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# Why Was “Custom a Second Nature” in Early Modern Medicine?

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**SUMMARY:** “Custom is a second nature” is a saying that circulated long before the early modern period and in many different cultural settings. But the maxim had special salience, reference, and force in dietetic medicine from the late medieval period through the eighteenth century. What did that saying mean in the early modern medical setting? What presumptions about the body, about habitual ways of life, and about the authority of medical knowledge were inscribed within it? And what was the historical career of the saying as views of the body, its transactions with the environment, and the hereditary process changed through the nineteenth and twentieth centuries?

**KEYWORDS:** custom, habit, dietetic medicine, humors and complexions, hereditary processes

Consider the saying “Custom is a second nature.” The maxim was once pervasive in ethical and moral commentary. Latin forms included *Usus est altera natura*, *Consuetudo est secunda natura*, and *Consuetudinem quasi altera natura effici*. The French tended to say *La coutume est une seconde nature* or *L’habitude est une autre nature*; the Italians *La consuetudine sia un’altra natura* or *L’abitudine è una seconda natura*; the Germans *Gewohnheit ist die zweite* (or *die andere*) *Natur*. The tag persisted over a great span of history. It goes back—in one form or another—to pre-Socratic philosophies; it’s in the writings of Plato, Aristotle, Cicero, Plutarch, and Augustine; and it was a commonplace in antiquity and the Middle Ages. By the early modern period, it was listed in books of proverbs, and it’s probable that, with qualifications, “everyone knew it”—literate or not.<sup>1</sup> Religious and

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1. E.g., Tom Sparrow and Adam Hutchinson, eds., *A History of Habit: From Aristotle to Bourdieu* (Lanham, Md.: Lexington Books, 2013), esp. Thorton C. Lockwood, “Habituation, Habit, and Character in Aristotle’s *Nicomachean Ethics*,” 19–36, and Robert C. Miner, “Aquinas on *Habitus*,” 67–88; Hippocrates, *The Aphorismes of Hippocrates, Prince of Physicians* (London: Humphrey Moseley, 1655), 39; N. R., *Proverbs English, French, Dutch, Italian, and*

1 *Bull. Hist. Med.*, 2019, 93: 1–26

ethical writers frequently invoked the saying—warning that bad habits, once acquired, led to vice and commending the diligent practice of good ones, which led to virtue.

The saying is found in Machiavelli and, more famously, in Pascal, a major source for its continuing place in modern books of quotations.<sup>2</sup> It persisted in common use into the early nineteenth century. Legal and political writers in the early modern period, and before, treated settled custom as a “second law,” so appreciating its force, while, in other settings, custom was identified as second nature in the sense that custom was *inferior to, second to*, the natural. Nature, it was considered, picks out universal realities; custom designated behaviors that mark cultural differences. So historians of ideas have written that custom and nature have persistently been deployed in opposition, both descriptively and evaluatively.<sup>3</sup>

But “Custom is a second nature” was found in early modern practices beyond ethical, religious, and political commentary, and, among these, medicine was a notable site in which that sentiment circulated—its cultural resonance an index of the well-known circumstance that much commentary on the body in health and disease was produced by those who did not belong to the medical profession.<sup>4</sup> In some early modern writing

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*Spanish* (London: Simon Miller, 1659); Guy Miegge, *A New Dictionary French and English . . . Enrich'd with New Words Choice Phrases, and Apposite Proverbs* (London: Tho. Dawkes, 1677).

2. Niccolò Machiavelli, *The Workes of the Famous Nicholas Machiavel, Citizen and Secretary of Florence* (London: John Starkey, Charles Harper, and John Amery, 1680), 452; Blaise Pascal, *Monsieur Pascall's Thoughts, Meditations, and Prayers*, trans. Jos. Walker (London: Jacob Tonson, 1688), 161: “Custom is a second Nature, that destroys the former: Wherefore is not Custom natural? I much fear that this Nature is it self no more than a first Custom as Custom is a second Nature”; also Crina Archer, Laura Ephraim, and Lida Maxwell, eds., *Second Nature: Rethinking the Natural through Politics* (New York: Fordham University Press, 2013), esp. 27–28.

3. Donald R. Kelley, “‘Second Nature’: The Idea of Custom in European Law, Society, and Culture,” in *The Transmission of Culture in Early Modern Europe*, ed. Anthony Grafton and Ann Blair (Philadelphia: University of Pennsylvania Press, 1990), 131–72; also Kelley, *The Human Measure: Social Thought in the Western Legal Tradition* (Cambridge, Mass.: Harvard University Press, 1990), esp. 44; Jerry Z. Muller, ed., *Conservatism: An Anthology of Social and Political Thought from David Hume to the Present* (Princeton, N.J.: Princeton University Press, 1997), 19–20.

4. Historians of ideas have given significant attention to the topic of custom and habit, but one recent edited text on the subject contains almost nothing about medicine: see Sparrow and Hutchinson, *History of Habit* (n. 1). Some early modern—and later—writers urged a distinction between the notions of habit and custom: for example, Henry Home, Lord Kames, *Elements of Criticism*, 3 vols. (Edinburgh: A. Millar and A. Kincaid & J. Bell, 1762), 2:82: “Custom respects the action, *habit* the actor. By custom, we mean a frequent reiteration of the same act; and by habit, the effect that custom has on the mind or body.” I address aspects of these forms toward the end of this piece, but, for the most part, I follow many early modern commentators in treating custom and habit as interchangeable with

about medical matters, as in ethical works, custom was also opposed to nature, or it was figured as a corruption of nature, or it was, in significant ways, devalued as having less force than nature. So in the late seventeenth century, the Cartesian Nicolas Malebranche mixed biblical and medical modes in explaining how people came to *eat* as they did—and, often, how they came to eat what was not good for them, leading to ill health and shortened life. God had given people “natural inclinations” concerning diet, and, if they followed nature, health would be ensured. But, over time, and with the progress of civilization, natural tastes and appetites had been corrupted. As we now are, we injure ourselves by following our appetites: we may either eat things that are not wholesome or eat too much of things that are, in moderation, good for us—and this is because our tastes “are not in their natural state.” Custom and fashion have ruined the senses, making them unnatural and, therefore, poor guides to wholesomeness. God sends food and the devil sends cooks, as the proverb has it, and Malebranche agreed: “If cooks have found the art of making us eat old shoes in their stews, we must also make use of our reason and distrust these bogus meats that are not in the state that God created them.”<sup>5</sup> That form was followed through much of the eighteenth century, as when Rousseau’s *Émile* contrasted the artificial diets to which many people had increasingly become habituated to those that were *natural*, and, therefore, nourishing. Rousseau’s general principle in treating education was that “Everything is good as it leaves the hands of the Author of things; everything degenerates in the hands of man.” And the same applied to diet and the effects of habit on appetite: “The farther we are removed from the state of nature, the more we lose our natural tastes; or, rather, habit gives us a second nature, that we substitute for the first to such an extent that none of us knows this first nature any more.”<sup>6</sup>

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respect to their role in imitating, or becoming, natural. Some writers (note a number of quotations in this article) used the expression “Habit is a second nature,” while it seems that the more popular form referred to “custom.” In the modern period, Max Weber intended “custom” to refer to collective ways of acting, deriving from individuals’ “habits,” but such distinctions now appear idiosyncratic: Charles Camic, “The Matter of Habit,” *Amer. J. Sociol.* 91, no. 5 (1986): 1039–87, on 1044n2, 1057–66.

5. Nicolas Malebranche, *The Search After Truth*, trans. and ed. Thomas M. Lennon and Paul J. Olscamp and *Elucidations of the Search After Truth*, trans. and ed. Thomas M. Lennon (1674–78; Cambridge: Cambridge University Press, 1997), 266, 645–46. The role of dietary novelty and exoticism in forming a depraved and unnatural, but habitual, taste was commonplace throughout the early modern period and Enlightenment: see, for example, E. C. Spary, *Eating the Enlightenment: Food and the Sciences in Paris, 1670–1760* (Chicago: University of Chicago Press, 2012), esp. chaps. 4, 6.

6. Jean-Jacques Rousseau, *Émile or On Education*, trans. Allan Bloom (1762; New York: Basic Books, 1979), 37, 151; also Spary, *Eating the Enlightenment* (n. 5), 240–41.

