

Making **SEX**

BODY AND GENDER FROM THE GREEKS TO FREUD

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gnancy in the tragicomedy of eighteenth-century disguise—the last act of *Le Nozze di Figaro*, for example—with its questioning of what it is in a person that one loves. Bodies do and do not seem to matter. I watch Shakespeare's comedies of sexual inversion with new queries, and I try to think my way back into a distant world where the attraction of deep friendship was reserved for one's like.

Further than that I have not been able to go. I regard what I have written as somehow liberating, as breaking old shackles of necessity, as opening up worlds of vision, politics, and eros. I only hope that the reader will feel the same.

T W O

Destiny Is Anatomy

Turn outward the woman's, turn inward, so to speak, and fold double the man's [genital organs], and you will find the same in both in every respect.

GALEN OF PERGAMUM (c. 130–200)

This chapter is about the corporeal theatrics of a world where at least two genders correspond to but one sex, where the boundaries between male and female are of degree and not of kind, and where the reproductive organs are but one sign among many of the body's place in a cosmic and cultural order that transcends biology. My purpose is to give an account, based largely on medical and philosophical literature, of how the one-sex body was imagined; to stake out a claim that the one-sex/one-flesh model dominated thinking about sexual difference from classical antiquity to the end of the seventeenth century; and to suggest why the body should have remained fixed in a field of images hoary already in Galen's time, while the gendered self lived a nuanced history through all the immense social, cultural, and religious changes that separate the world of Hippocrates from the world of Newton.

Organs and the mole's eyes

Nothing could be more obvious, implied the most influential anatomist in the western tradition, than to imagine women as men. For the dullard who could not grasp the point immediately, Galen offers a step-by-step thought experiment:

Think first, please, of the man's [external genitalia] turned in and extending inward between the rectum and the bladder. If this should happen, the scrotum would necessarily take the place of the uterus with the testes lying outside, next to it on either side.

The penis becomes the cervix and vagina, the prepuce becomes the female pudenda, and so forth on through various ducts and blood vessels. A sort of topographical parity would also guarantee the converse, that a man could be squeezed out of a woman:

Think too, please, of . . . the uterus turned outward and projecting. Would not the testes [ovaries] then necessarily be inside it? Would it not contain them like a scrotum? Would not the neck [the cervix and vagina], hitherto concealed inside the perineum but now pendant, be made into the male member?

In fact, Galen argued, "you could not find a single male part left over that had not simply changed its position." Instead of being divided by their reproductive anatomies, the sexes are linked by a common one. Women, in other words, are inverted, and hence less perfect, men. They have exactly the same organs but in exactly the wrong places. (The wrongness of women, of course, does not follow logically from the "fact" that their organs are the same as men's, differing only in placement. The arrow of perfection *could* go either or both ways. "The silliest notion has just crossed my mind," says Mlle. de l'Espinasse in Diderot's *D'Alembert's Dream*: "Perhaps men are nothing but a freakish variety of women, or women only a freakish variety of men." Dr. Bordeu responds approvingly that the notion would have occurred to her earlier if she had known—he proceeds to give a short lecture on the subject—that "women possess all the anatomical parts that a man has.")¹

The topographical relationships about which Galen writes so persuasively and with such apparent anatomical precision were not themselves to be understood as the basis of sexual hierarchy, but rather as a way of imagining or expressing it. Biology only records a higher truth. Thus although Galen, the professional anatomist, clearly cared about corporeal structures and their relation to the body's various functions, his interest in the plausibility of particular identifications or in maintaining the manifestly impossible implosion of man into woman and back out again, was largely a matter of rhetorical exigency.

On some occasions he was perfectly willing to argue *for* the genital oppositions he elsewhere denied: "since everything in the male is the opposite [of what it is in the female] the male member has been elongated to be most suitable for coitus and the excretion of semen" (*UP* 2.632). At other times Galen and the medical tradition that followed him were

prepared to ignore entirely not only the specifically female but also the specifically reproductive quality of the female reproductive organs, not to speak of their relationship to male organs. His systematic major treatment of the uterus, for example, treated it as the archetype for a group of organs "which are especially hollow and large" and thus the locus of a generic body's "retentive faculties." The uterus was singled out not because of what we moderns might take to be its unique, and uniquely female, capacity to produce a child but because it formed the embryo in leisurely fashion, more so than a comparable organ like the stomach digested food, and was therefore "capable of demonstrating the retentive faculty most plainly."²

Subsequent ways of talking about the uterus reproduced these ambiguities. Isidore of Seville, the famous encyclopedist of the seventh century, for example, argued on the one hand that only women have a womb (*uterus* or *uterum*) in which they conceive and, on the other, that various authorities and "not only poets" considered the uterus to be the belly, *venter*, common to both sexes.³ (This helps to explain why *vulva* in medieval usage usually meant vagina, from *valva*, "gateway to the belly."⁴) Isidore, moreover, assimilates this unsexed belly to other retentive organs with respect precisely to that function in which we would think it unique: during gestation, he said, the semen is formed into a body "by heat like that of the viscera."⁵ A great linguistic cloud thus obscured specific genital or reproductive anatomy and left only the outlines of spaces common to both men and women.⁶

None of these topographical or lexical ambiguities would matter, however, if instead of understanding difference and sameness as matters of anatomy, the ancients regarded organs and their placement as epiphenomena of a greater world order. Then what we would regard as specifically male and female parts would not always need to have their own names, nor would the inversions Galen imagined actually have to work. Anatomy—modern sex—could in these circumstances be construed as metaphor, another name for the "reality" of woman's lesser perfection. As in Galen's elaborate comparison between the eyes of the mole and the genital organs of women, anatomy serves more as illustration of a well-known point than as evidence for its truth. It makes vivid and more palpable a hierarchy of heat and perfection that is in itself not available to the senses. (The ancients would not have claimed that one could actually feel differences in the heat of males and females.)⁷

Galen's simile goes as follows. The eyes of the mole have the same structures as the eyes of other animals except that they do not allow the mole to see. They do not open, "nor do they project but are left there imperfect." So too the female genitalia "do not open" and remain an imperfect version of what they would be were they thrust out. The mole's eyes thus "remain like the eyes of other animals when these are still in the uterus" and so, to follow this logic to its conclusion, the womb, vagina, ovaries, and external pudenda remain forever as if they were still inside the womb. They cascade vertiginously back inside themselves, the vagina an eternally, precariously, unborn penis, the womb a stunted scrotum, and so forth.⁸

The reason for this curious state of affairs is the purported telos of perfection. "Now just as mankind is the most perfect of all animals, so within mankind the man is more perfect than the woman, and the reason for his perfection is his excess of heat, for heat is Nature's primary instrument" (UP 2.630). The mole is a more perfect animal than animals with no eyes at all, and women are more perfect than other creatures, but the unexpressed organs of both are signs of the absence of heat and consequently of perfection. The interiority of the female reproductive system could then be interpreted as the material correlative of a higher truth without its mattering a great deal whether any particular spatial transformation could be performed.

Aristotle, paradoxically for someone so deeply committed to the existence of two radically different and distinct sexes, offered the western tradition a still more austere version of the one-sex model than did Galen. As a philosopher he insisted upon two sexes, male and female. But he also insisted that the distinguishing characteristic of maleness was immaterial and, as a naturalist, chipped away at organic distinctions between the sexes so that what emerges is an account in which one flesh could be ranked, ordered, and distinguished as particular circumstances required. What we would take to be ideologically charged social constructions of gender—that males are active and females passive, males contribute the form and females the matter to generation—were for Aristotle indubitable facts, "natural" truths. What we would take to be the basic facts of sexual difference, on the other hand—that males have a penis and females a vagina, males have testicles and females ovaries, females have a womb and males do not, males produce one kind of germinal product, females another, that women menstruate and men do not—were for Aristotle

contingent and philosophically not very interesting observations about particular species under certain conditions.

I do not mean to suggest by this that Aristotle was unable to tell man from woman on the basis of their bodies or that he thought it an accident that men should fulfill one set of roles and women another. Even if he did not write the *Economics* he would certainly have subscribed to the view that "the nature both of man and woman has been preordained by the will of heaven to live a common life. For they are distinguished in that the powers they possess are not applicable to purposes in all cases identical, but in some respects their functions are opposed to one another." One sex is strong and the other weak so that one may be cautious and the other brave in warding off attacks, one may go out and acquire possessions and the other stay home to preserve them, and so on.⁹ In other words, both the division of labor and the specific assignment of roles are natural.

But these views do not constitute a modern account of two sexes. In the first place, there is no effort to ground social roles in nature; social categories themselves are natural and on the same explanatory level as what we would take to be physical or biological facts. Nature is not therefore to culture what sex is to gender, as in modern discussions; the biological is not, even in principle, the foundation of particular social arrangements. (Aristotle, unlike nineteenth-century commentators, did not need facts about menstruation or metabolism to locate women in the world order.) But more important, though Aristotle certainly regarded male and female bodies as specifically adapted to their particular roles, he did not regard these adaptations as the signs of sexual opposition. The qualities of each sex entailed the comparative advantage of one or the other in minding the home or fighting, just as for Galen the lesser heat of women kept the uterus inside and therefore provided a place of moderate temperature for gestation. But these adaptations were not the basis for ontological differentiation. In the flesh, therefore, the sexes were more and less perfect versions of each other. Only insofar as sex was a cipher for the nature of causality were the sexes clear, distinct, and different in kind.

