

Medicine and Society in Early Modern Europe

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1 Sickness and health

Of each 1,000 people born, 24 die during birth itself; the business of teething disposes of another 50; in the first two years, convulsions and other illness remove another 277; smallpox . . . carries off another 80 or 90, and measles 10 more. Among women, about 8 perish in childbed. Inflammatory fevers cause another 150 [deaths]. Apoplexy [kills] 12, dropsy 41. Therefore, of each 1,000 born, one can expect that only 78 will die of old age, or die in old age . . . It is apparent enough that at least nine-tenths [of humankind] die before their time and by chance.¹

Definition of “health” by the World Health Organization (WHO): “complete physical, mental, and social well-being and not merely the absence of disease and infirmity.”²

Thinking about sickness and health

Sickness and health are the antipodes of human existence, but perhaps no two terms are more difficult to grasp. The definition WHO accepted in its 1946 constitution remains an unattainable goal for many people even in the most prosperous countries of the world today, and such a definition would certainly have perplexed early modern people whose lives were repeatedly blighted by disease and ill health.

Common usage tends to conflate the terms *disease* and *illness*, or to employ them synonymously. At least at the outset of this chapter, however, we should differentiate between the two. Disease is a biological entity; illness is a perceived condition. One way of looking at disease and illness is to deem both of them medical facts and ahistorical realities, i.e., as having real existences and real causes (either somatic or psychological). Accordingly, one would say: “The microorganism *Yersina pestis*

¹ Christoph Wilhelm Hufeland, *Die Kunst des menschlichen Lebens zu verlängern* (Jena, 1797), 365–66.

² “Constitution of the World Health Organization,” *Chronicle of the World Health Organization* 1, nos. 1–2 (October 1946), quoted in Margaret Mead, ed., *Cultural Patterns and Technical Change: A Manual Prepared by the World Federation for Mental Health* (Deventer, 1953), 28.

causes plague.” Those who stress the central importance of history and culture in shaping perceptions of bodies and diseases would, however, disagree. These scholars, known as *social constructivists*, focus on how social and cultural milieux determined the language used to describe illness; how different societies (and groups in society, such as elites and peasants or men and women) held disparate perceptions of disease and developed varied strategies for coping with illness; and how bodies functioned as signs or symbols.

In addition, we should distinguish between two different theoretical perspectives on disease: the *ontological* and the *functionalist* (or *holistic*). The ontological view of disease regards each disease as a real entity with an independent existence. The ontological model carries major implications for therapy in suggesting that the same methods of treatment will work in all cases. The functionalist approach, however, sees disease as existing only within a specific organism and as resulting from a dysfunction that may be attributed to an individual’s personal habits or to various environmental effects on him or her.

The ontological view of disease gained favor from about the middle of the nineteenth century onward partly as a result of triumphs in public health, discoveries in bacteriology, and – in the early twentieth century – the development of sulfa drugs and antibiotics. Such successes significantly augmented the social and cultural status of physicians and their overall influence. Before the nineteenth century, however, functionalism dominated lay and academic medicines alike. Healers selected and applied treatments that would restore the “proper working” of the organism as a whole.

The Hippocratic/Galenic tradition, dating from the works of the Hippocratic writers³ (Hippocrates lived from c. 450 to c. 370 B.C.) and Galen of Pergamum (A.D. 129–c. 200), remained influential throughout the middle ages and well into the eighteenth century. This doctrine tied disease chiefly to the environment but also incorporated concepts of pollution and impurity in explaining what caused disease. At least until the seventeenth century, and probably much later, a mixture of *environmentalism* and *humoralism* dominated interpretations of disease. For most people, lay and learned alike, health rested in the proper balance of the four *humors* – black bile, yellow (or red) bile, blood, and phlegm – and disease arose from their imbalance, a general state of disequilibrium that the environment could affect or influence. Thus, in Galenic and Hippocratic medicine, diseases were unique to individuals and *specific*

³ Hippocrates left no writings identified as his and his alone. The “Hippocratic corpus” is composed of several works (*Airs, Waters, and Places, Epidemics, Aphorisms, and Prognostic*) attributed to Hippocrates, but possibly written by others.

diseases or *disease entities* as we normally speak of them (e.g., influenza, plague, AIDS) did not exist. Attaining and preserving a state of health, therefore, required balance, and that equilibrium was inherently elusive and easily forfeited. Environmental changes – a particular condition of the air or water, an especially hot or wet summer, or an unfavorable conjunction of the planets, for instance – could upset the body’s internal hydraulics with predictably pernicious results.

