Chapter 5: Adult Breastfeeding as Cure

Queer Lactations in Medical Discourse

The iconography of Pero and Cimon thrived against the background of medical practices that on occasion included adult breastfeeding. Giordano Bruno's comedy *The Candle Bearer*, Secondo Lancelotti's satirical treatise on ancient "impostures," and Giovan Battista Casti's erotic novella parody this ancient medical practice – especially the breastfeeding of old men. In a more serious vein, the practice was mentioned by Marsilio Ficino (1433–99) and adapted for scientific audiences by Geronimo Acoromboni (1536). The primary ancient authority on the subject matter was Pliny the Elder (23–79 CE), who, in his *Natural History*, writes abundantly on the use of body liquids for the purpose of incantations and medical cures, ranging from drinking the blood of gladiators by epileptics to ingesting the leg marrow and brains of infants.[1] He devotes an entire chapter to remedies from women's milk for illnesses in both male and female patients such as fevers, lung disease, abscesses in the breast, eye problems, and gout. Most efficacious, he says, is the milk from a woman who has had a baby boy and just weaned her infant; "girl's" milk is useful only in treating skin disease.[2] The gendering of the consumption of body fluids becomes quite pronounced when Pliny expresses his disdain for physicians who actually recommend the use of male sperm for the treatment of scorpion bites.[3] In Pliny's opinion, men ought not to offer up their liquids for other people's benefit. They are model consumers of fluids stemming from women, children, and slaves, even though female patients are not entirely missing in Pliny's account.

A Greek contemporary of Pliny, Pedanius Dioscorides (ca. 40–90 CE), praised human milk as efficacious in the treatment of lung disease, ulcers, eye problems, and gout, especially "if suckled directly from the breast." He deemed breast milk "very sweet" and nutritious.[4] Both Pliny's *Natural History* and Dioscorides's *On Medical Matters* were widely read all throughout the Middle Ages and the Renaissance. Neo-Platonist philosopher Marsilio Ficino, for example, updates and theoretically enhances some of this ancient knowledge about

female body fluids by recommending that old men drink the blood and milk of young women for purposes of rejuvenation in his *Three Books on Life* (1489).[5] Ficino's book might have inspired Pope Innocent VIII's physicians, who during the pope's illness in 1492 made him ingest the blood of three Jewish boys prior to his use of a wet-nurse. It is unclear how the blood was obtained, but the three boys died in the process of supplying it.[6]

Several decades later, Geronimo Acoromboni wrote eloquently about the multiple usages of breast milk in cases of lung disease, hypochondria, and fevers of all kinds in his 1536 *Treatise on Milk*. Acoromboni quotes liberally from Hippocrates, Galen, and Avicenna. Analyzing the composition of milk into its various components, and speculating about its origins in the female body, he concludes that breast milk is so very potent because of its "sanguine" nature.[7] As all medical scholars would do before the seventeenth century, Acoromboni frames his research on milk in the context of ancient hematological and humoral pathologies, according to which all body fluids derived from concoctions of blood. Giving a few concrete examples of successful milk diets, he cites the case of Cardinal Pietro Bembo (1470–1547), whom he cured of his chronic catarrh by prescribing the prolonged use of breast milk.[8] This happened during Bembo's tenure as secretary to Pope Leo X (ruled 1513–21). It thus appears that the use of women's milk, ridiculed by Bruno and other later writers as the epitome of debauchery, was quite frequent among members of the Renaissance papal court.

The discourse surrounding the medical use of breast milk, especially in cases of lung disease, continued undisturbed until the eighteenth century. Diderot's and d'Alembert's *Encyclopédie, ou Dictionnaire raisonné* (1765) elaborates on the therapeutic value of women's milk, mixing faith in this ancient remedy with sexual anxieties. Focusing on the treatment of tuberculosis and depression, the anonymous author of the entry "lait" [milk] explains that best results have been achieved in patients who "are closest to the nature of children … in their passions and movements of the soul."[9] Considering that the animating spirit of milk, i.e., its active ingredient, evaporates upon contact with air, the author proposes that it need not necessarily come from a woman: "The patient could very well suckle from a cow or donkey."[10] But this would be disgusting, as well as difficult to execute, which is why human milk and its particular "manner of administration" through direct suckling are important alternatives. In the eyes of the author, the patient needs to ingest the milk directly off the breast in order to ingest its revivifying spirit; at the same time, he finds the remedy's erotic form of presentation very preoccupying. In a manner similar to Casti's novella about Don Andronico, he fantasizes: "We certainly do not think it advantageous to let young men, absolutely exhausted, reduced to the last degree of consumption, lie [in bed] with young, pretty, fresh, and neat wet-nurses, so that the poor moribund can breastfeed at his ease."[11] Criticizing an unnamed author's reference to King David and the Shunammite, he doubts that any positive effect of breastfeeding might

be caused through the "transpiration" of the nurse's rejuvenating spirit. In his eyes, any revitalizing effect of women's milk derives from the manner in which it is offered: "If young people, reduced to the last degree of depression, can be cured by habitually lying with young and beautiful wet-nurses, this salutary revolution might be due to the constant excitement of the venereal appetite."[12] At the same time, this can also hasten death, especially when consummated by "skinny," "feverish," and "convulsing" patients. The investigation of the medicinal qualities of breast milk thus ends on a skeptical note with contradictory information, both affirming and denying the positive effects of adult breastfeeding in ailing men, especially in those young enough to exhibit "venereal appetite." Presumably, old men suffering from a child-like absence of sexual desire would be appropriate candidates for a milk cure, while the question of how to heal female patients is not even addressed. The sexual implications of medicinal lactation for women were unimaginable for most authors.

In the midst of such moralizing debates on therapeutic breastfeeding, gout emerged as a disease thought to be most eminently treatable by breast milk. Multiple treatises on the cure of gout were published since the sixteenth century, many of which exhibit a preoccupation with sexual matters and a strict gender difference between givers and takers of milk. The ideal recipient was always thought to be male. In his *Commentary on Gout* (1569), Girolamo Gabuccini explains why women were not even affected by the disease. Perusing a multitude of Greek and Latin authors, Gabuccini traces the gendered history of gout back to Hippocrates, who believed it to afflict sexually active men only: "Castrated men do not suffer from gout … women do not suffer from gout, unless their menses are suppressed; and … boys do not suffer from it before their first coitus."[13] According to Hippocrates, women's menstrual flow acts as a purgative; in addition, sexual licentiousness affects women less than men.[14] These "observations" indicate that gout was believed to derive from the buildup of excess fluids produced during intercourse, from which women could find relief during menstruation. Referring to ancient Roman authors who declared gout to be the effect of vice,[15] Gabuccini concludes that gout patients must abstain from both wine and sex.[16] Unlike Acoromboni, he shies away from recommending the suckling of milk directly off the breast. Instead, he suggests that unguents be made from breast milk,[17] and in addition he recommends rubbing his patients' ailing extremities with the menstrual blood of a virgin.[18] In his *Medicine Book* from 1568, Christoph Wirsung suggests a similar restraint in the treatment of gout. In contrast to patients suffering from phthisis or consumption, who need to drink their milk directly from the breast – or else the udder – men afflicted with gout were supposed to apply compresses dipped in woman's milk to their ailing hands and feet.[19]

A century later, Central European scholars took up the discourse on gout, eroticizing the disease and insisting, again, on the "internal" application of

breast milk. In his *Medical Treatise on the Milk Cure of Arthritis* from 1670, Johann Georg Greisel refers to Pliny and Dioscorides in this context. Poems on the wonderful effects of human milk introduce the volume, such as Matthaeus Ursinus's lyrics "To Sufferers from Podagra: … Return to the breasts and to milk in the manner of babies!"[20] Greisel presents this regression to an infantile state as both a remedy against and a punishment for the many vices that in his eyes cause the disease. Quoting the mystic and religious author Thomas von Kempen (1380–1471), he frames his investigation of gout with a polemic against libertines. He declares that only rich people with too much time on their hands suffer from this disease in the first place, as a result of indulging in sex and rich foods, while hard-working peasants "are not entertained by podagra."[21] Such interweaving of religiously moralizing and medical topics continues to characterize his treatise. Greisel quotes various early Christian authors on the "milky," i.e., innocent, state of early mankind and divulges his pessimistic view of man and society, which he sees as degenerating from a state of innocence into a state of bodily corruption signified by sexual desire. This digression leads him directly, and somewhat abruptly, into a polemic against wet-nursing. Quoting Cicero – "it seems that we suckled the errors of the wet-nurse together with her milk" – he complains about the promiscuity of commercial milk sharing as the origin of all evils and draws a connection between wet-nursing and prostitution: "What a difference between those who were nourished by maternal milk, i.e., their own sweet nourishment, and those raised on foreign, mercenary, depraved, and libidinous milk besmirched in every whorehouse – if it deserves to be called milk!"[22] During his lengthy digression on the moral problems of wet-nursing, Greisel seems to lose sight of his main topic – the treatment of podagra – were it not for the fact that he implicitly suggests to view gout as the punishment for the sins of one's wet-nurse or, rather, for the disposition to lead a sinful life that a "whorish" nurse might instill in her charge. Assuming that all those affluent, elderly male patients suffering from gout were raised by wet-nurses, he defines the punishment and cure as a repetition of the initial "sin" of wet-nursing in a brilliant rhetorical move reminiscent of Augustine's concept of "poena reciproca" [reciprocal punishment].[23]

Greisel's proposal that old men suckle milk from young women stands in open contrast to his attack on wet-nursing, but he solves the paradox by couching the cure as penitential act. The regression to infancy signified by breastfeeding is both an act of contrition and the return to a salutary state of innocence, which in Greisel's account seem to be as important in effecting a cure as the chemical properties of the milk itself. Greisel is reluctant, however, to spell out his preference for breast milk outright. Having set the stage with an exhortation to "return to the breast" in one of the opening poems, he expresses his opinion on the respective benefits of animal milk and breast milk only after an extended chemical analysis of their respective components. Finally,

he satisfies the reader's expectations in a footnote that refers to the relevant text passages in Pliny's *Natural History* and Ficino's *Three Books on Life*. In the main body of his text, he continues to be vague about the benefits of "milk" in a generic sense, seemingly reluctant to reveal that Pliny's and Ficino's passages on the treatment of gout patients and old men mention breast milk in particular.[24] Maintaining the tensions and ambiguities surrounding this question for a little while longer, he finally comes out with a full text quotation by Matthaeus Silvaticus (1280–1342) on the medicinal use of human milk: "The milk of a woman, whose nutrition and generative powers are good, is most healthy, especially if her body is healthy … young, beautiful, and of mild complexion."[25] Greisel adds to this Dioscorides's recommendation that the milk be suckled directly from the breast.[26] As if aware of the provocative nature of his proposal, he backs it up with multiple further references to ancient authors, concluding that both Pliny and Galen were correct in their assumption that contact with air spoils the milk.[27]

All throughout the eighteenth century, these questions were hotly debated. In 1705, Johann Doläus intervenes with his *New Treatise … on the Milk Cure against Gout … Written from Personal Experience*. Doläus shies away from recommending human breast milk outright, as Greisel did, but numerous references to nurses' milk suggest that it was very much on his mind. Although the treatise is ostensibly about the use of cow milk, which he proposes as a remedy due to its alkali nature, it juxtaposes animal milk and human milk on a number of occasions. Speculating about how best to feed the cow whose milk would be used, he notices how human milk turns yellow "if a nurse feeds entirely upon fresh meats, fish, and broths."[28] Assimilating the nurse into a cow in thinking about her nourishment, he anthropomorphizes the cow when explaining which animal would be most appropriate for a milk-cure. In a discourse reminiscent of treatises offering advice on how to choose a good wet-nurse, Doläus explains: "The animal from whence it is taken … should be a Heifer, or cow of middle age, of a good habit … neither fat nor lean, nor pregnant, and kept separate from the bull … if anyone can keep a cow for their own use … [they should take] good care, however, that the cow be of good habit, well fed, and not too old."[29] Like a wet-nurse, in other words, the cow should be young, good-looking, well-fed, and above all: not sexually active.[30]

In his 1737 *Commentary on Milk*, Heinrich Doorschodt returns to ancient prescriptions of human milk. Quoting medical writers such as Pliny and Galen, but also poets such as Ovid and Sallust, he rehabilitates their stories about men who survived for long periods of time on milk alone, which Secondo Lancelotti ridiculed a century earlier. On the question of whose milk to choose for these purposes, he says unequivocally: "Therefore the milk of a healthy woman, of flourishing age, well-exercised, well-nourished, is always preferable

... [to animal milk]."[31] In cases of gout and consumption, it is advisable to suckle the milk directly off the breast,[32] even though Doorschodt concedes that some people's sensibilities might prevent them from choosing this remedy: "Because many [people] shrink away from this milk in horror, donkey's milk is [a] fairly common [substitute]."[33] Floris Jacob Voltelen's 1775 treatise *On Human Milk*, which builds on Doorschodt's and Greisel's studies, analyzes the composition of breast milk in order to determine its closest alternative for medicinal purposes and infant nourishment. In his preface, he quotes Friedrich Hoffmann on the cure of gout and consumption through the milk of donkeys, goats, and cows.[34] Again, a certain conflation of references to animal milk and human milk makes the potential for interchangeability obvious.

