

# 1 Natural Women and Men

## Brando's Own Story

I have always been lucky with women. There have been many of them in my life, though I hardly ever spent more than a couple of minutes with any of them. I've had far too many affairs to think of myself as a normal rational man. . . . I have 11 children and I'm delighted about that. As I grew older and pursued one exotic dark skinned woman after another I couldn't help but wonder if I wasn't trying to replace Ermi, my governess, whose soft dusky skin has seldom been far from my mind since I was seven. She was the ideal embedded in the emotional concrete of my soul. Once I lost her, I suppose I spent most of the rest of my life trying to find her. . . . Along with my mother, Ermi may also have had a lot to do with my refusal – or was it my inability to trust women after I grew up. . . . My mother abandoned me for a bottle when I was little more than an infant . . . then Ermi deserted me. . . . After that I always wanted several women in my life at the same time. . . . I enjoyed the women's company, but a man called Harvey was always standing in the corner, an invisible rabbit called a relationship. All but a few women wanted me to promise their love would be returned in equal measure, and that it would be forever and undying. Sometimes I told them what they wanted to hear, but I have always thought that the concepts of monogamy, fidelity and everlasting love were contrary to man's fundamental nature. Our adolescent childish myths tell us what love ought to be, and so do the songs we sing. . . . *I love you, you love me . . . I'm going to love you till I die, and you die and we're together in heaven . . .* I don't think I was constructed to be monogamous. I don't think it's the nature of any

man to be monogamous. Chimps, our closest relatives, are not monogamous, nor the gorillas or baboons. Human nature is no more monogamous than theirs. In every human culture men are propelled by genetically ordained impulses over which they have no control to distribute their seed into as many females as possible. Sex is the primal force of our and every other species. Our strongest urge of all is to replicate our genes and perpetuate our species. We are helpless against it and are programmed to do as we do. Our genetic composition makes our sexual behaviour irresistible. We are driven by a force we know not of to make love, procreate and reproduce. (Brando and Lindsey 1994)

Brando, in trying to make sense of the life he has lived as a man, in particular the form his relations with women have taken, appeals to a variety of explanations. He concludes with an appeal to biological nature. It is not in the nature of man to be monogamous. It is against his fundamental nature. This appeal is legitimated by reference to the non-human animals such as gorillas and baboons, and to the genetically ordained impulses which form the subject matter of contemporary sociobiology. However, it sits in some tension with the explanations, which Brando mentions earlier. In his opening remarks he claims that he is not a normal rational man because he has had too many affairs. Here the notion of normal masculinity is tied, not to biological nature, but to a psychological characteristic of rationality, which is claimed to attach to normal masculinity. He explains his behaviour by a lack of such normal masculinity. In contrast to general explanations appealing to the presence or absence of the characteristics of normal masculinity, Brando also refers to his family history, attending to early emotional attachments to explain the objects of his adult desire. Yet another form of explanation surfaces when he discusses what the women he met wanted from him. Their desire for a promise of undying love, which he occasionally placated them with, came, he claimed, from social myths, like the songs we sing, from which we learn what love ought to be.

The concern of this book is to explain how we end up as gendered human beings, with a categorization as men or women, which we may be happy or unhappy with, but which in any case is one of the defining features of our subjectivity. What we are exploring, in exploring gender, is the binary division of people into male and female, a categorization which becomes fundamental to people's sense of their identity and carries with it associated expectations of patterns of

behaviour. The division into male and female bodies yields an expected division into masculine and feminine people – where masculinity is a set of psychological and behavioural traits which are considered particularly appropriate to bodies classified as male, and femininity traits considered appropriate to those classified as female. In investigating how we end up as men and women we are therefore investigating a phenomenon that has bodily, psychological and behavioural features. While exploring this we will consider all the explanations which Brando has helped himself to. Sex differences might be natural, a result of early relations within the family or woven from the social context. This chapter is an exploration of the first option, the suggestion that sex differences are, in some sense, natural.

## **Natural States of Affairs**

What does it mean to claim that a certain state of affairs is natural or unnatural? We are familiar with appeals to nature in a whole range of settings. It's a claim that we often hear. 'It's unnatural to see a man doing the ironing'; 'it's natural for women to want to have children and want to care for them, unnatural for them to leave them'; 'it's only natural for dogs to want to dig holes in the garden'; 'it's natural for adolescent boys to think about sex every few minutes'. Heterosexual sex is often thought of as a natural urge, consequent on 'chemistry' between people, anchored maybe in instincts to reproduce. At the same time same-sex desire is often viewed as unnatural, a perversion of a natural order as a result of a diseased body or mind.<sup>1</sup>

The appeal to nature is commonly an appeal to a certain kind of givenness, an appeal to a world which has a structure and order independent of our interactions with it, a structure which we cannot modify and which conditions our lives and agency. This is illustrated most clearly if we think of the concept of a natural kind. The philosopher John Locke (1690) claimed that there were two ways in which we could classify the world. First, we could classify into natural kinds, categories which 'carved nature and its joints' and enabled us to see the order and regularity which was simply given with the world. Such kinds had essential properties, characteristics which were found in all instances of the kind and which dictated how it behaved and interacted with other bits of the world. So water is made up of hydrogen and oxygen atoms. This is its essential feature, so all

samples of water have it. Moreover, this essential feature explains how water interacts with other kinds of thing in the world. If the categories of men and women are natural categories in this sense, then there will be sets of characteristics which are essential to men and which explain their ways of interacting in the world and distinct sets of essential characteristics of women which explain their way of interacting in the world. Our job will be to find out what these essential properties are and how they work. On this picture the world exists quite independently of us as knowing subjects, already divided up into distinct kinds of thing: atoms and electrons, trees and flowers, animals and people, women and men. Our job as knowledge collectors is to find names or labels for these different kinds of thing and find out what their essential properties are and how these essential properties govern their interactions with other things in the world. In contemporary thinking about natural kinds these categories and the essential properties that mark them are ones which it is the particular task of science to uncover.

