1 An introduction to gender

We are surrounded by gender lore from the time we are very small. It is ever-present in conversation, humor, and conflict, and it is called upon to explain everything from driving styles to food preferences. Gender is embedded so thoroughly in our institutions, our actions, our beliefs, and our desires, that it appears to us to be completely natural. The world swarms with ideas about gender – and these ideas are so commonplace that we take it for granted that they are true, accepting common adage as scientific fact. As scholars and researchers, though, it is our job to look beyond what appears to be common sense to find not simply what truth might be behind it, but how it came to be common sense. It is precisely because gender seems natural, and beliefs about gender seem to be obvious truths, that we need to step back and examine gender from a new perspective. Doing this requires that we suspend what we are used to and what feels comfortable, and question some of our most fundamental beliefs. This is not easy, for gender is so central to our understanding of ourselves and of the world that it is difficult to pull back and examine it from new perspectives.[1] But it is precisely the fact that gender seems self-evident that makes the study of gender interesting. It brings the challenge to uncover the process of construction that creates what we have so long thought of as natural and inexorable – to study gender not as given, but as an accomplishment; not simply as cause, but as effect; and not just as individual, but as social. The results of failure to recognize this challenge are manifest not only in the popular media, but in academic work on language and gender as well. As a result, some gender scholarship does as much to reify and support existing beliefs as to promote more reflective and informed thinking about gender.

Sex and gender

Gender is not something we are born with, and not something we *have*, but something we *do* (West & Zimmerman 1987) – something we *perform* (Butler 1990). Imagine a small boy proudly following his father. As he swaggers and sticks out his chest, he is doing everything he can to be like his father – to be a *man*. Chances are his father is not swaggering, but the boy is creating a persona that embodies what he is admiring in his adult male role model. The same is true of a small girl as she puts on her mother's high-heeled shoes, smears makeup

on her face and minces around the room. Chances are that when these children are grown they will not swagger and mince respectively, but their childhood performances contain elements that may well surface in their adult male and female behaviors. Chances are, also, that the girl will adopt that swagger on occasion as well, but adults are not likely to consider it as cute as her mincing act. And chances are that if the boy decides to try a little mincing, he won't be considered cute at all. In other words, gendered performances are available to everyone, but with them come constraints on who can perform which personae with impunity. And this is where gender and sex come together, as society tries to match up ways of behaving with biologically based sex assignments.

Sex is a biological categorization based primarily on reproductive potential, whereas gender is the social elaboration of biological sex. Not surprisingly, social norms for heterosexual coupling and care of any resulting children are closely intertwined with gender. But that is far from the full story. Gender builds on biological sex, but it exaggerates biological difference, and it carries biological difference into domains in which it is completely irrelevant. There is no biological reason, for example, why women should mince and men should swagger, or why women should have red toenails and men should not. But while we think of sex as biological and gender as social, this distinction is not clear-cut. People tend to think of gender as the result of nurture – as social and hence fluid – while sex is the result of nature, simply given by biology. However, nature and nurture intertwine, and there is no obvious point at which sex leaves off and gender begins.

But the sharp demarcation fails because there is no single objective biological criterion for male or female sex. Sex is based in a combination of anatomical, endocrinal, and chromosomal features, and the selection among these criteria for sex assignment is based very much on cultural beliefs about what actually makes someone male or female. Thus the very definition of the biological categories *male* and *female*, and people's understanding of themselves and others as male or female, is ultimately social. Anne Fausto-Sterling (2000) sums up the situation as follows:

> [L]abeling someone a man or a woman is a social decision. We may use scientific knowledge to help us make the decision, but only our beliefs about gender – not science – can define our sex. Furthermore, our beliefs about gender affect what kinds of knowledge scientists produce about sex in the first place. (p. 3)

Biology offers up dichotomous male and female prototypes, but it also offers us many individuals who do not fit those prototypes in a variety of ways. Blackless et al. (2000) estimate that 1 in 100 babies are born with bodies that differ in some way from standard male or female. These bodies may have such conditions as unusual chromosomal makeup (e.g., 1 in 1,000 male babies are born with two X chromosomes as well as a Y), hormonal differences such as insensitivity to androgens (1 in 13,000 births), or a range of configurations and combinations

of genitals and reproductive organs. The attribution of intersex does not end at birth – for example, 1 in 66 girls experience growth of the clitoris in childhood or adolescence (known as late onset adrenal hyperplasia).

