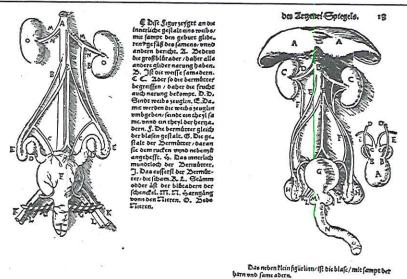
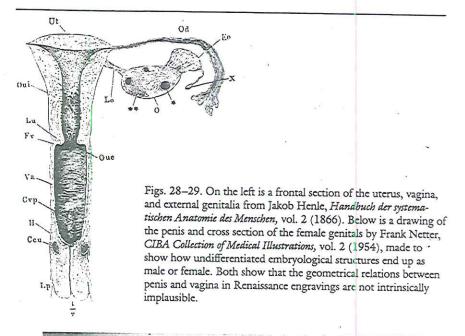


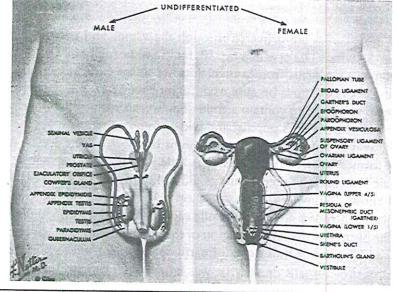
Fig. 25. "We have placed," Vesalius says in this polemical illustration from the *Fabrica*, "the skull of a dog beneath that of a man so that anyone may understand Galen's description of the bones of the upper jaw without the slightest difficulty."

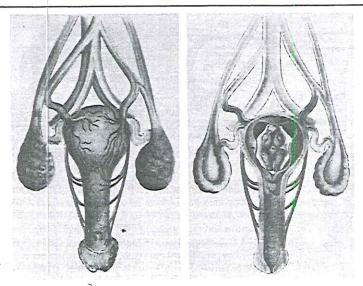


Figs. 26–27. The male and female reproductive systems adapted from Vesalius' *Epitome* in Johan Dryander, *Der Gantzen Artzenei* (1542). In fig. 26 I have blocked out the nonexistent horns of the uterus to show that making a drawing like this more accurate would also make them more convincing as illustrations of the penis/vagina isomorphism. Elongating the vagina so that it is in proper proportion to the uterus would have the same effect.

Dryander's labeling claims, in both men and women; nineteenth-century histology would teach that nothing of interest follows from the observation that the uterus, labeled F in fig. 26, has the same shape as the male bladder, G in fig. 27. But these advances pale beside facts that Renaissance anatomists did know and that did nothing to discredit the whole representational convention of seeing the female genital anatomy as an interior version of the male's. The uterus bears children but the scrotum







Figs. 30–31. On the left are the penislike female organs of generation from Georg Bartisch, Kunstbuche (1575). On the right the front of the uterus is cut away to reveal its contents.

does not; babies are delivered through the vagina and not through the penis. So what? The organ in fig. 30, for example, might be a vagina from a woman or a penis from a man. Fig. 31 relieves the suspense. It is a vagina, we now know, because what might have been either a scrotum or a uterus turns out to contain a child! The womb with its penislike extension in Walther Ryff's popular and widely translated book plays the same trick, as it becomes strangely transparent to allow readers a view of the fully formed baby within (fig. 32). A little window has been cut into the female scrotum, the uterus, in figs. 33–34, an illustration from another well-known midwifery book, to show a fully formed child, its back turned to intruders and to the penile vagina through which it will pass.

The history of the representation of the anatomical differences between man and woman is thus extraordinarily independent of the actual structures of these organs or of what was known about them. Ideology, not accuracy of observation, determined how they were seen and which differences would matter.

Seeing difference differently. Renaissance "common sense," and critical observation directed against the view of woman as man turned outside in,

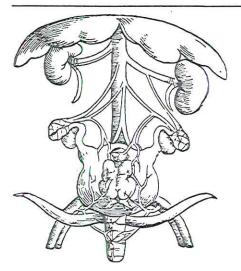


Fig. 32. The female organs of generation from Walther Ryff, Anthomia (1541). In this and the next illustration note that the vagina and uterus would look more like a penis and scrotum if the horns were expunged and the vagina drawn in correct proportion, that is, if they were more accurate.

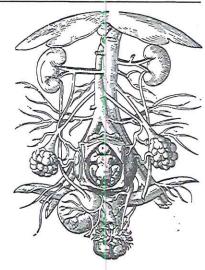


Fig. 33. The female organs of generation from Jacob Rueff, *Habammenbuch* (1583), which appeared in English as the widely plagiarized and popular *The Expert Midwife* (1637). Note that the left ureter has been cut and the bladder pushed to the right from its natural position so that we might look into the window of the womb and see the child.

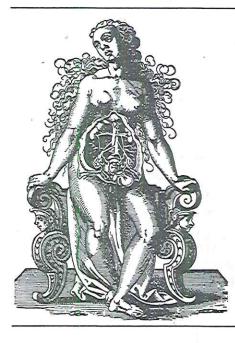


Fig. 34. The gravid uterus with its penile vagina of fig. 33 *in situ*. The bladder has been pushed left, and the child shows its profile.

failed to make a dent in the one sex-model. Arguments against the vagina as penis, for example, are to the modern imagination stranger even than the claim itself. At the simplest level, an apparent failure to find equivalences between men and women could be saved by the sort of wishful thinking that daily saves phenomena in normal science. Except in moments of revolutionary crisis, there is always a way out. Women may not seem to have a scrotum, and indeed other parts of man might be difficult to find in woman or vice versa. But these difficulties, argues Charles Estienne, can be resolved by reference to position: "You would agree this is true: if you turn a womb removed from the body inside out (quoth Galen) you will find testicles bulging out from its outer surface, by which the womb itself, by outer appearances is as a scrotum."47 We might or might not be able to find what this anatomist claimed if we followed his instructions, but the exercise would be entirely irrelevant to a world that believes in two sexes. No pushing or pulling of surfaces would convince us to see the womb às a scrotum, any more than a topologist could make us regard a tea cup as a doughnut even if her procedures were sound, which Estienne's were not.

