scant proof that girls and women are better neurologically wired for reading. If anything correlates with reading skill, it is quite simply the amount of reading children do for pleasure outside school. Girls read more than boys, and this additional exposure makes a difference in their academic performance.

Beginning at birth, a child's language exposure is the single most important determinant of his or

her later verbal abilities. Large studies in several different countries demonstrate that gender accounts for at most 3 percent of the variance in toddlers' verbal ability, compared with at least 50 percent determined by a child's environment and language exposure. Thus, the more parents can immerse their sons in conversation, books, songs and stories, the better are boys' chances of getting off to the right start in language and literacy skills. ABC and rhyming books are great for teaching phonemic awareness—the link between sounds and letters that is the first hurdle in learning to read. Boys often select different genres than girls do—especially nonfiction, comedy and action stories—so getting boys to read may be largely a matter of finding books and magazines that appeal to them. Schools with strong reading programs have managed to eliminate the difference between boys' and girls' scores, proving that this worrisome gap is more a matter of education and practice than inborn literacy potential.

Thinking in 3-D

If girls have the advantage in verbal skills, boys have it in the spatial domain—the ability to visualize and manipulate objects and trajectories in time and three-dimensional space. Sex differences in spatial skills are among the largest of the cognitive gaps. The average man can perform mental rotation—that is, he can imagine how a complex object would look when turned around—better than up to 80 percent of women.

In 2008 two research groups reported a sex difference in mental rotation in babies as young as three months of age, and other evidence suggests that this skill is influenced by prenatal testosterone. Yet the actual size of the skill gap is much smaller in children than in adults: among four-year-olds, the average boy outperforms just 60 percent of girls. So it seems likely that the skill improves in boys thanks to the wide range of visuospatial interests—targeting, building, throwing and navigating through innumerable driving and shooting games—that they pursue far more than girls. In support of this idea, neurobiologist Karin Kucian and her colleagues at University Children's Hospital in Zurich reported in a 2007 study that boys' and girls' brains display

similar MRI patterns of neural activity while performing a mental rotation task that evokes different responses in the brains of adult men and women. So it appears that boys' and girls' brains diverge in spatial processing as they grow and practice different skills.

Spatial skills are important for success in several areas of science and higher math, including calculus, trigonometry, physics and engineering. Research by educational psychologist Beth Casey of Boston College shows that the spatial skill gap between boys and girls largely accounts for the consistent male advantage on the math SAT exam, an obvious hurdle for admission to engineering and other technical degree programs.

As important as they are, spatial skills are not something we deliberately teach in school. But many studies have shown they can improve with training, including playing video games! If boys naturally get more such practice in their extracurricular pursuits, girls may benefit from greater exposure to three-dimensional puzzles, fast-paced driving and targeting games, and sports such as baseball, softball and tennis.

Gender, Culture and the Brain

Boys and girls are different, but most psychological sex differences are not especially large. For example, gaps in verbal skills, math performance, empathy and even most types of aggression are generally much smaller than the disparity in adult height, in which the average five-foot, 10-inch man is taller than 99 percent of women. When it comes to mental abilities, males and females overlap much more than they stand apart.

Furthermore, few of these sex differences are as fixed, or hardwired, as popular accounts have lately portrayed. Genes and hormones light the spark for most boy-girl differences, but the flame is fanned by the essentially separate cultures in which boys and girls grow up. Appreciating *how* sex differences emerge can reduce dangerous stereotyping and give parents and teachers ideas for cross-training boys' and girls' minds, to minimize their more troubling discrepancies and enable all children to more fully develop their diverse talents.

Testosterone Rules

ROBERT M. SAPOLSKY

Face it, we all do it—we all believe in stereotypes about minorities. These stereotypes are typically pejorative and false, but every now and then they have a core of truth. I know, because I belong to a minority that lives up to its reputation. I have a genetic abnormality generally considered to be associated with high rates of certain socially abhorrent behaviors: I am male. Thanks to an array of genes that produce some hormone-synthesizing enzymes, my testes churn out a corrosive chemical and dump the stuff into my bloodstream, and this probably has behavioral consequences. We males account for less than 50 percent of the population, yet we generate a huge proportion of the violence. Whether it is something as primal as having an ax fight in a rain forest clearing or as detached as using computer-guided aircraft to strafe a village, something as condemned as assaulting a cripple or as glorified as killing someone wearing the wrong uniform, if it is violent, we males excel at it.

Why should this be? We all think we know the answer: something to do with those genes being expressed down in the testes. A dozen millennia ago or so, an adventurous soul managed to lop off a surly bull's testicles, thus inventing behavioral endocrinology. It is unclear from the historical records whether the experiment resulted in grants and tenure, but it certainly generated an influential finding: that the testes do something or other to make males aggressive pains in the ass.