While scientists tried to find a healthy (and cheap) alternative to breast milk for infants, mostly in response to the shortage of funds for wet-nurses in foundling homes and the horrendous death rates among abandoned babies, adult patients took to the breast at least until the late eighteenth century.[35] Heide Wunder documents the case of Gotthelf Greiner, who, suffering from dropsy, was prescribed human milk as a remedy of last resort when even the medicine made from human fat, harvested from the body of a woman executed for infanticide, failed to work. In his memoir, Greiner describes the repulsion he had to overcome before he could follow his doctor's recommendations:

"I was supposed to drink this milk five to six times a day; [the doctor said,] I could take a wet-nurse, but since my wife had a breastfeeding infant, I could nurse from her. Thereupon I explained to him that I found the idea revolting ... and asked whether he could not recommend anything else. No, he said, this would be the very last remedy ... What was I now to do? My wife did have milk, but I shuddered at the thought of it. Finally ... I did make up my mind to do it. I tried it. Took milk from my wife and drank it. [As a result,] my wife had more and more milk and I drank every day what she had left after nursing her child. When she weaned it, I drank her milk for another two months. And my health gradually returned. When my cousin Lauterbachin from Alsbach offered to share her milk with me, I accepted. She sent me every day almost a liter [ein Maass] until her milk dried up. I regained my health entirely, so that I could work like before."[36]

Even though Greiner does not mention explicitly that he drank his wife's milk directly off her breast, the repulsion he initially felt suggests his fear of a boundary violation. As his diary entries reveal, he had complex associations with breasts and breastfeeding, and reasons enough to feel uneasy about the modalities of his cure. For example, he records that his mother could not produce any milk for him as a baby, "although she always had puppies suckle from her breasts," a situation whose psychological implications can only be imagined. Also, he was cured from a prolonged period of impotence only after Jungfrau Fröbel, who later became his wife, let him touch her breasts.[37]

The question of whether female patients experienced similar reservations and fears at the prospect of a milk cure is hard to answer based on the – very scarce – available evidence. As Countess Hedwig Sophie von Hessen-Kassel reports in her correspondence, her daughter Elisabeth Henriette (1661–1683) benefited from therapeutical lactations when she suffered from an unnamed disease that kept her bedridden all throughout the year of 1677. In November of that year, after three weeks of drinking milk from a wet-nurse, her mother noticed a remarkable improvement in her health. Unfortunately, she does not offer any information about her daughter's feelings surrounding this treatment.[38]

Countess Elisabeth Henriette was fortunate to receive this cure. In popular medicine, a woman suffering from typhoid was supposed to drink a man's urine, while a male patient would have enjoyed a woman's milk.[39] Oils and unguents made from breast milk seem to have been consumed by both men and women, but gender distinctions re-emerge in most pharmaceutical books through a differentiated use of male and female body fluids such as "girl's" and "boy's" milk.[40] According to Lorentz Burres von Neunkirchen, "urine from a boy who is still being nursed" and women's milk were interchangeable ingredients for his eye medicine.[41] Against most physicians' assumptions that "boy's" milk was more potent than that of girls, German pharmacist Christoph Wirsung was partial to "female" milk. In his comprehensive *Medicine Book*, he expresses his preference for the "milk from a woman who nurses a girl," which he recommends in cases of eye and ear disease, insomnia, and generic pains. He finds boy's milk effective only for the treatment of hot flashes, while milk against gout and consumption may derive from mothers of both male and female infants.[42]

The pervasive gendering of breast milk and its consumers – which couched women in the role of suppliers – explains why sources on the topic of women's active breastfeeding for medicinal purposes remain rare. Breast milk was next to never deemed efficacious in the treatment of diseases afflicting women: only in the medieval Jewish tradition was women's milk supposed to help in cases of "inflation of the womb."[43] By contrast, we have ample evidence of women's passive lactations. Gynecological treatises such as *On the Diseases of Women* (1587) by Girolamo Mercuriale (1530–1606) routinely recommended to women with "too much milk in their breasts" to use a pump, a baby, or a woman to extract the superfluous milk to avoid inflammations. "If the voiding is not done by instrument, I think one should use a woman, so that the milk gets sucked cautiously and lightly and the pain is not increased."[44] In the eyes of Girolamo Mercurio (d. 1615), this practice was unfortunately very widespread. In his book *The Midwife* (1601), which follows Mercuriale's book to a great extent, Mercurio writes: "If the abundance of milk is such that … [it causes] swelling in the breast [and] … pain [and] … the danger of an inflammation … it is good to let it be

sucked off by others, and in particular if the patient is used to letting herself be milked [lattare]."[45] The "abundance of milk" both authors talk about was mostly the result of a mother's decision not to breastfeed her infant and puts another spin on the ubiquitous polemic against wet-nursing. Mercurio deplores the absence of maternal nursing among the upper classes, not only because babies had to suckle from the breasts of social inferiors but also because mothers had to procure "breast-suckers" to help them deal with engorgement: "Because the infelicitous state of our modern times is such that only very few mothers, especially among the upper classes, breastfeed their own children, this manner of letting the milk dry out [i.e., through the employment of women who suckle it] is absolutely necessary, to avoid illnesses."[46]

Two centuries later, Marie-Jeanne Phlippon Roland (1754–1793) left impressively detailed personal evidence about her relationship with a "têteuse" [female breast-sucker] whom she employed to re-establish her milk flow after she became ill and took a break from breastfeeding her daughter.[47] Madame Roland was an Enlightenment thinker and close supporter of the French Revolution until she fell out of favor and was guillotined in 1793. She was much enamored of Rousseau's ideal of maternal breastfeeding and employed a variety of infants, wet-nurses, and breast-suckers to help her put it into practice. In her letters, she describes how her "femme à tirer" sucked her breasts two to three times daily from November 30, 1781 to January 11, 1782.[48] After five weeks of this treatment, small drops of milk were finally visible on her breast, but she hesitated dismissing her "têteuse." When, eight days later, she finally let her go, she paid her handsomely and said: "I was very happy with her; she is very content, and I even more so."[49] Such acknowledgment of feelings is rare in Madame Roland's letters, and indicates that a certain degree of emotional dependence might have developed in her relationship with her "tireuse."

In her posthumously published "Recommendation to my Daughter" (1799–1800), Madame Roland adopts a more critical approach in reflecting on this period of her life in which she experimented with maternal breastfeeding. Already before her above-mentioned illness, she used several persons to suckle her breasts, because her daughter did not drink enough to drain them and she felt in danger of developing an inflammation. The glass and metal pumps she tried "were all useless, as were the efforts of several persons in sucking me [pour me teter]."[50] Expressing a slight repulsion in thinking back at her milk suckers, she advised her daughter: "You have to make sure that the person who suckles you has a healthy mouth [and] a sweet breath, [and] does not consume hard liquors, refined cheese or onions."[51] In any case, "if one can find an infant, that's always better … [because] even those [adults] who suck the best have always a very tiresome movement of their heads. The fear of hurting [the nipple] with their teeth prevents them from applying their tongue all the way."[52] In a lengthy footnote, Madame Roland compares her

own, semi-scientific observations on the suckling techniques of adults versus infants against those presented by the Chevalier Jaucourt in his encyclopedia entry on "breasting" [teter].[53] In the main body of her text, she develops her personal story about her struggles to comply with the new Enlightenment ideal of maternal breastfeeding.[54] Her daughter seems to have been unable to drain her breasts, which is why she felt she needed the assistance of various adults and infants in suckling off her excess milk. As she depicts it, maternal breastfeeding was by no means a "natural" and seemingly effortless activity à la Rousseau but a very labor-intensive and costly enterprise: "After even a very well-trained woman did not succeed [in draining my breasts], we had to find an infant. Poor people agreed, in the end, to give me their baby."[55] But this infant, barely six weeks old, "bore already on his forehead the imprint of misery" and was so diseased that she shuddered at the thought of letting her own daughter drink from the same breast.[56] She then found another, much healthier, baby, five months old, whose breastfeeding she shared with his mother. We can conclude from Madame Roland's writings that in contrast to Rousseau's maxim of exclusive maternal nursing as the mark of bourgeois domesticity, lots of milk sharing and cross-suckling went on in her – upper-class – household.[57] Her observations exhibit an interesting set of contradictions: On the one hand, she did find it remarkable that most poor mothers refused to give up their nurslings for money, and she observed the stark contrast between their affective relationship with their infants and the ubiquitous employment of wet-nurses among the wealthier classes.[58] On the other hand, she ceased to breastfeed as soon as she got sick, handed her daughter over to a nurse, and employed a breast-sucker to make her milk flow reappear, not realizing that Rousseau's polemic was in part directed against well-to-do mothers like her and the ostentatious breastfeeding promiscuity they promoted.

A cheaper alternative to the employment of a "têteuse" was the use of puppies, especially if the purpose was to eliminate the colostrum right after birth or help with engorged breasts. Londa Schiebinger mentions, for example: "as Mary Wollstonecraft lay dying after childbirth, the doctor forbade the child the breast and procured puppies to draw off the milk."[59] A childbirth platter by the so-called Painter of the Coal-Mine Dish from 1545 contains a detail depicting a woman with one bare breast and a dog on her lap (Figure 5.1).[60] According to Pliny, feeding from a human breast was beneficial to a dog's health, as milk from a woman who had given birth to a boy protected against contracting rabies.[61] Gotthelf Greiner's mother tried to stimulate her milk flow – unsuccessfully – with the help of puppies.[62] Also other pets could, on occasion, fulfill this function.[63] Veronica Giuliani, for example, "took a real lamb to bed with her and suckled it at her breast in memory of the Lamb of God," but she did so for spiritual rather than health-related reasons.[64] Her claim to sanctity did not rest on the fact that she nursed a lamb but that she was a virgin.