Yet in major bodies of traditional medical thought and practice, custom—and even customary tastes—did not come off badly. Here, there is special relevance in those modes of traditional early modern medicine tracking back to the Hippocratic Corpus and to Galen. A central part of traditional medical thought and practice from antiquity through the early modern period was dietetics (alternatively called *regimen* or *hygiene*). This was basically preventative medicine, designed to regulate behavior to maintain people in health, though its precepts could also be used in therapeutics, to restore people to health when they were ill. Dietetics mobilized theories of what nature was like, what people were like, and how their states of health and disease followed from their interactions with the environment, including the edible environment.

It's not just that customary conduct here was more highly valued; it's that the *sense* of custom being second nature was radically different from those identified in the traditions more usually treated by historians of ideas. In much medical writing, the relationship between custom and nature was not oppositional; it was transactional. In these dietetic connections, there were understood to be well-trafficked paths by which the customary *became* the natural. The status of custom as second nature had consequences for the conduct of much medical inquiry and for the practical advice that might follow from a right understanding of *how* custom could become naturalized—in body and in mind.

### The Virtue of Custom, and the Danger of Change, in Traditional Dietetics

The conceptual and practical categories of traditional dietetic medicine—ultimately derived and modified from Platonic, Aristotelian, and Galenic sources—need only the briefest summary. The *elements* of which everything was made were earth, air, fire, and water; each element was characterized by a pair of *qualities* (hot, cold, moist, and dry); and, in the case of *human* nature, different types of human being were marked by the innate dominance in them of one of the four fluid *humors*—blood, phlegm, yellow bile (or choler), and black bile (or melancholy)—each of which was itself marked by a pair of qualities—so that *phlegmatic* people tended toward the cold and moist, *choleric* to the hot and dry, and so on. In this way, people had their characteristic qualities and so too did the aliment on which they fed and which was transformed into their bodily substance. In general, medical advice (if you were in health) was to eat foods whose qualities *agreed* with those of your natural constitution and, if your humors were out of balance, to be restored to health by eating

those foods whose qualities corrected that imbalance. So, for example, a proper diet for melancholics tended to the cold and dry, but, if those qualities became too extreme, then balance might be restored by taking foods that veered toward the warm and moist.

The scope of dietetics in relation to human conduct encompassed much more than food and drink. What were called the “naturals” largely had to do with the constitution with which you were born, but it was the rational management of the “Six Things Non-Natural” that was central to medical authority and that was woven into the fabric of ordinary life. These six non-naturals included diet in the sense of food and drink, but also took in air, waters, and places (for example, where you might situate your house); patterns of sleeping and waking; exercise; evacuations (including sexual release); and the control of the passions of the soul (or emotions). In each of these types of transaction with the environment, a physician might advise you to observe balance or moderation to maintain health or how you should alter your conduct to restore yourself to health when ill.<sup>7</sup>

Yet this apparently coherent and straightforward scheme was subject to all sorts of modifications and qualifications when brought to bear upon specific individuals with their specific histories of customary transactions with the environment and ways of living. So you might think that a physician, dealing with patients who were doing all the wrong things—for example, consuming foods with the wrong qualities for their temperament—would direct them to break off their habitual behaviors, to straighten up and eat right. After all, a Hippocratic aphorism instructed that desperate conditions called for desperate remedies.<sup>8</sup> But matters were not that simple, and complexity of practice followed from recognizing the power of custom and of habitual ways of life. Another well-known Hippocratic aphorism continuing to circulate in the early modern had it that “things accustomed to a long time, although they be worse are wont to be less grievous, then those which are unaccustomed, wherefore also a change is not to be made to unaccustomed things.”<sup>9</sup>

7. Among several recent treatments of the basic categories and practices of traditional dietetics, see Heikki Mikkeli, *Hygiene in the Early Modern Medical Tradition* (Helsinki: Academia Scientiarum Fennica, 1999); Klaus Bergdolt, *Wellbeing: A Cultural History of Healthy Living*, trans. Jane Dewhurst (1999; Cambridge: Polity, 2008); David Gentilcore, *Food and Health in Early Modern Europe: Diet, Medicine and Society, 1450–1800* (New York: Bloomsbury, 2016); and Ken Albala, *Eating Right in the Renaissance* (Berkeley: University of California Press, 2002).

8. Hippocrates, *Aphorismes* (n. 1), 27 (sec. I, aphorism 6).

9. *Ibid.*, 39 (sec. II, aphorism 50).

It was in these cases, and in many related ones, that medical authority recurrently acknowledged the truth of the saying that “Custom is a second nature,” accepting that what you had become used to, even if it seemed wrong in principle, was in general best continued. So said the so-called Salernitan Verses, emerging in the twelfth century from the southern Italian medical school of Salerno, then translated into many languages, and rendered in the early seventeenth century into English verse by the physician Sir John Harington:

If to an use you have your selfe betaken,  
Of any dyet, make no sudden change,  
A custom is not easily forsaken,  
Yea though it better were, yet seemes it strange,  
Long use is as a second nature taken,  
With nature custome walkes in equal range.<sup>10</sup>

Disrupting custom was understood to be medically dangerous. The antiquity of that sensibility was among its recommendations. Apart from respected Salernitan authority, early modern doctors traced the sentiment, and the practices following from it, to Hippocrates, Galen, or the Persian medical authority Avicenna.<sup>11</sup>

The saying, the sensibilities surrounding it, and the dietetic practices it commended were ubiquitous in Renaissance and early modern medical culture. In 1650, the English physician Humphrey Brooke referred to custom as “that great Imitatrix of Nature”; he noted that custom and nature were convertible into each other; and he approved the Hippocratic warning against abrupt change in customary ways of life.<sup>12</sup> The sixteenth-century French surgeon Ambroise Paré cautioned that “if any would pres-

10. Sir John Harington, trans., *The English Mans Doctor; or, The School of Salerne* (London: Thomas Dewe, 1624), 16; see also Levinus Lemnius, *The Touchstone of Complexions*, trans. T[homas] N[ewton] (London: Thomas Marsh, 1576), 50–51.

11. At least one Elizabethan physician explicitly attributed it to Avicenna, in whose writings “Custome is likened unto Nature, which is to say Custome must needes be observed although it were evell, and not to be commended”: Thomas Twyne, *The Scholemaster or Teacher of Table Philosophie* (London: Richarde Jones, 1576), sig. Bii; see also, among many examples, Thomas Moffet, *Healths Improvement: or, Rules Comprizing and Discovering . . . the Nature, Method, and Manner of Preparing All Sorts of Food Used in This Nation*, 2nd ed. (London: Tho. Newcomb, 1655), 247; Felix Platter (with Abdiah Cole and Nich[olas] Culpeper), *Platerus Golden Practice of Physic: Fully and Plainly Discovering* (London: Peter Cole, 1664), 2; Alexander Read, *Chirurgorum Comes; or, The Whole Practice of Chirurgery* (London: Edw[ard] Jones, 1687), 631; Daniel Sennert, *Nine Books of Physick and Chirurgery* (London: J. M. for Lodowick Lloyd, 1658), 227–28.

12. Humphrey Brooke, *Ugieine or a Conservatory of Health* (London: R. W. for G. Whittington, 1650), 34–36.

ently or suddenly change a Custom which is sometimes ill, into a better, truly he will bring more harm than good.”<sup>13</sup> The Flemish Jesuit Leonardus Lessius summarized much medical prudence about the benefits of dietary habit and the dangers of change:

This is a common Tenet amongst Physicians. For all sudden changes, if they be anything remarkable, do prejudice Nature; in regard that Custome gets almost the force and qualitie of Nature it self. . . . It cannot be but very dangerous to be driven off forcibly from that, which a man hath been long used to, and to be put upon the contrarie. For as that which is against Nature, so likewise that which is against long & inveterate Custome, is very grievous to be undergone, whilst the strength and power of Custome remains on foot.<sup>14</sup>

A late seventeenth-century English translation of an Italian dietary cautioned that “The Use and Custom in our Diet is of great moment, whence the Ancients affirmed, that *Usus est altera Natura*, Custom is a second Nature: Wherefore as in the Food it is good to have respect to the Temper; so it is no less necessary to observe the Custom, the which is one of the Principal Roots and Foundations in the preservation of the Health.” Dietary customs *could* be bad for you, and, in certain circumstances, they *should* be altered, but then “you ought by little and little to change it into a good one, but a sudden change is altogether to be avoided, as very dangerous.”<sup>15</sup> In the 1670s, John Archer’s popular dietary *Every Man His Own Doctor* said that “Custome is a second Nature and those things which [one is] accustomed to a long time though worse they are wont to be less troublesome then those things we are not used to.”<sup>16</sup> In the mid-eighteenth century, the French physician Louis Lémery mulled over the question about how many meals a day should be taken and at what hours. He had a robust answer, but also acknowledged that “Appetite and Habit ought to decide this Matter” and that people who were used to their own particular pattern and who thrived on it should not change.<sup>17</sup> Writing about the drugs and diets prescribed in cases of digestive disorders, another French physician cautioned that these remedies should never be given irregularly but must be applied “constantly and daily with all diligence”:

13. Ambroise Paré, *The Workes of That Famous Chirurgion Ambrose Parey*, trans. Tho[mas] Johnson (London: Richard Cotes, 1649), 24.