The Hippocratic/Galenic tradition, moreover, postulated a continuum between health and illness and located each individual somewhere on that band. Health was, in fact, “an unattainable ideal” and most people hung “forever suspended between health and illness.”⁴ Too much of one humor, or too little of another, could cause disease, as could the “corruption” or “putrefaction” of one or another of the body’s humors. Any alteration in the nature of a humor spelled danger for the individual. Even minute oscillations had to be dealt with expeditiously to avert illness. Standard therapies and preventives depended on readjusting perceived imbalances either by siphoning off a humor that had grown too strong or become corrupt, or by bleeding, purging, vomiting, or setting *artificial issues* (i.e., lesions). Indeed, according to the eighteenth-century physician Samuel Tissot, there was no reason to worry about a slight looseness or diarrhea. This was the body’s own attempt to cleanse the system by “carry[ing] off a heap of matter that may have been long amassed and then putrified in the body [and] which, if not discharged, might have produced some distemper.”⁵

In humoral medicine, prevention (or *prophylaxis*) was as important as treatment (or *therapeutics*). The best means of maintaining health was to practice moderation in all things, especially in the use of the *six non-naturals*: (1) air; (2) sleep and waking; (3) food and drink; (4) rest and exercise; (5) excretion and retention; and (6) the passions or emotions. A healthy regimen was predicated on observing these rules of nature and avoiding exhaustion, overheating, overeating, excessive consumption of spirits, and immoderate desires. Such ideas were prevalent, and informed not only medical theories but more popular versions of health and illness as well.

Linked ideas of equilibrium as health, disequilibrium as illness, and the individual character of each person’s sickness did not alone shape people’s perceptions of health and illness. Ancient ideas of disease as an invasion of the body or as a form of pollution also persisted throughout

⁴ Georg Hildebrandt, *Taschenbuch für die Gesundheit auf das Jahr 1801* (Erlangen, 1801), preface.

⁵ Samuel August Tissot, *Advice to the People in General with Regard to Their Health*, trans. by J. Kirkpatrick (Boston, 1767), 104.

the early modern period. People accepted immorality and vice as causes of disease, both collectively (in terms of epidemic outbreaks) and individually. Leprosy, for example, could be viewed as a punishment for concupiscence, although also, conversely, as a mark of special religious merit and moral virtue. In effect, naturalistic explanations of the Hippocratic and Galenic traditions competed and combined with religious viewpoints, with the result that each possessed the power to mold responses to disease. Thus, while communities cast out lepers and quarantined plague patients, they simultaneously sought expiation of sins and did penance. In addition, the sixteenth-century Swiss physician Paracelsus (c. 1493–1541) broke with the humoral tradition in conceiving of disease as caused by an entity – the *archeus* – that invaded the human body. Indeed, since classical times, arrows loosed by the gods symbolized the external source of disease, as Apollo's shafts slew Niobe's children. For Paracelsus, as later for Joan Baptista van Helmont (1579–1644) and Thomas Sydenham (1624–89), diseases became specific and the diseased state qualitatively differed from the healthy one.

What interests us here is the currency of these notions. How did people regard disease (or illness) and health? To what extent did “popular” and “academic” ideas on such crucial human conditions correspond or conflict? Historians once wrote confidently about the obvious contrasts between lay and academic conceptions of health and illness. Historians of medicine once spoke slightly of “popular errors” and superstitions, and constructed a teleological epic based on the march of scientific progress. This interpretation underpinned the equally accepted dichotomy between competent medical men and pernicious “quacks.” Then, censure of modern medicine and its whiggish historiography arose in the 1970s and continued throughout the 1980s. Some critics stressed the *iatrogenic* character of modern medicine, i.e., the ability of medicine and physicians themselves to cause disease. Many scholars rejected older interpretations of the history of medicine that focused advancing medical progress. As a result, studies of nonelite forms of medicine and of nonprofessional or nonacademic healers proliferated. Medical historians began to take seriously the whole range of practitioners and practices existing outside, and alongside, official medicine. New analytical terms arose to accentuate and cope with these differences, such as “elite/ popular,” “orthodox/unorthodox,” “academic/lay” medicines, practices, and perceptions. Gradually, however, it became clear that the dichotomies themselves were suspect and that the overlap of “popular” and “elite” medicines – or rather the presence of a broad substratum of common beliefs about health, illness, and therapeutics that most members of

society shared – truly characterized early modern medicine. This perception informs the following discussion of sickness and health. I do not intend to imply, however, that there was no conflict and no diversity within the world of early modern medicine (conflict was bitter and endemic). Rather, a sharp division between “popular” and “elite” medicines fails to capture the medical reality of early modern Europe and is misleading. Both the lay and the learned shared medical practices and perceptions in the early modern period and accepted a basically similar view of how their bodies worked.