When "anomalous" babies are born, surgical and/or endocrinal manipulations may be used to bring their recalcitrant bodies into closer conformity with either the male or the female category. Common medical practice imposes stringent requirements for male and female genitals at birth – a penis that is less than 2.5 centimeters long when stretched, or a clitoris[2] that is more than one centimeter long have commonly been subject to surgery in which both are reduced to an "acceptable" sized clitoris (Dreger 1998). As a number of critics have observed (e.g., Dreger 1998), the standards of acceptability are far more stringent for male genitals than female, and thus the most common surgery transforms "unacceptable" penises into clitorises, regardless of the child's other sexual characteristics, and even if this requires fashioning a nonfunctional vagina out of tissue from the colon. In recent years, the activist organization, the Intersex Society of North America,[3] has had considerable success as an advocacy group for the medical rights of intersex people, and the medical profession has become more sensitive to both physical and psychological issues associated with gender assignment and surgery (e.g., Lee et al. 2006).

In those societies that have a greater occurrence of certain kinds of hermaphroditic or intersexed infants than elsewhere,[4] there sometimes are social categories beyond the standard two into which such babies can be placed. But even in such societies, categories that go beyond the basic two are often seen as anomalous.[5] And even where sex assignment seemed straightforward at birth, an individual may develop a gender identity different from the one initially assigned on the basis of anatomical criteria. Transgender people may embrace the other of the two options standardly on offer or they may resist gender dichotomies altogether. Kate Bornstein, a trans woman who finds gender deeply problematic, sums up this resistance nicely in her (1994) book title, *Gender Outlaw: On Men, Women and the Rest of Us*.[6]

It is commonly argued that biological differences between males and females determine gender by causing enduring differences in capabilities and dispositions. Higher levels of testosterone, for example, are said to lead men to be more aggressive than women; and left-brain dominance is said to lead men to be more rational while their relative lack of brain lateralization should lead women to be more emotional. But the relation between physiology and behavior is not simple, and it is all too easy to leap for gender dichotomies. And the physiology itself is more complex than is usually acknowledged. It has been shown that hormonal levels, brain activity patterns, and even brain anatomy can be a result of different activity as well as a cause. For example, research with species ranging from rhesus monkeys (Rose et al. 1972) to fish (Fox et al. 1997) has documented changes in hormone levels as a result of changes in social position.

Work on sex differences in the brain is very much in its early stages, and is far from conclusive (Fausto-Sterling 2000). Men's supposedly smaller

corpus callosum, larger amygdala, larger pre-mammillary nucleus, are among the questionable structural differences that are supposed to account for gender differences from men's greater visual-spatial skills to their tendency to stare at breasts.[7] Much of the popular work on gender differences in the brain is based on shaky evidence, and includes exaggerations and even distortions of what appears in the scientific literature. And the scientific literature itself is based on very small samples, often from sick or injured populations. In addition, not that much is known about the connections between brain physiology and behavior or cognition – hence about the consequences of any physiological differences scientists may be seeking or finding. And above all, the brain is very plastic, changing in response to experience. Thus the causal relation between brain physiology and activity is completely unclear (Eliot 2009). Nonetheless, any results that might support physiological differences are readily snatched up and combined with any variety of gender stereotypes in some often quite fantastic leaps of logic. And the products of these leaps can in turn feed directly into social, and particularly into educational, policy, with arguments that gender equity in such "left-brain areas" as mathematics and engineering is impossible. (For additional critiques of sex difference science, see Kaplan & Rogers 2003, Fine 2010, and Jordan-Young 2010.)