That something or other is synthesizing the infamous corrosive chemical, testosterone (or rather,

a family of related androgen hormones that I'll call testosterone for the sake of simplicity, hoping the androgen specialists won't take it the wrong way). Testosterone bulks up muscle cells—including those in the larynx, giving rise to operatic basses. It makes hair sprout here and there, undermines the health of blood vessels, alters biochemical events in the liver too dizzying to contemplate, and has a profound impact, no doubt, on the workings of cells in big toes. And it seeps into the brain, where it influences behavior in a way highly relevant to understanding aggression.

Genes are the hand behind the scene, directing testosterone's actions. They specify whether steroidal building blocks are turned into testosterone or estrogen, how much of each, and how quickly. They regulate how fast the liver breaks down circulating testosterone, thereby determining how long an androgenic signal remains in the bloodstream. They direct the synthesis of testosterone receptors—specialized proteins that catch hold of testosterone and allow it to have its characteristic effects on target cells. And genes specify how many such receptors the body has, and how sensitive they are. Insofar as testosterone alters brain function and produces aggression, and genes regulate how much testosterone is made and how effectively it works, this should be the archetypal case for studying how genes can control our behavior. Instead, however, it's the archetypal case for learning how little genes actually do so.

Some pretty obvious evidence links testosterone with aggression. Males tend to have higher

testosterone levels in their circulation than do females, and to be more aggressive. Times of life when males are swimming in testosterone—for example, after reaching puberty—correspond to when aggression peaks. Among many species, testes are mothballed most of the year, kicking into action and pouring out testosterone only during a very circumscribed mating season—precisely the time when male–male aggression soars.

Impressive though they seem, these data are only correlative—testosterone found on the scene repeatedly with no alibi when some aggression has occurred. The proof comes with the knife, the performance of what is euphemistically known as a subtraction experiment. Remove the source of testosterone in species after species, and levels of aggression typically plummet. Reinstate normal testosterone levels afterward with injections of synthetic testosterone, and aggression returns.

The subtraction and replacement paradigm represents pretty damning proof that this hormone, with its synthesis and efficacy under genetic control, is involved in aggression. “Normal testosterone levels appear to be a prerequisite for normative levels of aggressive behavior” is the sort of catchy, hummable phrase the textbooks would use. That probably explains why you shouldn’t mess with a bull moose during rutting season. But it’s not why a lot of people want to understand this sliver of science. Does the action of testosterone tell us anything about individual differences in levels of aggression, anything about why some males—some human males—are exceptionally violent? Among an array of males, are the highest testosterone levels found in the most aggressive individuals?

Generate some extreme differences and that is precisely what you see. Castrate some of the well-paid study subjects, inject others with enough testosterone to quadruple the normal human levels, and the high-testosterone males are overwhelmingly likely to be the more aggressive ones. Obviously, extreme conditions don’t tell us much about the real world, but studies of the normative variability in testosterone—in other words, seeing what everyone’s natural levels are like without manipulating anything—also suggest that high levels of testosterone and high levels of aggression tend to

go together. This would seem to seal the case that interindividual differences in levels of aggression among normal individuals are probably driven by differences in levels of testosterone. But that conclusion turns out to be wrong.

Here’s why. Suppose you note a correlation between levels of aggression and levels of testosterone among normal males. It could be because (a) testosterone elevates aggression; (b) aggression elevates testosterone secretion; or (c) neither causes the other. There’s a huge bias to assume option a, while b is the answer. Study after study has shown that if you examine testosterone levels when males are first placed together in the social group, testosterone levels predict nothing about who is going to be aggressive. The subsequent behavioral differences drive the hormonal changes, rather than the other way around.

Because of a strong bias among certain scientists, it has taken forever to convince them of this point. Suppose you’re studying what behavior and hormones have to do with each other. How do you study the behavioral part? You get yourself a notebook, a stopwatch, a pair of binoculars. How do you measure the hormones and analyze the genes that regulate them? You need some gazillion-dollar machines; you muck around with radiation and chemicals, wear a lab coat, maybe even goggles—the whole nine yards. Which toys would you rather get for Christmas? Which facet of science are you going to believe in more? The higher the technology, goes the formula, the more scientific the discipline. Hormones seem to many to be more substantive than behavior, so when a correlation occurs, it must be because hormones regulate behavior, not the other way around.

This is a classic case of what is often called physics envy, a disease that causes behavioral biologists to fear their discipline lacks the rigor of physiology, physiologists to wish for the techniques of biochemists, biochemists to covet the clarity of the answers revealed by molecular geneticists, all the way down until you get to the physicists who confer only with God. Recently, a zoologist friend had obtained blood samples from the carnivores he studies and wanted some hormones in the samples tested in my lab. Although

inexperienced with the technique, he offered to help in any way possible. I felt hesitant asking him to do anything tedious, but since he had offered, I tentatively said, “Well, if you don’t mind some unspeakable drudgery, you could number about a thousand assay vials.” And this scientist, whose superb work has graced the most prestigious science journals in the world, cheerfully answered, “That’s okay. How often do I get to do real science, working with test tubes?”