14. Leonardus Lessius, *Hygiasticon: or, The Right Course of Preserving Life and Health*, 2nd ed. (Cambridge: R. Daniel, 1634), 43–44.

15. Castore Durante, *A Treasure of Health*, trans. John Chamberlayne (London: William Crook, 1686), 49.

16. John Archer, *Every Man His Own Doctor* (London: Peter Lillicrap, 1671), 12.

17. Louis Lémery, *A Treatise of All Sorts of Foods*, trans. D. Hay (London: T. Osborne, 1745), 12.



For since in this Disease, as also in most Chronical ones, its cause is passed into an habit, and as it were a new nature; no wise Man can think that any light and momentary alteration, brought upon the Bloud and Humours, by any kind of either Medicine or Diet, can attain the scope of Cure; but the whole habit of the body must be turned another way, and the whole Man must as it were be new forged again upon the Anvil.<sup>18</sup>

## The Good and the Good for You: Dietetics and Ethics

These specifically medical sensibilities shared cultural space with currently more familiar sentiments in early modern ethical and prudential writing. Montaigne is now mainly known for his philosophical, psychological, and moral commentaries, but his essay “Of Experience” was an extended engagement with traditions of dietetic medicine. “Change of any sort,” Montaigne wrote, “is disturbing and hurtful,” but, at the same time, he believed “nothing with more certainty than this: that I cannot be hurt by the use of things that I have been so long accustomed to.”<sup>19</sup> Francis Bacon’s later essay on regimen followed the form: “Beware of sudden Change in any great point of Diet,” and, if you just had to make such changes, then you should do it very gradually.<sup>20</sup> And one of the few seventeenth-century dietaries seemingly directed to the care of the poor endorsed the view you could not be harmed by what you were used to: “Tis rare unless we offend in quantity, that any food that is common to us or mankind, does offend us by its *Quality*.”<sup>21</sup>

Aristotle reckoned that virtue could be acquired through habit, and early modern manuals on raising children, forming princes and governors, fell in with that sensibility, stressing the importance of early habituation to right conduct. That is, after all, why there are schools—institutions that not only pass on information and transmit skills but also are meant to form lasting good habits and stamp out vicious ones. A saying attributed

18. Théophile Bonet, *A Guide to the Practical Physician*, anon. trans. from the Latin (1685; London: Thomas Flesher, 1686), 30.

19. Michel Eyquem de Montaigne, “Of Experience,” in *The Complete Essays of Montaigne*, trans. Donald M. Frame (1580, 1588; Stanford, Calif.: Stanford University Press, 1965), 815–57, quotations on 827, 832.

20. Francis Bacon, “Of Regiment of Health,” in Bacon, *The Essayes or Counsels, Civill and Morall*, ed. Michael Kiernan (1625; Cambridge, Mass.: Harvard University Press, 1985), 100–102, quotation on 100; see also Bacon, *De Dignitate et Augmentis Scientiarum* (trans. of Books II–IX), in *The Philosophical Works of Francis Bacon*, ed. John M. Robertson (London: George Routledge, 1905), 413–638, quotation on 575.

21. [Thomas Cock], *Kitchin-Physick: or, Advice to the Poor* (London: n.p., 1675), 27.



to Saint Ignatius Loyola was “Give me the child for its first seven years, and I will give you the man.”<sup>22</sup> Good habits, early instilled, made for a good person. Bacon noted that “*Custom* is most perfect, when it beginneth in Young Yeares: This we call *Education*; which is, in effect, but an *Early Custom*.”<sup>23</sup> Studies, Bacon wrote, “perfect Nature, and are perfected by Experience: For Naturall Abilities, are like Naturall Plants, that need Proyning [pruning] by *Study*.”<sup>24</sup> John Locke was a physician as well as a philosopher, and his tract on education was plausibly informed by medical dietetics and largely organized around the management of the non-naturals. Here Locke urged that children become habituated to eating parsimoniously and taking plain fare—so that “by Custom [the child] will come to be in love with *Bread*; for, as I said, our Palates are pleased with the Things we are used to.” Locke thought that “many are made *Gorman[d]s* and *Gluttons* by Custom, that were not so by Nature.”<sup>25</sup> In the 1760s, Rousseau commended a steady diet of “common and simple” foods as an effective way of preserving “in the child his primary taste as much as possible.”<sup>26</sup>

More generally, early moderns understood that behavioral patterns you entered into—even in adult life and even insincerely—might eventually become part of your nature. The shaping of character was a plastic and extended process; it didn’t stop with the end of childhood. That’s how Hamlet helpfully lectured his mother on sexual propriety:

Good night—but go not to mine uncle’s bed.  
Assume a virtue if you have it not.  
That monster, custom, who all sense doth eat,  
Of habits devil, is angel yet in this,  
That to the use of actions fair and good  
He likewise gives a frock or livery  
That aptly is put on. Refrain tonight,  
And that shall lend a kind of easiness  
To the next abstinence, the next more easy.  
For use almost can change the stamp of nature.<sup>27</sup>

22. That this is a misattribution to Loyola (made by Voltaire) is argued by Arnold Beichman, Antonio Martino, and Kenneth R. Minogue, *Three Myths* (Washington, D.C.: Heritage Foundation, 1981), 48.

23. Bacon, “Of Custome and Education,” in Bacon, *Essayes or Counsels* (n. 20), 120–22, quotation on 121.

24. Bacon, “Of Studies,” in Bacon, *Essayes or Counsels* (n. 20), 152–54, quotation on 153.

25. John Locke, *Some Thoughts Concerning Education* (London: A. and J. Churchill, 1693), 14.

26. Rousseau, *Émile* (n. 6), 151.

27. *Hamlet*, act III, scene 4; also see *Two Gentlemen of Verona*, act V, scene 4: “How use doth breed a habit in a man!”

Renaissance and early modern writers of courtesy texts—books of manners and practical ethics—urged that people could and should form disciplined good habits, and that this was the way to health, to virtue, and to esteem. They should, especially, *control* themselves, this self-mastery involving the rational discipline of all the non-naturals—recalling here that the management of the emotions belonged to medical dietetics as much as the management of food and drink. Medicine and the practical morality of the courtesy literature here occupied the same terrain. Shakespeare’s ninety-fourth sonnet applauded those who were “the lords and owners of their faces.” And a treatment of the passions of the soul in a seventeenth-century courtesy text instructed the gentleman to control the face and its visible signals and, even more, to manage inner “*inclinations* and *dispositions*, which are by our own industry and habituations turned now into natural.”<sup>28</sup> That same sensibility informed the relatively small number of courtesy texts specifically treating women, who were, of course, enjoined to develop habits of meekness, modesty, piety, and fidelity proper to their sex. Richard Brathwaite’s *The English Gentlewoman*, for example, warned ladies that the formation of new virtues might not be immediately effective, yet persistence eventually brought perfection: “For the *first*, you shall never see any thing imitated, but it seemes the imitator worst at the first. Habit will bring it into a *second nature*; but till such time as custome hath matur’d it, many imperfections will usually attend it.”<sup>29</sup>