Experiencing the body

The science of human physiology concerns itself with the functions of the human organism and its parts. In this section, however, we will not be so much concerned with early modern physiological theories (see chapter 3) as with a common pattern of belief concerning how bodies performed or failed to do so. This focus is linked to what has over the past decade come to be known as “the history of the body,” itself closely allied to new cultural history and to feminist theory. Obviously not everyone experienced physicality in the same manner. Crucial differences between males and females, as well as among social groups, conditioned a variety of beliefs and attitudes.

Most early modern people, however, accepted several basic concepts about bodies, even if they did not articulate their ideas systematically. First, the old notions of the *naturals* (including the complexions and the humors), the *non-naturals* (discussed above, p. 10), and the *contra-naturals* (or diseases) prevailed almost everywhere. Most people understood the body as composed of a mixture of the four humors – blood, phlegm, black bile, and yellow bile. The four ancient *elements* – water, fire, earth, and air – constituted the humors. Humors themselves had *qualities*: phlegm was cold and wet; black bile was cold and dry; blood was hot and wet; and yellow bile was hot and dry. Each individual possessed a *complexion* or *temperament* that reflected a unique blend of qualities and that also differed according to age and sex. The young tended to be hotter and moister than the aged, who were dryer and colder. Men, as a rule, were hot and dry, while women were inclined to be colder and moister. In addition, each part of the body had its own characteristics: the heart was hot and the brain was cold, for example.

The humors played a central role. The human body was held to be a seething mass of fluids rather than an assemblage of discrete organs or cells. Even in the seventeenth century, when ideas of the body as a machine or as a chemical distillery – *iatromechanics* and *iatrochemistry* –

became more popular, the older humoral physiologies and pathologies endured, especially in everyday life. People routinely spoke of humoral relationships and accepted the intimacy of the bond between humors and temperaments. The sixteenth-century clerk Bartholomäi Sastrowen remembered that his father “was rather rash” and “when the *colera* [yellow bile] got the upper hand, he could not control himself.” The eighteenth-century cameralist administrator and publicist, Johann Jakob Moser, described his own temperament as one in which “the choleric was strongly in the ascendant,” although, in his case, mixed with the sanguine. When Moser surveyed the traits of the choleric personality, he listed, among others, impatience, suspiciousness, quickness to anger, garrulity, glory-seeking, sneakiness: in short, a person possessing both a “subtle understanding” and a tendency toward reckless and quixotic actions.⁶

The humors exhibited their own distinguishing characteristics and a preponderance of one or another helped determine a person’s physical and mental make-up. Phlegm was a white, clear humor and individuals with an overbalance of phlegm tended to have dull, phlegmatic temperaments. Yellow (sometimes red) bile was produced in the liver and stored in the gall bladder; an excess resulted in a bilious and quarrelsome nature. Black bile was associated with the spleen and determined the gloomy melancholic personality. In fact, “spleen” was an early modern synonym for melancholy and the phrase to “vent one’s spleen” indicated ill temper. Blood ranked as the most critical and elevated of the humors, the “noblest” humor, so to speak. Blood was the vital juice of life, and it also played fundamental, if poorly understood, roles in the utilization of nourishment and in reproduction. Blood, as well, governed the sanguine temperament.

The fluid humoral system underlay ideas of conception and gestation as well. Two classical theories of reproduction – the Aristotelian and the Hippocratic/Galenic – continued to determine how people reasoned about sexuality and reproduction in the early modern world. Aristotle believed that both men and women produced what he called “sperma.” In men, sperma was seed and, in women, menstrual blood. Women lacked seed because their quality of “coldness” did not permit them to produce enough warmth to stimulate germination. Moreover, male sperma was active, while female sperma was passive. At conception, the male seed animated menstrual blood to produce life. More influential than the Aristotelian tradition, however, was the Hippocratic/Galenic theory in

⁶ *Deutsche Selbstzeugnisse*, vol. V, *Aus dem Zeitalter der Reformation und der Gegenreformation* (Leipzig, 1932), 19, and vol. VII, *Pietismus und Rationalismus* (Leipzig, 1933), 227.

which both sexes contributed in equal measure to conception. Now the two sexes became complementary in that both produced seed. This two-seed or *semence* theory lingered through the eighteenth century. The two sexes were anatomically parallel as well in that male organs (such as testes and penis) were external versions of the female reproductive organs (ovaries and vagina) and were so represented in the illustrations of the day. Ovaries were, according to Friedrich Hoffmann, simply “female testes.” Men’s organs took external forms because the “hotter quality” of their bodies “drove” their organs outward. It is important to note here the purposefulness ascribed to human anatomy and physiology.