Difficult though scientists with physics envy find it to believe, interindividual differences in testosterone levels don’t predict subsequent differences in aggressive behavior among individuals. Similarly, fluctuations in testosterone levels within one individual over time don’t predict subsequent changes in the levels of aggression in that one individual—get a hiccup in testosterone secretion one afternoon and that’s not when the guy goes postal.

Look at our confusing state: normal levels of testosterone are a prerequisite for normal levels of aggression. Yet if one male’s genetic makeup predisposes him to higher levels of testosterone than the next guy, he isn’t necessarily going to be more aggressive. Like clockwork, that statement makes the students suddenly start coming to office hours in a panic, asking whether they missed something in their lecture notes.

Yes, it’s going to be on the final, and it’s one of the more subtle points in endocrinology—what’s referred to as a hormone having a “permissive effect.” Remove someone’s testes and, as noted, the frequency of aggressive behavior is likely to plummet. Reinstate pre-castration levels of testosterone by injecting the hormone, and pre-castration levels of aggression typically return. Fair enough. Now, this time, castrate an individual and restore testosterone levels to only 20 percent of normal. Amazingly, normal pre-castration levels of aggression come back. Castrate and now introduce twice the testosterone levels from before castration, and the same level of aggressive behavior returns. You need some testosterone around for normal aggressive behavior. Zero levels after castration, and down it usually goes; quadruple levels (the sort of range generated in weight lifters abusing

anabolic steroids), and aggression typically increases. But anywhere from roughly 20 percent of normal to twice normal and it’s all the same. The brain can’t distinguish among this wide range of basically normal values.

If you knew a great deal about the genetic makeup of a bunch of males, enough to understand how much testosterone they secreted into their bloodstream, you still couldn’t predict levels of aggression among those individuals. Nevertheless, the subtraction and reinstatement data seem to indicate that, in a broad sort of way, testosterone causes aggressive behavior. But that turns out not to be true either, and the implications of this are lost on most people the first thirty times they hear about it. Those implications are important, however—so important that it’s worth saying thirty-one times.

Round up some male monkeys. Put them in a group together and give them plenty of time to sort out where they stand with each other—grudges, affiliative friendships. Give them enough time to form a dominance hierarchy, the sort of linear ranking in which number 3, for example, can pass his day throwing around his weight with numbers 4 and 5, ripping off their monkey chow, forcing them to relinquish the best spots to sit in, but numbers 1 and 2 still expect and receive from him the most obsequious brownnosing.

Hierarchy in place, it’s time to do your experiment. Take that third-ranking monkey and give him some testosterone. None of this within-the-normal-range stuff. Inject a ton of it, way higher than what you normally see in rhesus monkeys, give him enough testosterone to grow antlers and a beard on every neuron in his brain. And, no surprise, when you check the behavioral data, he will probably be participating in more aggressive interactions than before.

So even though small fluctuations in the levels of the hormone don’t seem to matter much, testosterone still causes aggression, right? Wrong. Check out number 3 more closely. Is he raining aggressive terror on everyone in the group, frothing with indiscriminate violence? Not at all. He’s still judiciously kowtowing to numbers 1 and 2 but has become a total bastard to numbers 4 and 5.

Testosterone isn't causing aggression, it's exaggerating the aggression that's already there.

Another example, just to show we're serious. There's a part of your brain that probably has lots to do with aggression, a region called the amygdala. Sitting near it is the Grand Central Station of emotion-related activity in your brain, the hypothalamus. The amygdala communicates with the hypothalamus by way of a cable of neuronal connections called the stria terminalis. (No more jargon, I promise.) The amygdala influences aggression via that pathway, sending bursts of electrical excitation that ripple down the stria terminalis to the hypothalamus and put it in a pissy mood.

Once again, do your hormonal intervention: flood the area with testosterone. You can inject the hormone into the bloodstream, where it eventually makes its way to the amygdala. You can surgically microinject the stuff directly into the area. In a few years, you may even be able to construct animals with extra copies of the genes that direct testosterone synthesis, producing extra hormone that way. Six of one, half a dozen of the other. The key thing is what doesn't happen next. Does testosterone make waves of electrical excitation surge down the stria terminalis? Does it turn on that pathway? Not at all. If and only if the amygdala is already sending an excited volley down the stria terminalis, testosterone increases the rate of such activity by shortening the resting time between bouts. It's not turning on the pathway, it's increasing the volume of signaling if it is already turned on. It's not causing aggression, it's exaggerating the preexisting pattern of it, exaggerating the response to environmental triggers of aggression.

In every generation, it is the duty of behavioral biologists to try to teach this critical point, one that seems a maddening cliché once you get it. You take that hoary old dichotomy between nature and nurture, between intrinsic factors and extrinsic ones, between genes and environment, and regardless of which behavior and underlying biology you're studying, the dichotomy is a sham. No genes. No environment. Just the interaction between the two.