Conversely, perfectly sound anatomical observations adduced against the old homologies seem, from a modern perspective, so curiously peripheral—even perverse—that they serve only to cast further doubt on the whole enterprise of searching in bodies for any transcultural signs of difference. The distinguished English anatomist Helkiah Crooke argued, for example, against "any similitude betweene the bottome of the womb inverted [the cervix], and the scrotum or cod of a man," on the grounds that the skin of the "bottom of the wombe is a very thicke and tight membrane, all fleshy within" while "the cod is a rugous and thin skin." (True, but scarcely compelling, and not among the more telling differences that spring to mind between the cervix and the sack that holds the testicles.) Crooke's rejoinder to the claim that the vagina really is a penis is still more amazing. "Howsoever the necke of the wombe shall be inverted, yet it will never make the virile member," he proclaims. Why? Because "three hollow bodies cannot be made of one, but the yard consisteth of three hollow bodies" and, as we have already been told, "the necke of the womb hath but one cavity." (As figs. 35-36 make clear, Crooke is anatomically correct, however strange his argument seems to the modern sensibility.) Furthermore: "neither is the cavity of a man's yard so large and ample as that of the necke of the wombe." In short, the



Fig. 35. Table 24 from Kaspar Bartholin, Anatomy (1668), showing "the parts of the yard." The drawing on the lower left shows the corpus spongiosum peris through which the urethra passes. In the drawing upper left, this passage is left intact and one of the two corpora cavernosa penis, the "nervous bodies" that were thought to produce erection, is excised: three hollows in all.

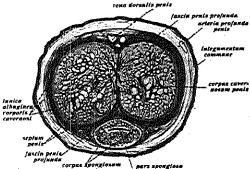


Fig. 36. Cross section of the penis from a modern atlas showing that indeed the penis does have three hollows, as Crooke said.

penis is not a vagina either because it is thrice hollow or because it is not hollow enough.<sup>48</sup>

But for others the hollowness test figured on the opposite side—in support of the Galenic isomorphisms—or at worst as irrelevant:

Whatever you see as a kind of opening in the entrance to the vulva [vagina] in women, such indeed is found in the foreskin of the male pudenda, like a

kind of outgrowth hollow inside. The only difference between them is that this hollowness in much greater in woman than in the man.<sup>49</sup>

At work here is a sensibility radically different from that of doctors in the world of two sexes.

Even when the broader cultural context of the one-sex model was clear to a critic of the Galenic isomorphisms, a web of significance kept the attack narrowly focused and harmless to overarching structures. Bartholin, for example, understood Galenic sexual politics perfectly. "We must not," he argued, "think with Galen . . . and others, that these female genital parts differ from those of Men only in Situation," because to do so would be to fall prey to an ideological plot "hatched by those who accounted a Woman to be only an imperfect Man." Its perpetrators, in talking about how the woman's "coldness of temper" kept female organs inside, were simply articulating their prejudices in the language of science. (One would like to know how and why Bartholin developed so political and so astute a critique.) But, quite apart from politics, Bartholin criticized Galen and his followers for not getting their story straight. Was the "neck of the womb" or the clitoris the female penis; was the womb the female scrotum, or was at least part of it her version of the "nut of the yard"? And the spermatic preparatory vessels, he pointed out, differed in number, origin, and function in men and women, and the male has a prostate, which the female does not have.<sup>50</sup> Finally, illustrations hammered home the point. The clitoris is clearly rendered as the female penis while the womb and the vagina are portrayed in an unambiguously unpenile fashion (fig. 37).

But despite these well-developed and thoroughly articulated criticisms, Bartholin seemed incapable of transcending the ancient images he explicitly rejected. The orifice, or inner mouth of the womb (the cervix), he explained, functions "like the Hole of the Nut of the Yard," so that "no hurtful thing may enter in." The "neck of the womb"—note the use of the conventional term for the vagina—"becomes longer or shorter, broader or narrower, and swells sundry ways according to the lust of the woman." Its substance "is of a hard and nervous flesh, and somewhat spongy, like the Yard." The vagina, in other words, became once again in his imagination a penis. But the clitoris too, like the vagina, was also like the penis. It is "the female yard or prick," because it "resembles a man's yard in situation, substance, composition, repletion with spirits, and erec-



Fig. 37. Table 28 from Bartholin's Anatomy in which the vagina (I) is shown with its wall open and folded back so as to emphasize its hollowness. The external pudenda are no longer represented to look like the foreskin of the penis, and the clitoris (VI and VII) is clearly rendered as the female penis. These images were stolen by Venette and reprinted in his Art of Conjugal Love and its many translations.

tion" and because it "hath somewhat like the nut and foreskin of a Man's Yard." SI Clearly Bartholin was caught up in a way of looking that kept him tied to the images of one sex. Indeed, the more he looked, the more he saw and the more muddled the picture became for him, with not one but two female penises to accommodate.

It did not, moreover, escape Renaissance observers that Galen's topological inversions led to ludicrous results. Again, nothing followed. The one-sex model absorbed yet another category of simile. Jacques Duval, a prominent seventeenth-century physician, for example, tried Galen's thought experiment and concluded quite rightly that "If you imagine the

vulva (*vulve*) completely turned inside out . . . you will have to envisage a large-mouthed bottle hanging from a woman, a bottle whose mouth rather than base would be attached to the body." <sup>52</sup>

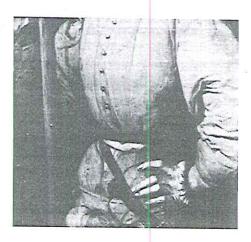
This bottle then "would bear no resemblance to what you had set out to imagine." To some, however, a bottle shaped like the vagina and womb hanging by its mouth *did* resemble a penis or scrotum enough to serve as the basis for a descriptive metaphor. William Harvey, discoverer of the blood's circulation, described a prolapsed uterus as "so rough and wrinkled as to take on the appearance of scrotum"; it hangs down, he said a few paragraphs later, "like the scrotum of a bull." 53

Rabelais, in describing how Gargantua was dressed, also elided the distinction between the womb or, as in George Gascoigne's verse quoted below, a childbearing cradle, on the one hand, and the codpiece containing the penis and scrotum on the other. True, the orange-sized emeralds on Gargantua's codpiece are said to be appropriate because "this fruit has an erective virtue." But then the pouch begins to appear as a finely embroidered and bejeweled horn of plenty, like that given by Rhea to the nymphs who nursed Jupiter. It is, the narrator says, while promising more in his forthcoming *On the Dignity of Codpieces*, "always brave, sappy, and moist, always green, always flourishing, always fructifying, full of humours, full of flowers, full of fruit, full of every delight." The codpiece seems, in short, to have been transformed into the womb, which is not so odd given the ancient notion of the uterus as a belly and the late medieval sense of cod as a belly or bag. (Chaucer's Pardoner in *The Canterbury Tales* proclaims: "O wombe! O bely! O stynkyng cod.")