Figure 5.1: Childbirth Dish, 1546, Tin-Glazed Earthenware from Urbino

The lactation of virgins, modeled after people's veneration for the Madonna Lactans, was not only a powerful motif in Catholic devotional practices, but a frequent topic of medical debate. In the case of Elena Duglioli, a "living" saint of the early sixteenth century, both discourses merged. After having lived in a chaste marriage for a few decades, she became famous when she developed milk in her breasts and started to nurse Catholic dignitaries, assisting them in their battle against sexual desire. Had she stopped menstruating when her milk flow began, her virginal lactations would not have seemed extraordinary from a medical perspective, since contemporary hematological theories taught that amenorrhea could be triggered or relieved through the draining of other excess fluids such as breast milk. But the miraculous nature of Elena's virginal milk was revealed through the fact that her engorgement was accompanied by the onset of menstruation after a prolonged period of amenorrhea. After she died, several leading anatomists conducted an autopsy with the aim of

Figure 5.2: Jusepe de Ribera, The Bearded Woman, 1631

clarifying whether a natural or super-natural phenomenon had produced her breast milk, with little success.[65]

Next to virginal breastfeeding, the lactation of men was a frequent topic of debate among reproductive anatomists. Physicians and milk experts liked to address these rare occurrences in nature to prove or disprove prevailing assumptions about female milk production in the context of humoral pathology and corresponding hematological theories. Jusepe de Ribera's painting of *The Bearded Woman* (1631) connects with the debates on male lactation as a manifestation of the "marvelous" in nature (Figure 5.2).[66] Purportedly, the painting is a portrait of Magdalena Ventura, a fifty-two year old woman from the Abruzzi in Italy, who started growing a thick beard when she turned thirty-seven. It was commissioned by Don Fernando Afán de Ribera y Enriquez, the third duke of Alcalá, a passionate collector and humanist.[67] Even though Ribera himself declared this portrait to be done "marvelously from nature" – an opinion shared by viewers of the painting – its most striking feature defies historical accuracy: the protagonist is nursing a baby from one gigantic, and conspicuously dislocated, female breast. The peculiar positioning of this breast is reminiscent of late medieval representations of the Madonna Lactans that emphasize the symbolic, religious, and decidedly non-natural, character of the milk-exchange depicted.[68] In Ribera's painting, the addition of this eye-catching detail would have been unnecessary had the painter really only wanted to portray the Abruzzese "bearded woman," who was long past childbearing age. It indicates that Ribera – perhaps encouraged by his commissioner, who was known to read books on medicine – aimed at conflating the depiction of two natural "wonders" in his painting, i.e., excessive female hirsutism and male lactation. The effect is deeply unsettling, because the viewer does not know how to match the title – *The Bearded Woman* – with what he or she sees: namely, the image of a man nursing a baby from a single miraculous breast.[69]

The topic of male lactation goes back to Aristotle, according to whom "with some men, after puberty, a little milk can be produced by squeezing the breasts." In these cases, the quantity of milk can be much increased upon prolonged "milking."[70] This theory was much debated since antiquity. Hippocrates, for example, denied that men could produce milk: "The glands in the chest are called breasts, and they swell in those producing milk, but not in those [who do] not. Women produce milk, men do not."[71] Medieval anatomists provided evidence for the exclusive production of milk in women by identifying a vein that transported blood from the uterus to the breasts, where it would get concocted into milk after delivery.[72] Leonardo da Vinci famously represented this vein in one of his anatomical drawings.[73] According to Gianna Pomata, Renaissance scientists followed Leonardo in returning "to the Galenic idea of an identical vascular system in both men and women," which made the

occurrence of male milk easier to explain.[74] In refuting Mondino de' Luzzi's anatomical treatise from 1316, Berengario da Carpi (1460–1530) was of the opinion that veins, originating in the chest, led to men's testicles and women's breasts for the production of sperm and milk, respectively.[75] According to Galenic theory, which aimed at minimizing anatomical gender difference and representing male and female reproductive organs as mirror images of each other, women were thought to concoct blood into seed in the uterus, while men were thought to produce milk in their breasts on occasion. This theory set the stage for the gathering of empirical evidence of male lactation. Contemporary Italian medical writers reported the cases of several men known to have lactated; Sabinocio da Carpi and Messer Pietro became especially well known in this regard.[76]

As Barbara Orland has shown, milk came to be seen more and more as a concoction of chyle rather than blood after William Harvey's discovery of blood circulation in 1628 and the subsequent waning of ancient hematology. Independently of Harvey, Gaspare Aselli discovered the so-called milk veins or lacteals a year prior (1627).[77] As a result of this momentous revision, which made milk appear to derive from ungendered chyle, observations of lactating men multiplied.[78] In 1665, Joseph Conrad Schenk Jr. wrote that he knew a man by the name of Lorenzo Wolff, who since his sixteenth year "has had and continues to have so much milk in his bosom that during parties, or whenever he is drunk, out of jest he squeezes his breasts and squirts milk into the faces of bystanders."[79] Johann Storch (1681–1751), physician in Eisenach, claimed that he knew a man who "had milked so much milk from himself that he made cheese from it."[80] In his *Essays and Observations on Natural History* (1861, posthumously published), John Hunter (1728–93) relates that a father nursed eight of his children. According to Londa Schiebinger, Hunter "began nursing when his wife was unable to satisfy a set of twins."[81] "To soothe the cries of the male child," Hunter wrote: "the father applied his left nipple to the infant's mouth, who drew milk from it in such quantity as to be nursed in perfectly good health."[82] In the nineteenth century, travellers to Brazil claimed that all indigenous men nursed their infants; in Portugal, a man was reported to have successfully breastfed two children of a female relative.[83]

In Renaissance treatises such as Girolamo Mercuriale's book *On the Diseases of Women* (1587), the analysis of breast milk is preceded by remarks on male or virginal lactation. In order to answer the question of what milk consists of, Mercuriale starts by discussing what it is not. Even though Aristotle, Avicenna, and Albertus Magnus all mention the occurrence of male milk, in his opinion "what appears to be milk in men is not really milk, but whitened blood."[84] The reason for this assessment is his strict belief that milk derives from menstrual blood, which during gestation functions as the fetus's nourishment and after childbirth is transformed into milk.[85] Accordingly, he does believe in the

occurrence of milk in virgins, at least insofar as they suffer from amenorrhea: "If a woman who has not given birth or has no uterus … has milk, it means that her menstrual flow is lacking."[86]

Mercuriale's opinion was somewhat outdated. Already in 1536, Geronimo Acoromboni claimed that the base-fluid for milk could not consist of menstrual blood alone, since many lactating women menstruated; menstruation did not occur in lactating animals; and even men on occasion produced milk. In his eyes, milk was a mixture of "wateriness, cheesiness, and butteriness."[87] A century later, Philip Hulden builds on this opinion, seeing men's and virgin's lactation in direct analogy. By now, milk was supposed to derive from – ungendered – chyle, which made its occurrence in men easier to explain.[88] Both men and virgins were supposed to be able to produce milk after prolonged stimulation of the nipples through suction; in addition, women's vivid – and erotic – imagination contributed to this effect.[89] In 1749, Johann Zedler reiterates that virgins or other non-pregnant women can produce "true milk."[90] In 1765, the Chevalier Jaucourt reiterates this position, taking recourse to contemporary knowledge about the nervous system and its intricate relationship with – women's – reproductive organs. In his encyclopedia article on "mamelles" [mammary glands], he argues that the excitability of women's nerves helps in the development of breasts in young girls. Through the "fire of passion" and "impressions of love," the blood vessels of their mammary glands are agitated, which stimulates their swelling.[91] In extreme cases, such as when "lascivious girls" engage in masturbation, their breasts can become engorged, especially when the menses are suppressed.[92] Such repeated medical observations on the erotics of breastfeeding and the disjunction between pregnancy and lactation not only ran counter to the emerging mystique on the virtues of maternal breastfeeding; they profoundly altered the meaning and corporeal signs of virginity itself. In 1737, Heinrich Doorschodt proclaims "neither the absence of a hymen nor the [presence of] milk in the breasts means that the virgin was deflowered."[93]

Religious devotion to the lactating Madonna was an important backdrop to these debates. Because of ancient medical theories linking lactation to the suppression of the menses, Mary's virginal breastfeeding of baby Christ was never seen as a miracle, unlike her virginal birth. On the contrary, worshippers might have felt relieved, knowing that, due to her lactation, she had ceased to menstruate and was exempt from the "venomous" state to which other women were subject. According to Pseudo-Albert, menstruating women could poison animals with their glance, infect children in their cradle, and cause leprosy and cancer in men who dared to have sexual intercourse with them.[94] While belief in her virginal delivery was judged to be a true miracle, Mary's virginal conception of Christ was naturalized in the medical literature as well. Michele Savonarola (ca. 1385–ca. 1466), author of *On the Treatment of Pregnant Women*

and Newborn Babies, presents the event of Mary's annunciation entirely in logical, i.e., Aristotelian, medical terms:

"Our Lady was made pregnant with the son of God … the limbs of her son were made of her most pure blood, which according to the philosophers, is the matter [pasta] of the fetus, and instead of the natural informative force which is in man's semen, the Holy Spirit was added. And so … when the angel said the Holy Spirit will come over you [superveniet in te], the Holy Spirit came over her. And when she responded to the angel: Behold the handmaiden of God [ecce ancilla Domini] … at this moment the matter [pasta], i.e., her most precious blood, was prepared to take on the form of a human body, and at this moment the son of God was introduced into the thus formed body."[95]

In contrast to Savonarola's scientific, normalizing presentation of Mary's virginal conception, certain pharmaceutical concoctions were seen as analogous to the frequent healing miracles that Mary's milk relics had worked. In 1549, Lorentz Burres von Neunkirchen called one of his signature drugs for eye disease "virgin's milk" in order to indicate its special potency.[96] Interestingly, it was made not from breast milk but from vinegar, which is perhaps indicative of a certain love of paradox that prevailed in early modern medical literature. Scientists proved their erudition and theoretical sophistication by trying to dissolve such contradictions. Michele Savonarola, for example, situated his gynecological text at the interstices of medical and religious discourse – probably because of his Dominican sensibilities – with the aim of naturalizing religious phenomena such as the Virgin Mary's conception, pregnancy, delivery, and lactation.[97] For the most part, however, medical authors analyzed the "marvelous" in nature for the purpose of finding out the paradigms of normalcy.[98] The debates on male and virginal lactations attest to this heuristic device, as they were supposed to clarify whether woman's milk was made from menstrual blood, pure blood, or chyle.[99]

At the same time as such unusual cases of milk production were cherished for their informative content among medical writers, and human milk was praised for its therapeutic value in the treatment of adult patients, the ubiquitous practice of non-maternal breastfeeding for the purpose of childrearing came increasingly under attack. The medical debates on non-maternal nursing for either therapeutic or theoretical purposes stand in stark contrast to the intense and ubiquitous polemics against wet-nursing.[100] All of those discourses combined show that the stress on exclusive maternal nursing was slippery, utopian, ideological – and anti-feminist – until, and even during, the Enlightenment period.

Especially in the seventeenth and eighteenth centuries, wet-nurses were vilified for being members of the lower classes or racialized inhabitants of the colonies.[101] A certain fear of sexual contamination through women's porous, dripping bodies characterized these debates, propelled by Aristotelian medical

theories that cast paternal sperm as the sole active ingredient in conception and milk production. This theory proved useful in medieval and early modern legal discourse aimed at demonstrating that true kinship passed through the father's blood alone, but it clashed with the ubiquitous practice of wet-nursing.[102] Anxious about the possibility of pollution, through not only the milk of the infant's wet-nurse but also the sperm of the nurse's husband – who, after all, was the true "author" of her milk – Renaissance humanists writing on issues of gender and marriage found themselves in a double bind.[103] On the one hand, they argued against wet-nursing for the purpose of protecting the ruling elites against the threat of degeneration through servant women's milk [and their husbands' sperm]; on the other hand, they supported it as a necessary means for the production of numerous offspring, as it allowed upper-class women to conceive again shortly after delivery.