Do you want to know how important environment and experience are in understanding testosterone and aggression? Look back at how the effects of castration are discussed earlier. There were statements like "Remove the source of testosterone in species after species and levels of aggression typically plummet." Not "Remove the source . . . and aggression always goes to zero." On the average it declines, but rarely to zero, and not at all in some individuals. And the more social experience an individual had being aggressive prior to castration, the more likely that behavior persists sans cojones. In the right context, social conditioning can more than make up for the complete absence of the hormone.

A case in point: the spotted hyena. These animals are fast becoming the darlings of endocrinologists, sociobiologists, gynecologists, and tabloid writers because of their wild sex reversal system. Females are more muscular and more aggressive than males, and are socially dominant to them, rare traits in the mammalian world. And get this: females secrete more of certain testosterone-related hormones than the males do, producing muscles, aggression, and masculinized private parts that make it supremely difficult to tell the sex of a hyena. So high androgen levels would seem, again, to cause aggression and social dominance. But that's not the whole answer.

High in the hills above the University of California at Berkeley is the world's largest colony of spotted hyenas, massive bone-crunching beasts who fight each other for the chance to have their ears scratched by Laurence Frank, the zoologist who brought them over as infants from Kenya. Various scientists are studying their sex reversal system. The female hyenas are bigger and more muscular than the males and have the same weirdo genitals and elevated androgen levels as their female cousins back in the savanna. Everything is just as it is in the wild—except the social system. As those hyenas grew up, there was a very significant delay in the time it took for the females to begin socially dominating the males, even though the females were stoked on androgens. They had to grow up without the established social system to learn from.

When people first realize that genes have a great deal to do with behavior—even subtle, complex, human behavior—they are often struck with an initial evangelical enthusiasm, placing a convert's faith in the genetic components of the story. This enthusiasm is typically reductive—because of physics envy, because reductionism is so impressive, because it would be so nice if there were a single gene (or hormone or neurotransmitter or part of the brain) responsible for everything. But even if you completely understood how genes regulate all the important physical factors involved in aggression—testosterone synthesis and secretion, the brain's testosterone receptors, the amygdala neurons and their levels of transmitters, the favorite color of the hypothalamus—you still wouldn't be able to predict levels of aggression accurately in a group of normal individuals.

This is no mere academic subject. We are a fine species with some potential, yet we are racked by sickening amounts of violence. Unless we are hermits, we feel the threat of it, often every day, and

should our leaders push the button, we will all be lost in a final global violence. But as we try to understand this feature of our sociality, it is critical to remember the limits of the biology. Knowing the genome, the complete DNA sequence, of some suburban teenager is never going to tell us why that kid, in his after-school chess club, has developed a particularly aggressive style with his bishops. And it certainly isn't going to tell us much about the teenager in some inner city hellhole who has taken to mugging people. "Testosterone equals aggression" is inadequate for those who would offer a simple biological solution to the violent male. And "testosterone equals aggression" is certainly inadequate for those who would offer the simple excuse that boys will be boys. Violence is more complex than a single hormone, and it is supremely rare that any of our behaviors can be reduced to genetic destiny. This is science for the bleeding-heart liberal: the genetics of behavior is usually meaningless outside the context of the social factors and environment in which it occurs.

Cultural Constructions of Gender

Biological evidence helps explain the ubiquity of gender difference and gender inequality, but social scientific evidence modifies both the universality and the inevitability implicit in biological claims. Cross-cultural research suggests that gender and sexuality are far more fluid, far more variable, than biological models would have predicted. If biological sex alone produced observed sex differences, Margaret Mead asked in the 1920s and 1930s, why did it produce such *different* definitions of masculinity and femininity in different cultures? In her path-breaking study, *Sex and Temperament in Three Primitive Societies*, Mead began an anthropological tradition of exploring and often celebrating the dramatically rich and varied cultural constructions of gender.

Anthropologists are more likely to locate the origins of gender difference and gender inequality in a sex-based division of labor, the near-universality of and the variations in the ways in which societies organize the basic provision and distribution of material goods. They've found that when women's and men's spheres are most distinctly divided—where women and men do different things in different places—women's status tends to be lower than when men and women share both work and workplaces.

Some researchers have posed challenging questions about the near-universality of gender inequality. For example, Judith Lorber asks what happens when women or men “cross over” and adopt the cultural presentation of the other sex.

And some researchers have explored the function of various cultural rituals and representations in creating the symbolic justification for gender differences and inequality based on this sex-based division of labor. For example, Gilbert Herdt describes a variety of “coming out” processes in a variety of cultures, thus demonstrating (1) the connections between sexual identity and gender identity and (2) the dramatic variation among those identities. And Thomas von der Osten-Sacken and Thomas Uwer de-couple religion from cultural practices to suggest that while rituals may use religion as a pretense, the answer lies deeper in our cultural heritage.

Men as Women and Women as Men: Disrupting Gender

JUDITH LORBER

This thing here, you call this a person? There is no such thing as a person who is half male half female.