### The Force of Custom and the Adaptable Life

For good or for ill, custom was powerful and should, for all sorts of practical reasons, be acknowledged as such. Recognizing its potency was specially pertinent in accounting for, and possibly naturalizing, social variations in ways of life, in dispositions and preferences. If you properly understood the force of custom, you would be more tolerant, and, perhaps, less imprudently absolutist, about your own local ways, preferences, and tastes. Dietary custom, for example, was often driven by appetite, by a relish for some particular food, in some particular quantity, and this meant that appetite (that is, one uncorrupted by cooks) was—to the despair of

28. Obadiah Walker, *Of Education Especially of Young Gentlemen* (Oxford: At the Theatre, 1673), 89–90.

29. Richard Brathwait[e], *The English Gentlewoman* (London: B. Alsop and T. Fawcett, 1631), 95. Brathwaite’s counsel for the English *gentleman* followed the same form in seeing custom as second nature, while expecting that, for well-born males, custom would inculcate chivalric virtues: Brathwait[e], *The English Gentleman* (London: John Haviland, 1630), e.g., 93, 97, 242.

some, but not all, moralists—on the whole a reliable gauge of goodness. That was the context in which Montaigne noted, “It is for habit to give form to our life, just as it pleases; it is all-powerful in that; it is Circe’s drink, which varies our nature as it sees fit.” Other nations, and even other classes, dismiss fears that afflict the French aristocracy. So too in taste: “A Spaniard’s stomach cannot stand our way of eating, nor can ours stand to drink Swiss fashion. . . . We are afraid of the wine at the bottom of the cask; in Portugal its flavor is considered delicious, and it is the drink of princes. . . . In short, each nation has many customs and usages that are not only unknown, but savage and miraculous, to some other nation.”<sup>30</sup> Appreciating the force of custom might also inform practices of adaptation to alien environments, a circumstance bearing upon soldiers, travelers, merchants, and colonists, all of whom were intermittently anxious about whether their bodies could adjust to different climates and foods and about the consequences of such adaptation on their identities. Could they overcome long-settled customs? And, if they did so, *who* would they then be? Would they, so to speak, *go native* in body and mind?<sup>31</sup>

Robert Boyle, writing as a moralist and not as a chemist, argued against the general tendency to regard other peoples as barbarous for liking foods which we find disgusting. The example was raw oysters: why ever should we who enjoy eating them find it incomprehensible that Native Americans enjoy consuming raw venison or buffalo liver, and why ever should we condemn other nations for finding insects tasty? Boyle had the advantages of Continental travel and was “not apt to think, [that] their Customs must be . . . worse than ours, because they widely differ from them.” “We laugh at many Customs of Strangers,” he wrote, “onely because we never were bred to them, and prise many of our own onely because we never consider’d them.”<sup>32</sup> If we had gone through the habituating regimes of other nations, we too would behave, think, judge, and taste as they did. And that, of course, was a lesson systematically taught about the variety of global manners and mores by such eighteenth-century writers as

30. Montaigne, “Of Experience” (n. 19), 827–28; see also Steven Shapin, “How to Eat Like a Gentleman: Dietetics and Ethics in Early Modern England,” in *Right Living: An Anglo-American Tradition of Self-Help Medicine and Hygiene*, ed. Charles E. Rosenberg (Baltimore: Johns Hopkins University Press, 2003), 21–59, 41–43.

31. Rebecca Earle, *The Body of the Conquistador: Food, Race, and the Colonial Experience in Spanish America, 1492–1700* (Cambridge: Cambridge University Press, 2012); Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India 1600–1850* (Oxford: Oxford University Press, 1999); also Steven Shapin, “You Are What You Eat’: Historical Changes in Ideas about Food and Identity,” *Hist. Res.* 87, no. 237 (2014): 377–92.

32. Robert Boyle, *Occasional Reflections upon Several Subjects* (London: Henry Herringman, 1665), 195–96, 200.

Montesquieu and Monboddo. Under the name of what came to be called *culture*, the powerful and durable transmission of habits was made into a foundation of early anthropological sensibilities and of Enlightenment cultural relativism.<sup>33</sup>

For custom to become naturalized in your body did not necessarily take a very long time nor did it need to start very early in your life. The twig of body and mind remained always flexible to some extent. In what is certainly the most celebrated and longest-lasting diet book ever written, the sixteenth-century Venetian nobleman Luigi Cornaro offered an account of his personal experience with dietary self-management. Cornaro's tract *On a Temperate Life* related that, in late middle age, he had become seriously unwell, and he attributed his poor state to habits of excess and undisciplined dietary gratification. He resolved to eat less, and "within a few days . . . I was exceedingly helped, [and] within lesse then one yeare (although it may seem to some incredible) I was perfectly cured of all my infirmities." He eventually became used to taking only very small amounts of food and drink, and, acknowledging the form, said that now, under this new regimen, "Custom was turned into Nature." Eventually, however, his doctors worried that Cornaro was overdoing it and urged him to increase his intake, by even just a few ounces a day. Cornaro gave way, but, as he related, even that slight change proved a grave mistake. Almost immediately he became desperately ill again, the effect—so he insisted—of breaking with a dietary regime that had already become natural to him. He resumed his temperate customs of consumption and, once again, all was well.<sup>34</sup>

Still, it wasn't the case in the early modern period that submitting to settled dietetic custom, and ensuring rigorous adherence to a specific way of life, was always and everywhere accounted the right thing to do. And recognizing these apparently opposing sentiments helps to appreciate the plasticity and the power of the notion of custom. There were certain sorts of people who—because of the nature of their duties and roles—had to become accustomed, as it were, to the *absence* of routine, to get their bodies used to varying circumstances. But even in such cases, the rule of no

33. For Johann Gottfried Herder's eighteenth-century introduction of the notion of *Kultur* (culture) in this sense, see David Denby, "Herder: Culture, Anthropology and the Enlightenment," *Hist. Hum. Sci.* 18, no. 1 (2005): 55–76; Sonia Sikka, *Herder on Humanity and Cultural Difference: Enlightened Relativism* (Cambridge: Cambridge University Press, 2011).

34. Luigi Cornaro, *A Treatise of Temperance and Sobriety*, trans. George Herbert, bound together with, and separately paginated, in Lessius, *Hygiasticon* (n. 14), 7, 17 (tract orig. publ. 1550). These episodes are recounted in Steven Shapin, "Was Luigi Cornaro a Dietary Expert?," *J. Hist. Med. & Allied Sci.* 73, no. 2 (2018): 135–49.

rule seemed to need special justification, so authoritative was the medical formula holding custom to be a second nature. So a range of civic actors was identified for whom variation and adaptability were considered as occupational necessities, who needed to feast when the occasion required it, to not eat when other duties called, to take whatever was offered on various public occasions, to sleep sometimes eight hours and sometimes three, to defecate sometimes sitting and sometimes standing, sometimes to be wanton and sometimes to go without sexual release. Despite the many good things he said about habit, Montaigne considered himself such an adaptable person, proudly not enslaved to rules: “I have no habit that has not varied according to circumstances”; “The best of my bodily qualities is that I am flexible”; “I was trained for freedom and adaptability.”<sup>35</sup> Bacon similarly commended “Interchanging, and Alternation of the Diet,” not letting your body get bound to any specific way of eating or of acting.<sup>36</sup> And one seventeenth-century dietary text warning against sudden change in habit suggested at the same time that “it is good to accustom ones self to every thing, to the end that a sudden change may not in any wise be hurtful.”<sup>37</sup> The habit of variability could guard against the bad consequences that might follow from strict habits of regularity.