Key to understanding this double bind was the ancient taboo against sex with a lactating woman, which reverberated in Renaissance debates on wet-nursing. Roberto Danese mentions how in a first-century Egyptian wet-nursing contract the nurse promised "to avoid harming the milk through intercourse with men, becoming pregnant, and nursing another child."[104] Similar restrictions were routinely placed on Florentine wet-nurses of the fifteenth century.[105] How exactly sperm could harm the milk is never spelled out by ancient Greek physicians, but Aristotle, Soranus, and Galen all agree that intercourse with a lactating woman stimulates her menstrual flow and gives her milk a bad odor. In the Renaissance, gynecologists discovered the erogenous qualities of the breast and implicitly proposed the possibility of a woman's sexual arousal during breastfeeding.[106] Philip Hulden claimed in 1697 that the erogenous qualities of the breast and nipple resemble that of the male penis.[107] Such phallic presentation of the breast may have been an important reason for wanting to curb sex with a breastfeeding woman. The recognition of lactation as an erotic physical activity may have contributed to this prohibition, especially after the rediscovery of the clitoris produced strong resistance against the notion of female sexual desire.[108]

Anthropologist Françoise Héritier explains the taboo against mixing milk with blood [= sperm] as an attempt to avoid rivalry between two "hot" elements, which, among the Yatenga in West Africa, was thought to endanger a man's virility.[109] Alternatively, the prohibition might derive from the superimposition of two different modes of establishing and theorizing kinship, one grounded in the horizontal exchange of milk, the other in the vertical passing of sperm. W. Deonna has shown how in the pre-Roman world, adoptive kinship ties were created through ritual breastfeeding, which resulted in powerful incest taboos.[110] According to Peter Parkes, similar incest taboos existed in the mountain regions of Pakistan, where the punishment for adultery consisted of ritual lactation until the nineteenth century. Such milk-exchange would have made any further sexual contact between the partners unthinkable.[111] In eighth-century Islamic

legal scholarship, the concept of milk-kinship emerged through the formulation of wide-ranging incest prohibitions with one's nurse and all of her and her husband's relatives, in a system modeled after patrilineal blood ties.[112] This happened as a result of the reception of Aristotelian philosophy and medicine. In pre-Roman societies and Islam, female milk-kinship forged through nursing and male blood kinship based on sex rival and exclude each other, while ancient Roman conceptions of paternity erase any notion of maternal belonging by entirely denying mothers any form of legal kinship with their offspring.[113]

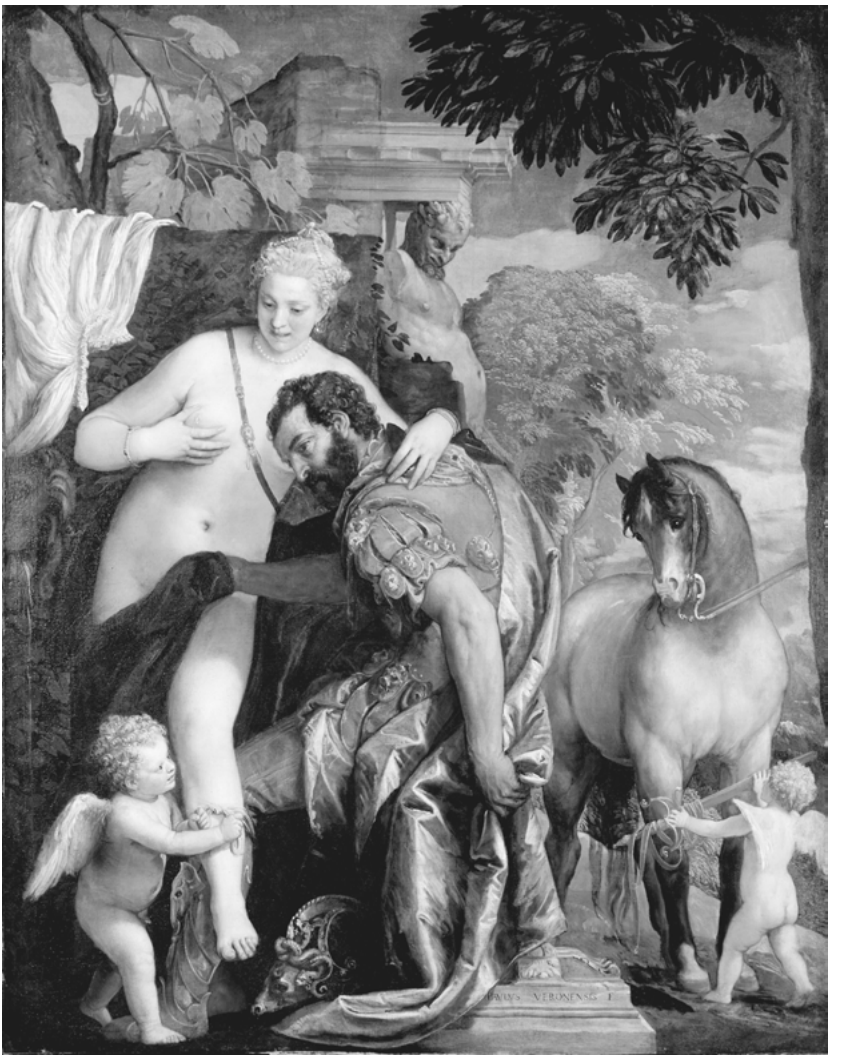

Figure 5.3: Paolo Veronese, Mars and Venus United by Love, ca. 1570

The profound unease concerning sex with a lactating woman seems to conjure up pre-patriarchal modes of belonging and fears of regression. In the visual arts, the prohibition finds expression in paintings such as François Clouet's *Lady in her Bath* (1571), which juxtaposes the young woman's small, smooth, and perky bosom as well as her beautifully erect, but dry, nipples with the elderly nurse's over-sized lactating breast.[114] In Paolo Veronese's *Mars and Venus United by Love* (ca. 1570), an imminent violation of the prohibition is suggested by positioning Mars just below the right breast that Venus is offering in the typical V-hold of a nursing woman (Figure 5.3). It is unclear who is about to suckle from it – Mars, shown in full armor, or baby Eros down below, busily tying their two legs together.

Breastfeeding promiscuity was depicted in Renaissance art as well. Domenico Ghirlandaio's altarpiece *The Birth of John the Baptist* (1488) is unique not only for his depiction of baby John's suckling from his nurse but

Figure 5.4: Domenico Ghirlandaio, The Birth of Saint John the Baptist, 1488, Detail, Wall-Painting, Florence, Santa Maria Novella, Tornabuoni Chapel

also for the appearance of two wet-nurses simultaneously (Figure 5.4). The two women, dressed alike, are shown competing for the holy infant. One of them is already suckling him; the other one is stretching out her hands impatiently, as if to indicate that she wants to be next.[115] Benedetto Caliari (1538–98) depicts a similar situation in his painting *The Birth of the Virgin Mary* (Figure 5.5). In this picture, baby Mary is held, but not suckled, by a wet-nurse whose right breast is half-exposed. Behind the nurse and the birth-assistant, busily rolling

up a swaddling cloth, a third woman approaches. Her breasts are both entirely exposed; she looks longingly at the baby and presents her left nipple in the V-hold typical of a breastfeeding woman. She is in charge of a toddler, whose naked body indicates that he himself is not weaned yet, and she is restrained by an elderly lady to prevent her from intruding on baby Mary. This painting is unusual in suggesting that Mary was almost nursed by a woman other than her mother, in implicit violation of the theory of Mary's immaculate conception (which became official doctrine only in 1854). Traces of her wet-nurse's husband's seeds would have seeped into the milk and contaminated Mary's flesh, thus undoing her exemption from the eternal sin and rendering her unfit to bear the seed of Jesus Christ. Confinement room scenes such as Cagliari's and Ghirlandaio's, which art historians assume to give a fairly realistic representation of upper-class women's birthing experiences, indicate that casual and commercial nursing from friends, neighbors, or wet-nurses was the norm.

Figure 5.5: Benedetto Caliari, The Birth of the Virgin Mary, ca. 1550–80, Detail

Especially right after delivery, when the mother's colostrum was thought to be harmful, multiple women would collaborate in keeping the infant alive until a permanent nurse was found.[116]

Despite the ubiquity of non-maternal nursing practices in early modern Europe, the polemics against wet-nursing began to increase steadily in the early seventeenth century, reaching a fever pitch right before and during the French Revolution.[117] This debate was politically motivated, and aimed at limiting the circuits of women's fluids within the patriarchally organized nuclear family for the purpose of achieving female domesticity and class segregation.[118] Physicians participating in this debate struggled to identify medical reasons against wet-nursing. Until the sixteenth century, not every maternal milk was thought to be good, and not all non-maternal milk was thought to be bad. In Moschion's treatise "On the Diseases of Women" (first century CE, published 1566), maternal nursing is outright discouraged: "Certainly it is lovelier to nurse from one's mother, but in order for the matron to stay healthy after delivery, it is better to feed from a nurse. One mature milk is sufficient to nourish two infants."[119] In the fifteenth century, Michele Savonarola argued that a mother's milk was custom-tailored for her infant, because identical in substance to the menstrual blood with which it was nourished in the womb, and thus more appropriate than the milk of a wet-nurse. If, however, a mother's milk was "bad" for some reason, the milk of a healthy wet-nurse was preferable.[120] The topic of "bad" maternal milk was taken up by Eucharius Rösslin (d. 1526), who in his *Rosegarden of Pregnant Women and Midwives* (1514) proclaims: "If anyone says that the mother should not suckle her baby by herself, or if she is sick, or if her milk is evil [bös], one should give the infant to a wet-nurse."[121] In early modern Germany, fears surrounding witches' magic destroying a mother's milk were particularly intense.[122]

In the early seventeenth century, mother's milk came to be regarded as principally better than "foreign" milk, and the attack on wet-nursing took on polemical proportions. In his book on midwifery from 1601, Girolamo Mercurio engages in a full-fledged attack on vain and lazy mothers who refuse to breast-feed: "Sending the children away to be raised by wet-nurses is to give birth in an unnatural, imperfect, and diminished manner … She [the mother] sends him into exile, contenting herself with having given him his life, while others are giving him pleasure, as if God and Nature had outfitted her with breasts only as an ornament."[123] He laments how "cruel" it is to "deprive [a baby] of its own nourishment and familiar food which God and Nature prepared for him … and to provide him with the milk … of a foreigner, or even barbarous mountain dweller, [with the milk] not of a free woman, but of a servant; not of a chaste woman, but of a prostitute; … not of a healthy woman, but of a syphilitic one."[124] Mercurio rounds up his racial and sexist attacks on mothers and nurses by reference to ancient Roman writers, telling how Cornelius Scipius and Gaius Gracchus publicly shamed their mothers for not having breastfed them.[125] He

concludes with a fantasy of domestic bliss: "What is most important for a father, when he comes home stressed out from work, is to see and hear his lovely little son or daughter … who kisses and embraces him … and tells him stories that relieve him of every grave thought."[126] Having finally revealed who would be the prime beneficiary of his child-care reform – the father – he engages in a rhetorical gesture Julia Hairston has called "reverse occultatio," when, switching gears, he all of a sudden discusses how to choose a good wet-nurse.[127] Referring to Plutarch, he is of the opinion that she should not be a "foreigner" but should be from the same village and should move in with her employer, mainly so that "she abstain from Venus play."[128] Trying to explain this interdict on sex, Mercurio says in very general terms: "Venus play can be harmful to the milk, because of the danger of pregnancy, and because of the concoction of the nutriments."[129] The latter phrase alludes to the danger of super-imposing two hot elements in the "cooking" of milk, which remains unspecified.

Two years later, Rodrigo de Castro (1541–1627) reiterates most of Mercurio's arguments against wet-nursing in his treatise *On the Universal Medicine of Women* (1603), warning against the "contagion with foreign milk" and the nurse's "maliciousness," which the infant might suck up with his milk.[130] His polemic against breastfeeding promiscuity is brought to its zenith when he calls wet-nursed babies "semi-spurious" and their mothers "semi-adulteresses," "because in true adultery, the mother imposes the son of another father on her husband, in this one [she imposes] the son on another's mother."[131] As a mother's fluids ought to be consumed solely by her birth-children, a good wet-nurse keeps her milk untainted from contact with another man's sperm. Phantasies of how to close off women's hopelessly open, permeable, and leaking bodies for the exclusive uses of their legitimate husbands and children are at the basis of early modern polemics against wet-nurses. Understood as two different modes of controlling women's bodies, the request for maternal nursing and the nurse's prohibition against sex cease to appear contradictory: in the best of all cases, no wet-nurse should be employed, but if it could not be avoided, she should at least be chaste.