People who accept that the world is divided up into natural kinds like this usually also accept that there are other forms of classification which reflect, not nature in a direct way, but our interests and purposes in dealing with it. This was Locke's second way of classifying the world. So chairs and computers, romantic landscapes and monetary systems are kinds of thing which are grouped together for our convenience, with defining characteristics fixed by our decisions over language use rather than discovered by an investigation of the natural world. Instead of real essences to be discovered, they have only nominal ones, ones we have assigned to them. We have constructed the kind or grouping for our purposes. We can divide objects into tables and chairs and indeed produce them to fit into these categories. But if our purposes change then so might our classifications and then we might regroup: as hard or soft, big or small, etc. And we wouldn't be getting anything wrong about 'nature' if we did so. If the classification into 'women' and 'men' is of this sort then we won't grasp what is involved in being a man or a woman by looking at nature but by looking at our social practices. Moreover, these social practices can change and thereby we can change the content of these categories or give them up altogether.

One of the questions which, therefore, has been highly contested is whether 'men' and 'women' are natural kinds with real essences which explain their mode of interaction with the rest of the world,

or whether they are constructed kinds, constructed for our purposes, whose defining characteristics are an effect of our social practices. Brando above is certainly drawn by the view that they are natural kinds, though he seems to have several distinct views as to what constitutes the essence of masculinity. Is it rationality, or the genetically ordained impulse to spread seed as widely as possible, that distinguishes men from other kinds of thing (women, for example)? In this chapter we will be discussing whether 'woman' and 'man' are natural categories. We will return in chapter 3 to consider that they might rather be social ones constructed out of our social practices. In between, in chapter 2, we will discuss psychoanalysis, which has both naturalizing and social constructionist aspects.

## **Male and Female in Western Thought**

The essence of a thing is supposed to be what makes it the thing it is, what remains unchanged while the thing exists. There is a long tradition which regards the division of people into male and female and of associated traits into masculine and feminine as being natural, simply a reflection of the order of things. Before it was regarded as particularly the task of scientists to discover the essential features of natural kinds, philosophers and theologians pronounced on the distinctive features of human beings and in particular that in virtue of which they were divided into two kinds, male and female. These pronouncements were viewed as simply descriptions of divisions which were there in the world for anyone to see.

In an important book, first published in 1984, Genevieve Lloyd traced the history of 'male' and 'female' in Western philosophy (Lloyd 1993). The discussion of what is involved in being female or male was subject to shifts and changes, but certain common themes emerged. Crucially what was involved in being male was tied to being a rational and autonomous agent, characteristics which were taken themselves to mark off human beings from the animal world (though, throughout the history of philosophy, what exactly this rationality consisted in was subject to differing accounts). What was involved in being female, however, was in contrast to this. The female was seen as more closely anchored to the physical part of existence, consequent on her reproductive role. She was associated with the physical senses and the world of physical nature in a way

that was sometimes celebrated and sometimes denigrated, but either way posed a threat and an obstacle to the development and exercise of rationality which was distinctive of the male. In Lloyd's account, 'rational knowledge has been construed as a transcending, transformation or control of natural forces; and the feminine has been associated with what rational knowledge transcends, dominates or simply leaves behind' (1993: 4).

The dichotomy between male as rational and capable of universally valid thought and female as emotional and tethered to the particularity of her body and situation is one that is still evident in patterns of thought today. Looking back at the history of these accounts, however, it is important to note that the kind of maleness which is being defined is not entirely universal, in the sense that, although it is supposed to capture what is essential to maleness, it is an essence which many biological males were themselves not considered capable of achieving. Slaves, non-Europeans and members of the lower classes were also regarded as deficient in rationality, anchored in the sensuous and unable to rise above their animal natures. These earlier philosophical accounts therefore shared a feature of later scientific ones – that of trying to explain not only gender differences but also other social divisions by an appeal to the different natures of those who occupied different social positions. Such views served to justify social inequalities as well as the colonialist enterprise of bringing 'order' and 'civilization' to non-European parts of the world.

These exclusions make clear what kind of definition of maleness was at issue here. For being male was defined in terms of an aspirational *ideal* which characterized what men should be. The definitions of female were different in this regard. Being female was treated much more as a biological kind. This anchorage in biology restricted woman's nature. Some men also were constrained, but in so far as they were unable to transcend their physical natures they were thereby less male.

## Sex Differences as Natural Kinds

With the ascendancy of science as the exemplar of knowledge the task of providing an account of maleness and femaleness became increasingly viewed as a scientific rather than a philosophical one. Here again the model of sexed kinds as natural kinds with real essences

awaiting discovery and description continued to hold sway. Sex difference research has been a continuously thriving area for the last two hundred years. This work has been founded on a set of assumptions. The first is that the division of bodies into male and female is a natural division, part of the order of the world. If we did not recognize it then there would be facts about the world conditioning our existence that we would be unable to recognize and explain. Secondly, although the visible bodily differences are fairly reliable markers of maleness and femaleness, particularly the presence or absence of a penis, these surface bodily differences are a manifestation of inner characteristics which serve to fix us as male or female. (After all, men whose penises are removed are still men, as are women without wombs or breasts.) These underlying features which make us male or female are matters of dispute, but it has most commonly been assumed that they fix not only the obvious bodily distinctions, but also sets of associated psychological and behavioural dispositions which are regarded as constituting masculinity and femininity. Here there need be no assumption that we all manifest our masculinity and femininity in the same way – only that there are some underlying determinants, which are different for men and women, that are conditioning our response to our environments. There is, of course, disagreement as to what range of responses are conditioned by sex differences in this way. Recurring themes concern greater aggression and competitiveness in men and nurturing qualities in women; greater spatial and abstract reasoning abilities in men and greater linguistic skills in women. (More recently it has been suggested that the reason boys underachieve in schools is because teaching methods now emphasize co-operation and care whereas male brains respond better to methods based on competition and aggression.)