Moreover, the womb that to Duval seemed like a bottle hanging by its neck, and thus not a good candidate for the penis inverted, is the precise form of the codpiece, an obvious phallic sign in clothing whose visual representations are at the same time often decidedly unphallic (figs. 38–39). The codpiece tended to be, like Duval's bottle, broader at the end than at the base, blunt not sharp, decorated with ribbonlike braids. In the portrait of an unknown young aristocrat (fig. 40), it remains ambiguous whether the flower of betrothal he holds is an allusion to the hoped-for generative power of his penis or of the uterine structure in which it is coddled.<sup>56</sup> The codpiece indeed seems to bear a remarkable resemblance not just to a prolapsed uterus but to a swaddled child.

And this of course completes the circle back to Galen, to the womb as





Figs. 38–39. Jacobo Pontormo, Albadiere (1529–30). The codpiece in these pictures (close up on right) very much resembles Jacques Duval's bottle.

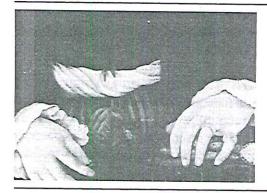


Fig. 40. Detail of *Portrait of a Young Man Before a Broad Landscape*, anonymous German painting of the 1530s, in which the codpiece is a sort of bundle for the peris. The boy holds the flower in his right hand; the bloom is to the right of his penis in the picture.

unborn penis, and to the Renaissance trope to the male organ as infant. Here is Gascoigne's "The Lullaby of a Lover":

Eke Lullaby my loving boye, My little Robyn take thy rest . . . With lullaby now take your leave, With Lullaby your dreams deceive, And when you rise with waking eye, Remember then this Lullaby.<sup>57</sup> Duval's argument thus turns in on itself and in a curious way makes the case against which it was directed. Seeing opposition in organs before the eighteenth century was far more problematic than would seem possible later.

The language of difference and sameness. I want to shift now from images to words. The absence of a precise anatomical nomenclature for the female genitals, and for the reproductive system generally, is the linguistic equivalent of the propensity to see the female body as a version of the male. Both testify not to the blindness, inattention, or muddleheadedness of Renaissance anatomists, but to the absence of an imperative to create incommensurable categories of biological male and female through images or words. Language constrained the seeing of opposites and sustained the male body as the canonical human form. And, conversely, the fact that one saw only one sex made even words for female parts ultimately refer to male organs. There was in an important sense no female reproductive anatomy, and hence modern terms that refer to it-vagina, uterus, vulva, labia, Fallopian tubes, clitoris-cannot quite find their Renaissance equivalents. (I think anatomy, more than physics, provides the paradigmatic case of Thomas Kuhn's argument that one cannot translate between theories across the chasm of revolution.)

There has, of course, always been in most languages a vast metaphoric elaboration of terms for organs and functions that are risqué or shameful. (When adolescent boys talk today about "getting a piece of ass," they are not referring to the anus.) Until the late seventeenth century, however, it is often impossible to determine, in medical texts, to which part of the female reproductive anatomy a particular term applies.<sup>58</sup>

"It does not matter," says Columbus with more insight that he was perhaps aware of, "whether you call it [the womb] matrix, uterus, or vulva." And it does not seem to matter where one part stops and the other starts. He does want to distinguish the true cervix—the "mouth of the womb (os matricis)," which from the outside "offers to your eyes... the image of a tenchfish or a dog newly brought to light," which in intercourse is "dilated with extreme pleasure," and which is "open during that time in which the woman emits seed"—from what we would call the vagina, "that part into which the penis (mentula) is inserted, as it were, into a sheath (vagina). (Note the metaphoric use of "vagina," the standard Latin word for scabbard, which was otherwise never used for the

part to which it applies today.) But he offers no other term for "our" vagina, describes the labia minor as "protuberances (processus), emerging from the uterus near that opening which is called the mouth of the womb," and calls the clitoris, whose erectile and erotogenic qualities he is in the process of extolling, "this same part of the uterus (hanc eadem uteri partem).61 The precision Columbus sought to introduce by calling the cervix the true "mouth of the womb" vanishes as the vaginal opening becomes the mouth of the womb and the clitoris one of its parts. The language simply did not exist, or need to exist, for distinguishing male from female organs. This same sort of tension is evident in other anatomists. Fallopius is anxious to differentiate the cervix proper from the vagina, but has no more specific name for it than "female pudenda," a part of a general "hollow" (sinus). The Fallopian tubes, as he describes them, are not the tubes that convey eggs from the ovaries to the womb, but twin protuberances of sinews (neruei), which do penetrate the peritoneum, are hollow, and do not have an opening into the uterus. Fallopius remained committed to the male-centered system and, despite his revolutionary rhetoric, assumed the commonplace that "all parts that are in men are present in women."62 Indeed if they were not, women might not be human.