The polemic against wet-nursing was particularly intense among Protestant researchers in Germany, who in their campaigns for maternal breastfeeding implicitly attacked the concept of Catholic charity, allegorized since the Middle Ages as the breastfeeding of strangers. Philip Hulden's *Treatise on the Observation of Nature's Sources from which the Divine Nectar of Human Nourishment is Obtained* (1697) is an example of such a religiously enhanced scientific study of breast milk. Hulden, a physician in Würtemberg, calls all wet-nurses "prostitutes" and seamlessly moves from praise for Old Testament women such as Sara, who breastfed her own baby, to a radical redefinition of "true" charity:

"And if whoredom were a virtue, and the various virtues of other nations were brought together, would we not call that woman virtuous who exercises

charity every day [by breastfeeding her own baby], because charity is in this respect the mother of all virtues? In this way the most shameful whores rather merit the name of beasts and monsters."[132]

Juxtaposing the whorish, beastly, and monstrous wet-nurse to the mother who breastfeeds her own child, it is the latter who becomes the new embodiment of charity. Including midwives in his attack on wet-nurses, he declares that the colostrum is beneficial to the infant, contrary to what "prostitutes and birth attendants" [mulierculae & obstetrices] proclaim.[133] Hulden thus finds a medical solution to the "problem" of wet-nursing that undermines the authority of midwives as well, in a concerted attempt to eliminate the need for all female birth attendants. Johannes Greisel also equates wet-nurses with whores and milk sharing with adultery, as mentioned above. His solution to the moral problem of wet-nursing was to find an animal substitute for breast milk, an aim of many eighteenth-century studies as well.[134]

While research toward the invention of infant formula was well under way in the eighteenth century, a new preoccupation emerged: the transfer of emotional states and personality traits through breastfeeding.[135] It is noteworthy that emotional reasons for maternal breastfeeding were foregrounded at the same time as breast milk was found out to be – or hoped to be – replaceable by animal milk. Also, the new consensus that milk derived from chyle rather than menstrual blood made the older justification for a polemic against wet-nursing obsolete, which depended on casting the wet-nurse's husband as the owner and originator of her milk. Johann Heinrich Zedler, for example, claims that "a good and healthy woman's milk can suddenly get … spoilt due to … anger, fright, sorrow, cold, and an untidy [!] diet.[136] Heinrich Doorschodt's "Commentary on Milk" (first. ed. 1737) argues: "Milk varies according to the temperament of the nurse." In addition to contagious diseases, "the infant is marked by the sickly mental disposition of the nurse, as if it were a hereditary disease." Such diseases include epilepsy and melancholia. Above all, "not just these bodily vices but the moral seeds of all sorts of vices penetrate into the milk, and persevere throughout the child's life. If the nurse is lecherous, surreptitious, avaricious, irate, these weaknesses are transmitted to the nurslings."[137] He concludes that mothers ought to nurse their own infants.

In his book on the *Physical and Moral System of Women* (1775), M. Roussel agrees with this assessment of the nurse's emotions and personality traits: "All lively or sad emotions have a greater or lesser impact on the quality of the milk." He does not, however, categorically exclude the use of wet-nurses. In his eyes, a good nurse ought to refrain from sex and retire to the countryside, because "tranquility and sleep are especially important to them."[138] While strong emotions can wreak havoc on a nurse's milk, not to breastfeed can produce even greater nervous trouble in a mother: "… those women who choose not to breastfeed are most susceptible [to grave illnesses] and sometimes fall into a

state of languor and mental derangement, even a long time after delivery."[139] However, since urban women's milk was often "bad," he recommends sending babies off to peasant nurses, "whose milk, seasoned with the temperance and frugality [of rural life]" would act as a remedy against a host of evils, some of which were political in nature:

"They [the infants] would receive a much more solid upbringing [in the countryside] than those who are raised by enervated [urban] parents … Even moral effects could result from this, capable of tempering the inequality of [social] conditions … The rich, nourished among peasants, will be less disposed to despise honorable poverty."[140]

Despite the progressive effects that rural wet-nursing might have in terms of nation building, Roussel concludes by charging all mothers to breastfeed their own – and nobody else's – babies. This, again, is a political mandate: "It seems that a woman has the right to all advantages that society accords its members only if she fulfills her duties … She is not worthy of the rang she occupies [in society] unless … she contributes to strengthening it by supplying it with strong and healthy citizens, who should have received from her, with her milk, the example of the inviolable fulfillment of holy duties that it [société] imposes."[141] Roussel's conclusion, contradictory as it is in light of his preference for class-bridging, idyllic rural wet-nursing, ultimately does not surprise, given that both Rousseau and the *Encyclopédie* had turned maternal breastfeeding into a maxim for the renewal of society: "The first duty of a mother is to feed her infants."[142]

Even scientists who did not believe that character traits or emotional states were passed through breast milk routinely wound up recommending mother's milk. Friedrich August Meyer, for example, finds it astonishing that "not just good mothers but philosophers view the breast of a nursing person as a funnel through which one can implant virtues and vices in the minds of infants."[143] Following Albrecht von Haller, Meyer argues that the organization of the nervous system depends on the quality of the seeds. After all, "among children, who, without the least variation in nourishment, were raised on the same milk, one presents as impatient and angry, the other one relaxed and kind."[144] Despite this disempowering assessment of breast milk, he concludes by reminding mothers of "Nature's" commandment: "Offer your child the maternal breast. Nothing but a sickly disposition, which includes a lack in sufficient healthy milk, can exempt a mother from this duty, which the love for her own blood should render pleasant."[145] No matter what the presumed effects of breast milk on the emotional constitution of the infant were supposed to be, wet-nursing must be avoided as much as possible, either through maternal breastfeeding or the use of substitutes in the form of animal milk.[146]

It is ironic that the political demands for exclusive maternal nursing were made at a time when women's biological contribution to the process of generation

at the moment of conception were more and more recognized and when breast milk began to be stripped of the quasi-magical powers it had enjoyed since antiquity. Ancient Greek theories of reproduction, still popular in the Renaissance, were slowly laid to rest in the course of the seventeenth and eighteenth centuries. Even though ancient medical authorities were divided on the question of female seed – some affirming, others denying its existence – Plato's dictum that "a mother is nothing but a nurse" informed legal thinking about kinship in Roman law and its medieval and Renaissance permutations.[147] This line of thought – elaborated by Aristotle – implied that mothers contributed nothing but a hollow space and abject nourishing matter, menstrual blood, to the process of generation. All substantive qualities of the future child were passed through male sperm, the "active" ingredient to conception according to Aristotle. The Hippocratic-Galenic tradition insisted that mothers did provide seed, albeit of an inferior nature.[148] All throughout the Middle Ages and the Renaissance, mixtures and variations of both strands of thought coexisted, but the legally relevant theory remained Aristotle's strictly patrilineal concept of kinship.[149] It was in the context of these humoral and hema-pathological theories that breast milk received its significance as a variant of menstrual blood, women's main contribution to the process of reproduction. Nursing was regarded as the hallmark of mothering, even though milk-exchange did not mark an individual mother's relationship with her infant, due to the ubiquity of wet-nursing. Rather, as its allegorization as Catholic Charity suggests, nursing developed into a symbol of maternal care that strangers could provide. Only in Islamic societies was breast milk regarded as a body fluid that rivaled male sperm in the construction of kinship. At the time of Muhammad, women used breastfeeding to widen the circle of men they could freely associate with – unveiled – because of the sexual prohibition that milk-exchange created.[150] Since the eighth century, the structure of patrilineal kinship was superimposed on former concepts of female kinship based on care, which resulted in powerful incest taboos with not only one's nurse and her children but also all of her husband's blood relations.[151]

When, in the seventeenth century, Reijnier de Graaf (1641–73) discovered the ovarian follicles, women's most significant contribution to conception came to resemble biological paternity. This did not immediately result in legal reforms aimed at loosening patrilineal hierarchies and exclusions in the construction of kinship – quite the contrary. In seventeenth- and eighteenth-century France, laws aimed at tightening the "family-state-complex" produced a very restrictive view of family, disadvantaging cadet sons, daughters, illegitimate children, and their mothers.[152] In contemporary Italy, however, testamentary practices slowly shifted toward a more egalitarian view of property relations between husbands and wives, sons and daughters.[153]

At the same time as mothers' contributions to conception began to be viewed as more substantial than previously imagined, human milk was found

to be a derivative of chyle rather than blood. This discovery worked to loosen the bonds between pregnancy and lactation; reports on breastfeeding men and virgins multiplied. Medicinal adult breastfeeding was frequently recommended as well, particularly in the treatment of gout in old men. The simultaneous attack on wet-nursing and the invention of exclusive maternal breastfeeding responded to cultural, social, and political demands aimed at policing the boundaries within which female body fluids circulated. In this context, the popularity of representations of Roman Charity appears as a powerful visual counter-discourse that questioned the use of mother's milk for patriarchal purposes. On the one hand, the rerouting of a daughter's milk into nourishment for her father rather than her infant observes the new expectation of a closed circuit in the consumption of breast milk. On the other hand, it violates reform proposals to upgrade maternity through the forging of exclusivity in mother-infant relationships.

Notes

1 | Pliny the Elder, *Natural History,* ed. by John Bostock, M.D., F.R.S., H.T. Riley, Esq., B.A. (London: Taylor and Francis, Red Lion Court, Fleet Street, 1855) vol. 28, chapter 2; http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D28%3Achapter%3D2; [accessed 1/21/13].

2 | Pliny the Elder, *Natural History,* vol. 28, chapter 21; http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D28%3Achapter%3D21; [accessed 1/21/13].

3 | Pliny the Elder, *Natural History,* vol. 28, chapter 13; http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0137%3Abook%3D28%3Achapter%3D13; [accessed 1/21/13].

4 | "Human milk is very sweet, and therefore highly nutritive. When suckled, it is good for the gnawing of the stomach and for tubercolosis, called 'phthisis' by the Greeks. It is taken usefully against the drink of sea-hare. Mixed with ground fankincense, it is dripped onto eyes that are bloody from a blow, and when smeared on with hemlock juice, it works against gout." Dioscorides Pedanius of Anazarbus, *Pedaci Dioscoridae Anazarbei Simplicium medicamentorum reique medicae Libri VI*, ed. and transl. by Marcello Vergilio (Basel: A. Cratander & J. Bebelius, 1532), book 2, chapter 63, 159; http://dfg-viewer.de/show/?tx_dlf%5Bpage%5D=194&tx_dlf%5Bid%5D=http%3A%2F%2Fdaten.digitale-sammlungen.de%2F~db%2Fmets%2Fbsb00015530_mets.xml&tx_dlf%5Bdouble%5D=0&cHash=1a154621d203e2ebdfd68f4549f07199 [accessed 6/24/15]. Translation modified from: Dioscorides Pedanius of Anazarbus, *De materia medica*, translated by Lily Y. Beck (Hildesheim; Zürich; New York: Olms-Weidmann, 2005), Book II, chapter 70, 112.

5 | "Therefore choose a young girl who is healthy, beautiful, cheerful, and temperate, and when you are hungry and the Moon is waxing, suck her milk; immediately eat a little powder of sweet fennel properly mixed with sugar." Marsilio Ficino, *Three Books on Life*, ed. by Carol V. Kaske and John R. Clark (Tempe, Arizona: Medieval and Renaissance Texts and Studies in conjunction with the Renaissance Society of America, 1989), book II, chapter 11, 196–97.

6 | "Meanwhile, in Rome, tribulations and deaths did not cease. First, three ten-year-old boys, from whose veins a certain Jewish doctor, who promised the pope to cure him, extracted blood, passed away due to weakness. For the Jew said to them that he wanted to cure the pope and that he needed a certain quantity of human blood, especially young blood. For that reason, he commanded to extract blood from three boys and gave each of them one ducat after bloodletting. And a bit later, these boys passed away; the Jew however fled and the pope was not cured." *Diario della città di Roma di Stefano Infessura scribasenato* (= Fonti per la storia d'Italia pubblicate dall'istituto storico italiano, vol. 5, no. 9), ed. by Oreste Tommasini (Rome: Forzani E.C. tipografi del Senato, 1890), 275–76. See also Giovanni Cipriani, "L'allattamento salvifico: un problema di papi e filosofi," in: *Allattamento filiale: la fortuna*, colloquio di Urbino,

28–29 aprile 1998, ed. by Roberto M. Danese, Daniela De Agostini, Renato Raffaelli, and Gioia Zaganelli (Urbino: Quattro Venti, 2000), 103–24, especially 116–17.

7 | Geronimo Acoromboni, *Tractatus de Lacte* (Venice, 1536), no pagination, 64th–71th page.

8 | "In the fourth year after my arrival, Petro Bembo was in Rome, a Venetian patrician, a most erudite man of Latin and Greek letters and secretary of Pope Leo X. A slight fever that resulted from catarrh made his tonge feverish and … he ceased to work. In a miraculous way, this was resolved, when … several doctors … ordered him to drink the milk of a woman. Always following this advice and drinking milk from the breasts, contrary to the opinion of many, he was rescued. We could enumerate much more but for virtuous men, this will suffice." Acoromboni, *Tractatus de lacte*, no pagination; http://gallica.bnf.fr/ark:/12148/bpt6k588709/f75.image [accessed 7/7/15].