For thousands of years male and female bodies were thought of as fundamentally similar. Women were thought to have the same genitals as men, only hidden inside the body. In the eighteenth century, however, there was increasing emphasis on bodily differences between the sexes. The concentration on genital sexual difference and secondary sex characteristics such as breasts and facial hair became expanded so that more and more parts of the body were seen as sexualized. One nineteenth-century biologist saw opposite kinds of processes at the level of cells, with the result that ‘males are more active, energetic, eager, passionate and variable . . . females more passive, conservative, sluggish and stable. The more active males,

with a consequently wider range of experience, may have bigger brains and more intelligence; but the females, especially as mothers, have indubitably a larger and more habitual share of the altruistic emotions' (E. Martin 1987: 33). By the late nineteenth century male and female bodies were seen as opposites, and the female body became a central focus of medical attention. First the uterus and then the ovaries were regarded as the seat of femininity. But early in the twentieth century the essence of femininity came to be located, not in an organ, but in chemical substances: sex hormones (Oudshoorn 1994). This is now one of the dominant modes of thinking about the biology of sex differences, with women's bodies seen as particularly dominated by the balance or imbalance of hormones, a 'fact' used to justify exclusion from important roles in public life: 'If you had an investment in a bank you wouldn't want the president of the bank making a loan under those raging hormonal influences. Suppose we had as president in the White House a menopausal woman president?' (Rose, Lewontin and Kamin 1984: 133–4.) (This is a particularly telling quotation in the light of the scandals surrounding Bill Clinton in 1998.) It is not only in accounts of the female biology that hormones have been given a determining role, however. In the mid-seventies Steven Goldberg wrote *The Inevitability of Patriarchy*, arguing that men have a greater tendency to dominate than women do (Goldberg 1973). This tendency is a result of male hormones, in particular testosterone, whose presence is claimed to produce changes in brain mechanisms with long-lasting effects.

There are important parallels in the way sexual difference and racial difference have been treated. In the nineteenth century racial categories were viewed as natural kinds, with distinct physiological and psychological characteristics. 'Race meant accumulated cultural differences carried somehow in the blood' (Stocking 1993: 6). Such a conception of race then informed the development of eugenics policies right through to the middle of the twentieth century. Analogies were drawn between women and non-European peoples in terms of physiological characteristics such as the shape of their skull, and psychological characteristics. Sander Gilman (1985) has drawn attention to the way in which scientific work in the nineteenth century interwove conceptions of both women and colonized people as inherently primitive. Darwin commented, 'some at least of those mental traits in which women may excel are traits characteristic of the lower races', and the craniologist F. Pruner argued, 'The Negro resembles the

female in his love of children, his family and his cabin' (quoted in Rose, Lewontin and Kamin 1984: 143).

Unlike sexual difference, however, scientists no longer treat racial difference as a biological natural kind. The direction of genetic theory since 1900 eroded its basis, although it took until nearly mid-century before race disappeared from the theories of biological scientists. (It is still, of course, treated as a natural kind by many in everyday discourse and see Haraway 1997: part 3, ch. 4, for its re-emergence in the human genome project.)

## **Recent Work**

It is not possible here to give a comprehensive review of the biological and psychological research into sex differences and there are some really excellent texts, which provide a critical review of this work, from biologists, psychologists and historians of science (Bleier 1984; Fausto-Sterling 1992). It is, however, worth looking at two currently active research areas to give a sense of the kinds of difficulties surrounding this kind of research.

### *Selfish genes*

We can start by looking at the contemporary theory that is echoed in Brando's conclusions. This is the view found in the work of sociobiologists that our genes programme our behaviour. Genetic similarities, which had been taken to explain physical similarities among relatives and to explain the recurrence of certain illnesses in families, are now viewed in a much more problematic way to be the basis of complex behavioural traits such as 'Shyness, alcoholism or criminality' (Fausto-Sterling 1992: 62). Unsurprisingly, the behaviour of men and women has been seen to be the result of the fact that, in crucial respects, the genes of men and women are different: 'In addition to twenty two pairs of chromosomes called autosomes, females have two X chromosomes. Males on the other hand, supplement their twenty two autosomes with one X and one Y chromosome' (1992: 19). (These chromosomal differences do not always correspond to observable sexual difference: see below.) Central to the framework of sociobiology is an adaptation of the argument from natural selection. It is assumed sexual differences have evolved through natural

selection to the maximal advantages of both sexes. One example of this is the 'selfish gene' hypothesis, which Brando refers to. Our genetic constitution is such as to maximize the chances of our genes surviving. For men with plentiful sperm this is best achieved by spreading their seeds into as many fertile wombs as possible. Women, with fewer eggs, need rather to nurture the fertilized ones which they come across and to persuade men, against their interests, to help them in this nurturing path. So a conflict of interests between the sexes is genetically programmed.

Another example of such a genetic story is given in Rose, Lewontin and Kamin (1984). Male dominance is seen as evolving from the dependency of the human infant on human care. If early societies depended on the hunting of large animals, women would be disadvantaged while pregnant or feeding, and the baby would be in danger if women engaged in these tasks. So skills increasing spatial-temporal co-ordination would be selectively favoured in men and increased nurturative abilities favoured in women. Consequently a division of labour would become genetically fixed. (However, as the authors point out, it is quite uncertain how important hunting was to the survival of early groups, with evidence suggesting that gathering provided most of the diet. Moreover, with spaced-out births women seemed to be disadvantaged for only small periods.) Such socio-biological stories, stories attempting to ground social behaviour in a genetic determinism, are reinforced by animal studies showing that male/female differences are found in non-human societies in ways that supposedly parallel those found in human ones.