Meira Weiss

The French writer Colette felt that she was a “mental hermaphrodite” but had “a sturdy and perfectly female body” (Lydon 1991, 28). When she offered to travel with a noted womanizer, he said that he traveled only with women: “Thus when Damien declares that he travels only with women, implying that a woman is what Colette is not, the only linguistically possible conclusion is that she must be a man. But she and we know this not to be the case, despite her willingness to admit to a certain ‘virility.’ What then, can Colette legitimately call herself?” (29).¹ Cool and rational androgynous women are social men, one step removed from the “mannish lesbian” (Newton 1984). Men who use a highly emotionally charged vocabulary may be judged romantic geniuses, but their masculinity may be somewhat suspect, as was Byron’s (Battersby 1989).

The history of a nineteenth-century French hermaphrodite illustrates the impossibility of living socially as both a woman and a man even if it is physiologically possible (Butler 1990, 93–106). Herculine Barbin, who was raised in convents as a girl, after puberty, fell in love with a young woman and had sexual relations with her. At the age of twenty-two, Herculine (usually called Alexina) confessed the homosexuality to a bishop, and after examination by two doctors, was legally recategorized as a man and given a man’s name. But Herculine’s genitals, as described in two doctors’

reports, were ambiguous: a one-and-a-half-inch-long penis, partly descended testicles, and a urethral opening (Foucault 1980, 125–28). One doctor reasoned as follows:

Is Alexina a woman? She has a vulva, labia majora, and a feminine urethra, independent of a sort of imperforate penis, which might be a monstrously developed clitoris. She has a vagina . . . These are completely feminine attributes. Yet, but Alexina has never menstruated; the whole outer part of her body is that of a man, and my explorations do not enable me to find a womb. Her tastes, her inclinations, draw her toward women. At night she has voluptuous sensations that are followed by a discharge of sperm; her linen is stained and starched with it. Finally, to sum up the matter, ovoid bodies and spermatic cords are found by touch in a divided scrotum. These are the real proofs of sex. . . . Alexina is a man, hermaphroditic, no doubt, but with an obvious predominance of masculine sexual characteristics. (127–28)

But Barbin, now called Abel, did not feel he was fully a man socially because he did not think any woman would marry him, and at the age of thirty he ended a “double and bizarre existence” via suicide. The doctor who performed the autopsy felt that the external genitalia could just as well have been classified as female, and that, with a penis-clitoris capable of erection and a vagina, Barbin was physiologically capable of bisexuality (128–44). But there was no social status of man-woman.

What would have become of Herculine Barbin one hundred years later? Surgery to remove the

testicles, enlarge the vagina, and make the penis smaller? Then hormones to produce breasts and reduce body hair? Or closure of the vaginal opening, release of the testes, cosmetic surgery to enlarge the penis, and administration of testosterone? Having been brought up as a girl, but loving a woman, would Barbin have identified as a “man,” a “lesbian,” or a “bisexual”? Would the woman who loved him as a woman accept him as a husband? Without surgery or gender reassignment, would Herculine and Sara have been accepted as a lesbian couple today? Without surgery, but with gender reassignment, would Abel and Sara have been accepted as a heterosexual couple? Would Barbin have used a gender-neutral name, dressed in a gender-neutral way? What sex would be on her or his official documents? What kind of work would he or she have done?²

One possibility was documented in 1937. A hermaphrodite named Emma, who had a penis-like clitoris as well as a vagina, was raised as a girl. Emma had sexual relationships with a number of girls (heterosexual sex), married a man with whom she also had heterosexual sex, but continued to have women lovers (Fausto-Sterling 1993). She refused to have vaginal closure and live as a man because it would have meant a divorce and having to go to work. Emma was quite content to be a physiological bisexual, possibly because her gender identity was clearly that of a woman.

Anne Fausto-Sterling says that “no classification scheme could more than suggest the variety of sexual anatomy encountered in clinical practice” (1993). In 1992, a thirty-year-old Ethiopian Israeli whose social identity was a man was discovered at his Army physical to have a very small penis and a very small vagina. Exploratory surgery revealed vestigial ovaries and vestigial testicles, a uterus, and fallopian tubes. He was XY, but when he was classified a male at birth it was on the basis of how the external genitalia looked, and the penis took precedence. Because he had been brought up as a man and wanted to have this identity supported physiologically, his penis was enlarged and reconstructed, and the vagina was closed and made into a scrotum. Testosterone was administered to increase his sexual desire for women.³

“Penis and Eggs”

When physiological anomalies occur today in places with sophisticated medical technology, the diagnosis, sex assignment, and surgical reconstruction of the genitalia are done as quickly as possible in order to minimize the intense uncertainty that a genderless child produces in our society (Kessler 1990). Other cultures, however, are more accepting of sex and gender ambiguity.