Sex, for Aristotle, existed for the purpose of generation, which he regarded as the paradigmatic case of becoming, of change "in the first category of being."¹⁰ The male represented efficient cause, the female represented material cause.

the female always provides the material, the male that which fashions it, for this is the power we say they each possess, and *this is what it is for them to be male and female* . . . While the body is from the female, it is the soul that is from the male. (GA 2.4.738b20–23)

the male and female principles may be put down first and foremost as the origins of generation, the former as containing the efficient cause of generation, the latter the material of it. (GA 2.716a5–7)

This difference in the nature of cause constitutes fully what Aristotle means by sexual opposition: “by a male animal we mean that which generates in another; by a female, that which generates in itself”; or, what comes to the same thing since for Aristotle reproductive biology was essentially a model of filiation, “female is opposed to male, and mother to father.”¹¹

These were momentous distinctions, as powerful and plain as that between life and death. To Aristotle being male *meant* the capacity to supply the sensitive soul without which “it is impossible for face, hand, flesh, or any other part to exist.” Without the sensitive soul the body was no better than a corpse or part of a corpse (GA 2.5.741a8–16). The dead is made quick by the spark, by the incorporeal *sperma* (seed), of the genitor. One sex was able to concoct food to its highest, life-engendering stage, into true sperma; the other was not.

Moreover, when Aristotle discusses the capacity of the respective sexes to carry out the roles that distinguish them, he seems to want to consider bodies, and genitals in particular, as themselves opposites, indeed as making possible the efficient/material chasm itself. Males have the capacity, and females do not, to reduce “the residual secretion to a pure form,” the argument runs, and “every capacity has a certain corresponding organ.” It follows that “the one has the uterus, the other the male organs.” (These distinctions are actually more striking in translation than in the Greek. Aristotle uses *perineos* to refer to the penis and scrotum here. He uses the same word elsewhere to refer to the area “inside the thigh and buttocks” in women. More generally he uses *aidoion* to refer to the penis, but in the plural, *aidoia*, it is the standard word for the “shameful parts,” the Greek equivalent for the Latin *pudenda*, which refers to the genitals of both sexes.¹²)

Nevertheless, despite these linguistic ambiguities, Aristotle does seem committed to the genital opposition of two sexes. An animal is not “male

or female in virtue of the whole of itself,” he insists, “but only in virtue of a certain faculty and a certain part,” that is, the uterus in the female, the penis and testes in the male. The womb was the part peculiar to the female, just as the penis was distinctive of the male.¹³ No slippery inversions here as in Galen. No elisions of difference or hints of one sex. “The privy part of the female is in character opposite to that of the male. In other words, the part under the pubes is hollow, and not like the male organ, protruding” (HA 1.14.493b3–4). Aristotle even adduced what he took to be experimental evidence for the fact that anatomy was the foundation of the opposing male and female “principles” of activity and passivity. A castrated male, he pointed out, assumed pretty well the form of a female or “not far short of it . . . as would be the case if a first principle is changed” (GA 1.2.716b5–12). The excision of the “ovaries” in a sow caused them to get fat and quenched their sexual appetite, while a similar operation in camels made them more aggressive and fit for war service.¹⁴

None of this is very surprising, since the physical appearance of the genital organs was and remains the usually reliable indicator of reproductive capacity and hence of the gender to which an infant is to be assigned.¹⁵ But what is surprising is the alacrity with which Aristotle the naturalist blurs the distinctions of “real” bodies in order to arrive at a notion of fatherhood—the defining capacity of males—that transcends the divisions of flesh. Like Galen’s, and unlike that of the dominant post-Enlightenment tradition, Aristotle’s rhetoric then becomes that of one sex.

First, Aristotle’s passion for the infinite variety of natural history constantly undermines the form-follows-function precision of the texts I have cited. A large penis, which one might think would render a man more manly, capable of generating in another, in fact makes him less so: “such men are less fertile than when it [the penis] is smaller because the semen, if cold, is not generative.”¹⁶ (Aristotle’s biology is here playing on broader cultural themes. A large penis was thought comic in ancient Greek art and drama, appropriate to satyrs, while the preferred size was small and delicate: “little prick” (*posthion*) was among Aristophanes’ terms of endearment. Young athletes in Athens tied down the glans with a leather string, apparently for cosmetic reasons, to make the male genitals look small and as much like the female pudenda as possible.¹⁷) Detail after detail further undermines the penis/male connection in Aristotle’s

texts: human males and stallions do indeed have proportionately large penises outside their bodies, but the male elephant's is disproportionately small—he also has no visible testes—while the dolphin has no external penis at all. (The situation is doubly confused with elephants because supposedly the female “organ opens out to a considerable extent” during intercourse (*HA* 2.1.500a33–35 and 2.1.500b6–13). Among insects, Aristotle claims, the female actually pushes her sexual organ from underneath *into* the male (*HA* 5.8.542a2ff). Indeed, the male's having a penis at all seems to depend on nothing more than the placement or indeed existence of the legs: snakes, which have no legs, and birds, whose legs are in the middle of their abdomens where the genitals ought to be, simply lack a penis entirely (*HA* 2.1.500b20–25 and *GA* 1.5.717b14–19).

As for the testes being a “first principle” in the differentiation of the sexes, little is left rhetorically of this claim when faced with specific observations and metaphors (*GA* 1.2.716b4). Aristotle demotes them in one text to the lowly task of bending certain parts of the body's piping (*HA* 3.1.510a13–b5). Like the weights women hang from the warp on their looms—a less than celebratory simile, which suffers from a curious mixing of genders—the testicles keep the spermatic ducts properly inclined (*GA* 1.4.717a8–b10). (Thread that is not properly held down results in a tangle; tangled seminal ducts that go back up into the body convey impotent generative material.)

These “facts” led Aristotle still further away from specific connections between opposing genitals and sex and ever deeper into the thicket of connections that constitute the one-sex model. He, like Galen five centuries later, aligned the reproductive organs with the alimentary system, common to all flesh. Animals with straight intestines are more violent in their desire for food than animals whose intestines are convoluted, Aristotle observed, and likewise those with straight ducts, creatures without testes, are “quicker in accomplishing copulation” than creatures with crooked ducts. Conversely, creatures who “have not straight intestines” are more temperate in their longing for food, just as twisted ducts prevent “desire being too violent and hasty” in animals so blessed. Testes thus end up serving the lowly but useful function of making “the movement of the spermatic secretion steadier,” thus prolonging intercourse and concoction in the interest of hotter, finer sperma.¹⁸ Aristotle makes much less of the female plumbing, but his concern to identify the ovaries as the seat

of woman's specific reproductive capacity was never very serious and the one passage where he makes the case crumbles under close scrutiny.¹⁹ Natural history, in short, works to diminish the pristine purity of testes and ovaries, penis and vagina, as signifiers of sexual opposition—of efficient versus material cause—and situates them firmly in a larger economy of the one flesh.

Moreover, when Aristotle directly confronted the question of the anatomical differences between the sexes, he unleashed a vortex of metaphor every bit as dizzying and disorienting, every bit as committed to one sex, as Galen's trope of the mole's eyes. All of the male organs, he said, are similar in the female except that she has a womb, which presumably the male does not. But Aristotle promptly assimilates the womb to the male scrotum after all: “always double just as the testes are always two in the male.”²⁰

This move, however, was only part of a more general conflation of male and female parts, specifically of a tendency to regard the cervix and/or vagina as an internal penis:

The path along which the semen passes in women is of the following nature: they [women] possess a tube (*kaulos*)—like the penis of the male, but inside the body—and they breathe through this by a small duct which is placed above the place through which women urinate. This is why, when they are eager to make love, this place is not in the same state as it was before they were excited. (*HA* 10.5.637a23–25)

The very lack of precision in this description, and especially the use of so general a term as *kaulos* for a structure that in the two-sex model would become the mark of female emptiness or lack, suggests that Aristotle's primary commitment was not to anatomy itself, and certainly not to anatomy as the foundation for opposite sexes, as much as it was to greater truths that could be impressionistically illustrated by certain features of the body.

A brief excursus on *kaulos* will help to make this case. The word refers to a hollowish tubular structure generally: the neck of the bladder or the duct of the penis or, in Homeric usage, a spear shaft or the quill of a feather (to take four charged and richly intertwined examples). In the passage I just quoted it clearly designates some part of the female anatomy though which, significantly, is unclear: the cervix [neck] of the uterus, the endo-cervical canal, the vagina, some combination of these or

even the clitoris which like the penis would have been construed as hollow. But whatever *kaulos* means in this text, the part in question is spoken of elsewhere as if it functioned in women like an interior penis, a tube composed, as are both penis and vagina, of “much flesh and gristle” (*HA* 3.1.510b13).

By the time of Soranus, the second-century physician who would become the major source of the gynecological high tradition for the next fifteen centuries, the assimilation of vagina to penis through language had gone much further. “The inner part of the vagina (*tau gynaikeiou aidouion*, the feminine private part),” Soranus said, “grows around the neck of the uterus (*kaulos*, which I take here to mean cervix) like the prepuce in males around the glans.”²¹ In other words, the vagina and external structures are imagined as one giant foreskin of the female interior penis whose glans is the domelike apex of the “neck of the womb.” By the second century *kaulos* had also become the standard word for penis. The “protruding part” of the *aidouion* (private part) “through which flows liquid from the bladder” is called the *kaulos*, says Julius Pollux (134–192) authoritatively in his compilation of medical nomenclature.²² Aristotle—or the pseudo-Aristotle who wrote book 10 of the *Generation of Animals*—must have imagined something like this when he wrote of the womb during orgasm violently emitting (*proiesthai*) through the cervix into the same space as the penis, i.e., into the vagina.²³ If we take this figure seriously, we must come to the extraordinary conclusion that women always have one penis—the cervix or *kaulos*—penetrating the vagina from the inside and another more potent penis, the male’s, penetrating from the outside during intercourse.