This range of theories has been used to explain not only sexual differences but also antagonistic behaviour between peoples who view themselves as different. So, even while the old racism, which envisaged a natural division into distinct races, was disappearing, a new theory was evolving to justify as natural antagonistic behaviour to those who we perceive as unlike us. The story is started by ethologists studying animal behaviour. They argued that there is an innate tendency to form groups and to engage in altruistic behaviour in relation to that group and aggressive behaviour to anything perceived as different: 'man is a tribal animal and the great super tribes will always be in competition with each other' (Barker 1981: 82). This is a consequence of needing to deal with the aggression, which might threaten the social cohesion necessary for survival, by redirecting it elsewhere. This view was challenged by sociobiologists for whom

living things behave in such a way as to maximize their own fitness and for whom there is apparently no place for altruism even within the limited scope of the in-group. However, *kin* altruism would be consistent with sociobiological premises, for this would foster the survival of shared genes. But how are we to recognize kin relatedness?

. . . genetic relatedness often declines dramatically beyond the social group . . . and significantly aggressiveness increases in turn. Hostility towards outsiders is characteristic of both human and non-human animals. Physical similarity is also a function of genetic relatedness and human racial prejudice, directed against humans who look different could well have its roots in this tendency to distinguish in group from out group. (1981: 97)

In this way racism is seen as rooted in the genes.

This range of theories in which a genetic base is seen as determining social organization has, however, been profoundly criticized by other biologists. There are several issues here. At the level of animal studies there has been debate about the way in which animal groups are looked at through the structuring lens of human society and the supposed discoveries then used to justify as natural the very social order from which they began. The entry of new animal observers, such as women, into the field has also resulted in different kinds of observations being made. Of this more below. At the more general level there is scepticism that complex social behaviour could simply be programmed in. This is especially the case since what patterns of behaviour would maximize the chances of genes surviving is highly contextual. It depends on the environment in which the organism is placed. And in the case of human societies there is simply no continuity of environment. Moreover, it has been argued that such pictures misunderstand the way in which genes work: 'a proper understanding of brain development suggests that while genetic information plays a key role in the unfolding of many details of the brain structure extensive development of nervous connections occurs after birth influenced profoundly by individual experience' (Fausto-Sterling 1992: 77); 'complex traits arise not simply (from genetic information) but also from the intrusion from the external environment and chance variations in development' (1992: 88). It is therefore just not possible simply from genetic modifications to read off complex patterns of behaviour.

*Brains*

The hunt to discover sex differences in the brains of men and women and between white men and those of supposed 'other races' began early in the nineteenth century when such supposed differences were linked to psychological characteristics such as intelligence, maturity, rationality, sensuality, childlike natures and so on. Most of these claims died a death earlier last century. Two of them, however, have recently been revived: the idea that brain size differs in males and females and in people of higher and lower intelligence, and the idea that the region connecting the two hemispheres is different in men and women. These have been joined by the suggestion that the hypothalamus is sexually dimorphic – and, it has been suggested, also differs in heterosexuals and homosexuals. This revival has come via developments in views about the ways in which hormones work. When they were first discovered, scientists imagined that there were separate male and female hormones, but it later emerged that males had female hormones and vice versa. Nowadays it is thought that males and females are constituted by different combinations of the same hormones. Increasingly it is thought that hormones affect all parts of the body, including the brain. Much has been made of research which suggests that pre-natal hormones affect the development of brains (Money and Ehrhardt 1972). The brain then fixes the different dispositions of man and woman.

Fausto-Sterling evaluates the research relating to brain size to find that 'the average male/female difference in brain weight for all ages is 9.8%. When charted as a function of either height or weight however the difference in adults virtually disappears' (1992: 244). Moreover, the reports of links between brain size and intelligence that used very small sample sizes found a barely significant correlation and failed to investigate whether class and nutritional status were parallel when the brain was growing. This doesn't prevent numerous reports of the supposed findings in both scientific magazines and the popular press. More attention is currently concentrated on the nerve fibres connecting the right and left hemispheres. Here the studies suggest some difference in shape between males and females, though it does not show up until well after birth and it is impossible to know whether experiential differences, biological differences or both contributed to the final result. Moreover, any functional consequences which such shape differences, if they exist, are supposed to have, remains quite

murky. The research into differences in the hypothalamus has more than one laboratory reporting a difference in volume in the hypothalamus of males and females, though the numbers used are very small: eleven in one study and six in another. Moreover, we are dealing with a region 'that varies by more than a tenfold within each sex' (1992: 244) and where the ranges for each overlap enormously. None the less the difference became a cover story for *Time* magazine on 20 January 1992.

When the direction of research moves into the area of sexuality the international publicity becomes even more intense. A report on the origins of male homosexuality by Dr Simon LeVay led to numerous articles and television appearances in America, Britain and elsewhere. LeVay's argument is now published in his book *Queer Science* (1996). From a study on male rhesus monkeys LeVay and co-workers found that hypothalamic injury decreased the frequency of what was characterized as male heterosexual sexual behaviour, mounting, ejaculating, and so on, but not of masturbation. He concluded that these changes affected their heterosexual behaviour but not their sex drive. Assuming that the hypothalamus is sexually dimorphic (i.e. different in men and women), on the basis of data problematized above, he hypothesized that there would be parallels in the appropriate parts of the hypothalamus in heterosexual men and homosexual women and in those of heterosexual women and homosexual men. The thesis is that homosexual men have feminized hypothalami. LeVay supports this hypothesis in his book by quoting studies to suggest that homosexual men have as children engaged in gender-dysphoric behaviours – that is behaviour more commonly displayed by members of the opposite sex. Examination of the hypothalami of a small sample of (dead) gay and straight men yielded results that were singularly inconclusive, with what small differences there were being in distribution of sizes within the categories, rather than a distinction between them. The smallness of the categories, the fact that differences could be linked to other factors such as cause of death, differences in level of sexual activity, and so on, all render the suggested hypothesis highly questionable. Moreover, LeVay ignores evidence that human and animal sexual behaviours do not allow a neat division into homosexual and heterosexual. In his assumptions that gay men are likely to be feminized and lesbian women masculinized, he also seems to be assuming there is a mapping of people's sexuality and their characteristics as male and female which is very problematic. (The

connection between sexuality, as it refers to the objects of desire and the kind of sexual practice which people engage in, and sexual difference, as in whether or not someone is male or female, is a complex one which we will discuss in more detail in later chapters.) All these are points to which we shall return.