In the Dominican Republic, there has been a genetic phenomenon in which children who looked female at birth and were brought up as girls produced male hormones at puberty and virilized. Their genitalia masculinized, their voices deepened, and they developed a male physical appearance (Imperato-McGinley et al. 1974, 1979). They are called *guedoces* (penis at 12) or *machihembra* (first woman, then man) or *guevoes* (penis and eggs). According to one set of reports, sixteen of nineteen who were raised as girls gradually changed to men’s social roles—working outside the home, marrying, and becoming heads of households (Imperato-McGinley et al. 1979). One, now elderly, who emigrated to the United States, felt like a man, but under family pressure lived as a woman. One, still in the Dominican Republic, had married as a woman at sixteen, had been deserted after a year, continued to live as a woman, and wanted surgery to be a “normal” woman. Not all those who lived as men had fully functioning genitalia, and all were sterile.

The physicians who studied thirty-three of these male pseudohermaphrodites (biologically male with ambiguous-appearing genitalia at birth) claim that the nineteen who decided without medical intervention that they would adopt men’s identities and social roles despite having been raised as girls “appear to challenge both the theory of the immutability of gender identity after three or four years of age and the sex of rearing as the major factor in determining male-gender identity” (Imperato-McGinley et al. 1979, 1236). Their report stresses the effects of the hormonal input and secondary male sex characteristics at puberty, despite the mixture of reactions and gradualness of the gender changeover.

Another physician (Baker 1980) questions whether the pseudohermaphrodites were reared unambiguously as girls, given their somewhat abnormal genitalia at birth, and an anthropologist (Herdt 1990) claims that culturally, the community recognized a third sex category, since they had names for it. Although the medical researchers described the parents' reactions during the course of the virilization as "amazement, confusion, and finally, acceptance rather than hostility" (Imperato-McGinley et al. 1979, 1235–36), their interviews with the pseudohermaphrodites revealed that as children, they had always suffered embarrassment because of their genitalia, and they worried about future harassment whether they chose to live as women or as men. That is, they were never unambiguously girls socially, and their appearance and sterility undercut their claims to be men. Nonetheless, most chose to live as men. Virilization was not total, but it provided the opportunity for the choice of the more attractive social role.⁴ According to the medical researchers: "In a domestic setting, the women take care of the household activities, while the affected subjects work as farmers, miners or woodsmen, as do the normal males in the town. They enjoy their role as head of the household" (Imperato-McGinley et al. 1979, 1234).

In Papua New Guinea, where the same recessive genetic condition and marriage to close relatives produces similar male pseudohermaphrodites, the culture does have an intergender category (*kwolu-aatmwol*). Many of these children were identified by experienced midwives at birth and reared anticipatorily as boys (Herdt 1990; Herdt and Davidson 1988). Although the *kwolu-aatmwols* went through boys' rituals as they grew up, their adult status as men was incomplete ritually, and therefore socially, because they were sterile and also because they were embarrassed by the small size of their penises. They rarely allowed themselves to be fellated by adolescent boys, a mark of honor for adult men, although some, as teenagers, in an effort to become more masculine, frequently fellated older men. In their behavior and attitudes, they were masculine. Their identity as adult men was stigmatized, however, because they did not participate in what in Western societies would be homosexual (and stigmatized)

sex practices, but in that culture made them fully men (Herdt 1981).

The pseudohermaphrodites who were reared as girls, either because they were not identified or their genital anomalies were hidden, did not switch to living as men when they virilized. Rather, they tried very hard to live as women, but were rejected by the men they married. Only at that point did they switch to men's dress, but they were even more ostracized socially, since they did not undergo any men's rituals. According to Gilbert Herdt and Julian Davidson: "Once exposed, they had no place to hide and no public in which to continue to pose as 'female.' It was only this that precipitated gender role change. Yet this is not change to the male role, because the natives know the subjects are not male; rather they changed from sex-assigned female to turnim-men, male-identified *kwolu-aatmwol*" (1988, 53).

Thus, neither childhood socialization nor pubescent virilization nor individual preferences was definitive in the adult gender placement of these male pseudohermaphrodites. Their assigned status was problematic men; away from their home villages, they could pass as more or less normal men. One was married, but to a prostitute; he had been "ostentatiously masculine" as an adolescent, was a good provider, and was known as "a fearless womanizer" (Herdt and Davidson 1988).

Switching Genders

Transsexuals have normal genitalia, but identify with the members of the opposite gender. Since there is no mixed or intermediate gender for people with male genitalia who want to live as women or people with female genitalia who want to live as men, transsexuals end up surgically altering their genitalia to fit their gender identity. They also undergo hormone treatment to alter their body shape and hair distribution and to develop secondary sex characteristics, such as breasts or beards. Transsexuals do not change their sex completely (Stoller 1985, 163). Their chromosomes remain the same, and no man-to-woman transsexual has a uterus implant, nor do any women-to-men transsexuals produce sperm. They change gender; thus, the

accurate terms are *man-to-woman* and *woman-to-man*, not *male-to-female* and *female-to-male*.