There is, as G. E. R. Lloyd said, “an air of shadow boxing” about Greek debates on male and female physiology, and even a certain lunatic confusion if various claims are pushed to their limits.²⁴ Matters were ordinarily much clearer to the ancients, who could undoubtedly tell penis from vagina and possessed the language with which to do so. Latin and Greek, like most other tongues, generated an excess of words about sex and sexual organs as well as a great abundance of poetry and prose praising or making fun of the male or female organs, joking or cursing on the theme of what should be stuck where. I deny none of this.

But when the experts in the field sat down to write about the basis of sexual difference, they saw no need to develop a precise vocabulary of genital anatomy because if the female body was a less hot, less perfect,

and hence less potent version of the canonical body, then distinct organic, much less genital, landmarks mattered far less than the metaphysical hierarchies they illustrated. Claims that the vagina was an internal penis or that the womb was a female scrotum should therefore be understood as images in the flesh of truths far better secured elsewhere. They are another way of saying, with Aristotle, that woman is to man as a wooden triangle is to a brazen one or that woman is to man as the imperfect eyes of the mole are to the more perfect eyes of other creatures.²⁵ Anatomy in the context of sexual difference was a representational strategy that illuminated a more stable extracorporeal reality. There existed many genders, but only one adaptable sex.

Blood, milk, fat, sperm

In the blood, semen, milk, and other fluids of the one-sex body, there is no female and no sharp boundary between the sexes. Instead, a physiology of fungible fluids and corporeal flux represents in a different register the absence of specifically genital sex. Endless mutations, a cacophonous ringing of changes, become possible where modern physiology would see distinct and often sexually specific entities.

Ancient wisdom held, for example, that sexual intercourse could alleviate conditions—mopish, sluggish behavior—caused by too much phlegm, the moist clammy humor associated with the brain: “semen is the secretion of an excrement and in its nature resembles phlegm.”²⁶ (This already hints of the idea that conception is the male having an idea in the female body.) But more to the point here, ejaculation of one sort of fluid was thought to restore a balance caused by an excess of another sort because seminal emission, bleeding, purging, and sweating were all forms of evacuation that served to maintain the free-trade economy of fluids at a proper level. A Hippocratic account makes these physiological observations more vivid by specifying the anatomical pathways of interconversion; sperm, a foam much like the froth on the sea, was first refined out of the blood; it passed to the brain; from the brain it made its way back through the spinal marrow, the kidneys, the testicles, and into the penis.²⁷

Menstrual blood, a plethora or leftover of nutrition, is as it were a local variant in this generic corporeal economy of fluids and organs. Pregnant women, who supposedly transformed otherwise superfluous food into

nourishment for the fetus, and new mothers, who nursed and thus needed to convert extra blood into milk, did not have a surplus and thus did not menstruate. "After birth," says the omniscient Isidore, passing on one millennium of scholarship to the next, "whatever blood has not yet been spent in the nourishing of the womb flows by natural passage to the breasts, and whitening [hence *lac*, from the Greek *leukos* (white), Isidore says] by their virtue, receives the quality of milk."²⁸ So too obese women (they transformed the normal plethora into fat), dancers (they used up the plethora in exercise), and women "engaged in singing contests" (in their bodies "the material is forced to move around and is utterly consumed") did not menstruate either and were thus generally infertile.²⁹ The case of singers, moreover, illustrates once again the extent to which what we would take to be only metaphoric connections between organs were viewed as having causal consequences in the body as being real. Here the association is one between the throat or neck through which air flows and the neck of the womb through which the menses passes; activity in one detracts from activity in the other. (In fact, metaphorical connections between the throat and the cervix/vagina or buccal cavity and pudenda are legion in antiquity and still into the nineteenth century, as fig. 2 suggests. Put differently, a claim that is made in one case as metaphor—the emissions that both a man and a woman deposit in front of the neck of the womb are drawn up "with the aid of breath, *as with* the mouth or nostrils"—has literal implications in another: singers are less likely to menstruate.³⁰)

Although I have so far only described the economy of fungible fluids with respect to sperm and menstrual blood, seemingly gendered products, it in fact transcended sex and even species boundaries. True, because men were hotter and had less blood left over, they did not generally give milk. But, Aristotle reports, some men after puberty *did* produce a little milk and with consistent milking could be made to produce more (*HA* 3.20.522a19–22). Conversely, women menstruated because they were cooler than men and hence more likely at certain ages to have a surplus of nutriment. But, even so, menstruation in women was thought to have functional, nonreproductive, equivalents, which allowed it to be viewed as part of a physiology held in common with men. Thus, Hippocrates held, the onset of a nosebleed, but also of menstruation, was an indication that a fever was about to break, just as nosebleeding was a prognostic sign that blocked courses, amenorrhea, would soon resolve. Conversely,

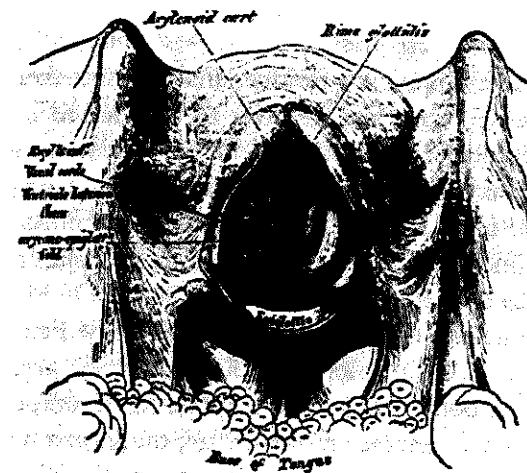


Fig. 2. Nineteenth-century illustration of a view into the aperture of the larynx which makes it look like the female external genitalia. Galen had pointed out that the uvula, which hangs down at the back of the soft palate—center view as one looks into the mouth—gives the same sort of protection to the throat that the clitoris gives to the uterus. From Max Muller, *Lectures on the Science of Language*.

a woman vomiting blood would stop if she started to menstruate.³¹ The same sort of substitution works with sweat: women menstruate less in the summer and more in winter, said Soranus, because of the different amounts of evaporation that take place throughout the body in warm and cold weather. The more perspiration, the less menstrual bleeding.³²

What matters is losing blood in relation to the fluid balance of the body, not the sex of the subject or the orifice from which it is lost. Hence, argued Aetius the Cappadocian, if melancholy appears after "the suppression of the catemial discharge in women," or after "the hemorrhoidal flux in men, we must stimulate the parts to throw off their accustomed evacuation." Women, said Aristotle, do not suffer from hemorrhoids or nosebleeds as much as men do, except when their menstrual discharges are ceasing; conversely, the menstrual discharge is slight in women with hemorrhoids or varicose veins presumably because surplus blood finds egress by these means.³³

The complex network of interconvertibility implicit in the physiology of one sex is even wider than I have suggested and encompasses flesh as well as fluid. Aristotle, for example, finds confirmation for the common

residual nature of sperm and menstrual fluid in the observation that fat creatures of *both* sexes are “less spermatic” (*spermatika*) than lean ones. Since “fat also, like semen, is a residue, and is in fact concocted blood,” fat men and women have less left over to be released in orgasm or as catamenia. Lean men, on the other hand, produce more semen than fat men and for the same general reason that humans produce proportionally more semen *and* more menstrual fluid than other animals: lean men do not use up nutriment for fat; humans retain, as a surplus, material that in animals goes into their horns and hair.³⁴

This sort of analysis can be extended indefinitely. Fair-complexioned men and women ejaculate more copiously than darker ones, Aristotle says, without even bothering to make explicit the assumption that this is because the latter are generally more hirsute; those on a watery and pungent diet discharge more than they would on a dry bland diet (*HA* 7.2.583a10–14). Both men and women are tired after ejaculation, not because the quantity of material emitted is so great but because of its quality: it is made from the purest part of the blood, from the essence of life (*GA* 1.18.725b6–7).

If, as I have been arguing, the reproductive fluids in the one-sex model were but the higher stages in the concoction of food—much like the lighter-weight products in the fractional distillation of crude oil—then the male and female seed cannot be imagined as sexually specific, morphologically distinct, entities, which is how they would come to be understood after the discovery of little creatures in the semen and of what was presumed to be the mammalian egg in the late seventeenth century.³⁵ Instead, the substances ejaculated by the “two sexes” in the one-sex body were hierarchically ordered versions of one another according to their supposed power.

The difference between so-called two-seed and one-seed theories—Galen versus Aristotle—is therefore not an empirical question that could be resolved by reference to observable facts. Even in Aristotle’s one-seed theory, *sperma* and *catamenia* refer to greater or lesser refinements of an ungendered blood, except when they are used as ciphers for the male and female “principles.”³⁶ What one sees, or could ever see, does not really matter except insofar as the thicker, whiter, frothier quality of the male semen is a hint that it is more powerful, more likely to act as an efficient cause, than the thinner, less pristinely white, and more watery female ejaculate or the still red, even less concocted, menstrua. Like reproductive organs, reproductive fluids turn out to be versions of each other; they are

the biological articulation, in the language of a one-sex body, of the politics of two genders and ultimately of engendering.