## **The Sex/Gender Distinction**

In our discussion so far the division between male and female has been considered as a division into natural kinds. We have been exploring models in which biological facts were supposed to yield underlying differences between male and female, which then fixed distinct psychological and behavioural dispositions. These did not fully determine behaviour but provided conditioning structures which were different in men and women. The problem was that when the evidence for these distinct traits of masculinity and femininity was examined it turned out to be unstable. Even if the division into male and female bodies based on reproductive role has a biological base, the repeated attempts over hundreds of years to derive from these differences psychological and behavioural ones has been difficult to ground. One issue is the way the categories of distinction show such a large area of overlap. Strength endurance, intelligence (however measured), spatial and linguistic abilities, and aggression (however measured) are all such that, even where there seems to be some weighting towards male or female (some men so far have faster marathon times), there are many members of the other category who outperform those in the group to which the trait is supposed to be attached. (Women marathon runners are clearly faster than most men are.) A second issue is that the attempts to find biological pathways, which are supposed to link such traits to biological sex, have yielded only the most slender of results based on very few cases. A third and crucial issue is that, where there is some correlation between dispositions and apparent biological sex, there are available other explanations as to why such correlation might exist, crucially to do with the individual and social life experiences of those who have been assigned to the categories male and female. The remarks made by Mill more than a hundred years ago are still apt here. Until we treat men and women the same socially then we have no way of telling what natural differences there may be between them (Mill 1869).

These sets of considerations led to the making of one of the most central distinctions in feminist gender theory: namely that between sex and gender. Sex differences, the division into male and female bodies, were seen as biological differences, which it was the domain of the biological sciences to investigate and define. Gender differences, however, behavioural and psychological traits associated with masculinity and femininity, were viewed as socially constructed. The sex/gender distinction became one of the most fundamental assumptions in feminist gender theory from the 1970s on. The distinction was fuelled by the recognition of the very different ways in which people with male or female bodies could display masculinity or femininity. Much of the evidence supporting the recognition of such diversity has come from anthropological studies. The important precursor of much of this work was the anthropologist Margaret Mead's investigations in non-Western societies in the 1930s and 1940s (Mead 1949a, 1949b). She studied men and women in three societies and concluded that, in the Arapesh, gender norms consisted of gentle and non-dominant men and women; in the Mundugumor, the norm was violent and aggressive men and women; and, in the Tchambuli, the norm involved dominant women and dependent men. She concluded: 'If those temperamental attitudes which we have traditionally regarded as feminine can so easily be set up as the masculine pattern in one tribe and in another be outlawed for the majority of women as well as for the majority of men, we no longer have any basis for regarding such aspects of behaviour as sex linked' (Mead 1949b).

Later anthropological work has importantly brought to notice that not only can gender roles vary across and within societies but they are also not necessarily tied to biologically male and female bodies. There are numerous cases where behaviour which is, within the culture, normally associated with a male/female body can be found in someone with a female/male body. The identity of these people as men or women is also adjusted, often by a designation which signifies that they are women, but without a female body, or vice versa (Herdt 1994). Within the West the insistence on the recognition of difference which has been at the forefront of much political activism since the 1980s has served to draw attention to the very different gender norms which operate within a society as well as across them. The masculinity displayed by a vice-chancellor skilfully eroding democratic constraints on university governance is a very different phenomenon from that shown in a Clint Eastwood movie. And, as the

American anti-slavery and women's suffrage campaigner Sojourner Truth made clear more than a hundred years ago at Seneca Falls, the norms of femininity for women vary profoundly with class and colour. Moreover the widespread phenomenon of cross-dressing, of explicitly feminine men and masculine women (of which more in later chapters), also serves to fuel the distinction between sex and gender and the view that in understanding the construction of gender we are understanding a social process and not a natural one (in the sense of natural that we have been employing in this chapter).

Men and women, or masculinity and femininity, as gender categories, came, then, to be seen as socially created kinds, categories not given by nature but geared to our purposes. The scope of the categories (i.e. who they apply to) and their content (i.e. what is required to be masculine or feminine) are therefore susceptible to modification and change.

## **Science as Culture**

If the best-known response to scientific accounts of sex difference was the making of the sex/gender distinction, it was followed by work which challenged the supposed objectivity of science itself. Recognition was given to the fact that scientific theories reflect the culture from which they emerge and the subjectivity and positionality of those who produce them. On certain standard, and perhaps everyday, accounts of scientific activity, science is seen as simply reflecting the world which it is describing. According to this kind of picture scientific methodology itself guarantees objectivity. Central to this methodology is an empirical base with reference to which all hypotheses have to be defended; an insistence on public criteria for the assessment of evidence; and an experimental method which requires the repeatability of results. These are supposed to ensure that any particularities of the individual scientist or the specific culture from within which they are working are eradicated.

It has, however, been increasingly argued that science is a social product and reflects the culture from which it emerges. It is recognized that there are no brute facts, no unmediated access to the world. The concepts and frameworks of interpretations in terms of which we organize and interpret our observations mediate all our encounters. There are no raw facts, as it is often said. They all come to us cooked

in some way. Consequently what scientists see when they interpret the results of their experiments is influenced by the framework of interpretation which they bring to them. If we think of those scientists testing the hypothesis that the skulls of women and non-European races were smaller than those of European men we could think that they deliberately falsified their results to fit their theory. Some probably did. For others, however, the theory they were keen to prove conditioned what they saw so that it appeared to fit in with it. Consequently they were unable to see the range and diversity which confronted later researchers without that range of presuppositions.<sup>2</sup> Donna Haraway gives excellent examples from the study of the big apes, primatology, to illustrate how what was observed in the apes' behaviour varied according to the agendas of the investigators. In many instances what is seen is a mirror image of patriarchal social ordering. With the entry of feminist primatologists into the field, however, the contributions of the female apes to the cohesion and survival of the group, together with their active sexual role and ability to orgasm, came into view (Haraway 1989).