9 | Anon., "Lait," in: *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers …*, ed. by Denis Diderot and Jean Le Rond D'Alembert, vol. 9 (Paris: Briasson, 1765), 207; http://fr.wikisource.org/wiki/L%E2%80%99Encyclop%C3%A9die/Volume_9#LAIT; [accessed 1/23/13].

10 | Diderot and D'Alembert, *Encyclopédie,* vol. 9, 207.

11 | Diderot and D'Alembert, *Encyclopédie,* vol. 9, 207.

12 | Diderot and D'Alembert, *Encyclopédie,* vol. 9, 207.

13 | Hieronymi Gabvcinii Fanestris, *Commentarius De Podagra: Ad medicinam faciendam accommodatissimus* (Venice: Io. Baptistam Somascum, 1569), 5v; http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb10166302_00018.html [accessed 7/7/15].

14 | "And the same thing occurs among married women as well: Despite their menstruation, they nevertheless suffer gout very frequently: due to incontinence, leisure, and their use of Venus play." Fanestris, *Commentarius De Podagra*, 5v.

15 | "While women suffer more rarely from this vice than men, they suffer harder … Therefore, gout occurs more often among mature men than among middle-aged men. It is reported, however, that gout turns out to be more troublesome for women, castrati, male children and young men." Fanestris, *Commentarius De Podagra*, 12v; http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb10166302_00032.html?contextType=scan&contextSort=score%2Cdescending&contextRows=10&context=castratis [accessed 7/7/15].

16 | "However, abstinence is required in exchange with the use of wine boiled with anise or similar seeds; premature fruits, other coolants and the use of Venus play are to be shunned." Fanestris, *Commentarius De Podagra*, 41v; http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb10166302_00090.html?contextType=scan&contextSort=score%2Cdescending&contextRows=10&context=castratis [accessed 7/7/15].

17 | "Female milk, i.e., the milk of a woman, who brings forth a male child or rather two, is spread very usefully together with hemlock on those suffering gout … White poppy seeds ground with the milk of a woman: it is said that seed-grown pumpkins and shreds

of barks from the forest cool down gout." Fanestris, *Commentarius De Podagra*, 46v–47r; http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb10166302_00101.html?contextType=scan&contextSort=score%2Cdescending&contextRows=10&context=castratis [accesed 7/7/2015].

18 | "A little sheet imbued with the first menstrual blood of a virgin girl ..." Fanestris, *Commentarius De Podagra*, 46v.

19 | "Tuberculosis or Phthisis is a disease of the lungs ... One should know that women's milk is a far better remedy than the preceding one ... It needs to be drunk directly off the breast or udder ... But if you find such milk disgusting, prepare the following drink." Christopherus Wirsung, *Artzney Buch darinn werden fast alle eusserliche und innerlich Glieder des Menschlichen leibs mit ihrer gestalt aigenschafft und würckung beschriben ...* (Heidelberg: Mayer, 1568), 220 a, b, c. "Gout is a flow which attacks with freezing and burning the veins and nerves and their surrounding tissues and hurts members and legs with tumors and pains ... For a stronger remedy, put heated ground [Bilsen] seed in a little bag and put it where it hurts. It might also suffice to moisten a piece of cloth in vinegar or woman's milk and drape it, heated up, around the wound." Wirsung, *Artzney Buch*, 473c, 477c.

20 | Johann Georg Greisel, *Tractatus medicus de Cura Lactis in Arthritide in quo indagata natura lactis et arthritidis tandem rationibus, et experientiis allatis, diaeta lactea, optima arthritidem curandi methodus, proponitur* (Leipzig: Ioh. Garb. Bueschelii Viduae, 1779; first ed. Vienna: Typis Johannis Jacobi Kürner, 1670), 145.

21 | "Gout is not contracted by rough men of the fields who rarely rest and assiduously exercise their bodies through physical labor ... but [by] these very bright and boisterous revelers who celebrate during the night, are weak from leisure, abhor any form of work like the pest, are enervated by all kinds of lust, mostly that of Venus, conquer lands and seas for precious food, assiduously provoke their palates through spices, desserts and delicacies, and who drink not out of necessity, but desire, and extinguish their thirst least of all with provincial wine." Greisel, *Tractatus medicus*, 156–57; https://books.google.de/books?id=Itg-AAAAcAAJ&lpg=PA156&ots=im2nERYcYS&dq=perbacchatores&pg=PR1#v=onepage&q=perbacchatores&f=false [accessed 7/7/15].

22 | "How great is the discrepancy between those nurtured by maternal milk ... and others nurtured by external, i.e., meretricious, wasted, and libidinous milk, defiled in every whore house (if this merits to be called 'milk')." Greisel, *Tractatus medicus*, 182; https://books.google.de/books?id=Itg-AAAAcAAJ&lpg=PA156&ots=im2nERYcYS&dq=perbacchatores&pg=PR1#v=onepage&q=perbacchatores&f=false [accessed 7/7/15].

23 | Elaine Pagels, *Adam, Eve, and the Serpent* (New York: Vintage Books, 1989), 108–09.

24 | "Whether the use of milk is beneficial to arthritis? It is responded that the use of milk is beneficial to arthritis. This follows not just from Pliny's authority (book 28) but it is also proven elsewhere." Greisel, *Tractatus medicus*, 255–56. "Because in his Three Books on Life, chapters 17 and 15, Marsilius Ficino argues for milk from the breasts as general nourishment." Greisel, *Tractatus medicus*, 283.

25 | Greisel, *Tractatus medicus,* 284.

26 | "However, he adds this from Dioscorides: Every milk, whenever it flows directly from a breast, is of greater help, nourishes more quickly and does not get corrupted. And the milk of a woman is sweeter and more nourishing than any other milk." Greisel, *Tractatus medicus*, 284.

27 | "Galen, in book VII of the Methods of Medicine, chapter 6, argues that milk is to be suckled off the breast, so that it would not get altered by contact with air." Greisel, *Tractatus medicus*, 295.

28 | Johann Doläus, *Upon the Cure of the Gout by Milk-Diet* (London: J. Smith and W. Bruce, 1732), 48.

29 | Doläus, *Upon the Cure,* 87–88.

30 | For recommendations on how to choose a good wet-nurse in the Renaissance, see Julia L. Hairston, "The Economics of Milk and Blood in Alberti's Libri della famiglia: Maternal versus Wet-Nursing," in: *Medieval and Renaissance Lactations: Images, Rhetorics, Practices,* ed. by Jutta Gisela Sperling (Aldershot, England; Burlington, Vermont: Ashgate, 2013), 187–212.

31 | Heinrich Doorschodt, "De Lacte Commentatio," in: *De Lacte Humano eiusque cum Asinino et Ovillo comparatione observationes chemicae Accesserunt Henrici Doorschodti De Lacte atque Ioh. Georgii Greiselii De Cura Lactis in Arthritide ...,* ed. by Ioh. Georgius Fridericus Franzius (Leipzig: Ioh. Garb. Bueschelii Viduae, 1773; first ed. Leiden: apud Johannes Hasebroek, 1737), 117.

32 | "In case of gout, there is no more outstanding remedy found than milk ... For tuberculosis, milk is the most powerful remedy ... For, while there are several kinds of milk, a woman's milk is preferable to all of them, since it is more familiar to our nature. And it will be of greater use when sucked from the breast." Doorschodt, *De Lacte Commentatio*, 119–21.

33 | Doorschodt, *De Lacte Commentatio,* 121.

34 | "Milk is useful for important therapies, in particular [in cures] against gout and tuberculosis ... If you ask, which milk might be the most useful? The best one seems to be asinine milk, if you can get it, followed by goat's milk, but one shouldn't have too many scruples about cow's milk in the absence of these." Floris Jacob Voltelen, *De Lacte Humano eiusque cum Asinino et Ovillo comparatione observatines chemicae Accesserunt Henrici Doorschodti De Lacte atque Ioh. Georgii Greiselii De Cura Lactis in Arthritide ...,* ed. by Ioh. Georgius Fridericus Franzius (Leipzig: Ioh. Garb. Bueschelii Viduae, 1779; first ed. Utrecht: ex officina Abraham van Paddenburg, 1775), xiii–xiv.

35 | On experiments with milk, see Barbara Orland, "Why Could Early Modern Men Lactate? Gender Identity and Metabolic Narrations in Humoral Medicine," in: Sperling, *Medieval and Renaissance Lactations,* 37–54. On infant mortality rates connected with wet-nursing and child abandonment, see George D. Sussman, *Selling Mother's Milk: The Wet-Nursing Business in France 1715–1914* (Urbana: University of Illinois Press, 1982).

36 | Heide Wunder, "Frauenmilch – Muttermilch: Eine Geschichte aus dem 18. Jahrhundert," in: *Geschichte in Geschichten: Ein historisches Lesebuch* (Frankfurt; New York: Campus Verlag, 2003), 295–305, especially 295–96.

37 | Wunder, " Frauenmilch – Muttermilch," 299.

38 | "Kassel, 23rd of October, 1677: Miss Vrecken has now begun her service with Hanriet; she seems to be a good person, and I don't doubt that she will serve my daughter well ... Kassel, 16th of November, 1677: Thank God Hanriet is getting better every day, and I hope that the wetnurse's milk will improve her status even further, whom she might need for another three weeks." "Briefe der Landgräfin von Hessen-Cassel Hedwig Sophie vom 20. August 1657 bis den 21. Januar 1678," in: Leopold von Orlich, *Friedrich Wilhelm der Grosse Kurfürst: Nach bisher noch ungekannten Original-Handschriften* (Berlin; Posen; Bemberg: Mittler, 1836), 115–17.

39 | Heinrich Vorwahl, "Deutsche Volksmedizin in Vergangenheit und Gegenwart," in: *Volksmedizin: Probleme und Forschungsgeschichte,* ed. by Elfriede Grabner (Darmstadt: Wissenschaftliche Buchgesellschaft, 1967; first ed. 1939), 223–77, especially 260–61.

40 | On oils and unguents destined for male and female patients, see Lorentz Burres von Neunkirchen, *Ein new Wund Artzney Büchlein vor nihe an den Tag gegeben Durch den erfarnen Meister Lorentzen Burres von Neunkirchen* (no place, 1549), 5v, 7r, 10r; Benedetto Vettori, *Empirica Benedicti Victorij Faventini, Medici clarissimi, necnon Camilli Thomaii Ravennatis morborum humani corporis curandorum Rationalis Methodus, ac Trotulae antiquissimi authoris Compendiu, de Passionibus mulierum curandis* (Leiden: apud haeredes Jacobi Iuntem, 1558), 72; Christopherus Wirsung, *Ein new Artzney Buch* (Ursel: durch Cornelium Sutorium, 1605; first ed. 1568); Anna von Diesbach, "Anna von Diesbachs Berner 'Arzneibüchlein' in der Erlacher Fassung Daniel von Werdts (1658)," part I, in: *Würzburger medizinhistorische Forschungen,* ed. by Gundolf Keil (Hannover; Pattensen: Wellm, 1978), vol. 16, 43; Hermann Schelenz, *Geschichte der Pharmazie* (Hildesheim: Gg. Olms, 1965; first ed. Berlin: Springer, 1904), 40, 57, 96, 100, 167, 891.

41 | "Another [recipe for eyes' diseases]: take vineleaves ... [Attich kraut], and honey in equal proportions, and pour a little bit of urine on it from a boy who is still being nursed, or else woman's milk, then grind [the ingredients] well, moisten a cloth with it, and apply the wet cloth onto the eyes." Burres von Neunkirchen, *Ein new Wund Artzney Büchlein,* 10r.