The Hippocratic writer illustrates this point vividly and without the philosophical complexity we find in Aristotle’s so-called one-seed theory. Perhaps, if we accept the views of Aline Rousselle, he even speaks for the otherwise silenced empirical wisdom of women.³⁷ Hippocrates argues for pangenesis, the view that each part of the body of each parent renders up some aspect of itself; that the representatives of the various parts form a reproductive fluid or seed; and that conception consists of a blending, in various proportions and strengths, of these germinal substances. Hippocrates abandons any effort to attribute strong or weak seed respectively to actual males or females. Although males must originate from stronger sperm, “the male being stronger than the female,” both are capable of producing more or less strong seed. What each emits is the result not of any essential characteristic of male or female, but of an internal battle between each sort of seed: “what the woman emits is sometimes stronger, sometimes weaker; and this applies also to what the man emits.”³⁸ Hippocrates insists on this point by repeating the claim and generalizing it to animals: “The same man does not invariably emit the strong variety of sperm, nor the weak invariably, but sometimes the one and sometimes the other; the same is true in the woman’s case.” This explains why any given couple produces both male and female offspring as well as stronger and weaker versions of each; likewise for the beasts.³⁹

If both partners produce strong sperm, a male results; if both produce weak sperm, a female is born; and if in one partner the battle has gone to the weak and in the other to the strong, then the sex of the offspring is determined by the quantity of the sperm produced. A greater quantity of weak sperm, whether produced by the male or the female, can overwhelm a lesser quantity of strong sperm, of whatever origin, in the second round when the two meet in front of the uterus for renewed combat. Hippocrates is at pains to emphasize the fluidity of the situation and the interpenetration of male and female. The contest for supremacy between the sperm is,

just as though one were to mix together beeswax and suet, using a larger quantity of the suet than of the beeswax, and melt them together over a fire. While the mixture is still fluid, the prevailing character of the mixture is not apparent: only after it solidifies can it be seen that the suet prevails quantitatively over the wax. And it is just the same with the male and female forms of the sperm.⁴⁰

Male and female "forms" of sperm thus correspond neither to the genital configuration of their source nor to that of the new life they will create, but rather to gradations on a continuum of strong to weak.⁴¹

I think that, if pushed on the point, the Hippocratic writer would have to admit that there was something uniquely powerful about male seed, the fluid that comes from an actual male, because otherwise he would have no answer to the question with which two-seed theorists were plagued for millennia: if the female has such powerful seed, then why can she not engender within herself alone; who needs men? The Hippocratic texts, however, resolutely resist correlating the gender of the seed, its strength or weakness, with the sex of the creature that produced it. Instead, in their version of the one-sex economy of fluids, the more potent seed is by definition the more male, wherever it originated.

For Galen too each parent contributes something that shapes and vivifies matter, but he insists that the female parent's seed is less powerful, less "informing," than the male parent's because of the very nature of the female. To be female *means* to have weaker seed, seed incapable of engendering, not as an empirical but as a logical matter. "Forthwith, of course, the female *must* have smaller, less perfect testes, and the semen generated in them must be scantier, colder, and wetter (for these things too follow of necessity from the deficient heat)" (UP 2.631). Thus, in contrast to Hippocrates, Galen holds that the quality of the respective seeds themselves follows from the hierarchy of the sexes. Man's seed is always thicker and hotter than a woman's for the same reason that the penis is extruded and not, like the uterus and the mole's eyes, left undeveloped inside the body: humans are the most perfect animal, and man is more perfect than woman because of an "excess of heat." In opposition, however, to what he took to be Aristotle's view, Galen insisted that women did produce semen, a true generative seed. If this were not the case, he asks rhetorically, why would they have testicles, which they manifestly do? And if they had no testicles (*orchis*) they would not have the desire for intercourse, which they manifestly have.⁴² In other words, the female seed, like woman herself, "is not very far short of being perfectly warm" (UP 2.630).

Male and female semen, more and less refined fluids, thus stand in the same relationship to blood that penis and vagina stand to genital anatomy, extruded and still-inside organs. As the medieval Arabic physician Avicenna (ibn-Sina, 980–1037) puts it in his discussion of these Galenic

texts, "the female seed is a kind of menstrual blood, incompletely digested and little converted, and it is not as far away from the nature of blood (*a virtute sanguinea*) as is the male seed."⁴³ He assimilates digestion and reproduction, food, blood, and seed into a single general economy of fluids driven by heat. The female in the one-sex model lacks the capacity, the vital heat, to convert food to the very highest level: sperm. But she comes close.

Aristotle and the Aristotelian "one-seed" tradition, with its radical distinction between the male and female generative materials (*gonimos*), would seem to make the Galenic intermediate position impossible and would thus also seem to provide a basis in the body for two biologically distinct and incommensurable sexes, much in the way that egg and sperm would come to function in theories like Geddes' in the nineteenth century. Males, in Aristotle's account, produce *sperma*, which is the efficient cause in generation, and females do not. Females provide instead the *catamenia*, which is the material cause and thus of an entirely different nature. But this *a priori* formal distinction entirely exhausts what Aristotle means by *sperma* and *catamenia*. Just as the bodies of males and females fail to provide fixed anatomical correlatives for his theory of generative causality, so too the reproductive fluids "in the world" do not sustain a radical two-sex account of sexual difference. Nor would Aristotle want them to.

Obviously Aristotle and his contemporaries could tell semen from menstrual blood. Men and sanguineous male animals, they knew, generally emitted a visible, palpable substance that was white because it was foam composed of invisible bubbles and thick because it was a compound of water mixed with breath (*pneuma*), the tool through which the male principle worked. Although Aristotle usually referred to this stuff as *sperma*, its distinguishing characteristics were not in principle aspects of the seed itself.⁴⁴ The ejaculate, he makes absolutely explicit, was but the vehicle for the efficient cause, for the *sperma*, which worked its magic like an invisible streak of lightning. As experience proved, it ran out of or evaporated from the vagina; it no more entered into the *catamenia*, into what would become the body of the embryo, than any active agent enters into passive matter when one thing is made from two. After all, no part of the carpenter merges with the bed he crafts, nor does the swordsmith's art enter the sword he is fashioning, nor does rennet or fig juice become part of the milk they curdle into cheese. Indeed the efficient cause, the

artisanal, informing principle, can apparently be carried on the breeze alone, as with the Cretan mares who are "wind impregnated."⁴⁵

All of Aristotle's metaphors discount a physically present ejaculate; sperma as artisan works in a flash, more like a genie than like a shoemaker who sticks to his last. His images bring us back to the constellation of phlegm/brain/sperm: conception is for the male to have an idea, an artistic or artisanal conception, in the brain-uterus of the female.⁴⁶

But the female, the material, contribution to generation is only slightly more material and thus recognizable by the physical properties of menstrual blood. Aristotle is at pains to point out that catamenia, the menstrual residue itself, is not to be equated with the actual blood that one sees: "the greater part of the menstrual flow is useless, being fluid" (GA 2.4.739a9). But he leaves the relationship between the catamenia, wherein the sperma works its magic, and anything visible—the "useless" menstrual discharge or the fluid that moistens the vagina during intercourse—unexplored largely because it does not matter in a world in which claims about the body serve primarily as illustrations of a variety of higher truths.⁴⁷ His dominant image is of a hierarchy of blood: "The secretion of the male and the menses of the female are of a sanguinous nature."⁴⁸ Semen from men who have coitus too often reverts to its earlier bloody state; semen in boys and often in older men is, like the catamenia, unable to impart movement to matter.⁴⁹ For Aristotle, therefore, and for the long tradition founded in his thought, the generative substances are interconvertible elements in the economy of a single-sex body whose higher form is male. As physiological fluids they are not distinctive and different in kind, but the lighter shades of biological chiaroscuro drawn in blood.⁵⁰

All of this evidence suggests that in the construction of the one-sex body the borders between blood, semen, other residues and food, between the organs of reproduction and other organs, between the heat of passion and the heat of life, were indistinct and, to the modern person, almost unimaginably—indeed terrifyingly—porous. "Anyone who has intercourse around midnight," warns a text attributed to Constantinius Africanus, "makes a mistake." Digest (concoct) food first before straining the body to give the final concoction to the seed.⁵¹ Fifteen hundred years after Aristotle and a thousand after Galen, Dante in the *Purgatorio* still plays on the fungibility of the body's fluids and the affinities of its heats. "Undrunk" blood, perfect like a dish (*alimento*) that is sent from the table, is redistilled by the heat of the heart, sent down to the genitals, from

which "it sprays in nature's vessel, on another's blood."⁵² *The Secrets of Women*, compiled from ancient lore during the later Middle Ages and still popular in the eighteenth century, speaks of the appetite for intercourse as a direct result of the buildup of residue from daily food. Menstrua refined from the blood heats up a woman's vulva through an "abundance of matter" and causes her greatly to desire coition.⁵³

The fluid economy of the one-sex body thus engenders the desires and the heat through which it will be perpetuated. But more generally I hope it is becoming clear that the physiology and even the anatomy of generation are but local instances of a way of talking about the body very different from our own. Visible flesh and blood cannot be regarded as the stable "real" foundation for cultural claims about it. Indeed, the interpretive problem is understanding the purchase of "real" and the degree to which biology is only the expression of other and more pervasive truths.

Orgasm and desire

"I must now tell why a great pleasure is coupled with the exercise of the generative parts and a raging desire precedes their use," Galen wrote (*UP* 2.640). However else orgasm might be tempered to fit the cultural needs of the private and the public body, it signaled the unsocialized body's capacity to generate. A basically matter-of-fact, specifically genital urge led to a grander, systemic heating of the body until it was hot enough to concoct the seeds of new life. Serous residues, exquisitely sensitive skin, and friction were the proximal causes of sexual delight and desire; "that the race may continue incorruptible forever" was their ultimate purpose. The process of generation might differ in its nuances as the vital heats, the seeds, and the physical qualities of the substances being ejaculated differed between the sexes—but libido, as we might call it, had no sex.