It is important here not to view such mediated scientific knowledge simply as bad science, examples where scientists have let their objectivity be compromised. It is not so. This is a characteristic of all knowledge collecting. There is no way we can step outside our conceptual frameworks and engage with the world in an unmediated way. It does mean, however, that those frameworks cannot themselves be seen as simply given with nature. This conclusion is reinforced when we recognize the role that models and metaphors play in the construction of scientific theories. These metaphors draw on the resources and assumptions of the surrounding culture. An easy example here, which doesn't take much unpicking, comes from Emily Martin (in Fox Keller and Longino 1996: 103), who highlights the way in which conventional biological accounts of fertilization are laden with sexist metaphors. In this conventional account sperm are described as active, battling valiantly from vagina to the oviduct and penetrating the egg, thus engendering new life. In contrast the passive egg is shed by the ovary and swept down the Fallopian tubes to await its date with destiny! Given the biological reality, in which the egg's adhesive surface traps the sperm, Martin suggests that a more appropriate model is to regard sperm and egg as mutually interacting in a process marked by 'feedback loops' and 'flexible adaptation'. It is important to note here how integral the metaphors

are to the articulations of the process, structuring our conceptions of the reality, and indeed what it is possible for us to observe. As noted by Fox Keller and Longino, 'metaphors guide the construction of similarities and differences – i.e. our very categories of analysis' (1996: 7). When Martin puts forward an alternative account of fertilization she does not do this simply by shedding metaphor and opting for 'literal' descriptions, but rather by employing new metaphors ('feedback loops'). It is not therefore possible to regard the gendered nature of much language and metaphor as a detachable extra, removable from the articulation of areas of knowledge, to leave an ungendered content intact. The content is tied necessarily to its mode of articulation.

If, however, we cannot retreat to an account of science as an unmediated representation of the world (a 'mirror of nature'), we can at least pay attention to the models that it is employing and scrutinize the cultural assumptions that lie behind them. The writings of Donna Haraway (1989, 1991a, 1991b, 1997) are centrally important in establishing not only the way culture mediates our understanding of nature, but also the impossibility of maintaining any dualism of 'nature' and 'culture'. The two are irrevocably intertwined. This makes the pretensions of sociobiologists to explain culture in terms of genes unviable, but it also makes unviable an attempt to see nature as *purely* a cultural product (see below). More complexly *we cannot disentangle* in our stories of the world the 'given', *nature*, from the 'constructed', *culture*. 'Nature and Culture are reworked; the one can no longer be the resource for appropriation or incorporation by the other' (Haraway 1991b: 151). Consequently the sex/gender distinction outlined in the previous section itself becomes problematized.

## Gender Constructs Sex

The general reflections on the nature of scientific knowledge have a clear bearing on the history of theories of sex difference. It is not possible to see such results as there have been as simply reflecting the facts; for they have been organized and interpreted by scientists carrying cultural baggage with them. This recognition takes us a stage further than the point reached by those theorists who reacted to sex difference research by insisting on a distinction between sex and gender. For such theorists biological sex differences were accepted as part

of what was simply given. What was challenged was the assumption that gender differences necessarily accompanied them.

However, it is possible to raise a further challenge. Sex differences are not simply given either. The biological theories, which purport to give an account of them, are the products of particular historical and culturally specific moments of production. This raises the prospect that cultural assumptions about gender differences condition biological theories about sex. Such a prospect has allowed biological accounts of sex differences to be revisited with an eye to where cultural assumptions about gender have influenced them. Of key importance in this regard has been the assumption that there are simply two sexes, male and female, a model which has come increasingly under challenge in recent work. Nelly Oudshoorn (1994) excavated the history of the theory whereby the essence of sex differences was seen as being fixed by hormones. As work progressed the original assumption that each sex was governed by its own hormones gave way to the recognition that 'male' and 'female' hormones are present in both sexes. Here was a possibility for dualistic notions of male and female to be abandoned. Given the cultural context, however, traditional classifications prevailed, yielding a theoretical framework within which the hormones work in distinct ways to produce two discreet categories. Where it is not possible to assign a body to one of these categories then something has gone wrong and this requires medical intervention to put it right.

Such assumptions have been challenged by, among others, Anne Fausto-Sterling (1993), who points out that the existence of intersex bodies has always been known. Hermaphrodites often featured in stories of human origins. She draws attention to the range of bodies which are included within this category. Bodies which possess the usual male (XY) or female (XX) chromosomal make-up can have a variety of external genitalia and secondary sex characteristics: 'the varieties are so diverse . . . that no classificatory scheme could do more than suggest the variety of sexual anatomy encountered in clinical practice' (1993: 22). Nor is the phenomenon as rare as we might suppose. Some have suggested that it may constitute as many as 4 per cent of all births. Most of these 'unruly' bodies are now treated by surgical intervention and by hormones at birth or sometimes at puberty and assigned to one of our prevailing sexual categories. Marianne Van den Wijngaard (1997) scrutinized the basis of the decisions made concerning which category the children were to be assigned to:

genetic sex appears to be an important criterion. For women it is decisive. Doctors usually 'make' a little girl when a child has two X chromosomes. When the child is a boy in genetic respects . . . , however, the size of the penis is decisive. If the penis is of a certain minimal size [to enable a normal sexual life in the male role], the team decides to help the child become a boy. If not a vagina is created and the child is 'made' into a girl.' (1997: 86–7)

In the making of the girl the creation of a penetrable vagina is considered central, but the 'deviant clitoris' looking like a penis is either removed or shortened with scant respect for its consequences for the sexual pleasure of the being made girl.

What the treatment of children classified as intersexed bodies signals is *not* that the biological classification into two sexes is that which nature dictates. It reflects instead a cultural need to reinforce and defend a gendered binary, a clear classification into male and female and a modification of bodies which appear to cross the divide. Such an insistence does not only inform the treatment of intersexed bodies. It also forces a *spurious assumption of homogeneity* within the categories of male and female themselves. The different markers of biological sex – genes (chromosomes), hormones, genitals, reproductive function, secondary sexual characteristics – do not all line up neatly together in the same way, even in cases where the label of intersex is not forced. Once we recognize the cultural anchorage of scientific inquiry we recognize that in searching for an explanation of sex differences biology itself becomes part of the contested zone.