Composing a how-to book for his young son and heir Prince Henry on being a proper sovereign, King James VI of Scotland—the future James I of England—echoed Montaigne: You must remain flexible as a public person, able to adapt to circumstances and contingencies: so “your dyet maie bee accommodatte to your affaires, & not your affaires to your diet.”<sup>38</sup> Years later, the king’s counsel was closely followed by the Scottish courtier and ethical writer James Cleland: “Bee neither uncivil like a grosse Cynicke, nor affectuately niggard, like a dainty Dame, but eate in a manly, round, and honest fashion. Use most to eate of reasonable grosse, and common meates, as well for making your body strong, and durable for travell at all occasions, either in peace or in warre, as that yee may be the hartier received by your mean *friends* in their houses, when their cheere may suffice you.”<sup>39</sup> In the early seventeenth century, the French moralist Pierre Charron also followed Montaigne’s sensibilities, generalizing the

35. Montaigne, “Of Experience” (n. 19), 830.

36. Francis Bacon, *History Naturall and Experimentall, of Life and Death* (London: John Haviland, 1638), 158.

37. Durante, *Treasure of Health* (n. 15), 49.

38. James VI, King of Scotland, later James I of England, *Basilikon Doron* (Edinburgh: Robert Waldegrave, 1599), 127.

39. James Cleland, *The Instruction of a Young Noble-man* (1607; Oxford: Joseph Barnes, 1612), 210.

injunction to dietary adaptability: “It is a good thing for a man not to accustome himselfe to a delicate diet, lest when he shall happen to be deprived therof, his bodie grow out of order, and his spirit languish and faint; and contrarily to use himselfe to a grosser kinde of sustenance, both because they make a man more strong and healthfull, and because they are more easily gotten.”<sup>40</sup> It was a point not just of courtesy but of policy to take the foods and drinks offered you by your followers and allies. You will need to rely on them in peace and in war, and you must not offend them by declining their generosity. When in Rome, eat as the Romans.

### How Does Custom Become Nature?

So the notion that custom was powerful in shaping body and mind was equally in play for those advising rigid rule following and for those celebrating an adaptable stomach and a flexible way of life. But what was the medical scheme of things that explained *how* custom might become second nature? How might custom be *naturalized*, not just metaphorically but substantially? And what were the processes through which sudden change in dietary habit was reckoned to be so dangerous to body and mind? The force of custom bore upon all six of the non-naturals, but it is in connection with food and drink that the relation to traditional dietetic concepts and practices is most evident. In the early modern period, food was, of course, not thought of in terms of modern *constituents*—that is, chemical substances like carbohydrates, proteins, fats, minerals, and vitamins—though, indeed, certain sorts of foods might be bad for you because they were hard to digest, or because they “bred vapors,” or because they constituted and affected “the spirits,” all of which were ways of understanding the body and mind that were not tightly linked to notions about qualities and humors. Primarily, however, in traditional dietetics the bodily consequences of foods were conceptualized through their *qualities*—hot, cold, moist, and dry—and it was those qualities that affected the balance of the body’s humors, each humor categorized through its proper paired qualities—phlegm being moist and cold, black bile being cold and dry, and so on.

The advice, recall, for a person of a certain temperament in a state of health was, so to speak, to eat what you are: choleric in their normal state were, for example, advised to keep to a diet tending toward the hot and dry. However, over time, you became *used to*, *accustomed to*, a particular

40. Pierre Charron, *Of Wisdome*, trans. Samson Lennard (London: Edward Blount & Will. Aspley, [1608?]), 541.

management regime of the non-naturals. In the case of food and drink, taste was pertinent to both custom and wholesomeness: taste or appetite was accounted a reliable index of nutritiousness, though, of course, you still had to judge whether taste was in a natural or corrupted condition, and the reliability of taste as an index of goodness proceeded from the match or mismatch (“agreement” or “disagreement”) between the qualities of your body and the qualities of particular aliments. A Spanish friar wrote in the early eighteenth century that “we may and ought to follow the will of our appetite in the choice of what we eat and drink. Certain it is, that nature has made a union between our palate and our stomach, consonant to the habit of our bodies, and that, what is agreeable to the one, will be amicable to the other.”<sup>41</sup> Habit worked on the mind, of course, fixing its dispositions: that’s the usual early modern, and indeed late modern, “psychological” sense of habits being hard to break. But habit also worked on the “physical” bits of you, the endowment and balance of humors—and, in time, through humoral balance, both body and mind became molded to their transactions with the environment and the regimes to which they were subjected.

Your interactions with the environment, including your alimentary intake, might *become* the fabric of your body as it might shape the patterns of your mind. The qualities sedimented in you through long-standing dietary habit had been rendered natural, part of the body’s substance and the mind’s dispositions—and that is why customary diets should be altered only with the greatest caution. The link between custom and your nature might be metaphorical, but, in early modern medical thinking, it could also be substantive. Paré detailed *how* the custom-nature transformation worked and *why* risk flowed from radical change: “If Custom (as they say) be another nature, the Physitian must have a great care of it. . . . For this [i.e., custom] sometimes by little & little, and insensibly, changes our natural temperament, & instead thereof gives us a borrowed temper.” That is why it was in general better to stick with apparently bad habits than to change them, or, at least, if you chose or were obliged to change, to do so “little and little, that so nature may by degrees be accustomed to contraries without violence, or the disturbance of its usual government.”<sup>42</sup> Similarly, a physician to the French king explained that the foods to which

41. Benito Jerónimo Feijóo y Montenegro, *Rules for Preserving Health, Particularly with Regard to Studious Persons*, trans. anon. from Spanish (ca. 1727; London: R. Faulder, 1800?), 76–78.

42. Paré, *Workes* (n. 13), 21; see also [William Ramesey], *The Gentlemans Companion* (London: E. Okes for R. Reynolds, 1672), 137: custom alters “our very Constitutions and Temperatures.”



you were habituated *tempered* the body: they “do alter nature, and render it of the same likeness.”<sup>43</sup> The non-naturals could, over time and for many practical purposes, become indistinguishable from the naturals—the constitution dealt you at birth. Through habitual management of the non-naturals, you substantially *became* the sum of your transactions with the environment. And through the qualities and the humors, your way of life actually *became you*. The world was you *at one remove*. Just as eating was taking portions of the external world into you, so—in traditional dietetic thought—custom might transform the qualities of the world into qualities of *you*—the fabric of your body and the temperament of your mind.

### Habit, Nature, and Body Surfaces

Etymology is pertinent here. Early modern senses of *habit* and *custom* both track back to the designations for forms of *clothing*—still retained in modern Anglophone reference to a nun’s habit—and this is what the French emissary Montjoy meant when he told Henry V that “You know me by my habit.” He was pointing out to the English king that his dress warranted his identity.<sup>44</sup> But it’s less widely appreciated that in medical usages habit could also be used as a synonym for some notion of *constitution* or *temperament*, that is, the dispositions of body and mind to which different sorts of people were inclined—the type of persons they *were*. In Robert Burton’s *Anatomy of Melancholy*, melancholic conditions were categorized as those of either “disposition” or of “habit,” where the former was transitory while the latter was chronic or fixed. The latter counted as the *disease*—properly so called—settled on the sufferer by nature *and* by way of life. And at this point, there might be no remedy for the condition, the “ill habit.”<sup>45</sup> Into the eighteenth and nineteenth centuries, encyclopedists explained that “Habit, in medicine, is what we otherwise call the temperament, or constitution of the Body; whether obtained by birth, or manner of living.”<sup>46</sup>

43. Lazare Rivière, *The Universal Body of Physick in Five Books*, trans. William Carr (London: Philip Briggs, 1657), 233–34.

44. *Henry V*, act III, scene 6.

45. Robert Burton, *The Anatomy of Melancholy* (Oxford: John Lichfield and James Short, for Henry Cripps, 1621), 107 (also 121, 142, 213–14, 429); see also Jennifer Radden, *Melancholic Habits: Burton’s Anatomy and the Mind Sciences* (Oxford: Oxford University Press, 2017), esp. 48, 183–84. Burton used “habit” in all of the major early modern senses—the settled constitution of the humors, the costume pertaining to a way of life or social condition, the behavioral or mental patterns to which one might become addicted.