Gaspard Bauhin (1560-1624), professor of anatomy and botany in Basel, sought to clear up the nomenclature, but with equal lack of success. The drive to see all genital organs with reference to man is too deeply embedded in language. "Everything pertaining to the female genitalia is comprehended in the term 'of nature' (phuseos)," he declares, but then informs his readers that some ancient writers called the male genitalia phuseos as well. Among the words for the labia he cites is the Greek mutocheila, meaning snout, with its obvious phallic connection, or more explicitly translated, "penile lips." 63 This in turn fits the usual conflation of labia with foreskin that goes back at least to the tenth-century Arabic writer who points out that the interior of the vagina—a curious description-"possesses prolongations of skin called the lips," which are "the analogue of the prepuce in men and has as its function protection of the matrix against cold air."64 According to Mondino, the labia guard the "the neck of the womb" in the same way that "the skin of the prepuce guardeth the penis," which is why "Haly Abbas calleth them praputia matricis [prepuce of the uterus, of the vagina?]".65 Berengario simply uses the word nymphae to refer to both the foreskin of the penis and the foreskin of the vagina, the labia minora.<sup>66</sup> (And when a new female penis appears, the labia become its foreskin as well. So John Pechy, a popular English writer during the Restoration, describes the "wrinkled membranous production cloath the clitoris [not the vagina] like a foreskin."<sup>67</sup>)

Much of the controversy around who discovered the clitoris arises out of just such a blurring of metaphorical and linguistic boundaries, the consequence of a model of sexual difference in which unambiguous names for the female genitals do not matter. I will offer only one example here. When Thomas Vicary, writing in 1548 before Columbus published, reports that the vulva "hath in the middest a Lazartus pannicle, which is called in Latin Tentigo," the reference would seem to be unambiguous. Moreover, tentigo in early seventeenth-century English means "a tenseness or lust; an attack of priapism; an erection." There is even less question that the structure in question is the female penis, the clitoris. But when Vicary reports on the functions of this part, its "two utilities," he seems to be discussing an entirely different organ. There is no mention of pleasure. "The first [utility] is that by it goeth forth the urine, or else it should be shed throughout al the Vulva: The seconde is, that when a woman does set hir thies abrode, it altereth the ayre that commeth to the Matrix for to temper the heate." What the name led us to expect, a female penis, turn out to be a pair of workaday flaps, a dual-purpose female foreskin.68 But whatever Vicary means, it is impossible to translate across the chasm that divides this world from ours.

A web of words, like the constellation of images discussed in the previous sections, was redolent with a theory of sexual difference and thus sustained the one-sex model against more general testing. There was in both texts and images a quality of obsessive insistence, a constant circling around, always back to the male as standard. An almost defensive quality suggests that the politics of gender off the page might well have engendered the textual insistence that there really were no women after all.

## The truth of the one-sex model

As I said, parts of the one-flesh model were in principle open to empirical verification and hence also to falsification. But it remained untested, not only for the reasons mentioned above but also because it was woven into a whole fabric of interpretation, clinical practice, and everyday experience

that protected it from exposure to what we would construe as contrary evidence.

Orgasm and conception. It is scarcely surprising that men and women should think that there was a phenomenological correlative to so awe-some and mysterious a process as generation. (Orgasm remains even to-day linked to conception in the imaginations of many people.) On the other hand, counterevidence must have been readily at hand that women frequently conceived without it. For a number of reasons, however, the old view survived. Systematic evidence on the subject is very difficult to gather and, even if women had been asked, it is more than likely that they would have answered what tradition dictated. They would have misremembered the night of conception or misreported their feelings because it is all too easy to dismiss a nonorgasmic conception as an anomaly or, many months later, simply to have forgotten the circumstances of conception, especially when to do otherwise would have been to fly in the face of accepted wisdom. Experience, in short, is reported and remembered so as to be congruent with dominant paradigms.

On a more technical level, it was not difficult to refute, or push to the margins, unwelcome facts. Aristotle, for example, was easy game. His own dictum that "nature never makes anything without a purpose and never leaves out what is necessary" was routinely turned on him.69 Since women have organs that resemble the male testicles, and since they obviously experience sexual orgasm—"ye shall observe the same delight and concussion as in males"—there seemed no reason to deny them as active a role in human generation as men. "Why should we suppose Nature, beyond her custome, should abound superfluidities and useless parts," asks the progressive Oxford physician Nathaniel Highmore rhetorically.70 Or, as Lemnius put it in 1557, in a simile that would have resonance in an increasingly commercial society, a woman's womb is not simply "hired by men, as merchant ships are to be fraited by them." And even if—as he denied-female semen had no other purpose "but only to excite, move and stir the woman to pleasure," it would be immensely important because without the "vehement and ardent lust and appetite" for carnal union, neither man nor woman would follow God's injunction to multiply and be fruitful. Thus the fact that women had gonads like men, that they had sexual desires, that they generally produced fluid during intercourse, and presumably showed signs of "delight and concussion," all

confirmed the orgasm/conception link that Aristotle, at least in his philosophical persona, had sought to deny.<sup>71</sup>

To be sure, the fluid women produced did not look like the male ejaculate, but that was precisely what was to be expected. In the first place, a thing did not have to look like something else in order to be it, as in the bread and wine at communion. More prosaically, the Galenic model of hierarchically ordered sexes would have predicted differences in the quality of the two. Patriarchy itself was predicated on the fact that when, "by the labour and chafing of the testikles or stones," blood is turned into sperm, the man's would be "hote, white and thicke" while the woman's would be "thinner, colder, and feebler."

The heat (orgasm) conception nexus was also deeply entwined in medical practice and theory generally. As we have seen, the one-flesh-model, and the role of orgasm in it, is represented in the bodily economy of fluids generally and redounds throughout the entire structure of Galenic-Hippocratic medicine. The experience of patients would have supported it, if only out of the universal tendency of people to believe in, even as they ridicule, the efficacy of their healers.