There was, of course, the age-old issue of whether men or women enjoyed the pleasures of Venus more, a question posed most famously in Ovid, who offers an ambiguous answer. (Ovid's account would become a regular anecdote in the professorial repertory, told to generations of medieval and Renaissance students to spice up medical lectures.) True, Tiresias, who had experienced love as both a man and a woman, was blinded by Juno for agreeing with Jupiter that women enjoyed sex more. But his qualifications for judging already suggest the slipperiness of the question: he knew either one or the other, or both, aspects of the femi-

nine *Venus* rather than of the masculine *amor*. And the story of his “mirror” metamorphosis from man to woman, the result of his striking two copulating serpents, and back to man by striking them again eight years later, further undermines his authority on the sexual differentiation of pleasure. Snakes famously give no outward sign of their sex; they curl around one another in coition and reflect back and forth the most ambiguous and ungendered of images. Though differing perhaps in nuance, orgasm is orgasm in the one-flesh body, Ovid’s story seems to say.⁵⁴

A common neurology of pleasure in a common anatomy, it was thought, bore witness to this fact. Galen, for example, notes that “the male penis . . . as well as the neck of the uterus and the other parts of the pudendum” are richly endowed with nerves because they need sensation during sexual intercourse and that the testes, scrotum, and uterus are poorly endowed because they do not. Animal dissections prove, he says, that the “genital areas,” in common with the liver, spleen, and kidneys, have only small nerves while the pudenda have “more considerable ones.” Even the skin of the relevant organs is more irritated by the “itch” of the flesh than would be the skin of the body’s other parts. Given all these adaptations, “it is no longer to be wondered at that the pleasure inherent in the parts there and the desire that precedes it are more vehement.”⁵⁵

Aristotle too is at pains to point out that “the same part which serves for the evacuation of the fluid residue is also made by nature to serve in sexual congress, and this alike in male and female.”⁵⁶ Both sperma and catamenia generate heat in the genital regions, both put pressure on the sexual organs that are prepared to respond to their stimuli, though in the case of women’s parts the heat seems to serve primarily to draw in semen, like a cupping vessel, and not to spur coition (*GA* 2.4.739b10).

“Semen” in this economy of pleasure is not only a generative substance but also, through its specific action on the genitals, one of the causes of libido. It is a serous, irritating humor that produces a most demanding itch in precisely that part of the body contrived by Nature to be hypersensitive to it.⁵⁷ (Or in parts not contrived for it. The only ancient text to discuss the physical causes of passive homosexuality—the unnatural desire of the male to play the socially inferior role of woman by offering his anus for penetration—attributes it both to an excess of semen and to a congenital defect that shunts this excess to an inappropriate orifice, the anus, instead of allowing it to simply build up in the proper male organ.⁵⁸) Needless to say, great pleasure is to be had from scratching.

Orgasm thus dovetails nicely with the economy of fluids discussed in the previous section. One of Galen’s arguments for the existence of a true female seed, for example, was its link to desire: it offered “no small usefulness in inciting the female to the sexual act and in opening wide the neck of the womb during coitus” (*UP* 2.643). He might actually have meant that it works like a penis. The part in question, extending out to the “pudenda” (the cervix?, the vagina?) is, he says, sinewy and becomes straight during intercourse. He does not actually claim that the womb or vagina has an erection, but he describes the penis also as a sinewy, hollow body that becomes erect when it is filled with *pneuma*, with breath. And elsewhere still he develops the labia/foreskin association.⁵⁹ The medieval commentator Albertus Magnus, writing still very much in this tradition almost a millennium later, makes the link explicit: a *ventositas*, a gaseous, perhaps also liquid modification of vital heat, engorges the genital organs of both sexes.⁶⁰ Organs and orgasms thus reflect one another in a common mirror.

Meanwhile Avicenna, the influential Arabic physician, broadens the discussion of the semen/pleasure nexus by explicitly connecting the anatomy and physiology of sexual pleasure in the one-sex body. An irritation of a common human flesh, caused by the acute quality or sheer quantity of sperm—again common to both sexes—engenders a specifically genital itch (*prurimum*) in the male’s spermatic vessels and in the mouth of the womb (*in ore matricis*), which is relieved only by the chafing of intercourse or its equivalent. In this process the vagina, or in any case the cervix, becomes erect like the penis and is “thrust forward up against its mouth as though moving forward through the desire of attracting sperm.”⁶¹ In the telling absence of a precise technical vocabulary, it is difficult to be sure exactly what part of a woman’s genital organ is moving where; but the critical general claim, that irritation by a serous fluid loosely called sperm or semen causes women like men to experience desire and erection, is made unambiguously.

Intercourse in the one-sex body, however, is not construed primarily as a genital occasion. (Nor, of course, is desire purely the product of physical forces independent of the imagination.) The genitals, to be sure, are the most sensitive gauge of the presence of residues, the point of their release, and the immediate locus of pleasure, but coitus is a generalized friction culminating in a corporeal blaze. Intercourse and orgasm are the last stage, the whole body’s final exaggerated huffing and puffing, violent,

stormlike agitation in the throes of producing the seeds of life. The rubbing together of organs, or even their imagined chafing in an erotic dream, causes warmth to diffuse via the blood vessels to the rest of the body. "Friction of the penis and the movement of the whole man cause the fluid in the body to grow warm," the Hippocratic writer reports; "an irritation is set up in the womb which produces pleasure and heat in the rest of the body."⁶² Then, as warmth and pleasure build up and spread, the increasingly violent movement of the body causes its finest part to be concocted into semen—a kind of foam—which bursts out with the uncontrolled power of an epileptic seizure, to use the analogy Galen borrowed from Democritus.⁶³ Sexual heat is an instance of the heat that makes matter live and orgasm, which signals the explosive release of the seed and the heated *pneuma*, mimics the creative work of Nature itself.

Although specific interpretations of the male and female orgasm might differ, certain facts were generally not in dispute: both sexes experienced a violent pleasure during intercourse that was intimately connected with successful generation; both generally emitted something; pleasure was due both to the qualities of the substance emitted and to its rapid propulsion by "air"; the womb performed double duty in both emitting something and then drawing up and retaining a mixture of the two emissions. Of what deeper truths these facts spoke was much debated.

In the first place, the way orgasm felt was adduced as evidence for particular embryological theories. Pangenesis could argue as follows: "the intensity of pleasure of coition" proves that seed comes from every part of both partners because pleasure is greater if multiplied and that of orgasm is so great that it must result from something happening everywhere rather than just in a few places or in one sex only. But even if this reasoning was not universally accepted, most writers nevertheless regarded orgasm as a most weighty sign.

Why, asked an ancient text, did someone having sexual intercourse, and also a dying person, cast his or her eyes upward? Because the heat going out in an upward direction makes the eyes turn in the direction in which it itself is traveling.⁶⁴ Conversely, sexual heat is the most intense form of the heat of life and so is the sign of successful generation. The early Christian writer Tertullian, for example, grounded his heterodox theory of the soul—its material origin, its entry into the body at the moment of conception, its departure at death—on the phenomenology of orgasm:

In a single impact of both parties, the whole human frame is shaken and foams with semen, in which the damp humor of the body is joined to the hot substance of the soul . . . I cannot help asking, whether we do not, in that very heat of extreme gratification when the generative fluid is ejected, feel that somewhat of our soul has gone out from us? And do we not experience a faintness and prostration along with a dimness of sight? This, then, must be the soul producing seed, which arises from the outdrip of the soul, just as that fluid is the body-producing seed which proceeds from the drainage of the flesh.⁶⁵

This "heat of extreme gratification," however, is open to quite different secular interpretations. Lucretius regarded it as the blaze of battle in the war of sexual passion and conception. Young men are wounded by Cupid's arrow and fall in the direction of their injuries: "blood spurts out in the direction of their wound." (In context this can only be semen, pure blood and not the blood of virginity.) Then both bodies are liquefied in rapture, and their ejaculates engage in a synecdochic version of the two bodies' combat. Offspring resemble both parents, for example, because "at their making the seeds that course through the limbs under the impulse of Venus were dashed together by the collusion of mutual passion in which neither party was master or mastered."⁶⁶

In contrast to these positions, Aristotle wants to isolate orgasm from generation so as to protect the difference between efficient and material cause from an untidy world in which both sexes have orgasms that feel as if the same process had gone on in each of them. (As it turns out, Aristotle was right but not for the reasons he gave.) Thus for him it *has* to be "impossible to conceive without the emission of the male"; whether he feels pleasure during ejaculation is irrelevant. On the other hand women *must* be able to conceive "without experiencing the pleasure usual in such intercourse" because, by definition, conception is the work of the male emission on material in, or produced by, the body of the female. (Females usually do emit something but need not do so; there can be just enough catamenial residue resting in the womb for conception to take place but no extra that needs to be expelled.) Aristotle's argument is asymmetrical here—males must emit, women need not feel—because he wants to stick to the essentials. It makes no difference how one interprets male pleasure; he must insist, however, that female pleasure—he discusses only humans in this regard—has no implication for his theory of the separation of

causes. His real interest is not in interpreting orgasm, but in *not* interpreting it.⁶⁷

It follows from this position that Aristotle would make no effort to ground two sexes in radically different passions and pleasures. Though women clearly could, in his view, conceive without feeling anything, he regarded this as a freak occurrence that resulted when “the part chance to be in heat and the uterus to have descended,” that is, when the womb and vagina were warmed by something other than the friction of intercourse and experienced their internal erection without concomitant sexual excitement. “Generally speaking,” he said, “the opposite is the case”; discharge by women is accompanied by pleasure just as it is in men, and “when this is so there is a readier way for the semen of the male to be drawn into the uterus.”⁶⁸

Aristotle’s many allusions to sexual pleasure are clearly not directed at distinguishing the orgasms of men and women but in keeping their similarities from being relevant. What he takes to be contingent sensations must not be construed as evidence for what he regards as metaphysical truths about generation. He denies that orgasm signals the production of generative substances even for the male; “the vehemence of pleasure in sexual intercourse,” he maintains, is not at all due to the production of semen but is the result instead of “a strong friction wherefore if this intercourse is often repeated the pleasure is diminished in the persons concerned.”⁶⁹ The rhetorical force of this convoluted sentence is to stress the fading of feeling that comes from repetition. Elsewhere he says that pleasure arises not just from the emission of semen but from the *pneuma*, the breath, with which the generative substances explode. The point is simply that the phenomenological correlative of the generative act signifies nothing about its essence: there need be no seed, no efficient cause itself, for there to be an orgasm—as in young boys and old men who are not potent but nevertheless enjoy emission.⁷⁰ Conversely, both men and women can emit their respective generative products and feel nothing, as in nocturnal wet dreams.⁷¹

Whatever else orgasm might be or not be, mean or not mean, in various philosophical or theological contexts, it was at the very least understood as the *summa voluptas* that normally accompanied the final blast of a body heated so hot that it expelled its generative essences or, in any case, was in a state to conceive. As such, it dwelled at the intersection of nature and civilization. On the one hand, orgasm was associated with

unrestrained passion, warmth, melting, rendering, rubbing, exploding, as qualities of the individual body; aspects of the process of individual generation. On the other hand, orgasm also bore witness to the power of mortal flesh to reproduce its kind and thus assure the continuity of the body social. It and sexual pleasure generally were therefore cultural facts as well: the biology of conception was at the same time a model of filiation; the effective elimination of the distinct ontological category woman in the one-sex model and the doctrine that “like seeks like” made it difficult to explain heterosexuality upon which generation depended; the unruly body spoke of the unruly heart, of the fall from grace and weakness of the will; microcosmic creation mirrored the macrocosmic. Though the social and the corporeal cannot be disentangled, for purposes of exposition I will discuss orgasm first as the physicians confronted it—as a clinical problem of fertility or infertility—and then briefly turn in the next section to its relation to the demands of culture.