42 | "Worn out eyes: take the milk of a young woman who nurses a girl and dribble it fresh into the eyes." Wirsung, *Ein new Artzney Buch*, 60c–d. "Clogged up ears: Whisked egg white with milk from a woman who nurses a girl is particularly useful." Wirsung, *Ein new Artzney Buch*, 96a. "Reasons for sleeping problems can be multiple: anger, sadness, pain, and bleak thoughts ... take milk from a woman who nurses a girl." Wirsung, *Ein new Artzney Buch*, 108a–b. "A good balm: take three measures of oil [Veielöl], two measures of butter, melt it and pour it into a mortar, then add three measures of milk from a woman who nurses an girl." Wirsung, *Ein new Artzney Buch*, 224a. "Unnatural heat: take a live cock, chop him up and take the liver, put it into a mortar and mix it with milk from a woman who nurses a boy." Wirsung, *Ein new Artzney Buch*, 532c.

43 | "On the inflation of the womb. If she has pains in her hidden places or if she feels biting sensations in her womb during sexual relations, you should know that the womb is inflated ... Take the milk of a woman who has given birth to a male infant, mix it gradually with rose oil, and warm it. Make a suppository of soft wool, immerse it and place it at the head of the womb." Hebrew translation of "De passionibus mulierum," ca. 12th century, in: Ron Barkai, *A History of Jewish Gynaecological Texts in the Middle Ages* (Leiden; Boston; Köln: Brill, 1998), 163.

44 | Girolamo Mercuriale, *De Morbis Mulieribus praelectiones ex ore Hieronymi Mercurialis iam dudum à Gaspare Bauhino exceptae, ac paulo antea inscio autore editae: nunc vero per Michaelem Columbum ex collatione plurium exemplarium consensu auctoris locupletiores, & emendatiores factae* (Venice: apud Felicem Valgrisium, 1587), 77.

45 | Aetius the ancient physician said that it occurs very frequently to have one's milk sucked off; and I say, it would be better if one could do without it ... but if the abundance of milk is such that ... it swells in the breast and causes pain, in addition to the danger of an inflammation; in such a case, to be on the safe side, it is good to have others suck it off, especially if the patient is used to have herself sucked." Scipio (Girolamo) Mercurio, *La Commare Oriccoglitrice* (Venice, apresso Gio. Bat. Giotti, 1601), 306.

46 | Mercurio, *La Commare,* 306.

47 | Madame Roland, Letter no. 39, 11 January, 1782, in: *Lettres de Madame Roland,* ed. by Claude Perroud (Paris: Imprimerie nationale, 1900), vol. 1 (1780–1787), 131.

48 | *Lettres de Madame Roland,* 80–131, letters no. 25, 34, 35, 38, 39.

49 | *Lettres de Madame Roland,* 131, letter no. 39.

50 | Madame Roland, "Avis à ma fille," in: *Œuvres de J.M.Ph. Roland, femme de l'ex-ministre de l'Intérieur,* ed. by L.-A. Champagneux (Paris, an VIII, 1799–1800), vol. I, 307–08.

51 | Mme Roland, "Avis," 308.

52 | Mme Roland, "Avis," 308.

53 | "After having made this observation, which circumstances taught me, my curiosity has enticed me to read the article "Breastfeeding" from the Encyclopédie ... it is not true that the tongue, after having approached the nipple, never leaves a void between itself and the nipple, when it retreats; it is the same with adults who want to suckle and who hardly ever succeed ... but babies leave their tongues on the nipple, partially enveloping it." Mme Roland, "Avis," 309–10, note 1. Chevalier Jaucourt, "Teter," in: Diderot and D'Alembert, *Encyclopédie*, vol. 16 (1965), 205. For a full-text edition, see Artful Encyclopédie Project [accessed 1/18/13].

54 | On the debate on breastfeeding during the French Enlightenment and the Revolution, see Londa Schiebinger, *Nature's Body: Gender in the Making of Modern Science* (Boston: Beacon Press, 1993).

55 | Mme Roland, "Avis," 312.

56 | Mme Roland, "Avis," 312.

57 | On Enlightenment debates on maternal breastfeeding, see Mary Jacobus, "Incorruptible Milk: Breastfeeding and the French Revolution," in: Mary Jacobus, *First Things: The Maternal Imagery in Literature, Art, and Psychoanalysis* (New York: Routledge,

1995), 207–30; Simon Richter, *Missing the Breast: Gender, Fantasy, and the Body in the German Enlightenment* (Seattle: University of Washington Press, 2006), 12–13.

58 | "I have to remark, in honor of the indigent classes, that it is very difficult among them to find mothers who, for money, give their infants away to breastfeed [i.e., to suckle another mother's breast], as it is common in the other class to see women pay in order to have theirs nursed." Mme Roland, "Avis," 312.

59 | Schiebinger, *Nature's Body,* 56.

60 | See the illustration in Jacqueline Marie Musacchio, *The Art and Ritual of Childbirth in Renaissance Italy* (New Haven: Yale University Press, 1999), 96, Figure 79.

61 | "Dicono che i cani che hanno assaggiato il latte di una donna che ha partorito un maschio non prendono la rabbia." Quoted in: Roberto M. Danese, "Lac Humanum Fellare. La trasmissione del latte e la linea della generazione," in: *Pietas e allattamento filiale: La vicenda – l'exemplum – l'iconografia;* colloquio di Urbino, 2–3 maggio, 1996, ed. by Renato Raffaelli, Roberto M. Danese, and Settimio Lanciotti (Urbino: Quattro Venti, 1997); 40–72, especially 51, note 36.

62 | Wunder, "Frauenmilch," 299.

63 | Britta-Juliane Kruse, *Verborgene Heilkünste: Geschichte der Frauenmedizin im Spätmittelalter* (Berlin; New York: Walter de Gruyter, 1996), 212. See also Valerie Fildes, *Breasts, Bottles, and Babies: A History of Infant Feeding* (Edinburgh: Edinburgh University Press, 1986); idem, *Wet Nursing: A History from Antiquity to the Present* (Oxford: Blackwell, 1988).

64 | Schiebinger, *Nature's Body,* 56.

65 | Gianna Pomata, "A Christian Utopia of the Renaissance: Elena Duglioli's Spiritual and Physical Motherhood (ca. 1510–1520)," in: *Von der dargestellten Person zum erinnerten Ich: Europäische Selbstzeugnisse als historische Quellen (1500–1850),* ed. by Kaspar von Greyerz, Hans Medick, and Patrice Veit (Köln: Böhlau, 2001), 323–53; Katharine Park, *Secrets of Women: Gender, Generation, and the Origins of Human Dissection* (New York: Zone Books, distributed by Cambridge, Massachusetts: MIT Press, 2006), 176.

66 | Lorraine Daston and Katharine Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998).

67 | Barry Wind, *'A Foul and Pestilent Congregation': Images of Freaks in Baroque Art* (Aldershot, England; Brookfield, Vermont: Ashgate, 1997), 55.

68 | Wind, *'A Foul and Pestilent Congregation',* 55, note 34; 56. Margaret Miles, "The Virgin's One Bare Breast: Female Nudity and Religious Meaning in Tuscan Early Renaissance Culture," in: *The Female Body in Western Culture: Contemporary Perspectives*, ed. by Susan Rubin Suleiman (Cambridge, Massachusetts: Harvard University Press, 1986), 193–208; Megan Holmes, "Disrobing the Virgin: The *Madonna lactans* in Fifteenth-Century Florentine Art," in: *Picturing Women in Renaissance and Baroque Italy*, ed. by Geraldine A. Johnson and Sara F. Matthews Grieco (Cambridge: Cambridge University Press, 1997), 167–95.

69 | Art historians have unfortunately not addressed this ambiguity sufficiently. See Susanne Thiemann, "Sex trouble. Die bärtige Frau bei José de Ribera, Luis Vélez de

Guevara und Huarte de San Juan," in: *Geschlechtervariationen: Gender-Konzepte im Übergang der Neuzeit,* ed. by Judith Klinger (Potsdam: Potsdam Universitäts Verlag, 2006), 47–82.

70 | *The complete works of Aristotle:* The revised Oxford translation, ed. by Jonathan Barnes (Princeton: Princeton University Press, 1984), vol. 1, 828.

71 | Quoted after Orland, "Why Could Early Modern Men Lactate?," 37–54.

72 | Gianna Pomata, "La meravigliosa armonia: il rapporto fra seni ed utero dall' anatomia vascolare all'endocrinologia," in: *Madri: Storia di un ruolo sociale,* ed. by Giovanna Fiume (Venice: Marsilio, 1995), 45–82, especially 58.

73 | Leonardo da Vinci, "The Cardiovascular System and the Principal Organs of a Woman," Anatomical Drawing, 1509–10, London, Royal Collection of Her Majesty Queen Elizabeth II, inv. no. RCIN 912281. Park, *Secrets of Women,* 34, Figure I.7. Huldrych M. Koelbing, *Ein schön lustig Trostbüchle von den empfengknussen und geburten der menschen; Einführung zu Jakob Rüff's Trostbüchle* (Zürich: Verlag Bibliophile Drucke von Joself Stocker, 1981), 15.

74 | Pomata, "La meravigliosa armonia," 58–59.

75 | Pomata, "La meravigliosa armonia," 59–60.

76 | Pomata, "La meravigliosa armonia," 60.

77 | Gaspare Aselli, *De lactibus sive lacteis vasis quarto vasorum mesaraicorum genere* (Milan: apud Io: Baptãm Bidellium, 1627). Quoted in Orland, "Why Could Early Modern Men Lactate?," 51. See also Barbara Orland, "White Blood and Red Milk. Analogical Reasonig in Medical Practice and Experimental Physiology (1560–1730)," in: *Blood, Sweat, and Tears: The Formation of Early Modern Medicine,* ed. by Manfred Horstmannshoff, Helen King, and Claus Zittel (Leiden; Boston: Brill, 2012), 443–80.

78 | Pomata, "La meravigliosa armonia," 68–71; Orland, "Why Could Early Modern Men Lactate?," 51.

79 | Quoted after: Pomata, "La meravigliosa armonia," 60.

80 | Quoted after: Orland, "Why Could Early Modern Men Lactate?," 40.

81 | Quoted after: Schiebinger, *Nature's Body,* 49.

82 | Quoted after: Schiebinger, *Nature's Body,* 49.

83 | Schiebinger, *Nature's Body,* 238–39, note 35; on indigenous inhabitants of Brazil and Alexander von Humboldt, see also Orland, "Why Could Early Modern Men Lactate?", 37–39.

84 | Mercuriale, *De Morbis Mulieribus,* 62.

85 | Mercuriale, *De Morbis Mulieribus,* 62–67 [note that after page 65, the numbering is not consecutive].

86 | Mercuriale, *De Morbis Mulieribus,* 66 [note that after page 65, the numbering is not consecutive].

87 | Acoromboni, *Tractatus de Lacte,* no pagination, 11th–15th page.

88 | "Much less is milk simply generated from blood, but from that white fluid and a sweet juice of chyle." Philip Hulden, *Tractatio de mirandis naturae fontibus ex quibus Ambrosinum Humane Sustentationis Nectar hauritur illorum origine ductibus & reliquis,*

tam in excessu quam defectu existentibus qualitatibus publici juri facta (Jena: Bielkium, 1697), 16. See also Voltelen, *De Lacte Humano*, 65.

89 | "The reason for the generation of milk is the frequent suction, observed by Salmuth ... If the breasts are frequently presented to the infant ... and not only in virgins, but also in men, through frequent contact and suction [milk is produced] ... But Diemerbroeck says that it is necessary to add the intense and frequent phantasy of nursing to the causes [of lactation]." Hulden, *Tractatio de mirandis*, 14–15; http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb11219098_00022.html [accessed 7/7/15]. See also Gianna Pomata on Diemerbroeck, Pomata, "La meravigliosa armonia," 73.

90 | "Through mere suction true milk can be produced by single maids or other women." Johann Heinrich Zedler, *Grosses Vollständiges Universal-Lexikon* (Halle: J.H. Zedler, 1739), vol. 21, columns 142–48.

91 | Chevalier Jaucourt, "Mammelle ou Mamelle (Anat. & Physiol.)," in: Diderot and D'Alembert, *Encyclopédie,* vol. 10 (1765), 1–4, especially 3; Artful Encyclopédie Project [accessed 1/18/13].

92 | Jaucourt, "Mammelle," 3–4.