Deborah Cameron (2009) refers to the search for gender differences in biology as "the new biologism," and points out that the linguistic traits that scientists are trying to explain biologically (such as women's greater language ability) are not even themselves supported by serious linguistic study. Furthermore, those pushing for biologically based explanations of sex differences ignore the fact that the very same linguistic differences that they see between the genders also correlate with race and social class, and many of the sex differences they cite as biologically based actually vary historically and cross-culturally (e.g., Keenan 1974; Kulick 1992, 1993).

The eagerness of some scientists to establish a biological basis for all gender difference, and the public's eagerness to take these findings up, points to the fact that we put a good deal of work into emphasizing, producing, and enforcing the dichotomous categories of male and female. In the process, differences or similarities that blur the edges of these categories, or that might even constitute other potential categories, are backgrounded, or *erased*, including the enormous range of differences among females and among males.

The issue here is not whether there are sex-linked biological differences that might affect such things as predominant cognitive styles. What is at issue is the place of such research in social and scientific practice. Sex difference is being placed at the center of activity, as both question and answer, as often flimsy evidence of biological difference is paired up with unanalyzed behavioral stereotypes. And the results are broadcast through the most august media as if their scientific status were comparable to the mapping of the human genome. To make things worse, the use of fancy scientific technology, such as fMRI (functional magnetic resonance imaging), often lends a patina of scientific rigor

to generalizations based on meaninglessly small and uncontrolled samples (see Liberman 2007 for some nice examples). And speaking of the genome, in a review of the extensive research on sex-related differences in genetic effects for traits and common diseases, Patsopoulos and colleagues (2007) found that many of these studies were spurious. More than half the reported gene-sex interactions had failed to reach statistical significance; when significance was found it tended to be quite weak, and even the best studies had rarely been corroborated. Sarah Richardson (forthcoming) points out that sex difference is an easy target in genetic studies since sex is one category that is marked in all genetic databases, making for easy and convenient statistical study.

The mere fact of this shows clearly that everyone, from scientists to journalists to the reading public, has an insatiable appetite for sensationalist gender news. Indeed, gender is at the center of our social world. And any evidence that our social world maps onto the biological world is welcome evidence to those who would like an explanation and justification for the current gender arrangements or, indeed, those of the past.

To whatever extent gender may be related to biology, it does not flow naturally and directly from our bodies. The individual's chromosomes, hormones, genitalia, and secondary sex characteristics do not determine occupation, gait, or use of color terminology. And while male pattern baldness may restrict some adult men's choice of hairdo, there are many men who could sport a pageboy or a beehive as easily as many women, and nothing biological keeps women from shaving their heads. Gender is the very process of creating a dichotomy by effacing similarity and elaborating on difference, and where there are biological differences, these differences are exaggerated and extended in the service of constructing gender. Society's fascination with women's breast size is a particularly striking example now that breast augmentation surgery is readily available. In 2007, 346,524 breast augmentation surgeries were performed in the United States,[8] surpassing all other cosmetic procedures (liposuction came in second at 301,882 cases).

Actual differences between males and females tend to be scalar rather than dichotomous, with many women and men occupying the same positions on the scale. Consider our voices. On average, men's vocal tracts are longer than women's, yielding a lower voice pitch. But individuals' actual conversational voice pitch across society does not simply conform to the size of the vocal tract. At the age of four to five years, well before puberty differentiates male and female vocal tracts, boys and girls learn to differentiate their voices as boys consciously and unconsciously lower their voice pitch while girls raise theirs. In the end, one can usually tell whether even a very small child is male or female on the basis of their voice pitch and quality alone, regardless of the length of their vocal tract. The importance of the social in voice pitch apparently reaches into infancy, as Philip Lieberman (1967) found that a 10-month-old boy babbled to himself when alone at 430 Hz, but lowered to 390 Hz when with his mother and to 340 Hz with his father. While this says more about the human tendency to mirror

their interlocutors than about gender, it does make it clear that pitch differences become salient at a very early age.