But heat, and orgasm specifically, was integral to the more mundane therapeutics of infertility, amenorrhea, and related conditions, not to speak of sexual dysfunctions whose physiological causes are the same as theirs. A physician, surgeon, midwife, wisewoman or other healer consulted regarding any of these, and especially barrenness, would immediately have suspected some caloric pathology. And since the statistical analysis of conception has evolved only very recently, and since doing nothing therapeutically has a remarkable chance of success in curing infertility, it seems probable that almost any advice Renaissance healers happened to give their patients regarding sexual heat and pleasure must have appeared to work often enough to confirm the model on which it was based.<sup>73</sup>

Even suspected anatomical defects might be regarded as damaging because of their effect on pleasure. If, as was thought, the generative body during coitus "shakes out" the semen, then irregularities in the actual physical contact between bodies would be among the first possibilities investigated by doctors in patients who consulted them for infertility. If the penis fails to rub properly, either or both partners might fail to have an orgasm and hence to produce seed. Fallopius argues that a malformed foreskin needs to be corrected less for cosmetic reasons then because a penis without one is not "naturally lubricated"; "lubricity" is necessary

for sexual pleasure and "when the pleasure is greater, the woman emits seed and suitable material for the formation of the foctus and for the production of membranes." No foreskin, less friction, no female orgasm, sterility. Too short a penis could have the same result for the same reason: inability to satisfy the woman. (Avicenna was the authority on this point.) And so too could an excessively large member by diminishing female pleasure, though one sixteenth-century German doctor is skeptical: "Perhaps you have not heard too many complaints about the penis being too long," he says; "I say unto you, the longer a weed grows, the better." 76

But genital heat, from the rubbing genitals, was in fact construed as part of the larger caloric economy, just as semen was part of a more general traffic in fungible fluids. Thus the excess heat that was thought to cause nocturnal emissions or premature ejaculation might be assuaged by cutting back on spicy foods, suppressing "images of a desired woman," or not sleeping on one's back too long (because sleeping on one's back led to warmer kidneys, which increased the production of excrement generally and therefore also of semen).<sup>77</sup>

These were serious matters. In a society in which one in five children died before the age of one, and even prosperous families could consider themselves fortunate if they reproduced themselves, any waste of semen was a matter of the most poignant seriousness. A French physician tells of a man who came to see him in March 1694 because "whenever he was inclined to approach his wife, the emission followed the erection so fast, that he had no ability to penetrate. This hindered him from having children; and, as he had but one left, was afraid of being left without any at all." De la Motte prescribed cooling medicines and suggested that his patient abstain from wines, ragouts, and other heating foods. His condition improved, but his wife remained barren "though very young." 78

The problem of too much heat in women was also part of any Renaissance differential diagnosis of the causes of infertility. Excessive desire; curly, dark, and plentiful hair (in men hair was a sign of virility, bravery, and of the vital heat that arose in adolescence and distinguished them finally from women); a short or absent menses (the hot body burned off the excess materials that in normal women were eliminated in the monthly courses), and so forth, all indicated a problem of excessive warmth that would burn up the seed. Cooling drugs were called for in these situations.<sup>79</sup>

Insufficient heat, however, loomed far larger in the literature than did its surplus. The absence of sexual desire in men, but with minor adjustments also in women, could be cured by rubbing the loins with calorific drugs or through lascivious talk; other drugs, coquetry, and more talk could cure a "defect of spirit," the inability to have an erection when desire itself was sufficient. In women, adversity and indisposition "to the pleasures of the lawful sheets," especially when accompanied by a slow pulse, little thirst, thin urine, "no pleasure and delight" during coition, scant pubic hair, and similar signs were diagnostically important indicators of excessive coolness in their testicles and thus of insufficient heat to concoct their seed. As Jacob Rueff put it in discussing the problem of frigidity, "the fruitfulness of man and wife may be hindered very much for want of desire to be acquainted with Venus." <sup>80</sup>

Desire then was a sign of warmth and orgasm a sign of its sufficiency to ensure "generation in the time of copulation." To produce sufficient heat in women, talk and teasing were regarded as a good beginning.81 They "ought be prepared for sweet embraces with lascivious words mixed with lascivious kisses," because if "the man is quicke and the woman too slow, there is not a concourse of both seeds at the same instant as the rules of conception require."82 (Men are invariably presumed to be more quickly aroused than women.) Ambroise Paré, the foremost surgeon of his day, opens his widely translated account of generation by emphasizing the importance of flirtation, caressing, and excitement. (The audience for his advice is clearly male.) In his account, men had literally to coax the seed out of women. When a husband comes into his wife's chamber, "he must entertain her with all kinde of dalliance, wanton behaviour, and allurement to venery." If he finds her "to be slow, and more cold, he must cherish, embrace, and tickle her"; he should "creepe" into the "field of nature," intermix "wanton kisses with wanton words and speeches," and caress her "secret parts and dugs [nipples] until she is afire and "enflamed in venery." Rhythm and timing are all-important, he counsels, and if the two seeds are to come together, the man must be aware that his partner is not "all that quick in getting to that point" as he; and he must not leave the woman too soon after her orgasm "lest aire strike the open womb" and cool the seeds so recently sown.83

If all this failed, the Renaissance pharmacopoeia, like earlier compilations, was full of drugs that were thought to work either directly or by sympathetic magic. Paré recommended "fomenting her secret parts with a decoction of hot herbes made with muscadine, or boiled in other good wine," or that civet or musk be rubbed into her vagina. Juniper and camomile, the heart of a male quail around the neck of a man and the heart of a female around the neck of a woman—presumably because of the lecherous character of birds generally and of quails in particular—ale hoof and pease straw, were all available to manipulate the one-sex body's heat. By Thus savin (juniper, readily available in gin) might be prescribed to allow an impotent man to have erections, to warm an infertile woman's genitals, and to produce an inhospitably warm womb in a Somerset prostitute who sought to end her pregnancy. The same goes for mugwort (wormwood or artemesia), calamint, spices like ginger or cinnamon, and concoctions made from various animal parts.

A vast body of clinical practice and learning was thus bound up with heat, orgasm, and generation. It was and remains difficult to evaluate the efficacy of particular therapies, and it should not seem strange that the experiences of patients, unchallenged by modern survey techniques and statistical analysis, would confirm the notion that more intensely pleasurable intercourse was also more fecund.

The fungibility of fluids. The economy of fluids discussed in Chapter 2 was partly ideology—a way of talking about women as colder, less well-formed, and more protean than man—and partly a way of understanding the body generally as much less bounded and restrained than we would today. But it was also a way of organizing empirical observations, which strengthened it and the vision of sexual difference it formed.