## The Politics of Naturalizing Accounts

It has commonly been assumed that the naturalizing approach to sex differences, which we have been discussing in this chapter, is a conservative one. Those who argue that nature fixes ranges of behaviour are likely to think that the current social order with its apparent inequalities is simply a reflection of that natural order. In this way direct links have been made between the scientific research and socially conservative policies. But we cannot assume that naturalizing discourses are necessarily linked to such politics. LeVay's work is an example here. In the campaign for gay and lesbian rights and more recently in the debates over the rights of transsexual people the

argument from nature has been put to progressive use. If there is a difference in the brains of homosexual and/or transsexual people, it is argued that they constitute a natural kind. Their behaviour is not the result of a deviant or sinful lifestyle choice but a manifestation of a natural disposition. LeVay (1996) contends that where people hold these beliefs they are more likely to support anti-discriminatory legislation. We should none the less be aware that even in this case naturalizing beliefs have been employed differently. For, as LeVay himself documents, many of those originally exploring a biological basis for homosexuality did so because they wanted to find a medical cure for it.

It is more difficult to see how naturalizing moves can be used in a progressive way in the case of gender. If gendered identities are given, then the challenge to existing social inequalities appears to be undermined, since these will be viewed simply as a reflection of the natural order. There are, however, theories within which naturalizing moves around gender can be progressive. In some versions of radical feminism there is an appeal to what are regarded as natural characteristics of women which would prevail if they were not subject to the domination of the patriarchal order. These characteristics are viewed as a cause for celebration rather than denigration. There is no consensus over exactly what this underlying female nature might consist in, but characteristics such as sensuality and fecundity, emotional understanding, intuitive knowledge, and an embedded and caring relation with the rest of the natural world often feature. These so-called natural characteristics can then be put to progressive political use, particularly, for example, in the women's peace movement and the feminist ecology movement. In political protests like that at Greenham Common, a women's peace camp in the 1980s opposing American cruise missiles based in Britain, women exploited their role in reproduction and care and their embeddedness in and protectiveness towards the natural world to highlight the damage wrought by an aggressive and mechanistic masculinity, the consequence of which had been the production of weapons of mass destruction. Here aggressive and mechanistic masculinity was sometimes viewed in essentialist ways. In a similar way some eco-politics sees previously excluded female values as a site for renewing our relationship with the rest of the natural world.

It is important to note, however, that the same political practices can be engaged in by women with very different metaphysical views.

Many participants at Greenham Common were exploiting politically what were *socially viewed* as the appropriate roles for women. Moreover, the links between feminism and ecology can be seen as deriving in part from values which women in traditional roles hold as a result of the particular social and cultural positions they occupy and labours which they have been called on to perform. These values they might share with men who have performed similar labours.

There are dangers, which have become all too evident within political feminism, of marrying activism to views about the natural characteristics of men and women. For how are we to ascertain what the essential traits of femininity are, or would be once the mantle of patriarchy has been shaken off? The dangers of looking at the local and mistaking it for the universal have become very clear here. From the early 1980s the issue of difference within the category 'women' has become central to feminism. Women in different situations reveal different characteristics and have different political priorities. The attempt to identify certain traits and accompanying forms as activism appropriate to female nature is to ignore these differences and treat the experiences of a restricted group as if they represented the manifestation of universal traits of a natural kind (see chapter 3). The debates within the peace movement make this clear. Can we argue that women are 'naturally' pacifist? Can we construe, for example, women's involvement in militarism, the giving out of white feathers in the First World War, the inauguration of the Falklands War, the condoning of the bombing of Iraq, and so on, as simply a result of patriarchal domination? We might like to think so in these cases. But what then are we to say of women fighters in the Sandinista armies, or those risking their lives opposing apartheid? Women's involvement in armed struggle would be justified in these latter instances by the distinctiveness of the situation, by what is needed to achieve their goals in ensuring a better life for future generations. What these examples illustrate is the shakiness of claims that a characteristic is a part of our nature and the difficulties of providing any grounding for it. Many of the characteristics which it has been argued constitute women's nature, even when celebrated, have been connected with maternity. Not only does this marginalize the lives of women who are not mothers, it also ignores the ambiguities in the experiences of those that are. These experiences of mothering can be very different in different material circumstances. Moreover, in linking nurturing roles to women we seem to justify current social arrangements in

which such roles are left to them, to the detriment of their participation in other aspects of social life.

The dangers of a false universalism attaching even to the naturalism employed for progressive purposes are linked to a further danger. To accept the naturalizing talk is to reinforce the dichotomies of the conservative thought around sex differences. If behavioural traits associated with masculinity and femininity are a consequence of biological differences between male and female then this must be believed to explain much of the current social order, with all its inequalities, and to restrict the possibilities of radical social change. Most feminists therefore oppose naturalizing explanations of gender differences.

### **The Naturalizing Trick**

There are some ways in which my body responds to the world which are independent of my understanding – my heartbeat, the operation of my reflexes, the movements of my lungs, etc. (though it is possible for more of these to be modifiable in the light of the subject's self-understanding than we may sometimes think). There are other ranges of behaviour, however, where our engagement in the world is dependent on our understanding and conceptualizations of the situations in which we are placed. For that range of activities, our intentional acts, there are no brute causal relations between the movements of our body and the world. Our behaviour is instead mediated through the interpretative frameworks in terms of which we experience our world. Even acts to satisfy what might be regarded as basic needs such as hunger depend crucially on what we perceive as food, and equally what we perceive as good food or delicious food. This depends on modes of experiencing the world mediated through conceptualization and understanding (Taylor 1985). The role of understanding provides an insurmountable obstacle to attempts to explain actions purely in terms of biological processes. Our identities as subjects in the world are dependent on our understanding of those identities; on the salience and significance those identities have for us. It is only thus that our identities can impact on our behaviour. Perhaps some examples can make this clear. Whether or not I menstruate does not in a direct way depend on my understanding of menstruation. For some young women the events occur out of the blue. What responses I have to it, how I behave in relation to it, does, however,

depend on my understanding of it; including whether I celebrate it or keep it hidden. Whether or not I have a vagina and breasts is commonly something which is independent of my understanding. What does affect my behaviour is the significance which these have for me.