Although it is difficult to say exactly how many people accepted either of these two notions in their entirety, one can turn to the most widely published sex manual of the seventeenth and eighteenth centuries – *Aristotle’s Masterpiece* – for some clues. The *Masterpiece* (not in fact authored by Aristotle) first appeared in the late seventeenth century and was repeatedly reissued through the eighteenth century in several formats and languages. The *Masterpiece* recognized that “lusts” and the pleasures of copulation existed in both men and women. The work stressed the significance of the clitoris and insisted that female sexual pleasure depended on adequate clitoral stimulation. Also prevalent was the belief that orgasm in the woman was the *sine qua non* of conception: no orgasm, no conception.

What happened after conception – that is, how the fetus developed – was more enigmatic. Two theories competed. One, the *epigenetic*, argued for the sequential development of the embryo: i.e., during growth, the fetus evolved from more primitive to more advanced forms. The other, the *preformationist*, maintained that minute life forms existed in the parent and that all that happened during gestation was that this tiny life grew larger. It is hard and perhaps even impossible to determine what was commonly believed about gestation, however, and this remains an area that scholars have not studied extensively partly because of the difficulties of sources.

Regimen referred to rules for the conduct of everyday life, especially in regard to the six non-naturals. (There were also special regimens for the sick, the elderly, infants, and convalescents.) Moderation in all things characterized early modern advice on regimen, and contemporaries took that advice to heart. The indefatigable civil servant and writer, Moser, observed that, because he avoided making unreasonable demands on either mind or body, neither had ever failed him. A good lifestyle served as the most practical way to maintain and restore health. Following a golden mean was the key. By modifying lifestyle, especially in the realm of diet, a person could hope to preserve health or regain it. People should

avoid drafts, exhaustion, too much strong drink, and a sedentary lifestyle, as well as rich and fatty foods. On a trip from Delft to The Hague in 1641, John Evelyn was told, for example, that lepers “contract their disease from their too much eating of fish.”⁷ A healthy regimen was predicated on observing the rules of nature, for every abuse of nature had to be requited and the sins of gluttony, intemperance, and lasciviousness brought with them bodily pains. Some writers on regimen attributed almost all illness (excluding accidents) to dietary indiscretions, while others joined disease to “hampered evacuations.” Among the latter, the appropriate and regular expulsion of feces, sweat, and urine were most essential to health.

Common beliefs on health associated regimen with the idea of the bodily *constitution*. Each person possessed an individualized constitution that was more than the sum of bodily parts, humors, spirits, and habits together. Both popular and lay opinion saw a person’s predisposition to certain afflictions and diseases as closely allied to his or her unique physical nature. In Hippocratic and Galenic medicines, and throughout the early modern period, people strongly emphasized the importance of knowing an individual’s constitutional idiosyncrasies if health was to be preserved or restored. Accordingly, cures must be highly individualized and snugly fitted to the person in question. Constitutional differences could also, however, explain why some individuals contracted a disease (and even ones generally viewed as highly contagious like plague and smallpox), while others living in close proximity, or even in intimate contact, remained unaffected. Constitutions were commonly characterized as “strong,” “weak,” “robust,” or “delicate.” The frequent notations in parish registers on deaths of children “delicate since birth” (or some similar phrase) indicate how prevalent the concept of constitution was. Constitutions weak at birth were never right and could be blamed for deaths even in late adulthood. Yet even rugged constitutions could be ruined by bad habits, horrible accidents, or even frightening experiences that shattered the mind as they also wrecked the body. The “slings and arrows of outrageous fortune,” like the terrors of wars and the insidious effects of years of overwork, imperiled all constitutions, no matter how inherently sound.

What went on inside the body was hard to discern and the ways people referred to bodily processes tended to be metaphoric. Their language of anatomy was always heavily laden with meanings. People thought about organs, to be sure, and especially about the heart, liver, brain, and womb, but more often they spoke of balances and sympathies, weighed the

⁷ John Evelyn, *The Diary of John Evelyn*, ed. by William Bray (London, 1973), 16.

relationship of one humor to another, one organ to another, and related the entire human microcosm to the larger macrocosm of the universe.⁸