To begin with, certain anatomical discoveries that improved upon Galenic anatomy actually seemed to confirm the basic physiology of the one-sex model, though no one would have thought such testing necessary. Vesalius, for example, correctly noted that, contrary to Galen, what we would call the left ovarian and testicular veins take their origin not from the vena cava but from the left renal vein (fig. 41). From this he concluded that while the right vein may "carry the pure blood to the testis," the left one, coming as it did from nearer the kidney, might specialize in carrying a more watery, serous blood whose "salty and acrid quality may bring about an itching for the emission of the semen." What was thought to be a significant correction of Galen thus fitted nicely with the thoroughly Galenic notion of genital puritus, of sexual feeling being at least in part the result of the corrosive qualities of certain body fluids. <sup>86</sup>

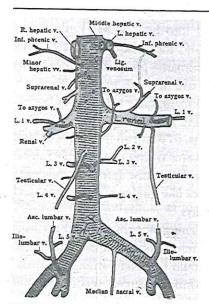


Fig. 41. This shows the left testicular vein, called the ovarian vein in women, coming off the left renal vein and not from the vena cava, the trunk running down the center of the picture.

Conversely, a finding that might have militated against the economy of fluids in the one-sex body—for example, the discovery, known already to Leonardo, that the epigastric vessels going to the breast did not originate from the uterine vessels and that therefore blood from the womb might not be so easily converted to milk and vice versa—was easily ignored. A novel bit of plumbing paled in the face of clinical and folk wisdom stretching back to Hippocrates and of the whole macrocosmic order of which such wisdom was a part.87 "And is it not the same blood, which, having been in the womb, is now in the breasts, whitened by the vital spirit through its natural warmth?" Laurent Joubert, one of the great medical popularizers of the sixteenth century, asks rhetorically. Of course. It was common knowledge that women who were lactating usually did not menstruate, and, as Joubert said, women who had excessive menstrual flows (evidence for lots of surplus material) were also likely to have a great deal of milk once the flow stopped. (This discussion is in the context of a self-conscious effort to bring observation to bear on questions of natural history so as to get the answers right. Joubert, for example, denies the claim, made by Paré, that excess menstrual blood can produce birthmarks.88)

Doctors continued to write as if the actual vascular pathways simply did not matter. New clinical observations seemed to confirm the view that menstruation was simply a way of ridding the body of excess and not something specific to a female organ or single route. So one doctor offered a case-by-case list of all the places and various forms blood went when it could not go out its usual place: in a Saxon woman it came from her eyes; in a nun through her ears; a woman from Stuttgart got rid of stuff by vomiting; a slave through her spittle; a woman from Trent through her bellybutton; in others from the breasts; and finally (even he thinks it "most amazing") through the index and little fingers of one Monica.89 Christopher Wirsung, a popular German writer, argued that the menstrual flow took three separate pathways during pregnancy, even if he did not know precisely how the body effected this division: the most refined and tender was reserved for the fetus, the middle grade went "by various veins to the breasts" to be made into milk, and the coarsest remained behind to be discharged when the child is born. The route from womb to breast is clearly less relevant than the poetics of milk and blood. Someone as thoroughly up to date as the English anatomist Helkiah Crooke, who must have known that there were no connections between the vessels of the uterus and those of the chest, nevertheless argued that the breasts were uniquely well situated to "alter and labor" blood into milk because of their proximity to the heart, the "shop of heate." 90 So even if anatomy did not support the blood/milk nexus, conceptions of the heart as the body's furnace did.

Observations on the periphery of western civilization and under pathological conditions did seem to provide direct new evidence for the interconvertibility of fluids and the underlying identity, between and among men and women, of various forms of bleeding. Brazilian Indian women "never have their flowers," writes a seventeenth-century English compiler of ethnographic curiosities, because "maids of twelve years old have their sides cut by their mothers, from the armpit down unto the knee [and] some conjecture that they prevent their monthly flux in this manner." Joubert likewise thought that Brazilian women "never menstruate, no more than do female animals," while Nicholas Culpepper, the indefatigable seventeenth-century English writer and publisher, uses the fact that at least some "never have any flowers" but nevertheless are fertile as evidence for the general claim that hot women can conceive even if they do not menstruate. 91

Conversely, in the one-sex fluid economy, strange or feminine men might lactate. Hieronymus Cardanus, court physician to the king of Denmark, says on the basis of travelers' accounts that in some places "almost all the men have great quantity of milk in their breasts." (An Italian commentator cites one of Cardanus' nearer-to-home cases: "Antonio Benzo, age 34, pale, fat and scarcely bearded, had so much milk in his breasts that he could feed a baby." Men, if they were "of a cold, moist, and feminine complexion," were quite likely to have milk in their breasts thought an English doctor, a view shared by Joubert, who adds that such men are to be found primarily in the east. He gives, in addition to the evidence in Aristotle, the example of a Syrian count who nourished his child for more than six months. 94

This is not to say that a metaphorically lactating Christ, whose blood nourishes his church as Mary's milk had nourished him, or an infant Jesus depicted with female breasts ready to spurt milk, are to be interpreted as more ethnographic examples of the sort just cited. But they do suggest that, in the world of one sex, the body was far less fixed and far less constrained by categories of biological difference than it came to be after the eighteenth century. The boundary between a more motherly, more feminine Christ lactating in religious imagery and men with milk in prosaic ethnography and clinical reports is by no means clear.<sup>95</sup>

Obviously the cases of amenorrhea among Indians or the more bizarre reports of lactating men need not be interpreted as confirmation of the economy of fungible fluids. The absence of the menses during lactation would today be attributed to hormonal changes and not to the conversion of surplus blood to milk. It will therefore take a certain leap of the imagination to understand how Renaissance doctors and midwives interpreted a large body of clinical material as confirmation of a very different theoretical understanding of the body. But they did; what we would imagine as distinct, sexually specific, fluids were metaphorically conflated in the one-sex model. The "irregularity" (Gebrechen) that "women call white stuff and doctors menstrua alba" was understood by a sixteenthcentury German physician, for example, not as an abnormal vaginal discharge but as a fluid that "has much in common with the flow of male semen" and that arose when disordered heat, excess warmth or cold, turned the menses into something like "the male semen." 96 (The German word for regularity or law, Regel, which is being broken in this case is also the word for menses.)