All this has a clear impact on the way we can understand our identities as women and men. The way in which our being male or female can impact on our intentional acts depends on the understanding of what it is to be male or female. Masculinity and femininity as aspects of the identities of subjects and agents are constituted in part by those subjects' understandings of what it is to be masculine and feminine. In giving accounts of gendered identities we therefore have to pay attention to these interpretations.

Our ways of seeing the world are not, of course, entirely individual. We are initiated during our lives into patterns of conceptualization, ways of seeing and understanding which make it possible for us to become subjects and agents in the world. The specific kind of significance and salience which our world has for us is learned in a social context and anchored in shared practices, which structure our responses. We eat with a knife and fork or with our hands or with chopsticks. Certain kinds of food are recognized as good. We go into public toilets marked 'men' or 'women', see some animals as pets and take them into our homes. Initiation into ways of conceiving the world is an ongoing process, not one that comes to an end in childhood. It is a process which is fluid and susceptible to change. None the less many of our conceptual frameworks have become completely habitual. They constitute a framework of interpretation without any awareness on our part that a process of interpretation has gone on. They have become, we might say, *second nature* to us. Where this is the case, our ways of looking at the world strike us as entirely natural, fixed only by how the world is, without the intervention of organizing subjects. We cannot conceive of any other way in which it could be understood. This, which we might term the naturalizing trick, is clearly at work in many people's response to sex and gender. It's natural for a man to want to compete, feel responsible for his family, enjoy a night out with the lads, get turned on by largish bare breasts. It's natural for girls to like cuddly toys or be close to their mothers. Where ways of seeing have become second nature in this way then it requires particular strategies to unseat them, to bring back into view the mediated nature of our relationship with the world. We shall be discussing some of these strategies in later chapters.

To insist on the role that understanding plays in our behavioural response to the world is an *anti-naturalizing* move. It is in opposition to the view that we can expect an explanation of our gendered identities from within the resources of the biological sciences. There is, however, an important point to be noted here. Those scientific accounts which we have been looking at themselves form an important way of understanding sex differences, which, to different degrees, are made available to people as a way of understanding their own identities. The naturalizing scientific modes of understanding can become widespread, forming the framework in terms of which people conceptualize their world. These naturalizing accounts can themselves produce a naturalizing effect, which it can prove difficult to unsettle.

### **What about the Body?**

The arguments of the last sections have been anti-naturalist ones. They oppose the idea that we can provide an adequate understanding of gendered identities by an appeal to nature. The concept of nature as we have been applying it here captures what is in some sense given, rather than humanly created; that which, on some accounts of the biological and natural sciences, it is their job simply to describe.

The resistance to naturalizing accounts of sex/gender differences has been threefold. First, that the putative accounts which have been offered have been flawed, even by the standards of conventional science. Secondly, science itself reflects the culture which produces it and in this case cultural assumptions about gender have been seen to influence scientific accounts of sex. Thirdly, gendered identities manifest themselves in behaviours which are mediated by understanding and therefore cannot be reduced to the mere effects of biology.

The concept of nature as simply that which is given, which served as our starting point, seems, however, to be itself undermined by the second and third of these arguments. For they both rely on the recognition that we have no direct and unmediated knowledge of the world. In fact we have no coherent idea of what such knowledge would be. Science itself is one of our projects and its account of the world is mediated also by frameworks of understanding. But, we might ask, what has happened to the world in all this? Can we make no sense of there being something fixed and given, which constrains

the possibility of action? In relation to accounts that are offered of gender such a query is often focused on the body. Surely there are facts about my body, which bear some relation to my identity as male or female. Doesn't the possibility of childbearing, the monthly cycle, etc., play any role at all? Aren't these simply givens which our frameworks of understanding have somehow to accommodate?

There are several important points that need clarifying here. The first is that anti-naturalism does not require us to give up any idea that the world/our bodies can set constraints on what it is possible to do or think. To insist on the mediated nature of all knowledge is to deny that nature simply offers herself to us ready categorized. It is to recognize that our account of what we take to be nature emerges from a complex interaction of scientific investigations and cultural metaphors and the networks of social power which condition the availability of theory (see the discussion of Haraway on p. 28 above). This, however, is not to deny that there is something independent of our conceptualizations which sets constraints on what can be said about it. What we cannot do is disentangle the bit which is given from our ways of thinking about it. What we have to recognize here is captured by Donna Haraway in following way:

the practices of the sciences force one to accept two simultaneous, apparently incompatible truths. One is the historical contingency of what counts as nature for us; the thoroughgoing artifactuality of a scientific object of knowledge that makes it inescapably and radically contingent . . . and simultaneously scientific discourses make claims . . . physically . . . they have a sort of reality to them which is inescapable. No scientific account escapes being story laden, but it is equally true that stories are not all equal here. Radical Relativism just won't do. (1991a: 2)

Haraway herself often characterizes this world which we are providing our accounts of as a coyote or trickster, always escaping from our best attempts to understand it, something in excess of anything our conceptual schemes can grasp: 'the real world is not the world of our best physics but the world that defeats any physics that would be final, that would desire to be the last word' (1991a: 6).

In taking an anti-naturalist stance in relation to the formation of sexed identities, then, we do not have to deny that our biological bodies may have a role to play. We do have to recognize, however,

that we have no uncontested and unmediated account of the characteristics of these bodies. Moreover, such bodies, while constraining the possibilities for action (we cannot, after all, fly unaided), can provide an explanation of our gendered behaviours only in terms of the meaning and significance which are attached to them. These are points to which we shall return, most particularly in chapter 7.