Physicians and midwives needed to know how to make men and women fertile—or more covertly, how to make them infertile—and how to tell if their therapeutic interventions were on the right track. If, as was commonplace, one believed that the body gave signs through its pleasures of the capacity to generate, then these could be read and the underlying processes manipulated to ensure or prevent conception. So, for example, Aetios of Amida, physician to Justinian who summarized for the emperor much ancient medical learning, interpreted a woman’s orgasmic shudder as a prognostic sign of conception. If “in the very coitional act itself, she notes a certain tremor . . . she is pregnant.” (Aetios also transmitted to the Christian world the old saw that women who are forced to have intercourse against their will are sterile while those “in love conceive very often.”) A woman’s shiver would not have been understood simply as a sign of her “semination”; it would register also the closing off of her womb at the appropriate time, after it had drawn up her seed mixed with that of the male.⁷²

Because the womb was thought to close after its orgasmic ejaculation, correct coital rhythm between partners during intercourse was thought critical for conception. If the woman is too excited before intercourse begins, the Hippocratic writer points out, she will ejaculate prematurely; then not only will her further pleasure diminish—a conclusion clearly based on men observing themselves—but also her womb will close and

she will not become pregnant. In exemplary reproductive heterosexual intercourse, then, both partners reached orgasm at the same time. Like a flame that flares when wine is sprinkled on it, the woman's heat blazes most brilliantly when the male sperm is sprayed on it, Hippocrates rhapsodized. She shivers. The womb seals itself. And the combined elements for a new life are safely contained within.⁷³

Orgasm in this account is thus common to both sexes but, like anatomy and the seeds themselves, it is hierarchically ordered. The man determines the nature of woman's pleasure, which is more sustained but also, because of her lesser heat, less intense; the man feels a greater pang at the secretion of bodily fluids because a greater violence accompanies their being wrenched from his blood and flesh. Feelings mirror the cosmic order and at the same time suggest the sparkling of a candle in a mist of resinated wine.

Clinically, therefore, the problem is how to manipulate the pace of passion and the heat of the body so as to produce the desired results, conception or nonconception. Aristotle (or the pseudo-Aristotelian author of book 10) gives elaborate directions for determining in cases of barrenness which partner's coital rhythms or corporeal environment was at fault. During intercourse the woman's womb should become moist but "not often or excessively too moist," lubricated as the mouth is with saliva when we are about to eat (once again a neck-of-the-womb/throat connection).⁷⁴ More natural history: if a man ejaculates quickly and "a woman with difficulty as is often the case," this prevents conception since women do contribute "something to the semen and to generation." The observation that women and men who are barren with each other are "fertile when they meet with partners who keep pace with them during intercourse" provides this further evidence for the importance of suitable coital rhythms.⁷⁵ Fifteen hundred years later, and in the very different context of prescriptions for birth control and abortion, the tenth-century Arabic writer Rhazes suggested that "if the man discharges sooner than the woman [discharges] she will not become pregnant."⁷⁶

Anything that might diminish coital heat could also cause infertility. Insufficient friction during intercourse, for example, could keep either partner from "seminating." Thus Avicenna argues—again this is a commonplace notion—that the smallness of a man's penis might cause a woman not to be "pleased by it . . . whereupon she does not emit sperm (*sperma*), and when she does not emit sperm a child is not made." As if to

raise male anxiety still further, he warns that unsatisfied women will remain in the thrall of desire and "have recourse to rubbing, with other women (*ad fricationem cum mulieribus*), in order to achieve amongst themselves the fullness of their pleasures" and to rid themselves of the pressures of seminal residue.⁷⁷

But even if the actual pang of a woman's orgasm was regarded as a sign without the specific physiological referent of semination, sexual pleasure or at the very least desire was still regarded as part of the general care of the body that made reproduction, and hence the immortal body of the race, possible. Control of the sexual body was, as Foucault points out in his *History of Sexuality*, an aspect of more general dietary and other corporeal disciplines. Nowhere is this aspect of the domestication of sexual heat clearer than in Soranus' *Gynecology*, which was written in the second century but which in various fragments and translations was one of the most widely cited texts until the late seventeenth century.

Soranus was not much interested in female ejaculation because he remained in doubt as to whether women actually contributed an active principle, a true seed. "It seems not to be drawn upon in generation since it is excreted externally," he concluded cautiously. He nowhere denied the everyday existence of the sharp crisis of orgasm in women, but it was not of primary clinical concern. What mattered in women as in men, Soranus thought, was "the urge and appetite for intercourse." Making the body ready for generation was like making it ready to put food to best use. The physiological affinity between generation and nutrition, eating and procreation, and in later Christian formulations between gluttony and lust, are nowhere clearer: "as it is impossible for the seed to be discharged by the male, in the same manner, without appetite it can not be conceived by the female." A woman ingesting and a woman conceiving are engaged in analogous functions; food eaten when one has no appetite is not properly digested, and seed received by a woman when she has no sexual urge is not retained.⁷⁸

But appetite alone is clearly not enough, since lecherous women feel desire all the time but are not always fertile. The body—Soranus is writing for midwives who ministered to ladies of the Roman governing class—must be properly cultivated to prepare for the civic task of procreation. They ought to be well rested, appropriately nourished, relaxed, in good order, and hot. Just as a Roman magistrate should eat only such foods as would maintain his sound judgment, so a woman should eat

appropriately before sex “to give the inner turbulence an impetus toward coition” and to be sure that her sexual urges were not diverted by hunger. She should be sober. A rubdown before intercourse would be indicated, since it “naturally aids the distribution of food, [and] also helps in the reception and retention of the seed.”⁷⁹ The fungibility of fluids, the equivalences of heat, are here registered in the social discipline of the body for procreation.

The demands of culture

The one-sex body would seem to have no boundaries that could serve to define social status. There are hirsute, viral women—the virago—who are too hot to procreate and are as bold as men; and there are weak, effeminate men, too cold to procreate and perhaps even womanly in wanting to be penetrated. “You may obtain physiognomic indications of masculinity and femininity,” writes an ancient authority on interpreting the face and body, “from your subject’s glance, movement, and voice, and then, from among these signs, compare with one another until you determine to your satisfaction which of the two sexes prevails.”⁸⁰ “Two sexes” here refers not to the clear and distinct kinds of being we might mean when we speak of opposite sexes, but rather to delicate, difficult-to-read shadings of one sex. There is, for example, no inherent gendering of desire and hence of coupling. It was in no way thought unnatural for mature men to be sexually attracted to boys. The male body, indeed, seemed equally capable of responding erotically to the sight of women as to attractive young men, which is why physicians forbade sufferers of satyriasis (abnormal sexual craving characterized by unceasing erection and genital itch) to consort with either, regardless of their respective genital formations.⁸¹ Insofar as sexual attraction had a biological basis—as opposed to a basis in the naturalness of the social order and the imperative to keep it going—it seemed more genealogical than genital. In Aristophanes’ story of the origins of men and women from two aboriginal, globular creatures who had either two male organs, two female organs, or one of each, only those who descended from the hermaphroditic form would “naturally” seek the “opposite” sex in order to achieve union. Otherwise, as Aristotle pointed out in the context of “what is natural is pleasant”: like loves like, jackdaw loves jackdaw. In fact, reproductive heterosexual intercourse seems an afterthought. The original globular creatures had

their genitals on the outside and “cast their seed and made children, not in one another but on the ground, like cicadas.” In the new cut-up state they did nothing but longingly embrace their missing halves and thus died from hunger and idleness. Zeus hit upon the idea of relocating the genitals of one half of the new creatures, “and in doing so he invented interior reproduction, *by men in women*.” This had the great advantage that when the new male embraced the new female, he could cast his seed into her and produce children and that when male embraced male, “they would at least have the satisfaction of intercourse, after which they could stop embracing, return to their jobs, and look after their other needs in life.” Genitals are very hard to picture in the first part of this account and subsist only to make the best of a bad situation. “Love is born into every human being,” the story concludes; “it tries to make one out of two and heal the wound in human nature.” But what we would call the sex of that human being seems of only secondary importance.⁸²

But where honor and status are at stake, desire for the same sex is regarded as perverse, diseased, and wholly disgusting. A great deal more was written about same-sex love between men than between women because the immediate social and political consequences of sex between men was potentially so much greater. Relatively little was directly at stake in sex between women. Yet whether between men or between women, the issue is not the identity of sex but the difference in status between partners and precisely what was done to whom. The active male, the one who penetrates in anal intercourse, or the passive female, the one who is rubbed against, did not threaten the social order. It was the weak, womanly male partner who was deeply flawed, medically and morally. His very countenance proclaimed his nature: *pathicus*, the one being penetrated; *cinaedus*, the one who engages in unnatural lust; *mollis*, the passive, effeminate one.⁸³ Conversely it was the *tribade*, the woman playing the role of the man, who was condemned and who, like the *mollis*, was said to be the victim of a wicked imagination as well as an excess and misdirection of semen.⁸⁴ The actions of the *mollis* and the *tribade* were thus unnatural not because they violated natural heterosexuality but because they played out—literally embodied—radical, culturally unacceptable reversals of power and prestige.