93 | Doorschodt, "De Lacte Commentatio," 133.

94 | "The reason for ... [writing this book] is that women are so full of venom in the time of their menstruation that they poison animals by their glance; they infect children in the cradle; they spot the cleanest mirror; and whenever men have sexual intercourse with them they are made leprous and sometimes cancerous ..." Pseudo-Albertus Magnus, *Women's Secrets: A translation of Pseudo-Albertus Magnus's De Secretis Mulierum with Commentaries,* ed. by Helen Rodnite Lemay (Albany: State University of New York Press, 1992), 60.

95 | Michele Savonarola, *Il trattato ginecologico-pediatrico in volgare: ad mulieres ferrarienses de regimine pregnantium et noviter natorum usque ad septennium,* ed. by Luigi Belloni (Milan: Società italiana di ostetrica e ginecologia, 1952; written ca. 1460), 37.

96 | Burres von Neunkirchen, *Ein new Wund Artzney Büchlein*, 7r.

97 | Incidentally, he was the grandfather of Domenico Savonarola, the famous Dominican mystic and revolutionary in late fifteenth-century Florence. The Dominicans objected to the theory of Mary's Immaculate Conception, which was promoted by the Franciscan order.

98 | Daston and Park, *Wonders and the Order of Nature.*

99 | Orland, "Why Could Early Modern Men Lactate?," 46–49.

100 | Fildes, *Wet Nursing*; also Hairston, "The Economics of Milk and Blood."

101 | Jennifer Morgan, *Laboring Women: Reproduction and Gender in New World Slavery* (Philadelphia: University of Pennsylvania Press, 2004); Megan Vaughan, *Creating the Creole Island: Slavery in Eighteenth-Century Mauritius* (Durham: Duke University Press, 2005); Bianca Premo, *Children of the Father King: Youth, Authority, and Legal Minority in Colonial Lima* (Durham: Duke University Press, 2005).

102 | Jane Fair Bestor, "Ideas about Procreation and Their Influence on Ancient and Medieval Views of Kinship," in: *The Family in Italy from Antiquity to the Present,* ed. by David I. Kertzer and Richard P. Saller (New Haven: Yale University Press, 1991), 150–67; Gianna Pomata, "Blood Ties and Semen Ties: Consanguinity and Agnation in Roman Law," in: *Gender, Kinship, Power: A Comparative and Interdisciplinary History,* ed. by Mary Jo Maynes, Ann Waltner, Birgitte Soland, and Ulrike Strasser (New York: Routledge, 1996), 43–64. See also extended Italian version: "Legami di sangue, legami di seme: consanguinità e agnazione nel diritto romano," *Quaderni Storici* 86, no. 2 (1994): 299–334.

103 | Danese, "Lac humanum fellare," 52.

104 | Berlin Griech. Urk, 1107 [ed. Schubert], quoted in: Danese, "Lac humanum fellare," 63, note 71.

105 | Christiane Klapisch-Zuber, "Blood Parents and Milk Parents: Wet Nursing in Florence, 1300–1500," in: *Women, Family, and Ritual in Renaissance Florence,* ed. by Christiane Klapisch-Zuber (Chicago: University of Chicago Press, 1985), 132–64. These restrictions may not have applied in other areas of the Mediterranean such as Iberia. See Rebecca Winer, "The Mother and the Dida [Nanny]: Female Employers and Wet Nurses in Fourteenth-Century Barcelona," in: Sperling, *Medieval and Renaissance Lactations,* 55–78.

106 | Pomata, "La meravigliosa armonia."

107 | "On top of this big gland lies a small, round, and longish body part … which is called nipple, and [which] corresponds to the gland of the penis, which, flaccid, can become erect due to suction [and physical] contact." Hulden, *Tractatio de mirandis naturae,* 2.

108 | Katharine Park, "The Rediscovery of the Clitoris," in: *The Body in Parts. Fantasies of Corporeality in Early Modern England*, ed. by David Hillman and Carla Mazzio (New York: Routledge, 1997), 170–91.

109 | Héritier mentions that the Yatenga in West-Africa used to believe that a boy's penis, when coming in contact with breast milk, would remain impotent. Danese, "Lac humanum fellare," 61, note 58.

110 | Waldemar Deonna, "La légende de Pero et de Micon et l'allaitment symbolique," *Latomus* 13 (1954): 140–66; 356–75.

111 | Peter Parkes, "Alternative Social Structures and Foster Relations in the Hindu Kush: Milk Kinship Allegiance in Former Mountain Kingdoms of Northern Pakistan," *Comparative Studies in History and Society* 43, no. 1 (2001): 4–36, especially 10.

112 | Mohammed Hocine Benkheira, "'The Milk of the Male': Kinship, Maternity, and Breastfeeding in Medieval Islam," in: Sperling, *Medieval and Renaissance Lactations,* 21–36.

113 | Pomata, "Blood Ties and Semen Ties."

114 | François Clouet, "Lady in her Bath," 1571, Washington, D.C., National Gallery, Samuel H. Kress Collection inv. no. 1961.9.13.

115 | For background information on this frescoe, see Patricia Simons, "The Social and Religious Context of Iconographic Oddity: Breastfeeding in Ghirlandaio's 'Birth of

the Baptist'," in: Sperling, *Medieval and Renaissance Lactations,* 213–34; see also Holmes, "Disrobing the Virgin," 188.

116 | It would take until the late seventeenth century for colostrum to be recognized as beneficial for the infant.

117 | For recent research on the practice of wet-nursing in early modern Europe, see Winer, "The Mother and the Dida [Nanny]," 55–78; Debra G. Blumenthal, "'With My Daughter's Milk': Wet Nurses and the Rhetoric of Lactation in Valencian Court Records," in: Sperling, *Medieval and Renaissance Lactations,* 101–14.

118 | Schiebinger, *Nature's Body,* 68–71; Jacobus, "Incorruptible Milk."

119 | Moschion, "De morbis mulieribus liber unus," in: *Gynaeciorum hoc est de mulierum tum aliis, tum gravidarum, parientium & puerperarum affectibus & morbis, Libri veterum ac recentiorum aliquot partim nunc primum editi, partim multo quam antea castigatores* (Basel: per Thomam Guarinum, 1566), 77.

120 | "I will say that mother's milk is better and more useful to the infant and more protective of his health, if it is good and not spoilt: because it resembles the food with which he was nourished in the womb, i.e., menstrual blood, from which milk is produced, as we have said. And the phrase "if it is not spoilt" [makes sense] because, where the mother is indisposed for some reason, the milk from another, healthy woman would be better under the condition that we specify [what qualities] a good wetnurse needs to have." Savonarola, *Il trattato,* 145.

121 | Eucharius Rösslin, *Der swangern Frauwen vnd Hebamen Rosengarten* (Argentine: Martinus Flach iunior impressit, 1514; first ed. Strassbourg 1513), no pagination.

122 | Eva Labouvie, *Beistand in Kindsnöten: Hebammen und weibliche Kultur auf dem Land (1550–1910)* (Frankfurt a.M.; New York: Campus Verlag, 1999), 88–89. See also Lyndal Roper, "Witchcraft and Fantasy in Early Modern Germany," in: *Oedipus and the Devil: Witchcraft, Sexuality, and Religion in Early Modern Europe* (New York: Routledge, 1994), 199–225.

123 | Mercurio, *La Commare Oriccoglitrice,* 112.

124 | Mercurio, *La Commare Oriccoglitrice,* 112.

125 | Mercurio, *La Commare Oriccoglitrice,* 113–14.

126 | Mercurio, *La Commare Oriccoglitrice,* 115.

127 | Hairston, "The Economics of Milk and Blood," 194.

128 | "[Lei] ... sia del Paese e non straniera, prendendola in casa ... perche la Balia si asternerà dall'uso di Venere," Mercurio, *La Commare Oriccoglitrice,* 116.

129 | Mercurio, *La Commare Oriccoglitrice,* 117.

130 | "It is not to be permitted that the infant is infected with the contagion of a stranger's milk ... because he would imbibe maliciousness with the milk of his wetnurse." Rodrigo de Castro, *De universa mulierum Medicina novo et antehac a nemine tentato ordine opus absolutissimum et studiosis omnibus utile, medicis vero pernecessarium; pars prima theorica* (Hamburg: in officina frobeniana; typis Philippi de Ohr, 1603), 131.

131 | De Castro, *De universa mulierum Medicina,* 131.

132 | Hulden, *Tractatio de mirandis naturae*, 39.

133 | "In this matter, however, young mothers and midwifes run into error, believing colostrum to be noxious to the infant, for they are misled by a wrong principle. For nature, like a foreseeing mother, does not offer to the newborn child a thick and dense milk, but it prepares colostrum, i.e., a thinner extract made from chyle." P. Hulden, *Tractatio de mirandis naturae*, p. 41; http://reader.digitale-sammlungen.de/de/fs1/object/goToPage/bsb11219098.html?pageNo=49 [accessed 7/9/15].

134 | Greisel, *Tractatus medicus,* 194ss.

135 | Barbara Orland, "Enlightened Milk: Reshaping a Bodily Substance into a Chemical Object," in: *Materials and Expertise in Early Modern Europe: Between Market and Laboratory,* ed. by Ursula Klein and E.C. Spary (Chicago: University of Chicago Press, 2010), 163–96.

136 | Zedler, *Grosses Vollständiges Universal-Lexikon,* vol. 21, column 145.

137 | Doorschodt, "De Lacte Commentatio," 80.

138 | Pierre Roussel, *Systeme physique et moral de la femme, ou tableau Philosophique de la Constitution, de l'Etat organique, du Tempérament, des Moeurs, & des Fonctions propres au Sexe* (Paris: chez Vincent, Imprimeur-Librarie, rue des Mathurins, Hôtel de Clugny, 1775), 361–62.

139 | Roussel, *Systeme physique,* 367–68.

140 | Roussel, *Systeme physique,* 368–69.

141 | Roussel, *Systeme physique,* 372.

142 | "Mere," in: Diderot and D'Alembert, *Encyclopédie,* vol. 10, 379. On Rousseau, see Orland, "Enlightened Milk," 175.

143 | Friedrich August Meyer, *Werden die Neigungen und Leidenschaften einer Säugenden durch die Milch dem Kinde mitgetheilt?* (Hamburg: B.G. Hofman, 1781), 2.

144 | Meyer, *Werden die Neigungen,* 37.

145 | Meyer, *Werden die Neigungen*, 56–57.

146 | Orland, "Enlightened Milk."

147 | Judith Butler, *Bodies That Matter: On the Discursive Limits of Sex* (New York: Routledge, 1993), chapter 1, 27–55; Pomata, "Blood Ties and Semen Ties."

148 | Patricia Simons, *The Sex of Men in Premodern Europe: A Cultural History* (Cambridge: Cambridge University Press, 2011).

149 | Joan Cadden, *Meanings of Sex Difference in the Middle Ages: Medicine, Science, and Culture* (Cambrdige: Cambridge University Press, 1993); Bestor, "Ideas about Procreation;" Pomata, "Blood Ties and Semen Ties."

150 | "When he was still a baby, Aisha [one of Muhammad's wives] is said to have arranged for Salim b. Abdallah Ibn Umar ... to be suckled by her sister, Umm Kulthum, clearly with the idea that when he grew up, she would be allowed to have free and open social contact with him. For this to be valid, the boy should have been suckled for at least five ... sessions ... Hafsa, another of the Prophet's wives, and a daughter of Umar b. al'Khattab, is reported to have been more successful when she had Asim b. Abdallah b. Sa'd sent as an infant to her sister Fatima, guaranteeing that she would have free access to him in years to come." Avner Giladi, *Infants, Parents, and Wet Nurses:*

Medieval Islamic Views on Breastfeeding and Their Social Implications (Leiden: Brill, 1999), 27–28.

151 | Benkheira, "'The Milk of the Male'."

152 | Sarah Hanley, "Engendering the State: Family Formation and State Building in Early Modern France," *French Historical Studies* 16, no. 1 (1989): 4–27.

153 | Samuel Kline Cohen Jr., *Death and Property in Siena, 1205–1800: Strategies for the Afterlife* (Baltimore: Johns Hopkins University Press, 1988), 204.