Discussing only men-to-women transsexuals, Richard Docter sees the process as one in which more and more frequent cross-dressing reinforces the desire to completely switch genders:

The cross-gender identity seems to grow stronger with practice and with social reinforcements of the pseudowoman. In unusual cases, the end result is a kind of revolution within the self system. The balance of power shifts in favor of the cross-gender identity with consequent disorganization and conflict within the self system. One result can be a quest to resolve the tension through sexual reassignment procedures or hormonal feminization. (1988, 3)

Transsexuals, however, have also indicated a sense from an early age of being in the wrong body (Morris 1975). Sexologists and psychiatrists have debated whether this anomalous gender identity is the result of biology, parenting, or retrospective reconstruction.⁵

The social task for transsexuals is to construct a gender identity without an appropriately gendered biography.⁶ To create a feminized self, men-to-women transsexuals use the male transvestite's "strategies and rituals" of passing as a woman—clothing, makeup, hair styling, manicures, gestures, ways of walking, voice pitch, and "the more subtle gestures such as the difference in ways men and women smoke cigarettes" and the vocabulary women use (Bolin 1988, 131–41). Creating a new gender identity means creating a paper trail of bank, social security, educational, and job history records; drivers' licenses, passports, and credit cards all have to be changed once the new name becomes legal (145–46). Then significant others have to be persuaded to act their parts, too. Discussing men-to-women transsexuals, Anne Bolin notes:

The family is the source of transsexuals' birth and nurturance as males and symbolically can be a source of their birth and nurturance as females. Thus, when their families accept them as females, refer to them by their female names, and use

feminine gender references, it is a profound event in the transsexuals' lives, one in which their gender identity as females is given a retroactive credence. . . . The family is a significant battleground on which a symbolic identity war is waged. . . . Because an individual can only be a son or daughter [in Western societies], conferral of daughterhood by a mother is a statement of the death of a son. (1988, 94)

The final rite of passage is not only passing as a visibly and legally identifiable gendered person with a bona fide kinship status but passing as a *sexual* person. For Bolin's men-to-women transsexuals, "the most desirable condition for the first passing adventure is at night with a 'genetic girlfriend' in a heterosexual bar" (140).

Some transsexuals become gay or lesbian. In Anne Bolin's study population of seventeen men-to-women transsexuals, only one was exclusively heterosexual in orientation (1988, Fig. 1, 62). Nine were bisexual, and six were exclusively lesbian, including two transsexuals who held a wedding ceremony in a gay church.⁷ Justifying the identification as lesbian by a preoperative man-to-woman transsexual who had extensive hormone therapy and had developed female secondary sexual characteristics, Deborah Heller Feinbloom and her co-authors argue that someone "living full-time in a female role must be called a woman, albeit a woman with male genitalia (and without female genitalia)," although potential lovers might not agree (1976, 69).⁸ If genitalia, sexuality, and gender identity are seen as a package, then it is paradoxical for someone to change their anatomy in order to make love with someone they could easily have had a sexual relationship with "normally." But gender identity (being a member of a group, women or men) and gender status (living the life of a woman or a man) are quite distinct from sexual desire for a woman or man. It is Western culture's preoccupation with genitalia as the markers of both sexuality and gender and the concept of these social statuses as fixed for life that produces the problem and the surgical solution for those who cannot tolerate the personal ambiguities Western cultures deny.⁹

Gender Masquerades

Transvestites change genders by cross-dressing, masquerading as a person of a different gender for erotic, pragmatic, or rebellious reasons. Since they can put on and take off gender by changing clothes, they disrupt the conventional conflation of sex, sexuality, and gender in Western cultures much more than transsexuals do.

François Timoléon de Choisy was a seventeenth-century courtier, historian, ambassador, and priest who was “indefatigably heterosexual” but a constant cross-dresser. The Abbé de Choisy married women twice, once as a woman, once as a man, and both spouses had children by him. He survived the turmoil of gender ambiguity by going to live in another community or country when the censure got too vociferous (Garber 1992, 255–59). The Chevalier (sometimes Chevalière) d’Eon de Beaumont, a famous cross-dresser who lived in the eighteenth century, seems to have been celibate. Because d’Eon did not have any sexual relationships, English and French bookmakers took serious bets on whether d’Eon was a man or a woman. Physically, he was a male, according to his birth and death certificates, and he lived forty-nine years as a man (259–66). He also lived thirty-four years as a woman, many of them with a woman companion who “was astounded to learn that she was a man” (265). Garber asks: “Does the fact that he was born a male infant and died ‘with the male organs perfectly formed’ mean that he was, in the years between, a man? A ‘very man’” (255)? A man in what sense—physical, sexual, or gendered?