Similarly, when power did not matter or when a utopian sharing of political responsibility between men and women is being imagined, their respective sexual and reproductive behavior is stripped of meaning as

well. Aristotle, who was immensely concerned about the sex of free men and women, recognized no sex among slaves. "A 'woman,'" as Vicky Spellman puts it, "is a female who is free; a 'man' is a male who is a citizen; a slave is a person whose sexual identity does not matter."⁸⁵ For Aristotle, in other words, slaves are without sex because their gender does not matter politically.

Plato, on at least one occasion, also dismissed a distinction between the sexes which in other circumstances is critical. When in the *Republic* he wished to make a case for the absence of essential public differences between men and women, for equal participation in governance, gymnastic exercises, and even war, he supported his claim by downplaying the difference in their reproductive capacities. If something characteristic of men or women can be found which fits one or the other for particular arts and crafts, by all means assign them accordingly. But no such distinction exists, he maintains, and what Aristotle would take to be the critical difference between bearing and begetting counts for nothing.

But if it appears that they differ only in this respect that the female bears and the male begets, we shall say that no proof has yet been produced that the woman differs from the man for our purposes, but we shall continue to think that our guardians and their wives ought to follow the same pursuits.⁸⁶

Begetting and bearing are not radically opposed, or even hierarchically ordered. Plato uses a decidedly unphilosophical verb for begetting, the verb *ochenein*, to mount; Aristotle uses the same verb when he says that the victor among bulls "mounts" the cow and then, "exhausted by his amorous efforts," is subsequently beaten by his opponent (*HA* 6.21.575a22). Nothing more is at stake, Plato implies, than the brutish practice of man mounting woman. The macrocosmic order is not made imminent through the sexual act; the respective roles of man and woman in generation, though different, do not constitute a decisive difference.

But within the same tradition of the one sex, and in widely varying contexts, such differences could matter a great deal and were duly registered. Sperma, for Aristotle, makes the man *and* serves as synecdoche for citizen. In a society where physical labor was the sign of inferiority, sperma eschews physical contact with the catemenia and does its work by intellection. The *kurios*, the strength of the sperma in generating new life, is the microcosmic corporeal aspect of the citizen's deliberative strength,

of his superior rational power, and of his right to govern. Sperma, in other words, is like the essence of citizen. Conversely, Aristotle used the adjective *akuros* to describe both a lack of political authority, or legitimacy, and a lack of a biological capacity, an incapacity that for him defined woman. She is politically, just as she is biologically, like a boy, an impotent version of the man, an *arren agonos*. Even grander differences are inscribed on the body; the insensible differences between the sexual heat of men and women turns out to represent no less a difference than between heaven and earth. The very last stage in the heating sperma comes from the friction of the penis during intercourse (*GA* 1.5.717b24). But this is not like the heat of a blacksmith's fire, which one might feel, nor is the pneuma produced like ordinary breath.⁸⁷ It is a heat "analogous to the elements of the stars," which are "carried on a moving sphere" and are themselves not fired but create warmth in things below them.⁸⁸ Suddenly the male organ in coition is a terrestrial instance of heavenly movement, and the sexed body, whose fluids, organs, and pleasures are nuanced versions of one another, comes to illustrate the major political and cosmic ruptures of a civilization.⁸⁹

The most culturally pervasive of these ruptures is that between father and mother, which in turn contains a host of historically specific distinctions. I want to illustrate the extent to which biology in the one-sex model was understood to be an idiom for claims about fatherhood by examining three different accounts of the nature of seed put forward by Isidore of Seville, who in the sixth and seventh centuries produced the first major medieval summary of ancient scientific learning. Although the social context of a Christian encyclopedist was of course very different from that of an Athenian philosopher or an imperial Roman doctor, the structure of Isidore's arguments is paradigmatic for what is a very long-lived tradition of understanding sexual difference.

Isidore simultaneously holds three propositions to be true: that only men have sperma, that only women have sperma, and that both have sperma. It takes no great genius to see that these would be mutually contradictory claims if they are understood as literal truths about the body. But they would be perfectly compatible if they are seen as corporeal illustrations of cultural truths purer and more fundamental than biological fact. Indeed, Isidore's entire work is predicated on the belief that the origin of words informs one about the pristine, uncorrupted, essential nature of their referants, about a reality beyond the corrupt senses.⁹⁰

In making the first case—that only man has seed—Isidore was explaining consanguinity and, as one would expect in a society where inheritance and legitimacy passes through the father, he was at pains to emphasize the exclusive origins of the seed in the father's blood.

Consanguinity is so called by that which from one blood, that is from the same semen of the father, is begotten. For the semen of the male is the foam of blood according to the manner of water which, when beaten against rocks, makes white foam, or just as dark wine, which poured into a cup, renders the foam white.

For a child to have a father *means* that it is “from one blood, that is from the same semen as the father”; to be a father is to produce the substance, semen, through which blood is passed on to one's successors. Generation seems to happen without women at all, and there is no hint that blood—“that by which man is animated, and is sustained, and lives,” as Isidore tells us elsewhere—could in any fashion be transmitted other than through the male.⁹¹

But illegitimate descent presents a quite different biology. In his entry on the female genitalia, Isidore argued:

Contrary to this child [one born from a noble father and a plebian mother] is the illegitimate (*spurius*) child who is born from a noble mother but a plebian father. Likewise illegitimate is the child born from an unknown father, a spouseless mother, just the son of spurious parents.

The reason Isidore gives for why such illegitimate children, those who do not “take the name of the father” and are called *spurius*, is that they spring from the mother alone. “The ancients,” he explains, “called the female genitalia the *spurium*; just as *apo tou sporou* (from the seed); this *spurium* is from the seed.” (Plutarch reported that the adjective *spurius* derived from a Sabine word for the female genitalia and was applied to illegitimate children as a term of abuse.) So, while the legitimate child is from the froth of the father, the illegitimate child is from the seed of the mother's genitals, as if the father did not exist.⁹²

Finally, when Isidore is explaining why children resemble their progenitors, he is vague on the vexed question of female sperm. “Whichever of the two parents bestows the form,” he says cavalierly, “the newborn are conceived after equally being mixed in the maternal and paternal seed.” “Newborns resemble fathers, if the semen of the fathers is potent, and resemble mothers if the mothers' semen is potent.”⁹³ (Both parents then

have seeds that engage in repeated combat for domination every time, and in each generation a child is conceived.)

These three distinct arguments about what we might take to be the same biological material are a dramatic illustration that much of the debate about the nature of the seed and of the bodies that produce it—about the boundaries of sex in the one-sex model—are in fact not about bodies at all. They are about power, legitimacy, and fatherhood, in principle not resolvable by recourse to the senses.

Freud suggests why this should be so. Until the mid-nineteenth century, when it was discovered that the union of two different germ cells, egg and sperm, constituted conception, it was perfectly possible to hold that fathers mattered very little at all. Paternity, as in Roman law, could remain a matter of opinion and of will. Spermatozoa could be construed as parasitic stirring rods whose function, in a laboratory dish, might be fulfilled by a glass rod.⁹⁴ And while the role of fathers generally in conception was settled more than a century ago, until very recently it was impossible to prove that any particular man was father to any particular child. In these circumstances, believing in fathers is like, to use Freud's analogy, believing in the Hebrew God.

The Judaic insistence that God cannot be seen—the graven-image proscription—“means that a sensory perception was given second place to what may be called an abstract idea.” This God represents “a triumph of intellectuality over sensuality (*Triumph der Geistigkeit über die Sinnlichkeit*), or strictly speaking, an instinctual renunciation.” Freud briefs precisely the same case for fathers as for God in the analysis of Aeschylus' *Oresteia* that immediately follows his discussion of the second commandment. Orestes denies that he has killed his mother by questioning whether he is related to her at all. “Am I then involved with my mother by blood-bond?” he asks. “Murderer, yes,” replies the chorus, pointing out quite rightly that she bore and nursed him. But Apollo saves the day for the defense by pointing out that, appearances notwithstanding, “the mother is no parent of that which is called her child, but only nurse of the new-planted seed that grows,” “a stranger.” The only true parent is “he who mounts.”⁹⁵

Here in the *Oresteia* is the founding myth of the Father. “Fatherdom (*Vaterschaft*), Freud concludes, “is a supposition” and like belief in the Jewish God is “based on an inference, a premiss.” Motherhood (*Mutterschaft*), like the old gods, is evident from the lowly senses alone. Father-

dom too has “proved to be a momentous step”; it also—Freud repeats the phrase but with a more decisive military emphasis—is “a conquest (*einen Sieg*) of intellectuality over sensuality.” It represents a victory of the more elevated, the more refined over the less refined, the sensory, the material. It is a world-historical *Kulturfortschritt*, a cultural stride forward.⁹⁶

The one-sex model can be read, I want to suggest, as an exercise in preserving the Father, he who stands not only for order but for the very existence of civilization itself. Ancient authorities make both philosophical and empirical arguments for the self-evident greater potency of the male over the female, for the absolute necessity of the genitor. If the female’s seed were as potent as the male’s, “there would be two principles of motion in conflict with one another,” argued Galen. If woman had as much as possible of the “principle of motion,” her seed would then essentially be the male’s and act as one with it when mixed. Women would be men, and nature would be unnecessarily mixing two seeds. Or, if a female seed as strong as the male’s need not be mixed to cause conception, then there would be no need for men at all (*UP* 2, pp632–33). (A late medieval alternative argument holds that if woman’s semen were as strong as men’s, then either parthenogenesis is possible—which it is not—or woman’s contribution to generation would be greater than man’s because she would be providing not only an active agent but also the place for conception. This, in a hierarchical world, is *ex hypothesis* impossible.⁹⁷) If women had seed as potent as males, they could inseminate themselves and “dispense with men,” Aristotle argued. A manifest absurdity (*GA* 1.18.722b14–15).