46. Ephraim Chambers, *Cyclopædia: or, A Universal Dictionary of Arts and Sciences*, vol. 1 (London: J. and J. Knapton, 1741), nonpaginated entry for “Habit”; substantially repeated

Early modern people were wholly familiar with such senses. So, for example, seventeenth-, eighteenth-, and even early nineteenth-century medical texts referred to people of a phlegmatic habit, a choleric habit, a melancholic habit, even a scorbutic habit, a plethoric, firm, lax, arid, lean, temperate, or hysteric habit.<sup>47</sup> And in traditional medical schemes, the habit of body was at once a manner of living and a *nature*. It was *like* habit as clothing because it was like *something worn*, visible on the surface but an index of the internal. That’s the sense of another contemporary medical term for temperament or constitution, namely, *complexion*. You could, for example, tell sanguinary persons by their ruddy complexions (here understood as surface appearances); choleric were red and hairy; and so on.<sup>48</sup> That sensibility worked its way into seventeenth-century poems that dwelt on the visible signs that licensed knowledge of invisible human nature:

Nor hath dame Nature her black art reveal’d  
To outward parts alone, some lie conceal’d.  
For as by heads of springs men often know  
The nature of the streams which run below,  
So your black hair and eyes do give direction  
To think the rest to be of like complexion.<sup>49</sup>

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in Abraham Rees, *The Cyclopædia; or, Universal Dictionary of Arts, Sciences, and Literature*, vol. 17 (London: Longman, Hurst, Rees, Orme, & Brown, 1819), nonpaginated entry for “Habit.” Another medical term for a habit of disordered or imbalanced humors, resulting in a generally depraved condition of the body, was a “cachexia” or “cachexy”—etymologically, a “bad habit or condition.” For an example of habit identified as cachexia, see Burton, *Anatomy* (n. 45), 597; and also Bonet, *Guide to the Practical Physician* (n. 18), 48–50.

47. Many sources, e.g., John Burton, *A Treatise on the Non-Naturals, in Which the Great Influence They Have on Human Bodies Is Set Forth and Mechanically Accounted For* (York: A. Staples, 1738), 25, 87, 112; James Makittrik Adair, *An Essay on Diet and Regimen*, 2nd ed. (London: James Ridgway, 1812), 96–102.

48. See, e.g., extended treatments of the complexions in Lemnius, *Touchstone of Complexions* (n. 10); Lemnius, *The Secret Miracles of Nature* (London: Jo. Streater, 1658), esp. 36–38; for complexion and facial characteristics: Thomas Hill, *A Pleasant History Declaring the Whole Art of Physiognomy* (London: W. Iaggard, 1613); also Thomas Wright, *The Passions of the Minde in Generall*, 2nd ed. (London: Valentine Simmes for Walter Burre, 1604).

49. This poem was attributed to John Donne (1572–1631) in several nineteenth- and twentieth-century collections, but is omitted from some present-day editions of Donne’s complete poems. Another possible author is Donne’s contemporary, Sir Benjamin Rudyerd (or Ruddier): *Poems, Written by the Right Honourable William Herbert, Earl of Pembroke . . . Many of Which Are Answered by Way of Repartee, by Sr Benjamin Ruddier* (London: Matthew Inman, 1660), 62. For Donne as author, see “To a Lady of a Dark Complexion,” in *Poems of John Donne*, ed. E. K. Chambers, 2 vols. (London: Charles Scribner’s, 1896), 2:267–68. In the event, sensibilities about the relations between inner nature and outward appearances were pervasive in both literary productions and everyday social action.

The visible surface—whether of habit as clothing or habit as bodily complexion—might, after all, serve as a sign of deep and inner human nature, and this sensibility, in turn, gave rise to the artificial *management* of body surfaces for the purpose of misleading—“cosmetics” (the art of dress and adornment) as a form of “costume,” and, again, this attribution made its way into early modern poetry:

Do I not know these balls of white and red  
That on thy cheeks so amorously are spread,  
Thy snowy neck, those veins upon thy brow,  
Which with their azure wrinkles sweetly bow,  
Are artificial and no more thy own.<sup>50</sup>

This was a culture in which the face was accounted an index not just of the soul but of *constitutional nature*, and therefore one in which the management of the body’s surfaces was important in what much later came to be called “the presentation of the self.”<sup>51</sup>

### The Passing and the Future of Custom as Second Nature

This essay started by identifying the range of cultural domains in which it was counted sensible to say “Custom is a second nature,” including religious, moral, and political commentary, as well as dietetic medicine, and it’s plausible that some of its authority in medicine flowed from its authority in so many other strands of cultural and social life. No one practice, so to speak, owned it. The essay was focused on the early modern, though it briefly mentioned ancient forms of the saying. Yet the early modern specificity of the saying can be highlighted by following its trajectory beyond that period—in medicine, of course, but also in other contemporary spheres of culture.

The saying has practically disappeared from common use. A Google ngram search for “Custom is a second nature” (and its variants) shows usage falling off a cliff around the first part of the nineteenth century.<sup>52</sup>

50. This poem too was once widely ascribed to John Donne and is now absent from several modern scholarly editions: see “To a Painted Lady,” in Donne, *Poems* (n. 49), 261–62; cf. Abraham Wright, *Parnassus biceps: Or Severall Choice Pieces of Poetry, Composed by the Best Wits That Were in Both the Universities before Their Dissolution* (London: George Eversden, 1656), 97.

51. Valentin Groebner describes this shift from an invisible (i.e., the physiological balance of deep humors) to a visible complexion (i.e., the signs of one’s inner state readable on the surface of the body) as happening in the sixteenth century: *Who Are You? Identification, Deception, and Surveillance in Early Modern Europe*, trans. Mark Kyburz and John Peck (New York: Zone Books, 2007). (I owe this reference to Paolo Savoia.)

52. For suggestive discussion of reasons for the denigration and the substantial disappearance of the notion of habit from academic social science by the early twentieth century, see Camic, “Matter of Habit” (n. 4).

(The phrase “second nature” does, of course, persist, though almost always linguistically stripped of its habitual or customary causal antecedent.) One reason we don’t say this much anymore isn’t specific either to this saying, to its place in medicine, or to any of its various other contexts of use. Linguistic forms like this—adages, proverbs, apothegms, and so on—aren’t much called on in a modern culture impoverished in oratory and even in orality.<sup>53</sup> The place once taken by the adage is now partly occupied by the emoji.

The saying has been vanishing or thinning out in all areas of culture, preserved fossil-like in books of proverbs and quotations and, less commonly, when the diminishing number of “Great Books” college students are made to read Pascal’s *Pensées*. Nevertheless, there have been changes in sensibility that bear on its fate in different cultural and social practices. The saying continued to crop up in the Victorian novel, for example when in Trollope’s *Doctor Thorne* (1858) a physician tries, and fails, to persuade his titled patient to abstain from wine and brandy: “Habit is a second nature, man,” and the patient (Montaigne-like) objects, “And a stronger nature than the first. And why should I not drink?”<sup>54</sup> The tag-fragment “second nature” also circulated in philosophy and political writing, in a tradition extending from Cicero to Hegel and then through Marx and Engels to twentieth-century Marxist commentary—with “second nature” here picking out the human-made material and institutional environment, or notions like “reification,” with the specific reference to “custom” or “habit” as a cause of natural transformation dropping away.<sup>55</sup> And it has been resurfacing more recently in the academic sociology and anthropology of technoscience, especially in exercises treating the products of high-tech and biotech.<sup>56</sup>

53. For aspects of the long history of orality, see Walter J. Ong, S.J., *Orality and Literacy: The Technologizing of the Word* (London: Routledge, 1982); Adam Fox, *Oral and Literate Culture in England 1500–1700* (Oxford: Clarendon, 2000); also Steven Shapin, “Proverbial Economies: How an Understanding of Some Linguistic and Social Features of Common Sense Can Throw Light on More Prestigious Bodies of Knowledge, Science for Example,” *Soc. Stud. Sci.* 31, no. 5 (2001): 731–69.

54. Anthony Trollope, *Doctor Thorne*, in Trollope, *The Chronicles of Barssetshire*, 8 vols. (London: Chapman & Hall, 1879), 3:97 (see also 3:235). For treatment of the invocations of *habit* in Victorian literature, see Kristie M. Allen, “Second Nature: The Discourse of Habit in Nineteenth-Century British Realist Fiction” (Ph.D. diss., Rutgers University, 2008).

55. For a concise summary of this tradition, see Neil Smith, *Uneven Development: Nature, Capital, and the Production of Space*, 3rd ed. (Athens: University of Georgia Press, 2008), 49–91; for ancient sensibilities, see Clarence J. Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (Berkeley: University of California Press, 1967), esp. chap. 3 (“Creating a Second Nature”).

56. E.g., Stefan Helmreich, *Silicon Second Nature: Culturing Artificial Life in a Digital World* (Berkeley: University of California Press, 1998).