Similarly, discharges of blood by men, occurring naturally or through phlebotomy, were interpreted not as simple instances of bleeding but as a male substitute menses in what was merely a contingently gendered economy of fluids. Men were routinely bled, usually in the spring—more often for those who exercised little—to get rid of a plethora that in women would be lost every month. Well into the eighteenth century, certain pathological bleeding in men was still likened to menstruation. Albrecht von Haller thought nosebleeds got rid of extra blood in some pubescent boys which in girls found "a more easy vent downward," and Hermann Boerhaave reported the case of a "certain merchant here at Leyden, a Man of Probity, who discharges a larger Quantity of Blood every month by the hemorrhoidal arteries than is discharged from the Uterus of the most healthy woman." (This association goes back at least to Aristotle.)

Indeed, the whole matrix of medical practice connected the physiology of fluids, orgasm, conception, and heat. Cold men, less desirous, less potent, and less fecund, were more likely to suffer menstrual-like bleeding and a whole host of mental and physical ails as well; cold women were thought more likely to suffer retention of the seed or of surplus blood, amenorrhea, which in turn might have a variety of clinical sequels: depression, heaviness of limb, barrenness, green sickness, hysteria. Calorific drugs, a midwife rubbing the genitals (in the case of women), or the ardors of coition itself could warm up the cool and clammy body to normality and restore its fluid balance. The issue was warmth.

Renaissance audiences would have taken as physiologically unremarkable the case of one girl, in Robert Burton's Anatomy of Melancholy, who was supposedly deranged by reason of a delayed menses and who, by some stroke of good fortune—from Burton's perspective—landed in a brothel where she lay with fifteen men in a single night. The experience cured her amenorrhea and restored her sanity. On the other hand, normal or even vicarious menstruation in women was interpreted as a sign of normal body heat and sexual receptivity. The knight in George Gascoigne's Adventures of Master F. J. has a terrible time wooing a lady until one day she gets a torrential nose bleed. When with his help her epistaxis resolves, he finally makes it into the lady's bed.

An entire clinical tradition thus embraced the testable parts of the oneflesh model. Specific discoveries and observations—that orgasm did not always accompany conception, that there were no direct routes between uterus and breast, that the vaginal secretion of women did not look anything like the semen of men—could not, even taken together, shake ancient beliefs so deeply embedded in how men and women regarded and ministered to their bodies. And a variety of observations or putative observations, when interpreted within the constraints of the model, only confirmed its tenets.

## Bodies and metaphors

Although my next chapter will consider explicitly the extraordinarily fraught relationship between the social world of two genders and the one-sex body, I do not want to end this one without briefly exploring an alternative rhetoric of difference to the anatomy of isomorphisms and the physiology of fungible fluids I have been emphasizing, one that proclaims the unique qualities of a woman's body and the supposed role of these corporeal attributes in determining women's health and social standing. Dr. Rondibilis in chapter 32 of Rabelais' Tiers livre de Pantagruel, for example, says that nature has "placed in a secret and interior place" of women's bodies "an animal, an organ, that is not in men." The seventeenth-century midwife Louise Bourgeois leaves the problem of male infertility to male doctors but argues that specifically in women it is most frequently caused by wetness of the womb, that women would be as healthy in both body and spirit as men were it not for this organ, and more generally that God created its uniquely pathogenic qualities—its tendency to wander and cause hysteria, for example-so as to prevent envy between the sexes and to lead man to pity and love woman. 98 Moreover, there is an enormous literature that relates the cold, wet humors said to dominate women's bodies to their social qualities—deceptiveness, changeability, instability—while the hot, dry humors in men supposedly account for their honor, bravery, muscle tone, and general hardness of body and spirit.

Both ways of talking, of course, unambiguously proclaim difference. Both array sexual difference on a vertical axis of hierarchy. Both acknowledge the obvious: women have a womb and men do not. Both ways of talking, to paraphrase Ian Maclean on the Aristotelian logic of sexual opposition, refer at times to an opposition "of privation," at other times to an opposition of contraries that may or may not admit intermediaries,

and sometimes—I would say always—to other parts of a cognitive system, other "correlative opposites." 99

But these ways of talking also differ in two important respects. The first is rhetorical. The anatomists, physicians, and even midwives I have cited were writing to make their readers understand the body and its fluids in a particular way. They were articulating a set of representational or semiotic claims: that the womb must be *understood* as an interior penis, that menstruation must be *understood* as women ridding themselves of a plethora which the warmer, more active bodies of men consumed in the course of everyday life. These understandings were fraught with cultural significance, but they were not expounded primarily to make points about the corporeal foundations of the social order. On the other hand, certain midwifery and medical books, by authors who wished to emphasize their specialist knowledge, as well as a vast array of books about women, for and against, treated the body as if it contained the necessary and sufficient reasons for the medical problems and behavioral characteristics with which they were specifically concerned.

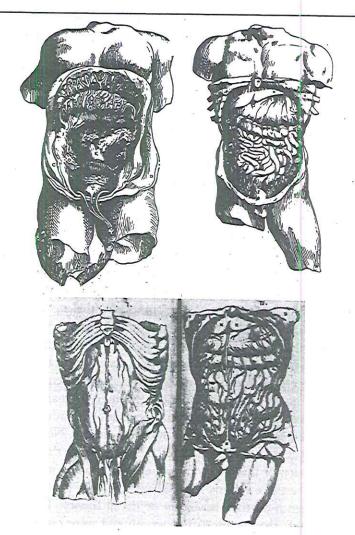
The second difference (but at the same time affinity) has to do with how these two Renaissance discourses construed the body in relation to its cultural meanings. In neither is the ranking of the sexes on the great chain of being just metaphorical—nothing in this cultural system is just metaphor—but it is not just corporeal either. The one-flesh discourse I have been explicating seems to regard organs and the qualities of bodies generally as ways of expressing hierarchy, as elements in a network of meaning. On the other hand, the discourse on female uniqueness seems to be postulating an almost modern reductionist theory of corporeal causation, even if it does not carry the notion of incommensurable corporeal opposition as far as would post-Enlightenment writers. Yet, and this is the critical point, the metaphorical and the corporeal are so bound up with one another that the difference between the two is really one of emphasis rather than kind.