One way people had of knowing what went on inside the shell of humanity was to read the signs inscribed on the bodily exterior: on the skin, on the limbs, and especially in the face. Complexion, for example, showed on the features: the red or livid color of the sanguine personality or the yellow of the bilious one; likewise the “black looks” of the melancholic and the phlegmatic’s “dull eye.” According to the Elizabethan gentlewoman and practitioner, Lady Grace Mildmay, defects of countenance, like “foul pimples or warts,” betokened “the stopping and inflammation of the liver.”⁹ Character traits, whether bad or good, also appeared on the face and the physiognomist’s skill allowed laypeople and physicians to deduce the body’s inner state from the external signs that also revealed a person’s hidden intentions. Physicians closely noted characteristics of constitution and complexion, for such things were outward indicators of inner workings. Typical were the observations Dr. William Brownrigg set down in his casebook: for Mr. Carlisle Spedding, “robust and of keen wit and sanguine temperament”; for “the famous artist,” Mr. Rhead, “thin and of a melancholic temperament, living a very temperate lifestyle, of a keen wit and utterly wrapped up in his work”; for Mrs. Holmes, “a widow . . . much given to hysterical affections, 45 years old with a spotty complexion, slow, and always suffering from some complaint or other”; and, finally, for Mr. Lamplugh Simpson “of an obese and leucophlegmatic disposition.”¹⁰

Perceptions of physicality are historically determined, and it is difficult, as Barbara Duden observes, for us to transcend our own “medicalized” perceptions (that is, what physicians and the institutions of modern medicine have taught us to believe) and think back into our ancestors’ minds and bodies. Duden’s close examination of the casebooks that an early eighteenth-century physician, Johann Storch, kept on his female patients offers a fascinating glimpse into how people (and, in particular, women) sensed the workings of their bodies. Both Storch and his female patients accepted that the body was basically “opaque,” that is, its interior was inaccessible. They tied “femaleness” to no particular organ, neither to womb nor to breasts. Rather, rhythms and periodicity – menstruation, for instance – defined the female. Patients spoke most frequently of osmotic

⁸ Roy Porter and Dorothy Porter, *In Sickness and in Health: The British Experience 1650–1850* (Oxford, 1988), 46.

⁹ Linda Pollock, *With Faith and Physic: The Life of a Tudor Gentlewoman, Lady Grace Mildmay, 1552–1620* (London, 1993), 125.

¹⁰ *The Medical Casebook of William Brownrigg, M.D., F.R.S. (1712–1800) of the Town of Whitehaven in Cumberland*, ed. and trans. by Jean F. Ward and Joan Yell (London, 1993), 50, 53, 58–59.

and fluid processes, which they felt viscerally. For them the mental and physical permeated each other, and they viewed the body as easy prey to outside influences that could permanently alter it.

Understanding illness and seeking cures

Understanding contemporary views of health and illness allows us to grasp more easily the logic of cures that might at first appear ineffective or even silly. To recover health within the humoral system, it was necessary to regain a lost humoral balance. The reasoning behind taking a “spring cure” – a seasonal purging, sweating, or bloodletting – rested on just this premise. Oppositions such as hot/cold and wet/dry could both explain the occurrence of disease and point to a cure. The logic of sympathy, and sympathetic healing, worked in a similar manner. People sought to expel their diseases by transferring them to other objects. The principle of *transference* taught, for example, that if one rubbed a wart with the cut side of an onion and then buried the onion, the wart would shrivel as the onion rotted. As late as the eighteenth century, stories circulated about peasants who brought sheep into the bedroom of fever patients so as to transfer the fever from the human to the beast. Sympathy worked by both likes and opposites, especially in regard to herbal remedies. For example, yellow herbs – such as saffron, yellow broomseed, and radish – were good for curing jaundice as well as evoking strong diuretic reactions. Likewise, red plants and roots, such as bloodroot, dealt successfully with bloody discharges, much as the “red cure” (wearing red clothes, eating red foods, and drinking red wine) combated smallpox (a red rash). Shapes and textures also indicated proper applications: lungwort worked for all lung ailments; spotted and scaly plants for skin eruptions; and maidenhair for baldness.

For most early modern people – lay and academic alike – the road to health flowed through the bowels, bladder, skin, and veins. The stoppage or unnaturally meager or heavy flow of sweat, urine, stools, and blood (menstruation, hemorrhoidal flows, and nosebleeds) was sure to cause illness and, in severe cases, even death. John Evelyn prevented a recurrence of the piles (hemorrhoids) that had plagued him each spring by ensuring “greater evacuations” than normal. When such habitual evacuations failed and accumulated in the human body, their foulness was thought to attack the internal organs with predictably damaging, or even fatal, results. Accordingly a whole array of serious or mild diseases could emanate from the same “cause.” Catarrh was, therefore, not merely the cough and cold we might think it to be, but a far more general condition where the watery and phlegmy humors thickened beyond their normal state and then clogged up the areas where they were usually found: the