Some men who pass as women and women who pass as men by cross-dressing say they do so because they want privileges or opportunities the other gender has, but they may also be fighting to alter their society’s expectations for their own gender. One of her biographers says of George Sand:

While still a child she lost her father, tried to fill his place with a mother whom she adored, and, consequently, developed a masculine attitude strengthened by the boyish upbringing which she received at the hands of a somewhat eccentric tutor who encouraged her to wear a man’s

clothes For the rest of her life she strove, unconsciously, to recreate the free paradise of her childhood, with the result that she could never submit to a master Impatient of all masculine authority, she fought a battle for the emancipation of women, and sought to win for them the right to dispose freely of their bodies and their hearts. (Maurois 1955, 13)¹⁰

Natalie Davis calls these defiers of the social order disorderly women. Their outrage and ridicule produce a double message; they ask for a restoration of the social order purified of excesses of gender disadvantage, and their own gender inversion also suggests possibilities for change (1975, 124–51).¹¹

During the English Renaissance, open cross-dressing on the street and in the theater defied accepted gender categories.¹² In early modern England, the state enforced class and gender boundaries through sumptuary laws that dictated who could wear certain colors, fabrics, and furs. Cross-dressing and wearing clothes “above one’s station” (servants and masters trading places, also a theatrical convention) thus were important symbolic subverters of social hierarchies at a time of changing modes of production and a rising middle class (Howard 1988). Since seventeenth-century cross-dressing up-ended concepts of appropriate sexuality, the fashion was accused of feminizing men and masculinizing women: “When women took men’s clothes, they symbolically left their subordinate positions. They became masterless women, and this threatened overthrow of hierarchy was discursively read as the eruption of uncontrolled sexuality” (Howard 1988, 424).

The way the gender order got critiqued and then restored can be seen in a famous Renaissance play about a cross-dressing character called the “roaring girl.” *The Roaring Girl*, by Thomas Middleton and Thomas Dekker, written in 1608–1611, was based on a real-life woman, Mary Frith, who dressed in men’s clothes and was “notorious as a bully, whore, bawd, pickpurse, fortune-teller, receiver [of stolen goods], and forger” (Bullen 1935, 4). She also smoked and drank like a man and was in prison for a time. She lived to the age of seventy-four. In Middleton and Dekker’s play, this roaring girl,

called Moll Cutpurse, becomes a model of morality. She remains chaste, and thus free of men sexually and economically, unlike most poor women, as she herself points out:

Distressed needlewomen and trade-fallen wives,
Fish that must needs bite or themselves be
bitten,
Such hungry things as these may soon be took
With a worm fastened on a golden hook. (III, i,
96–97)

Her cross-dressing allows her to observe and question the ways of thieves and pickpockets not to learn to be a criminal but to protect herself. She can protect any man who marries her:

You may pass where you list, through crowd
most thick,
And come off bravely with your purse unpick'd.
You do not know the benefits I bring with me;
No cheat dares work upon you with thumb or
knife,
While you've a roaring girl to your son's wife.
(V, ii, 159–63)

But she feels she is too independent to be a traditional wife:

I have no humour to marry; I love to lie a' both
sides a' the bed myself: and again, a' th' other side,
a wife, you know, ought to be obedient, but I fear
me I am too headstrong to obey; therefore I'll
ne'er go about it. (II, ii, 37–41)

Her other reason for not marrying is that men cheat, lie, and treat women badly. If they changed, “next day following I'll be married,” to which another character in the play responds: “This sounds like doomsday” (V, ii, 226–27), not likely to happen soon.

Despite her gloomy views on men and marriage, Moll helps a young couple marry by pretending to be wooed by the man. His father, who has withheld his consent for his son's original choice, is so outraged that the son is thinking of marrying Moll Cutpurse that he willingly consents to his son's marriage to the woman he had loved all along. Thus, rather poignantly, Moll's independence and street smarts are invidious traits when compared to those of a “good woman.”

Her cross-dressing is not a defiance of the gender order, but rather places her outside it:

'tis woman more than man,
Man more than woman; and, which to none
can hap
The sun gives her two shadows to one shape;
Nay, more, let this strange thing walk, stand,
or sit,
No blazing star draws more eyes after it. (I, i,
251–55)

Moll Cutpurse's social isolation means that the gender order does not have to change to incorporate her independence as a woman: “a politics of despair . . . affirms a seemingly inevitable exclusion of marginal genders from the territory of the natural and the real” (Butler 1990, 146).

Affirming Gender

In most societies with only two gender statuses—“women” and “men”—those who live in the status not meant for them usually do not challenge the social institution of gender. In many ways, they reinforce it. Joan of Arc, says Marina Warner (1982) in discussing her transvestism, “needed a framework of virtue, and so she borrowed the apparel of men, who held a monopoly on virtue, on reason and courage, while eschewing the weakness of women, who were allotted to the negative pole, where virtue meant meekness and humility, and nature meant carnality” (147). A masculine woman may be an abomination to tradition, but from a feminist point of view, she is not a successful rebel, for she reinforces dominant men's standards of the good: “The male trappings were used as armor—defensive and aggressive. It . . . attacked men by aping their appearance in order to usurp their functions. On the personal level, it defied men and declared them useless; on the social level, it affirmed male supremacy, by needing to borrow the appurtenances to assert personal needs and desires . . . ; men remain the touchstone and equality a process of imitation” (Warner 1982, 155).¹³

Joan of Arc said she donned armor not to pass as a man, but to be beyond sexuality, beyond gender. She called herself *pucelle*, a maid, but socially, she was neither woman nor man. She was