It is empirically true, and known to be so by almost all cultures, that the male is necessary for conception. It does not of course follow that the male contribution is thereby the more powerful one, and an immense amount of effort and anxiety had to go into “proving” that this was the case. Evidence based on observation of “wind eggs” (*hupenemia*)—eggs that are seemingly produced without the power of the male but that are consequently not fertile—and of *mola*—monstrous products of the womb attributed to self-insemination—seemed to bear testimony to the hierarchical ordering of the one sex. Her sperma could not ensoul matter; his could. Perhaps the confident assertions that “there needs to be a female,” that the creator would not “make half the human race imperfect and, as it were, mutilated, unless there was to be some great advantage in

such a mutilation,” hides the more pressing but unaskable question of whether there needs to be a male. After all, the work of generation available to the senses is wholly the work of the female.⁹⁸

But being male and being a father, having what it takes to produce the more powerful seed, is the ascendancy of mind over the senses, of order over disorder, legitimacy over illegitimacy. Thus the inability of women to conceive within themselves becomes an instance—among many other things—of the relative weakness of her mind. Since normal conception is, in a sense, the male having an idea in the woman’s body, then abnormal conception, the *mola*, is a conceit for her having an ill-gotten and inadequate idea of her own. Seeds of life and seeds of wisdom might well come to the same thing. Plutarch cautioned that

great care must be taken that this sort of thing does not take place in women’s minds. For if they do not receive the seed[s] (*spermata*) of good doctrines and share with their husbands in intellectual advances, they, left to themselves, conceive many untoward ideas and low designs and emotions.

Her mind and her uterus are construed as equivalent arenas for the male active principle; her person is under the rational governance and instruction of her husband for the same reason that her womb is under the sway of his sperm. Similarly, he should be able to control his own passions and manage hers while being able at the same time to “delight and gratify” her sufficiently to produce children. A man who is “going to harmonize State, Forum, and Friends” should be able to have his “household well harmonized.”⁹⁹

Christianity made the possibility of such harmony between good social order and good sexual order far more problematic than it had been in Roman antiquity. It radically restructured the meanings of sexual heat; in its campaigns against infanticide, it diminished the power of fathers; in its reorganization of religious life, it altered dramatically what it was to be male and female; in its advocacy of virginity, it proclaimed the possibility of a relationship to society and the body that most ancient doctors—Soranus was the exception—would have found injurious to the health.¹⁰⁰

It is also true that Augustine, as Peter Brown has argued, discovered “the equivalent of a universal law of sexuality,” which represents a shift in the whole relation of human beings to society. It might stand as a metaphor for the end of the classical age and for the remaking of community

associated with the rise of Christianity.¹⁰¹ One's intimate experiences of sex, in this new dispensation, were the result not of an ineluctable heating of the body but of the fall and of the estrangement of will that the fall brought. Impotence, far from being paradigmatically innocent, could be construed, even more than erection, as *the* sign of the soul's alienation from God.¹⁰² Augustine could image intercourse in paradise in which the violence, the falling on wounds, the blood gushing, the crashing of bodies that informs an account like Lucretius', would be replaced by the image of intercourse as a gentle falling asleep in the partner's arms. Uncontrolled passion would be replaced by actions no more uncontrollable than the lifting of an arm. Indeed, everything about postlapsarian sex could thus be felt as continual reminders in the flesh of the tensions of the fundamentally flawed human condition. All of this was new with the coming of Christianity.

But Augustine's images for how "impregnation and conception" might be "an act of will, instead of by lustful cravings," were very much still of the old one-sex body found in the classical doctors. Such control of the body is conceivable, he suggested, and offered as an example people who "produce at will such musical sounds from their behind (without any stink) that they seem to be singing from that region." But the more telling case is that of a presbyter named Restitutus in the diocese Calama who, "whenever he pleased (and he was often asked to perform the feat by people who desired first-hand experience of so remarkable a phenomenon) he would withdraw himself from all sensations." He would, after some initial lamentations, lie unresponsive like a corpse. But one feature of this presbyter's trance makes it a particularly apt model for the phenomenology of intercourse in paradise. When he was burned "by the application of fire he was quite insensible to pain," until of course he emerged from his state and the normally occurring wound occasioned the usual pain.¹⁰³

Here is a model for having the *calor genitalis* without concupiscence. But it is also a lesson in the physiology of the old Adam. Bodies, when exposed to fire, burn and except in rare circumstances, feel pain. Similarly with reproduction. Augustine did not envisage the modern body in which ovulation, conception, and even male ejaculation are known to be independent of whatever subjective feelings might accompany them. Heat and pleasure remained an ineradicable part of generation. It would be a miracle, said a fifteenth-century writer of confessionals, "to stand in

the flame and not feel the heat." Intercourse, argued Pope Innocent III in a diatribe against the body, is never performed without "the itch of the flesh, the heat of passion, the stench of the flesh."¹⁰⁴

Thus, after Augustine as before, the body was thought to work much as pagan medical writers had described it. Augustine's new understanding of sexuality as an inner, and ever present, sign of the will's estrangement by the fall did create an alternative arena for the generative body. As Brown says, it "opened the Christian bedchamber to the priest."¹⁰⁵ At the same time, it kept the door open for the doctor, the midwife, and other technicians of the old flesh.

Christian and pagan notions of the body coexisted, as did the various incompatible doctrines of the seed, of generation, and of corporeal homologies, because different communities asked different things of the flesh. Monks and knights, laity and clergy, infertile couples and prostitutes seeking abortion, confessors and theologians in myriad contexts, could continue to interpret the one-sex body as they needed to understand and manipulate it, as the facts of gender changed. It is a sign of modernity to ask for a single, consistent biology as the source and foundation of masculinity and femininity.

My purpose in this chapter has been to explain what I mean by the world of one sex: mind and body are so intimately bound that conception can be understood as having an idea, and the body is like an actor on stage, ready to take on the roles assigned it by culture. In my account sex too, and not only gender, is understood to be staged.

Since I have been unwilling to tie the one-sex model to any particular level of scientific understanding of the body, and since it seems to have persisted over millennia during which social, political, and cultural life changed dramatically, the question I raised at the beginning of this chapter should perhaps be rephrased: why did the attractions of this model fade at all? I suggested two strong explanations for its longevity. The first concerns how the body was understood in relation to culture. It was not the biological bedrock upon which a host of other characteristics were supposedly based. Indeed, the paradox of the one-sex model is that pairs of ordered contrarities played off a single flesh in which they did not themselves inhere. Fatherhood/motherhood, male/female, man/woman, culture/nature, masculine/feminine, honorable/dishonorable, legitimate/illegitimate, hot/cold, right/left, and many other such pairs were read into

a body that did not itself mark these distinctions clearly.¹⁰⁶ Order and hierarchy were imposed upon it from the outside. The one-sex body, because it was construed as illustrative rather than determinant, could therefore register and absorb any number of shifts in the axes and valuations of difference. Historically, differentiations of gender preceded differentiations of sex.

The second explanation for the longevity of the one-sex model links sex to power. In a public world that was overwhelmingly male, the one-sex model displayed what was already massively evident in culture more generally: *man* is the measure of all things, and woman does not exist as an ontologically distinct category. Not all males are masculine, potent, honorable, or hold power, and some women exceed some men in each of these categories. But the standard of the human body and its representations is the male body.

T H R E E

New Science, One Flesh

The books contain pictures of all parts inserted into the context of the narrative, so that the dissected body is placed, so to speak, before the eyes of those studying the works of nature.

VESALIUS, 1543

Across a millennial chasm that saw the fall of Rome and the rise of Christianity, Galen spoke easily, in various vernacular languages, to the artisans and merchants, the midwives and barber surgeons, of Renaissance and Reformation Europe. Various Latin translations, compendia, and Arabic intermediaries transmitted the one-sex body of antiquity into the age of print. “La matrice de la femme,” writes Guillaume Bouchet in one late sixteenth-century potpourri of learning, “n’est que la bourse et verge renversée de l’homme” (The matrix of the woman is nothing but the scrotum and penis of the man inverted). A German doctor of no great fame pronounced, “Wo du nun dise Mutter sampt iren anhangen besichtigst, So vergleich sie sich mit allem dem Mannlichen glied, allein das diese ausserhalb das Weiblich aber inwendig ist” (Viewing the uterus along with its appendages, it corresponds in every respect to the male member except that the latter is outside and the former inside). Or “the likeness of it [the womb] is as it were a yarde reversed or turned inward, having testicles likewise,” as Henry VIII’s chief surgeon says in a matter-of-fact way. There was still in the sixteenth century, as there had been in classical antiquity, only one canonical body and that body was male.¹

The various vernaculars also replicated in new voices the Latin and Greek linguistic complex of connections between organs to which we, in our medical texts, would give precise and distinctive names. *Bourse*, for example, Bouchet’s word for scrotum, referred not only to a purse or bag but also to a place where merchants and bankers assemble. As bag, purse,