Then there are the modern sciences of life, bearing on medicine but having many of their own specific concerns and explanatory agendas. The notion that so-called “acquired characteristics” could be inherited does not, of course, originate with Lamarck. One pertinent story widely circulating in the early modern period derives from antiquity, in the Hippocratic tract “Airs, Waters, and Places.” This described the child-rearing practices of the race known as the Macrocephali (Big Heads). The heads of these people were Big-Long rather than Big-Wide, and this was a shape that they regarded as noble and that they had long labored to produce by a sort of binding on the still-soft and pliable heads of their newborn children, so gradually lengthening the head into the desirable shape. But, after time passed, the Macrocephali no longer had to bandage their children’s heads, because (as Hippocrates said), “At first, usage was the principal cause of the length of their head, but now nature cooperates with usage.” The long heads that were initially the result of binding customs had become naturalized, and this was because “the semen”—the stuff transmitting heredity—“comes from all parts of the body.” Long heads contributed their bits to the semen, and that is why, over time, there was no need for the Macrocephali to bind heads. Through hereditary processes, custom had been naturalized.<sup>57</sup>

Ideas about the hereditary processes and their legacies remained at issue, of course, beyond the early modern. In one sense, custom counted as second nature within the life of an individual organism; in another, it might be maintained that naturalized custom was a hereditary bequest to future generations. Habits acquired in adult life, manifested in the

57. Hippocrates, *Airs, Waters, and Places*, pt. 14: [classics.mit.edu/Hippocrates/air-watpl.17.17](http://classics.mit.edu/Hippocrates/air-watpl.17.17) (accessed November 30, 2018). Cranial deformation is now known to have been practiced among people that the Hippocratic writers may have heard about. This story was much repeated from the Renaissance onward: see Conway Zirkle, “The Early History of the Idea of the Inheritance of Acquired Characteristics and of Pangenesis,” *Trans. Amer. Phil. Soc.* n.s. 35, no. 2 (January 1946): 91–151, 98; Jenny Davidson, *Breeding: A Partial History of the Eighteenth Century* (New York: Columbia University Press, 2009), 132ff. Changing the shape of human heads, and what were regarded as the pathological practices of cosmetic body custom, much occupied the seventeenth-century English physician John Bulwer in his *Anthropometamorphosis: Man Transform’d; or the Artificial Changeling* (London: J. Hardesty, 1650), 1–5, also acknowledging the testimony of Hippocrates and other ancients. (I thank Oriana Walker for drawing my attention to the material in the Bulwer text.) And, in the early eighteenth century, Jonathan Swift, dilating on the relations between the products of nature and of art and setting up a joke about England’s revolutionary “Round-heads,” fastened on just the same Hippocratic example—“and thus did Custom, from being a second Nature proceed to be a first”: Swift, *A Discourse Concerning the Mechanical Operation of the Spirit*, bound in Swift, *A Tale of a Tub*, 3rd ed. (London: John Nutt, 1704), 281–322, 292–93.

individual’s body and sometimes in the mind, could be passed on to offspring. Heredity was a matter of practical interest beyond its role in the human species. Farmers and breeders, for instance, were concerned with the improvement and maintenance of quality in domesticated species, and any such practical management proceeded on the basis of some understanding of the hereditary process. In the late eighteenth century, the Scottish lawyer and “improving” farmer Henry Home, Lord Kames, wrote about how heredity worked in agriculture, treating transplantation, and invoking the authority of the traditional saying in a context familiar from medical discussions of human beings:

The constitution of a plant depends greatly on the soil it is bred in. Custom becomes a second nature; and it appears no less difficult, to transplant a tree from the soil where it was reared to an opposite soil, than to transplant a tree from a hot to a cold climate. However fitted by nature a tree may be to growing in a loose soil; yet if planted young in a stiff soil, it acquires a constitution accommodated to that soil; and its nature is so far altered, as in a measure to disqualify it for being transplanted into a loose soil.

Kames considered that these capacities, acquired through organisms’ adaptation to their physical situation, were often inherited, becoming part of subsequent generations’ *natural* endowment. “A change of constitution, in plants,” Kames wrote, “is commonly transmitted to their offspring.” And through “a gradual change [of environment] in successive generations, [the plants come to] prosper in a very different climate” than did their forebears.<sup>58</sup>

Hippocrates offered an account of how custom might be transformed into heritable nature when he referred to “the semen” coming from “all parts of the body,” and Charles Darwin’s uncelebrated theory of “pangenesis” suggested a similar mechanism for the effects of “use and disuse”—that is, customary ways of life—becoming hereditary. Moreover, through much of the nineteenth century, and even beyond, medical writers conceived of heredity not as a *moment* (defined by the instant of conception) but as an extended *process*, spanning gestation and weaning. So, not only could “acquired” characteristics from parental lives be passed on in “the seed,” but environmental influences on the mother (and the wet nurse, if there was one) might also constitute a hereditary legacy.<sup>59</sup> But it was in

58. Henry Home, Lord Kames, *The Gentleman Farmer: Being an Attempt to Improve Agriculture, by Subjecting It to the Test of Rational Principles* (Edinburgh: W. Creech and T. Cadell, 1776), 304–6; also Davidson, *Breeding* (n. 57), 155.

59. Charles E. Rosenberg, “The Bitter Fruit: Heredity, Disease, and Social Thought,” in *No Other Gods: On Science and American Social Thought* (Baltimore: Johns Hopkins University Press, 1976), 25–53.

the later nineteenth century, and early in the twentieth century, that the heritability of the effects of lifetime habits lost its biological respectability. The erection of a scientific divide between the environmental experiences of parents and the hereditary constitution of offspring appeared in the 1880s, with the experimental work of August Weismann, powerfully reinforced by the emergence of Mendelian genetics in the early years of the next century. After that, it's said, the claim of hereditary significance of transactions with the environment became a mark of "pseudoscience." Heredity was now considered the matter of a moment—the precise time at which the "genes" of one parent joined up with those of the other—and there was now no way in which the vicissitudes of a parent's "somatic cells" could possibly bear upon the hereditary powers contained in the "germ plasm."

In its modern decline, "custom is a second nature" now counts mainly as a hand-waving dictum about an individual life, as a diffuse psychological generalization, or just as a rhetorical something you say to point to various aspects of the force of habit acknowledged in vernacular culture. The enormous influence of twentieth-century eugenics movements was erected on foundations that viewed human behaviors and customs largely or wholly as consequences of the genetically natural, customs having no effect on the category of the natural. And, with a bit of imaginative license, and even in the absence of the traditional saying, one can detect persisting attitudes to the old topic of custom-nature in twentieth-century (and contemporary) politically charged arguments over the relative importance of "nature" and "nurture"—and the policies following from preferences about what is the more potent agent in making human characteristics and capabilities. The sensibilities attending attitudes toward custom-nature links continue as multivalent. If you are a conservative "hereditarian," you can say that changes in ways of life (and the institutional arrangements designed to affect them) are impotent to affect "nature's" genetic endowments, while, if you are a liberal interventionist, you might stress environmental changes as powerful ways of shaping what others, wrongly, take to be unalterable human nature. Since at least the 1960s, the "nature-nurture" tension has structured political attitudes and actions, acting as a modern mode of older custom-nature relations.<sup>60</sup>

Although lay, moral, and political concerns bear upon the career of the relations understood to obtain between habitual practices and medical

60. E.g., Jonathan Harwood, "Heredity, Environment, and the Legitimation of Social Policy," in *Natural Order: Historical Studies of Scientific Culture*, ed. Barry Barnes and Steven Shapin (Beverly Hills, Calif.: Sage, 1979), 231–51.



matters, it’s the specifically medical afterlife of “custom as second nature” that should conclude this essay. Despite the considerable authority of the saying, there was already push-back in the early modern, and through much of the eighteenth century, against the idea that custom might be transmuted into nature, either within the compass of an individual life or between parents and progeny. There were ethical commentators and doctors who then condemned the saying as a crass justification of habitual ill practice, rejecting its legitimacy for that reason. Critics of gluttony and tobacco use, for example, were used to being told that those accustomed to ill habits could not change, and that “it will be found as difficult for them to be temperate in Smoking, and Drinking, and Feasting, as it is for the *Blackmore* to change his Skin, or the *Leopard* his Spots,” or, alternatively, that what was taken as the naturally bad taste and bad effects of claret, coffee, or tobacco could, unfortunately, be overcome, even rendered innocuous or pleasant, by habitual use.<sup>61</sup> Some physicians rejecting the saying’s associated commendation of stasis or gradual dietetic change cited the Hippocratic aphorism arguing for the *necessity* of radical and sudden change in bad habits—just on the condition that medical expertise diagnosed the condition as immediately life-threatening, with immediate change as the only possibility for saving life.<sup>62</sup>