Relative physical stature is another biological difference that is elaborated and exaggerated in the production of gender. Approximately half of the women and half of the men in the USA (Kuczmarski et al. 2000) are between 64 and 70 inches tall. With this considerable overlap, one might expect in any randomly chosen male and female pair that the woman would run a good chance of being taller than the man. In actuality, among heterosexual couples, one only occasionally sees such a combination, because height is a significant factor in people's choice of a heterosexual mate. While there is no biological reason for women to be shorter than their male mates, an enormous majority of couples exhibit this height relation – far more than would occur through a process of selection in which height was random (Goffman 1976). Not only do people mate so as to keep him taller than her, they also see him as taller than her even when this is not the case. Monica Biernat and her colleagues (1991, cited in Valian 1998), presented college students with photos of people and asked them to guess the people's height. Each photo had a reference item like a doorway or a desk, making it possible to compare the heights of people across photos. Although photos of a male of a given height were matched by photos of a female of the same height (and vice versa), the judges saw the males as taller than they actually were and the females as shorter than they actually were.

This book will focus on gender as a social construction – as the means by which society jointly accomplishes the differentiation that constitutes the gender order. While we recognize that biology imposes certain physiological constraints on the average male and female, we treat the elaboration and magnification of these differences and the erasure of differences among males and among females as entirely social. This does not mean that individuals are helpless pawns shaped by external social forces: the social emerges as individuals develop their own perspectives, react to others, and interpret others' reactions to them. Nor does it mean that someone's gender identity (or sexual orientation) can just be freely chosen. While no adult is literally "born this way" (newborn infants, for example, don't yet have a sense of themselves as gendered or as sexually attracted to certain kinds of people), everyone is constrained both by their initial biological endowment and by the social environment in which they mature.

Readers will come to this book with their own set of beliefs about the origins and significance of gender. They may have certain understandings of the implications for gender of biological and medical science. They may subscribe to a particular set of religious beliefs about gender. The notion of the social elaboration of sex is not incompatible with belief in a biological or divine imperative – the difference will be in where one leaves off and the other begins. All we ask of our readers is that they open-mindedly consider the evidence and arguments we advance. Our own ideas about gender have developed and changed over many years of thinking about these issues, and they will undoubtedly continue to change as we continue to explore gender issues in our research and in our lives.

We have written this account of gender from a broadly feminist perspective. As we understand that perspective, the basic capabilities,[9] rights, and responsibilities of women and men are far less different than is commonly thought. At the same time, that perspective also suggests that the social treatment of women and men, and thus their experiences and their own and others' expectations for them, is far more different than is usually assumed. In this book we offer evidence that these differences in what happens to women and to men derive in considerable measure from people's mutually developed beliefs about sexual difference, their interpretations of its significance, and their reliance on those beliefs and interpretations to justify the unequal treatment of women and men.

Learning to be gendered

Dichotomous beginnings: It's a boy! It's a girl!

In the famous words of Simone de Beauvoir, "women are not born, they are made." The same is true of men. The making of a man or a woman is a never-ending process that begins before birth – from the moment someone begins to wonder if the pending child will be a boy or a girl. And the ritual announcement at birth that it is in fact one or the other instantly transforms an "it" into a "he" or a "she" (Butler 1993), standardly assigning it to a lifetime as a male or as a female.[10] This attribution is further made public and lasting through the linguistic event of naming. In some times and places, the state or religious institutions disallow sex-ambiguous given names. Finland, for example, has lists of legitimate female and legitimate male names that must be consulted before the baby's name becomes official. In English-speaking societies, not all names are sex-exclusive (e.g., *Chris*, *Kim*, *Pat*) and sometimes names change their gender classification. For example, *Evelyn* was available as a male name in Britain long after it had become an exclusively female name in America, and *Whitney*, once exclusively a surname or a male first name in America, is now bestowed on baby girls. But these changes do nothing to mitigate the fact that English names are gendered.