Even an apparently straightforward claim about the body like the one that Rabelais puts in the mouth of Dr. Rondibilis turns in on itself and becomes about something else as well: the womb comes once again to sound like a penis. Only women have a womb, Rondibilis says, with no hint of literary shiftiness. But the womb is "an animal," he continues, a move to metaphor and an allusion to *Timaeus* (91b-d), where Plato refers

to both the male and female genital organs as animals prone to wander unless they are satisfied. 100 And then, in the usual Renaissance manner of piling on similes, this organ, the womb, which is said not to exist in man, becomes "un membre," a term that can of course mean simply an organ but that referred more specifically in the sixteenth century to an appendage—an arm or leg—or when used alone, as in "his member," to the penis. There was no sense in which membre ever referred to "her member." 101 The point here is not that Rondibilis is making a controversial claim in saying that only women have a womb; no one denied this. It is rather that once again a female organ is attracted into the metaphorical orbit of the male, not in order to make a claim about likeness but to assert that all difference is figured on the vertical scale of man.

It is also precisely in those contexts in which the womb seems most solidly the organic source of disease, as in the argument that hysteria is caused by a wandering womb, that it becomes most profoundly bound up with extracorporeal meaning. Even in classical writings it is difficult to comprehend the purchase of the claim that the womb wanders and causes hysteria. Herophilus in the third century B.C. discovered the uterine ligaments, and Galen merely repeated old arguments when he said that "those who are experienced in anatomy" would recognize the absurdity of a moving womb: "totally preposterous." 102 Someone must have believed literally in a rampant uterus—a folk belief perhaps—or the doctors would not have felt it necessary to keep attacking the view, and the prevalent fumigation therapies suggest that their adherents subscribed to this literal interpretation. But by the sixteenth century there was manifestly no place in the body for the womb to move to.

The new anatomy, and more specifically the widespread distribution of anatomical illustrations (such as figs. 42–44) well beyond the bounds of the learned community to midwives, barber surgeons, and laypeople, showed that not only was the uterus kept more or less in place by very broad ligaments but that the space between it and the throat was full of other organs and divided by thick membranes. Galen had already pointed out that the peritoneum covered the bladder and the uterus, but now this fact was there for anyone to see, splendidly displayed in the usual, slightly ruined classical torso. <sup>103</sup> The new anatomy thus made literal interpretation of a wandering womb impossible; but it did not produce a modern rhetoric of disease. Like Paracelsian iatro-chemistry, which seems to be



Figs. 42–44. Fig. 42, top left, shows the female torso from which the vagina in fig. 20 was removed. Vesalius tells us that the attachments of the uterus are in place but that he has removed the abdominal wall and intestines to present this view. Fig. 43 shows a male torso, a few pages before this one, opened to show the intestines still in place. Clearly this figure was meant to be be applicable to women. Two still earlier plates from the Fabrica (fig. 44, bottom row) showing the abdominal wall of a male torso still in place were combined and used as the opening and illustration of a leading sixteenth- and seventeenth-century midwifery manual by Raynald, The Byrth of Mankind (1545).

but is not a version of modern medical chemistry, the new anatomy lures us into thinking that Renaissance writers must have spoken of organs as we do, which they did not. Whatever they were debating when they pondered whether the womb wandered, it was not a discussion about the actual travels of an organ from its ligamentary anchor below, up through a foot and a half of densely packed body parts.

By the eighteenth century, this was perfectly evident. When Tobias Smollett, author of *Humphrey Clinker* as well as a surgeon and ghost-writer of Smellie's famous treatise on midwifery, ridiculed the English midwife Elizabeth Nihell for citing Plato's wandering womb, Mrs. Nihell countered that *of course* she had meant it only figuratively. Smollett, she said, had quoted her out of context to make her look bad. 104

Though less intractable, difficulties of translation also arise when interpreting the humors. Doctors as well as laypeople in the Renaissance believed that the humorial balances of the sexes differed along the axis of hot and cold, wet and dry, that such differences had implications for anatomy as well as for behavior, and that humorial imbalance caused disease. They spoke as if there were warm or cold qualities somewhere in the body whose presence was made known by observable features; skin color, hair, temperament. On the other hand, no one believed that a quantifiable amount of some humor caused someone to be male or female. There were thought to be hot, hirsute viragos and effeminate, cold and hairless men, colder than exceptionally hot women. The claim was rather that men as a species were hotter and drier than women as a species. Nor was it claimed that one could actually feel the wetness or the coldness that distinguished women from men or that, on occasion, caused female complaints. 105 The humors were not like organs and did not play the parts organs would play in eighteenth-century nosology or social theory. Though humors were "more real" than a wandering womb and were certainly not "just metaphors" or ways of talking, they were not just corporeal attributes either.

Perhaps the most telling feature of both ways of talking about sex in the Renaissance, however, is the extent to which all talk about sex is determined contextually. In the same texts from which women are excluded and denied both separate existence and subjectivity, they enter as subjects. There they are, where most egregiously absent. Consider again Columbus' discovery of the clitoris, this time with the Latin text:

Hanc eadem uteri partem dum venerem appetunt mulieres et tanquam oestro percitae, virum appetunt, ad libidinem concitae: si attinges, duriusculam et oblongam comperies . . .

If you touch that part of the uterus while women are eager for sex and very excited as if in a frenzy, and aroused to lust they are eager for a man, you will find it rendered a little harder and oblong . . .

If "you" (man) touch a certain part of a woman, "you" will find it harder. Women, in one of the few instances in which they are made the grammatical subject, are literally surrounded in the temporal clause by desire, her desire. Appetunt, "are eager for," is repeated, to flank mulieres, women; percitae and concitae, redundant predicate adjectives, attest further to her sexual arousal. But then the sentence takes an unexpected turn, and the scientifically objective, presumptively male reader is told that the part of the female anatomy in question will become hard and oblong if touched ... making her semen flow "swifter than air." 106 Thus woman has entered as a separate, desiring being in what seems to be an all-male world.

This tension is everywhere, not only in the anatomy theater but at the Globe Theater, not only in medical texts but in the essays of Montaigne. The cultural politics of at least two genders is never in equilibrium with the "biology," or alternative cultural politics, of one sex. We shall see that context determines sex in the world of two sexes as well.