But that sort of push-back was not the major basis for the erosion of the traditional saying’s authority. There were also changes in the concepts, practices, and institutions of medicine which, by the mid- to late nineteenth century, worked to undermine the pertinence of the claim that custom might transform nature. In the early modern period, medical invocation of custom as second nature indexed a specific distribution of knowledge between the physician and the patient. Knowledge of natural and pathological processes in the body in general belonged to the doctor’s expertise while secure knowledge of quotidian dietetic practices belonged to the individual patient. The doctor typically wanted to know about those customary patterns, but could do so only courtesy of the patient’s self-knowledge and reliable testimony. And this, indeed, was a setting in

61. Everard Maynwaringe, “A Postscript by Way of Apology,” in James I, King of England, *Two Broad-Sides against Tobacco the First Given by King James of Famous Memory, His Counterblast to Tobacco: The Second Transcribed Out of That Learned Physician Dr. Everard Maynwaringe, His Treatise of the Scurvy . . .* (London: John Hancock, 1672), 69; Joseph Addison, *The Works of the Right Honourable Joseph Addison* (London: Jacob Tonson, 1721), 3:543–47 (*The Spectator*, no. 447, August 2, 1712).

62. E.g., George Cheyne, *An Essay on Regimen* (London: C. Rivington and J. Leake, 1740), xv; Thomas Adams, *Mystical Bedlam; or, The World of Mad-Men* (London: G. Purslowe for C. Knight, 1615), 18.

which *physicians* urged patients to “be their own doctors”—not to *dispense* with doctors’ services but through *internalizing* physicians’ attentiveness within the patients’ own purposeful dietary regimes. Invoking the saying that “custom is a second nature” then had several professional recommendations: first, it licensed medical interrogation of patients’ settled ways of living, so extending the reach of physicians’ authority; second, it offered a possible explanation of why medical interventions—informed by sound general therapeutic and dietary principles—might fail; and, third, in certain circumstances, it lubricated physician-patient interaction by offering an authoritative account of why you might, after all, be well advised to carry on with those life patterns with which you were familiar and comfortable and which you knew, by experience, “agreed with” you, in body and mind. And this made special sense in those settings where medical experts engaged predominantly with patients who were their social superiors.<sup>63</sup>

The decline of the traditional saying in medical culture followed the same trajectory as the decline of the traditional dietetic culture within which it had circulated and had much of its meaning. Dietetic vocabulary and sensibilities persisted through the nineteenth century—largely in folk-medical genres—at the same time that they were rapidly disappearing in official academic medicine. Fewer and fewer physicians found use for the vocabulary of the non-naturals, the humors, and the temperaments, and the idea of *qualities* as an index of the effects of food was replaced with the notion of chemically defined constituents and, in the case of the calorie, of the powers of those constituents. A routine vernacular way of referring to these, and other, changes is the “rise of scientific medicine,” including the shift from notions of disease as imbalance to “ontological” concepts of disease, notably the identification of external pathological agents (bacteria, viruses) and specific pathological states of organs and organ systems.<sup>64</sup> These are things that medical expertise knew about and that you might know only courtesy of expert writing and speech. Related pertinent social and institutional changes through the nineteenth century

63. Classic discussions of historically changing doctor-patient relations, and their relations to conceptions of ill health, are N. D. Jewson, “Medical Knowledge and the Patronage System in Eighteenth-Century England,” *Sociol.* 8 (1974): 369–85, and Jewson, “The Disappearance of the Sick-Man from Medical Cosmology, 1770–1870,” *Sociol.* 10 (1976): 225–44; also Steven Shapin, “Trusting George Cheyne: Scientific Expertise, Common Sense, and Moral Authority in Early Eighteenth-Century Dietetic Medicine,” *Bull. Hist. Med.* 77 (2003): 263–97.

64. Charles E. Rosenberg, “The Tyranny of Diagnosis: Specific Entities and Individual Experience,” *Milbank Quart.* 80 (2002): 237–60.

also involve the relative breakdown of traditional physician-client relations and the increasing importance of hospital medicine.<sup>65</sup>

And all of these developments bear on the *partial* dissolution of the bond between the medical and the moral—the good for you and the good—that historically made moderation both good medicine and virtuous conduct and that shaped the sense of saying that “custom is a second nature” in both medical and ethical domains. With the decline of traditional dietetics, few modern physicians consider that they have a significant role in counseling the management of such non-naturals as the siting of houses, the posture and timing of defecation, the position adopted in sleep, and the management of the emotions. True, many doctors continue to encourage their patients to use more exercise, to cut down the sodium or the sugar, to take the appropriate tablets if they’re feeling depressed or anxious. But anyone who, in the present medical culture, was foolish enough to tell her doctor that she was accustomed to the daily consumption of twenty cigarettes and a bottle of vodka, and that so far she had experienced no ill effects, would be met either with eye-rolling disdain or with the full armamentarium of epidemiological statistics, the citation of risk factors, facts about metabolism, and pathological findings. If your habit was to drink the vodka and smoke the cigarettes, then you should give them up—immediately. There is no risk attending radical change in those habits and many risks in keeping to them.

Historians have no notable skills in predicting the future, yet there are present-day developments in and around medicine that might bear upon the future of notions linking customary ways of life to bodily human nature. The saying itself may never reappear in routine usage, and the conceptual world of traditional dietetics is certainly gone for good, but one can’t entirely dismiss the possibility that some of the sensibilities expressed in, and the human behaviors enjoined by, the old maxim may yet have a future. In standard accounts, the heritability of custom was definitively rejected in the late nineteenth and early twentieth centuries, but it’s now at least conceivable that this view might be reframed and revived. The emerging subsience of *epigenetics* documents the biochemical mechanisms by which environmental influences, including those brought about by individual behavior, affect gene expression and, therefore, the phenotype. And, while the position remains highly controversial, some of the

65. Mary Fissell, “The Disappearance of the Patient’s Narrative and the Invention of Hospital Medicine,” in *British Medicine in an Age of Reform*, ed. Roger French and Andrew Wear (London: Routledge, 1991), 92–109.

more enthusiastic proponents of epigenetic effects assert their heritability.<sup>66</sup> Should such claims come to be accepted, so too would some version of the heritability of habit.

More central to modern medical practice and patients' experience are notions of the link between custom and human nature that have no necessary connection with heritability. This involves the rise of *chronicity*. Acute diseases continue to kill, but many diseases that used to kill quickly have now become matters of lifelong *management*, mobilizing expert advice on what body-changing habits one ought to reject, maintain, or modify.<sup>67</sup> Diabetes was among the first of the disorders that moved from guarantees of death to modes of living, but chronicity is already substantially a condition of existence for those suffering from AIDS, cardiovascular disease, and, now, many forms of cancer. In early modern medicine, custom once was second nature and it may be so again.



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66. E.g., Nessa Carey, *The Epigenetics Revolution: How Modern Biology Is Rewriting Our Understanding of Genetics, Disease, and Inheritance* (New York: Columbia University Press, 2012), esp. chaps. 6–7; Siddhartha Mukherjee, *The Gene: An Intimate History* (New York: Scribner, 2016), pt. 6 and epilogue; also see Edith Heard and Robert A. Martienssen, “Transgenerational Epigenetic Inheritance: Myths and Mechanisms,” *Cell* 157, no. 1 (March 27, 2014): 95–109.

67. Among many sources, see Lenore Manderson and Carolyn Smith-Morris, eds., *Chronic Conditions, Fluid States: Chronicity and the Anthropology of Illness* (New Brunswick, N.J.: Rutgers University Press, 2010); Robert A. Aronowitz, “The Converged Experience of Risk and Disease,” *Milbank Quart.* 87 (2009): 417–42; Joseph Dumit, *Drugs for Life: How Pharmaceutical Companies Define Our Health* (Durham, N.C.: Duke University Press, 2012); Martin D. Moore, “Food as Medicine: Diet, Diabetes Management, and the Patient in Twentieth-Century Britain,” *J. Hist. Med. & Allied Sci.* 73 (2018): 150–67.