Thus the dichotomy of male and female is the ground upon which we build selves from the moment of birth. These early linguistic acts set up a baby for life, launching a gradual process of learning to be a boy or a girl, a man or a woman, and to see all others as boys or girls, men or women as well. There are currently no other readily available ways to think about ourselves and others – and we will be expected to pattern all kinds of things about ourselves as a function of that initial dichotomy. In the beginning, adults will do the child's gender work, treating it as a boy or as a girl, and interpreting its every move as that of a boy or of a girl. Then over the years, the child will learn to take over its part of the process, doing its own gender work and learning to support the gender work of

others. The first thing people want to know about a baby is its sex, and social convention provides a myriad of props to reduce the necessity of asking – and it becomes more and more important, as the child develops, not to have to ask. At birth, many hospital nurseries provide pink caps for girls and blue caps for boys, or in other ways provide some visual sign of the sex that has been assigned to the baby. While this may seem quite natural to members of the society, in fact this color coding points out no difference that has any bearing on the medical treatment of the infants. Go into a store in the US to buy a present for a newborn baby, and you will immediately be asked "boy or girl?" Overalls for a girl may be OK (though they are "best" if pink or flowered or in some other way marked as "feminine") but gender liberalism goes only so far. You are unlikely to buy overalls with vehicles printed on them for a girl, and even more reluctant to buy a frilly dress with puffed sleeves or pink flowered overalls for a boy. And if you're buying clothing for a baby whose sex you do not know, sales people are likely to counsel you to stick with something that's plain yellow or green or white. Colors are so integral to our way of thinking about gender that gender attributions have bled into our view of the colors, so that people tend to believe that pink is a more "delicate" color than blue (and not just any blue, but baby blue). This is a prime example of the naturalization of what is in fact an arbitrary sign. In America in the late nineteenth and early twentieth centuries, Anne Fausto-Sterling (2000) reports, blue was favored for girls and bright pink for boys.

If gender flowed naturally from sex, one might expect the world to sit back and simply allow the baby to become male or female. But in fact, sex determination sets the stage for a lifelong process of gendering, as the child becomes, and learns how to be, male or female. Names and clothing are just a small part of the symbolic resources used to support a consistent ongoing gender attribution even when children are clothed. That we can speak of a child growing up *as a girl* or *as a boy* suggests that initial sex attribution is far more than just a simple observation of a physical characteristic. *Being a girl* or *being a boy* is not a stable state but an ongoing accomplishment, something that is actively *done* both by the individual so categorized and by those who interact with it in the various communities to which it belongs. The newborn initially depends on others to *do* its gender, and they come through in many different ways, not just as individuals but as part of socially structured communities that link individuals to social institutions and cultural ideologies. It is perhaps at this early life stage that it is clearest that gender is a collaborative affair – that one must learn to perform as a male or a female, and that these performances require support from one's surroundings.

Indeed, we do not know how to interact with another human being (or often members of other species), or how to judge them and talk about them, unless we can attribute a gender to them. Gender is so deeply engrained in our social practice, in our understanding of ourselves and of others, that we almost cannot put one foot in front of the other without taking gender into consideration. People even, it seems, apply gender stereotypes to computer-generated speech depending on whether they perceive the computer's voice as male or female (Nass

et al. 1997). Although most of us rarely notice this overtly in everyday life, most of our interactions are colored by our performance of our own gender, and by our attribution of gender to others.

From infancy, male and female children are interpreted differently, and interacted with differently. Experimental evidence suggests that adults' perceptions of babies are affected by their beliefs about the babies' sex. John and Sandra Condry (1976) found that adults watching a film of a crying infant were more likely to hear the cry as angry if they believed the infant was a boy, and as plaintive or fearful if they believed the infant was a girl. In a similar experiment, adults judged a 24-hour-old baby as bigger if they believed it to be a boy, and finer-featured if they believed it to be a girl (Rubin et al. 1974). Such judgments then enter into the way people interact with infants and small children. People handle infants more gently when they believe them to be female, more playfully when they believe them to be male.

And they talk to them differently. Parents use more diminutives (*kitty*, *doggie*) when speaking to girls than to boys (Gleason et al. 1994), they use more inner state words (*happy*, *sad*) when speaking to girls (Ely et al. 1995), and they use more direct prohibitives (*don't do that!*) and more emphatic prohibitives (*no! no! no!*) to boys than to girls (Bellinger & Gleason 1982). Perhaps, one might suggest, the boys need more prohibitions because they tend to misbehave more than the girls. But Bellinger and Gleason found this pattern to be independent of the actual nature of the children's activity, suggesting that the adults and their beliefs about sex difference are far more important here than the children's behavior.

With differential treatment, boys and girls do learn to *be* different. Apparently, male and female infants cry the same amount (Maccoby & Jacklin 1974), but as they mature, boys cry less and less. There is some evidence that this difference emerges primarily from differential adult response to the crying. Qualitative differences in behavior come about in the same way. A study of 13-month-old children in day care (Fagot et al. 1985) showed that teachers responded to girls when they talked, babbled, or gestured, while they responded to boys when they whined, screamed, or demanded physical attention. Nine to eleven months later, the same girls talked more than the boys, and the boys whined, screamed, and demanded attention more than the girls. Children's eventual behavior, which seems to look at least statistically different across the sexes, is the product of adults' differential responses to ways of acting that are in many (possibly most) cases very similar indeed. The kids do indeed learn to *do* gender for themselves, to produce sex-differentiated behavior – although even with considerable differential treatment they do not end up with dichotomizing behavioral patterns.

Voice, which we have already mentioned, provides a dramatic example of children's coming to perform gender. At the ages of four to five years, in spite of their identical vocal apparatus, girls and boys begin to differentiate the fundamental frequency of their speaking voice. Boys tend to round and extend their lips, lengthening the vocal tract, whereas girls are tending to spread their lips (with smiles, for example), shortening the vocal tract. Girls are raising their pitches,

boys lowering theirs. It may well be that adults are more likely to speak to girls in a high-pitched voice. It may be that they reward boys and girls for differential voice productions. It may also be that children simply observe this difference in older people, or that their differential participation in games (for example play-acting) calls for different voice productions. Elaine Andersen (1990: 24–25), for example, shows that children use high pitch when using baby talk or "teacher register" in role play. Some children speak as the other sex is expected to and thus, as with other aspects of doing gender, there is not a perfect dichotomization in voice pitch (even among adults, some voices are not consistently classified). Nonetheless, there is a striking production of mostly different pitched voices from similar vocal equipment.

There is considerable debate among scholars about the extent to which adults actually do treat boys and girls differently, and many note that the similarities far outweigh the differences. Research on early gender development – in fact the research in general on gender differences – is almost exclusively done by psychologists. As a result, the research it reports on largely involves observations of behavior in limited settings – whether in a laboratory or in the home or the preschool. Since these studies focus on limited settings and types of interaction and do not follow children through a normal day, they quite possibly miss the cumulative effects of small differences across many different situations. Small differences here and there are probably enough for children to learn what it means in their community to be male or female.

The significance of the small difference can be appreciated from another perspective. The psychological literature tends to treat parents, other adults, and peers as the primary socializing agents. Only relatively recently have investigators begun to explore children's own active strategies for figuring out the social world. Eleanor Maccoby (2002) emphasizes that children have a very clear knowledge of their gender (that is, of whether they are classified as male or female) by the time they are three years old. Given this knowledge, it is not at all clear how much differential treatment children need in order to learn how to do their designated gender. What they mainly need is the message that male and female are supposed to be different, and that message is everywhere around them.

It has become increasingly clear that children play a very active role in their own development. From the moment they see themselves as social beings, they begin to focus on the enterprise of growing up. And to some extent, they probably experience many of the gendered developmental dynamics we discuss here not so much as gender-appropriate, but as *grown-up*. The greatest taboo is being "a baby," but the developmental imperative is gendered. Being grown-up, leaving babyhood, means very different things for boys than it does for girls. And the fact that growing up involves gender differentiation is encoded in the words of assessment with which progress is monitored – kids do not behave as good or bad people, but as *good boys* or *good girls*, and they develop into *big boys* and *big girls*.[11] In other words, they do not have the option of growing into just people, but into boys or girls. This does not mean that they see what they're doing in strictly